

**Draft Environmental Assessment**  
**Joplin School District Educational Facilities**  
**Joplin, Jasper County, Missouri**  
**FEMA-1980-DR-MO**  
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**U.S. Department of Homeland Security**  
**FEMA Region VII**  
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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	National 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

## 1.0. Introduction

The Federal Emergency Management Agency (FEMA) has determined that many recurring actions proposed for funding, and for which an Environmental Assessment (EA) is required, can be grouped by type of action or geographic location. These groups of actions can be evaluated in a Programmatic Environmental Assessment (PEA) to streamline National Environmental Policy Act (NEPA) obligations and its implementing regulations without the need to develop and produce a standalone EA for each individual action. In addition, satisfying NEPA compliance through the use of a PEA would also streamline the process and expedite the placement of displaced residents into replacement schools.

The Joplin School District has requested Federal Emergency Management Agency (FEMA) funding under the Public Assistance Grant Program. This draft Programmatic Environmental Assessment (PEA) 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) ; and the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regulations implementing NEPA (44 CFR Part 10). The regulations require the preparation of an Environmental Assessment (EA) that includes an evaluation of alternative means of addressing the problem and a discussion of the potential environmental impacts of a proposed Federal action. An EA provides the evidence and analysis to determine whether the proposed Federal action will have a significant adverse effect on the human environment. An EA, related to a FEMA program, must be prepared according to the requirements of the 44 CFR Part 10. This section of the Federal Code requires that FEMA take environmental considerations into account when authorizing funding or approving actions. This draft PEA was conducted in accordance with both CEQ and FEMA regulations for implementing NEPA.

FEMA is 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 State Emergency Management Agency reported more than 990 injured and death toll from the tornado is 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.

Ten Joplin School District facilities in several different locations were damaged or destroyed by the tornado. Since the tornado occurred on a Sunday, the schools were not in session at the time of the tornado, however, the 2011 high school senior graduation had just concluded at Missouri Southern State University just a short time before the storm hit.

The multiple schools and facilities owned and operated by the Joplin School District that were damaged and/or destroyed, include:

1. Emerson Elementary School, 301 E. 19<sup>th</sup> Street, Joplin
2. Franklin Technology Center, 20<sup>th</sup> and Indiana, Joplin
3. Joplin High School, 20<sup>th</sup> and Indiana, Joplin

4. East Middle School, 4594 E. 20<sup>th</sup> Street, Joplin
5. Old Irving Elementary School, 311 Gabby Street Boulevard, Joplin
6. Old South Middle School, 22<sup>nd</sup> and Wall, Joplin
7. Roi S. Wood Administration Building, 1717 E. 15<sup>th</sup> Street, Joplin
8. Kelsey Norman Elementary School, 1323 E. 28<sup>th</sup> Street, Joplin
9. Cecil Floyd Elementary School, 2201 W. 24<sup>th</sup> Street, Joplin

In addition to schools that were damaged and/or destroyed by the tornado, the Joplin School District intends to retrofit undamaged schools using FEMA Hazard Mitigation Grant Program (HMGP) funding to include FEMA Tornado Safe Shelters to provide near absolute level of protection to school occupants and adjacent community population. HMGP is a supplemental program that provides funding to states to reduce or eliminate threats to future disaster events.

The Joplin School District, in partnership with Federal and State Emergency Management Agencies and other involved stakeholders, implemented plans immediately to start providing temporary school facilities so that the school year starting August, 2011, would not be delayed. Debris removal was also commenced and hiring of professionals for design and repair of the school facilities was put in motion. A school bond issue was placed on the ballot on April 3, 2012 in order to provide necessary funding to provide matching funds for Federal Aid and to cover additional expenses determined necessary to adequately reconstruct facilities. The bond issue passed with 57.68% approval (4,982 yes votes out 8,637 total votes).

### **1.1 Purpose and Need for Action**

Multiple Joplin School District educational facilities were damaged or destroyed as a result of the May 22 tornado. Some were candidates for immediate repair and others were considered a total loss. Regardless, the Joplin School District was forced to make decisions in order to provide its students with educational opportunities by the start of the next school year in August of 2011. Whether those decisions involved repairs to existing facilities or total reconstruction, emergency financial assistance would be required so that the Joplin School District could continue to meet the educational needs of the community.

On May 23, 2011, the federal disaster declaration FEMA-1980-DR-MO, which was signed by President Obama on May 9, 2011, was amended to authorize FEMA to provide federal assistance to the Joplin Tornado Recovery. This includes Emergency Work Categories A and B for Public Assistance for Jasper and Newton Counties. FEMA is authorized to provide disaster assistance funds in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. Section 5121-5206 (Stafford Act, Public Law 93-288). One June 1, 2011, FEMA amended major declaration FEMA-1980-DR-MO to include Permanent Work Categories C through G for Public Assistance for Jasper and Newton Counties.

Joplin School District has requested funding through the Federal Emergency Management Agency's (FEMA) Public Assistance Program. FEMA's Public Assistance Program provides

supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster damaged, publicly owned facilities. Work that is eligible for this grant assistance is classified as either emergency work or permanent work. The Joplin School District has both types of projects: emergency (demolitions/debris) as well as permanent proposals. The purpose of this project is to assist the Joplin residents in their recovery from the natural disaster by using the FEMA Public Assistance Program to fund the new construction or repair of various Joplin Schools, as well as the retrofit of undamaged schools to include near absolute protection in tornado safe rooms.

The need for the proposed project is to replace, repair, relocate, or consolidate elementary, middle, and high school infrastructures in various Joplin locations in response to the devastating EF5 tornado that struck Joplin on May 22.

Currently, the Joplin School District operates out of temporary facilities. Students and administration were re-located to various temporary locations until existing schools can be repaired or built. Hundreds of staff members and 3,200 students attend temporary schools. The locations of the temporary facilities are as follows:

1. East Middle School students went to the Chamber of Commerce speculation warehouse building in the Crossroads Industrial Park, 7501 E. 26<sup>th</sup> Street in Joplin
2. Joplin High School 11<sup>th</sup> and 12<sup>th</sup> grades went to the old Shopko big box store location at the Joplin Mall, 101 N. Range Line Road, Building D, Joplin
3. High School 9<sup>th</sup> and 10<sup>th</sup> grades went to the old Memorial Education Center, 310 W. 8<sup>th</sup> Street, Joplin
4. Franklin Technology Center relocated to an old warehouse, 420 S. Grant Street, Joplin
5. Irving Elementary School located to decommissioned Washington School, 1112 East 2<sup>nd</sup> Street, Joplin
6. Emerson Elementary School students went to Duquesne Elementary School, 1301 S. Duquesne Road, Joplin
7. Duquesne Elementary School students moved in with Duenweg Elementary School, 202 Molloy Circle in Duenweg, MO
8. Beacon, the Joplin School District's high risk special needs education program, and Flex, the Joplin School District's high risk drop- out prevention program, moved to the Roi S. Woods Education Center, 1717 E. 15<sup>th</sup> Street, Joplin. The Roi S. Wood Education Center was previously the district administration building. Beacon and Flex were moved from Memorial Education Center to make room for the temporary 9/10 Campus.
9. Joplin Early Childhood went into modular buildings at McKinley Elementary School, 610 S. Forest in Joplin
10. Special Services went to the administration building at 3901 E. 32<sup>nd</sup> Street, Joplin
11. Administration Building to 3901 E. 32<sup>nd</sup> Street, Joplin (previous MoDOT building moved from Roi S. Wood building)

12. Copy Center – to 3901 E. 32<sup>nd</sup> Street, Joplin (previous MoDOT building moved from Memorial Education Center)

The purpose of the proposed project would be to restore permanent school facilities for the Joplin School District. The need for action will require the consideration of repair, relocation, consolidation, configuration, or construction of new schools, including elementary, middle, and high schools.

## **1.2 Determination of Environmental Significance**

The CEQ NEPA Implementing Regulations (40 CFR Part 1508.27) define significance in terms of context and intensity. For context, FEMA took into account the location and physical setting of the proposed sites. For intensity, FEMA took into account the following factors from the CEQ NEPA regulations:

1. Unique characteristics of the geographic area such as proximity to historic or cultural resources;
2. Whether the action is related to other actions with individually insignificant but cumulative significant impacts;
3. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources, and;
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Significance threshold criteria are fully described in Section 3.0 as applied to each natural and human impact area evaluated in the EA. The purpose of these criteria is to provide an objective standard that would be clear and transparent to the general public.

## **2.0. Proposed Action and Project Alternatives**

NEPA requires the investigation and evaluation of reasonable project alternatives as part of the project environmental review process. Three alternatives are addressed in this environmental assessment:

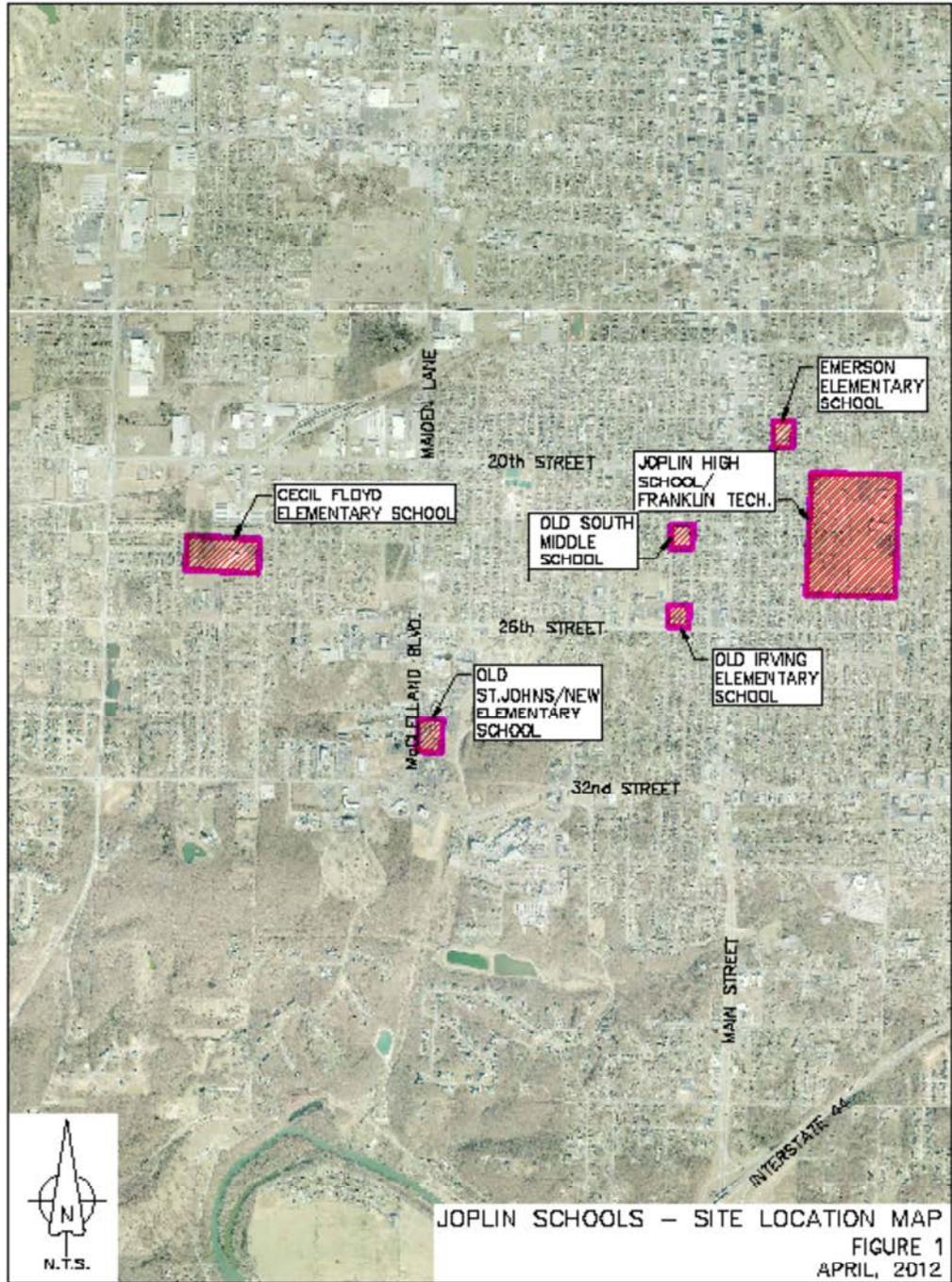
- (1) The No Action Alternative where FEMA would not fund the reconstruction and rehabilitation of schools
- (2) the Restore to Pre-disaster Condition Alternative where FEMA would fund the repair or reconstruction of the respective Joplin School District facilities at their locations prior to the disaster and
- (3) the Meet Existing Needs/Requirements Alternative where FEMA would provide funding to Relocate or Reconfigure Joplin School District facilities either at new locations or at reconfigured locations near their existing pre-disaster sites.

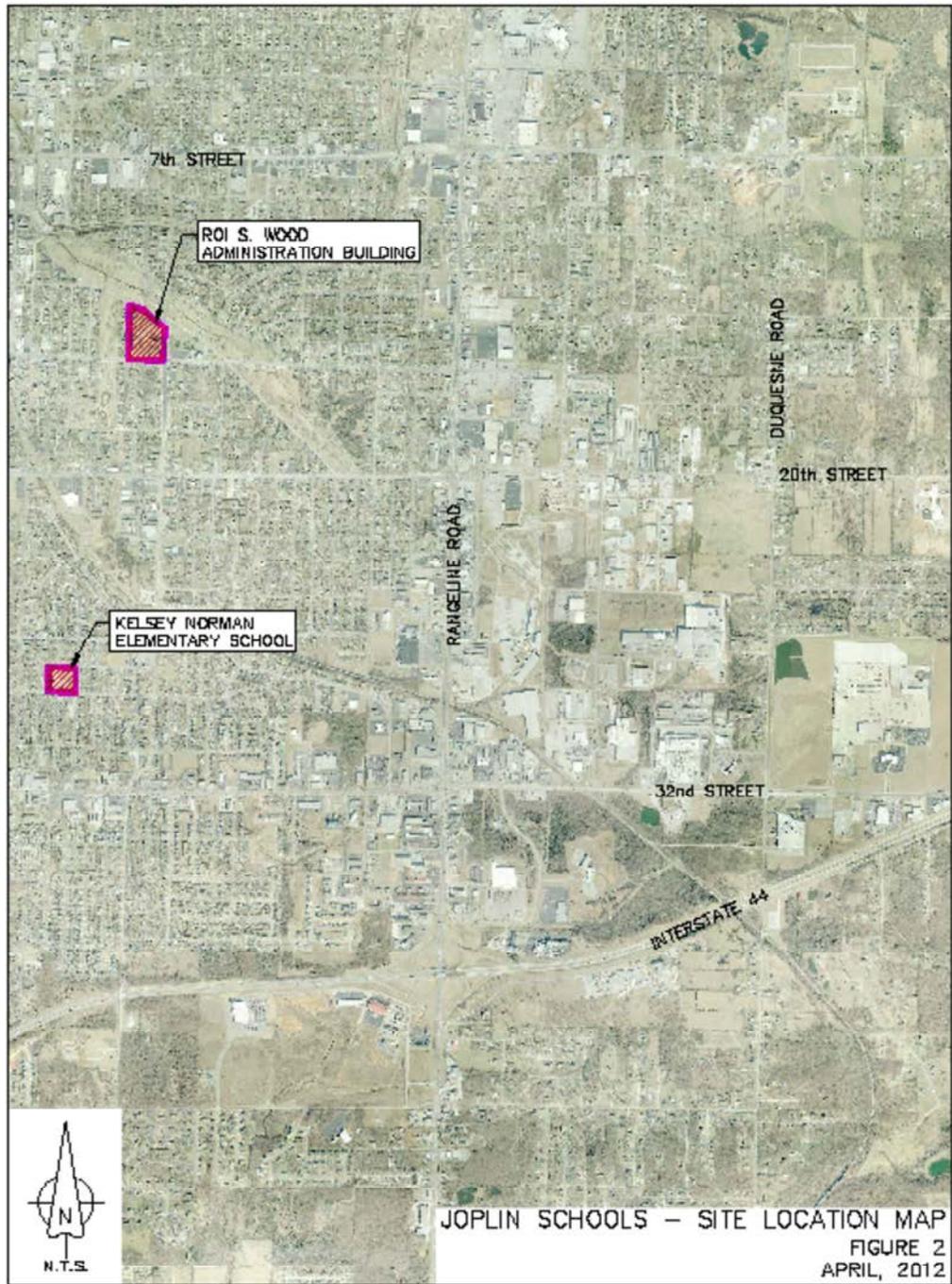
The proposed action for the Joplin School District varies for each facility damaged or destroyed by the May 22, 2011 tornado. Depending on the damage received by the building and its subsequent ability to continue to function as a viable educational facility, a course of action was outlined for each location. Although not a factor for FEMA, the Joplin School District also considered the age of the facility in the process of determining if the building would be repaired versus if the building would be replaced or relocated. Many older buildings were constructed with dated standards including small kitchens, no nursing or counseling offices, no special education classrooms and/or inadequate exercise space all of which are required by state and federal mandates. Some facilities that were not determined to be total losses, those of which that were more modern in design and able to be placed back into operation within an acceptable timeframe, were repaired at their existing location. Other facilities that were considered a total loss are either planned to be reconfigured at their existing location or relocated entirely to a new site more favorable to redevelopment.

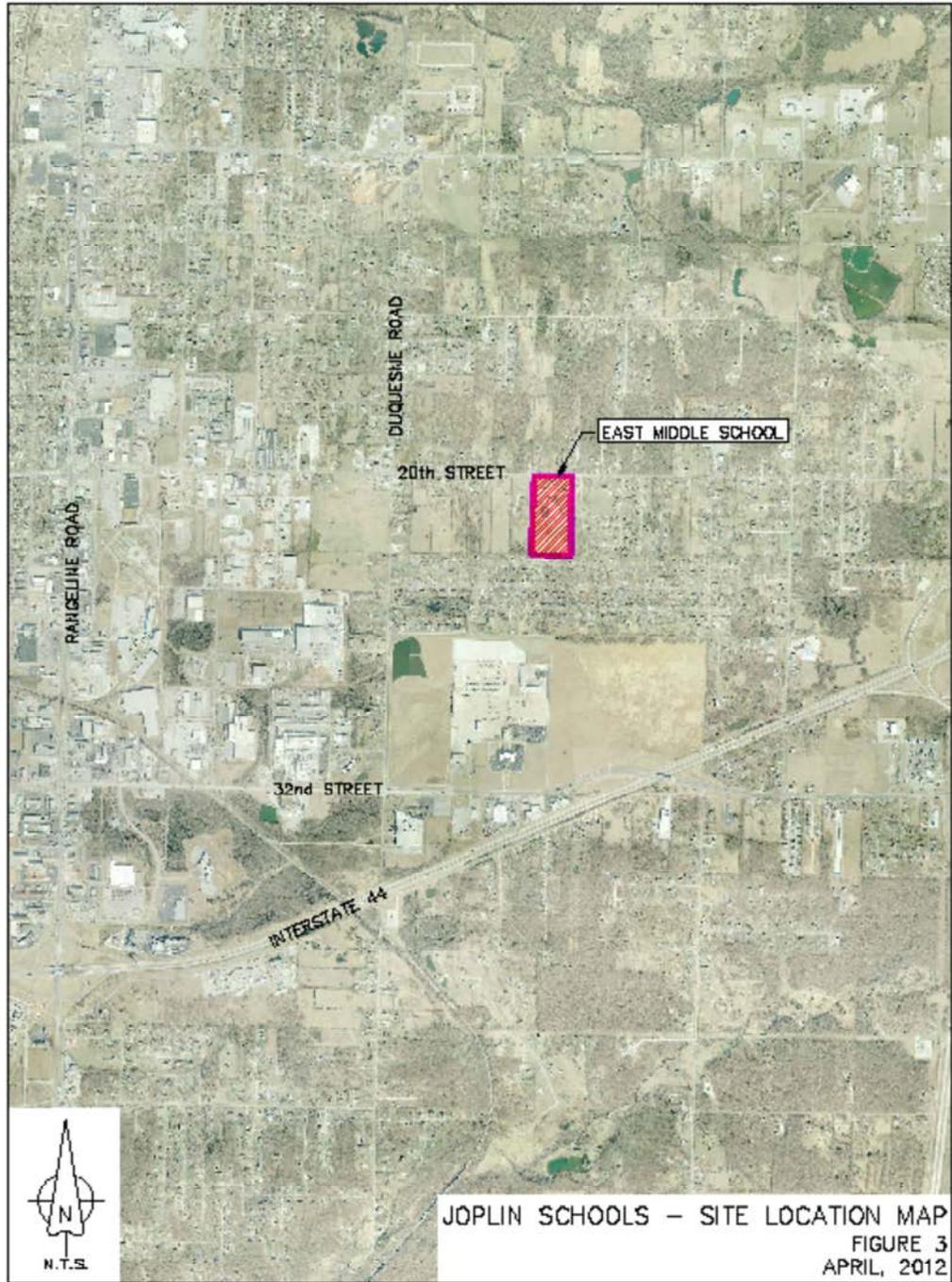
In instances where the facilities have been determined to be total losses and reconfiguration or relocation is warranted, the site preparation for each will consist of site grading, reconfiguration or extension of utilities to serve the facility, parking and drive facilities, sidewalks, storm water management, building pads and other incidental construction activities necessary to complete the new development. Best Management Practices (BMPs) as required by the National Pollutant Discharge Elimination System to prevent the off-site migration of sediment due to erosion will be implemented as necessary on the following projects. Typical BMPs will include establishment of rock stabilized construction entrance/exit drives, placement of filter fabric silt fence, placement of straw bale barriers, construction of sediment basins, and any other BMPs as deemed necessary due to land disturbance activities.

The activity of restoring existing damaged facilities to pre-disaster conditions as the Proposed Action was evaluated from a NEPA compliance perspective, and these actions were either Statutorily Excluded from further NEPA action through a Statutory Exclusion in the Stafford Act for certain categories of actions that serve to restore to pre-disaster condition, or met a Categorical Exclusion as category of action not rising to the level of an Environmental Assessment. These actions are included for cumulative impacts analysis only, and other environmental considerations related to these schools will not be carried forward in the Environmental Assessment.

There are a number of sites included within this assessment; therefore, depending on the damaged received by each respective facility, the proposed action will not be the same for each location. Figure 1, 2 and 3 of this report provide the locations of the projects included within this assessment.







## **2.1. East Middle School/New Elementary**

### **2.1.1 Location of Site**

4594 E. 20<sup>TH</sup> Street, Joplin – Latitude 37.06912; Longitude -94.45013 - N-1/2 Section 17, Township 27N, Range 32W

Due to the complete loss of this school in the May 22 EF-5 tornado, it has been determined that this facility is eligible for replacement per FEMA Policy 9524.4 - Repair versus Replacement of a Facility under 44 CFR §206.226(f). This policy clarifies the application of 44 CFR §206.226(f) to determinations of whether a disaster-damaged facility is eligible for repair or replacement. According to 44 CFR §206.226(f)(1), “A facility is considered repairable when disaster damages do not exceed 50 percent of the cost of replacing a facility to its predisaster condition, and it is feasible to repair the facility so that it can perform the function for which it was being used as well as it did immediately prior to the disaster.” This regulation is often referred to as “The 50 Percent Rule.” Remains of the existing building will be demolished. The school district has purchased additional properties around the existing site to expand the East Middle School Campus boundaries.

### **2.1.2 Description of Site**

The site lies between elevations of approximately 1,075 feet AMSL at the north property line and 1,095 feet AMSL at the south property line and has already been developed for the existing building. The site is bounded on the north by 20th Street and residential neighborhoods to the south, east, and west. Following the tornado, additional property surrounding the existing site was purchased by the School District and consists primarily of residential lots. East Middle School will be reconfigured and reconstructed on the site. In addition to East Middle School, a new elementary school will be constructed on this site as well. The new building to house both East Middle School and the new elementary school will be a single connected structure that will also include a tornado safe room. The site will ultimately consist of approximately 35 acres.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-036, JS-038, JS-039, JS-040, JS-081, JS-083, JS-051, JS-050 and JS-078.

### **2.1.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs

the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

#### **2.1.4 Alternatives considered and dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. This facility sustained damage from the EF5 tornado on May 22. The damage was to such an extent that it is unfeasible to repair and the structure determined to be a total loss. A cost/benefit analysis was conducted and determined that the facility was not salvageable. Repair of this structure would essentially mean reconstruction of a majority of the exterior, windows, heating and air units, duct work, lighting, wiring, electrical supply components, contents, wall coverings, flooring, parking areas and structural support components. The financial outlay and other construction concerns associated with repair of an aging structure to such an extent would be cost prohibitive. As a result, repair and restoration of the structure was not a viable option. As a result of the storm, an opportunity was made available by the Joplin School District to purchase additional property to the East of the existing East Middle School campus. This additional property was obtained because of the recent investment in the property for initial purchase and the general acceptability of its location. The purchase of these additional properties will allow East Middle School to be reconfigured at its existing site and allow for the construction of a new elementary school as well at that location. After analyzing the human and natural environment factors the school district chose to remain at this site because the District already owned the property, utilities were readily available at the site, combined with the fact that the land area of the campus was recently expanded, the Joplin School District intends on reusing this existing site for facility reconstruction. Due to these variables and the fact that the Joplin School District was focused on expediting the reconstruction process to provide permanent facility solutions, no other sites were actively pursued.

#### **2.1.5 PROPOSED ACTION Alternative – Relocate or Reconfigure to Meet Existing Needs/Requirements**

East Middle School was originally constructed in 2009 on a 20 acre site. Prior to the storm, the Joplin School District held numerous focus group meetings and discussed specifically the need for elementary school construction in this same general area. Two aging elementary schools, Duquesne Elementary and Duenweg Elementary, were located in nearby communities surrounding the East Middle School site. The consensus was that the District should either build two new elementary schools, one in the community of Duenweg and one in the community of Duquesne or the second option to build one new elementary school somewhere between the two communities. Based on parent/community feedback, the Joplin School District chose the option to build one new elementary school between the two communities. Prior to the storm, discussions

were held at the Joplin School District Board of Education meetings in relation to the approval of these facility considerations where the public had opportunity to comment.

In order to effectively utilize available funds and the available land, it will be necessary to reconfigure the existing East Middle School facilities on the site. Construction of a new community Elementary School will also be part of the reconstruction at this location.

The proposed action would involve the complete redevelopment of the site to include construction of a new combination Middle School and Elementary School designed to house approximately 750 middle school students and 450 elementary students. The new building will be approximately 220,000 square feet and will consist of a combination one and two story structure. Work will generally include the construction of the appropriate parking, drives, walkways, play-scape areas, and utilities to serve the new facility. Key features of the new facility will include:

- A FEMA Hazard Mitigation Grant Program (Section 404) Community safe room
- FEMA Section 406 safe rooms for students and staff
- 18 classrooms are planned for the elementary students, Kindergarten to 5<sup>th</sup> Grade
- 6 neighborhoods with 6-7 classrooms each are planned for the middle school students, 6<sup>th</sup> Grade to 8<sup>th</sup> Grade
- Included in the neighborhoods will be smaller work areas, a large collaborative area, storage areas, teacher work areas, and restrooms
- A centrally located Auditorium that will be shared between the elementary and middle school students
- A central kitchen and mechanical area
- A retention pond on the northwest corner

The proposed action allows the Joplin School District to relocate and reconfigure these existing facilities, minimize the financial impact of the reconstruction and allow the Joplin School District to adequately to meet the educational needs of the community.

## **2.2. Old Irving Elementary**

### **2.2.1 Location of Site**

311 Gabby Street Blvd., Joplin – NE-1/4, Section 15, Township 27N, Range 33W

The remains of the building have been demolished. There are no current plans for future construction at this location. The Old Irving Elementary School students will be relocated to another site within the Joplin School District.

### **2.2.2 Description of Site**

The existing site lies between elevations of approximately 1,030 feet AMSL at the north property line and 1,020 feet AMSL at the south property line and was previously developed for the old school building. Included on the site were the school building, playground area, parking, and sidewalks. The site is bounded on all four sides by Gabby Street to the South, Wall Street to the east, 25<sup>th</sup> Street to the north and Pearl Street to the West and consists of approximately 2 acres. The existing building has been demolished and no new construction is planned for the site at this time.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-027, JS-039, JS-042, JS-074, JS-078, JS-079, JS-080, JS-081 and JS-83.

### **2.2.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

### **2.2.4 Alternatives considered and dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. This facility sustained damage from the EF5 tornado on May 22. The damage was to such an extent that it is unfeasible to repair and the structure determined to be a total loss. A cost/benefit analysis was conducted and determined that the facility was not salvageable. Repair of this structure would essentially mean reconstruction of a majority of the exterior, windows, heating and air units, duct work, lighting, wiring, electrical supply components, contents, wall coverings, flooring, parking areas and structural support components. The financial outlay and other construction concerns associated with repair of an aging structure to such an extent would be cost prohibitive. Consequently, repair and restoration of the structure was not a viable option.

A concern of the District prior to the storm was that elementary schools, such as Irving Elementary, were situated on sites that were not of adequate land size to properly accommodate the student population and/or expansion. The existing Irving Elementary site is approximately 2.1 acres in size and is bounded on all four sides by City streets. A Schools Facility Report was completed just prior to the storm and recommended that Irving Elementary be renovated, expanded or reconstructed entirely due to its age and inadequate space to accommodate existing programs and events. The main entrance to

Irving Elementary was along Gabby Street, which is a four-lane roadway with high traffic volumes. To the East of the site is Wall Avenue, a two-lane, one-way roadway that is considered a major north/south thoroughfare through the City. With the site constrained on all four sides by city roadways and the limited availability of land at that location, it is difficult to situate the building in a safe manner. Purchase of additional properties is not a feasible option to alleviate these expansion and safety concerns, as to the west of the site just across Pearl Avenue is a major electric substation, and the roadways to the south and east are major city thoroughfares that would have little or no realistic chance at vacation or reroute. Due to these variables and the fact that they District was focused on expediting the reconstruction process to provide permanent facility solutions, no other sites were actively pursued.

### **2.2.5 PROPOSED ACTION Alternative – Relocate or Reconfigure to Meet Existing Needs/Requirements**

As described above, Irving Elementary was considered over 50% damaged by FEMA and eligible for replacement assistance in lieu of repair assistance. If a building was considered destroyed, the Joplin School District then decided to evaluate their future location based upon constraints of the existing site and if that particular site would be able to meet the needs of the new facility or contain other features that would affect reconstruction.

The School District felt that sites such as the property donated by Mercy Health or the newly expanded East Middle School campus would provide more suitable alternatives to reconstruction of its destroyed facilities rather than the reuse of the existing Irving Elementary property. It was determined by the Board of Education and Joplin School District administration that, considering the extent of damage, the age of the building and the available land area; it would not be prudent to use funds to repair Irving Elementary at its existing location. As a result, the proposed action for Irving Elementary was that it would be demolished and the site cleared. There are no current plans for future construction at this location and the future use of this property by the Joplin School District is uncertain at this time. Site work consisted of the removal of the existing structure and its remaining contents as well as the excavation and removal of foundations, pavement, utilities and playground areas. Best Management Practices (BMPs) to prevent the off-site migration of sediment due to erosion are to be implemented as necessary on the project. Typical BMPs will include establishment of rock stabilized construction entrance/exit drives, placement of filter fabric silt fence, placement of straw bale barriers, establishment of natural surface cover, and any other BMPs as deemed necessary due to land disturbance activities. As a safety precaution, fencing was installed around the perimeter of the site.

## **2.3 Roi S. Wood Administration Building**

### **2.3.1 Location of Site**

1717 E. 15<sup>TH</sup> Street, Joplin – NE-1/4 Section 11, Township 27N, Range 33W Latitude 37 deg. 4’31”N Longitude 94 deg. 29’41”W

The Roi S. Wood Administration building received damage from the EF-5 tornado on May 22. This building has been repaired.

### **2.3.2 Description of Site**

The existing site lies between elevations 995 feet AMSL at the north property line and 1,025 feet AMSL at the south property line and has already been developed for the existing building. The site is bounded on the north by Murphy Boulevard, the south by 15th Street, the east by Connecticut Avenue and by a residential neighborhood on the west. The limits of the property consist of approximately 6.5 acres, of which, approximately 1.5 acres is building, parking, and drives. The remaining 5 acres consists of good grass cover with a few trees. The building has been repaired and no additional site development is anticipated at this time.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-011, JS-012, JS-015, JS-078, JS-081 and JS-082.

### **2.3.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

### **2.3.4 Alternatives Considered and Dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. While this location sustained damage from the EF5 tornado on May 22, it was not determined to be a total loss. In considering the various options for this building, it was determined that the most cost and time effective solution would be to repair the facility rather than to demolish and rebuild. Being able to provide students with acceptable educational facilities by the start of the next school year in August 2011 was of upmost importance to the Joplin School District. While there was damage to these structures, it was determined that it was not feasible or prudent to

abandon the facility in total and that it would be possible to make necessary repairs within the required timeframe to start the next school year. Adequate repairs could be completed to these structures in order to restore them to fully functional educational and operational facilities, therefore relocation or reconstruction would not be warranted.

### **2.3.5 PROPOSED ACTION Alternative – Restore to Pre-Disaster Condition**

The proposed action would include the repair of the existing facility at its existing site location. This facility sustained damage from the EF5 tornado on May 22, 2011. In considering the various options for this structure, it was determined that the most cost and time effective solution would be to repair this facility rather than to demolish and rebuild. While this building sustained damage, it was determined that it was not feasible or prudent to abandon the facility in total. This structure was of an age that repair was a viable option without the concern that funds were being directed to a facility with a limited amount or remaining useful life. The School District was forced to evaluate in a short period of time the damaged facilities that could be repaired and utilized in order to provide locations that could be placed back in operation by the start of the next school year that began August, 2011. It was determined that adequate repairs could be completed to this structure at its current location in order to restore it to a fully functional and operational educational facility. Beacon, the Joplin School District's high risk special needs education program, and Flex, the Joplin Community School District's high risk drop-out prevention program, moved into the Roi S. Wood Education Center after its repair. Joplin School District administrative offices were relocated to other office space in order to make room for these programs, thus allowing Beacon and Flex to be moved from the Memorial Education Center to make room for the temporary 9/10 Campus. The proposed action allows The Joplin School District to repair the existing facility, minimize the financial impact of the restoration and allows the Joplin School District to continue to meet the educational needs of the community. No additional site development is anticipated at this time.

## **2.4 Old South Middle School**

### **2.4.1 Location of Site**

22<sup>ND</sup> and Wall, Joplin –NE-1/4 Section 15, Township 27N, Range 33W Latitude 37 deg.4" 0"N Longitude 94 deg.31"2"W

The remains of the building have been demolished. There are no current plans for future construction at this location. The Old South Middle School will be relocated to another site within the Joplin School District.

### **2.4.2 Description of Site**

The existing site is located at approximately 1,055 feet AMSL and was previously developed for the old school building. Included on the site were the school building, parking, and sidewalks. The site is bounded on all four sides by 23rd Street to the South, Wall Street to the east, 22<sup>nd</sup> Street to the north, Pearl Street to the West and consists of approximately 2 acres. The existing building has been demolished and no new construction is planned for the site at this time.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-022, JS-023 and JS-078.

### **2.4.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

### **2.4.4 Alternatives Considered and Dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. This facility sustained damage from the EF5 tornado on May 22. The damage was to such an extent that it is unfeasible to repair and the structure determined to be a total loss. A cost/benefit analysis was conducted and determined that the facility was not salvageable. Repair of this structure would essentially mean reconstruction of a majority of the exterior, windows, heating and air units, duct work, lighting, wiring, electrical supply components, contents, wall coverings, flooring, parking areas and structural support components. The financial outlay and other construction concerns associated with repair of an aging structure to such an extent would be cost prohibitive. Consequently, repair and restoration of the structure was not a viable option.

As with Irving Elementary, the existing Old South Middle School site is approximately 2 acres in size and is bounded on all four sides by City streets. The Joplin School District was concerned about the age of the facility and its ability to provide necessary governmental mandated amenities in a cost-effective manner. At 2 acres, the existing site offered numerous obstacles concerning space needs for a Middle School facility. With the site constrained on all four sides by city roadways and the limited availability of land at that location, it is difficult to situate the building in a safe manner. Purchase of

additional properties is not a feasible option to alleviate these expansion and safety concerns related to nearby roadways bordering the property as the purchase of numerous residential properties that surround the site was not thought to be financially feasible. If additional properties were purchased, existing roadways would be located within any new campus boundaries and would need to be rerouted or modified in some fashion to continue to provide access to the surrounding residential areas. This may be an option for campuses consisting of larger property areas but would be proportionately unfeasible considering overall development costs for such a small property. Due to these variables and the fact that they District was focused on expediting the reconstruction process to provide permanent facility solutions, no other sites were actively pursued.

#### **2.4.5 PROPOSED ACTION Alternative – Relocate or Reconfigure to Meet Existing Needs/Requirements**

The proposed action for Old South Middle school is for the facility to be demolished and the site cleared. Old South Middle School was considered over 50% damaged by FEMA and eligible for replacement assistance in lieu of repair assistance. If a building was considered destroyed, the Joplin School District then decided to evaluate their future location based upon constraints of the existing site and if that particular site would be able to meet the needs of the new facility or contain other features that would affect reconstruction.

Given the constraints of the existing location, the School District felt that sites such as the property donated by Mercy Health or the newly expanded East Middle School campus would provide more suitable alternatives to reconstruction of its destroyed facilities rather than the reuse of the existing Old South Middle School property. It was determined by the Board of Education and Joplin School District administration that, considering the extent of damage, the age of the building and the available land area; it would not be prudent to use funds to repair Old South Middle School at its existing location. There are no current plans for future construction at this location and the future use of this property by the Joplin School District is uncertain at this time. Site work for demolition of the facility consisted of the removal of the existing structure and its remaining contents as well as the excavation and removal of foundations, pavement, utilities and playground areas. Best Management Practices (BMPs) to prevent the off-site migration of sediment due to erosion are to be implemented as necessary on the project. Typical BMPs will include establishment of rock stabilized construction entrance/exit drives, placement of filter fabric silt fence, placement of straw bale barriers, establishment of natural surface cover, and any other BMPs as deemed necessary due to land disturbance activities. As a safety precaution, fencing was installed around the perimeter of the site.

## **2.5 Kelsey Norman Elementary**

### **2.5.1 Location of Site**

1323 E. 28<sup>th</sup> Street, Joplin – SE-1/4 Section 14, Township 27N, Range 33W Latitude 37 deg. 3'35"N Longitude 94 deg. 30' 1" W

Kelsey Norman Elementary received damage from the EF-5 tornado on May 22. This building has been repaired.

### **2.5.2 Description of Site**

The existing site is located at approximately 1,050 feet AMSL and has already been developed for the existing building. Included on the site are the school building, playground area, parking, and sidewalks. The 4 acre site is bounded by 27<sup>th</sup> street on the north, 28<sup>th</sup> street on the south, New Hampshire Avenue to the east and a residential neighborhood to the west. The building has been repaired and a FEMA Hazard Mitigation Grant Program (Section 404) Community safe room is planned to be added to the existing building.

### **2.5.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

### **2.5.4 Alternatives Considered and Dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. While this location sustained damage from the EF5 tornado on May 22, it was not determined to be a total loss. In considering the various options for this building, it was determined that the most cost and time effective solution would be to repair the facility rather than to demolish and rebuild. Being able to provide students with acceptable educational facilities by the start of the next school year in August 2011 was of upmost importance to the Joplin School District. While there was damage to these structures, it was determined that it was not feasible or prudent to abandon the facility in total and that it would be possible to make necessary repairs

within the required timeframe to start the next school year. Adequate repairs could be completed to these structures in order to restore them to fully functional educational and operational facilities, therefore relocation or reconstruction would not be warranted. As a result, the Joplin School District did not actively seek other sites for relocation.

#### **2.5.5 PROPOSED ACTION Alternative – Restore to Pre-Disaster Condition**

The proposed action would include the repair of the existing facility at its existing site location. This facility sustained damage from the EF5 tornado on May 22, 2011. In considering the various options for this structure, it was determined that the most cost and time effective solution would be to repair this facility rather than to demolish and rebuild. While this building sustained damage, it was determined that it was not feasible or prudent to abandon the facility in total. This structure was of an age that repair was a viable option without the concern that funds were being directed to a facility with a limited amount or remaining useful life. The Joplin School District was forced to evaluate in a short period of time the damaged facilities that could be repaired and utilized in order to provide locations that could be placed back in operation by the start of the next school year that began August, 2011. It was determined that adequate repairs could be completed to this structure at its current location in order to restore it to a fully functional and operational educational facility. The proposed action allows the Joplin School District to repair the existing facility, minimize the financial impact of the restoration and allows the Joplin School District to continue to meet the educational needs of the community. In addition to the repair of the building, a FEMA Hazard Mitigation Grant Program (Section 404) Community safe room will be added to the existing facility. No additional site development is anticipated at this time.

### **2.6. Old St. John's/New Elementary**

#### **2.6.1 Location of Site**

Old 32<sup>nd</sup> Street & McClelland Blvd., Joplin – SW-1/4 Section 15, Township 27N, Range 33W Latitude 37 deg.3'25"N Longitude 94 deg.31'51"W

This new school facility will include a new elementary school as a replacement for facilities destroyed by the tornado. This is a new site that has been donated to the Joplin School District by Mercy Health (formerly St. John's) and was part of the old St. John's medical complex that has relocated. Because of multiple mine tunnels and/or vertical mine shafts, it was determined that the northern part of this property was not suitable for construction. Mercy (St. John's) made a policy directive that they would not build on top of any known mine features. Mercy (St. John's) leadership had planned to preserve the southern end of the campus for health care buildings, but realizing the difficulties with the northern end, they made the south end available to the School District. Mercy (St. John's) with adjacent support buildings with large physical footprints were not able to be suitably located on this campus due to the many mine features on the north half. The new school's building footprint is much smaller in scale than those that would be required for Mercy (St. John's) and will be comfortably located to avoid the mine features and other restrictive elements.

#### **2.6.2 Description of Site**

The existing site lies between elevations of approximately 960 feet AMSL at the south property line and approximately 980 feet AMSL at the north property line and was previously developed for Mercy (St. John's) healthcare facilities. While much of Mercy's (St. John's) property to north consists of a vast amount of mining features, the southern portion in which the New Elementary School building will be located does not. In addition, an existing drainage way and FEMA designated floodway exists that runs from north to south through the east side of the property. The total property for the school will consist of approximately 16.3 acres and will be developed in phases. The first phase will consist of construction for the building and parking and will disturb approximately 8.5 acres. The second phase will disturb approximately 7.8 acres for the construction of playgrounds. The site is bounded by St. John's Boulevard to the east, Old 32<sup>nd</sup> Street to the south and McClelland Boulevard to the west. The northern part of the site will be bounded by open ground following the demolition of the Mercy (St. John's) facilities.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-022, JS-027, JS-045, JS-056, JS-061 and JS-078.

### **2.6.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

### **2.6.4 Alternatives considered and dismissed**

The process of selecting a site for the New Elementary School at Old St. John's was a challenge. The initial design programming showed a need for 14 acres minimum to construct a new elementary school. The School District considered various sites at and near the Old Irving Elementary Site and the Old South Middle School Site. Neither of these locations provided the required 14 acres to accommodate the new school. Mercy

Health (St. John's) offered to donate property to the School District that was part of the old St. John's hospital medical campus prior to the May 22, 2011 tornado. The School District worked with Mercy Health to evaluate different locations on the existing hospital campus in which a school could be located. Four different locations on the campus were considered and dismissed. The project Architect researched placement of the proposed structure at multiple locations on the old St. John's campus to determine pro's and con's for each. These locations were discussed publicly at multiple Joplin School District Board of Education meetings and through the Joplin School District website and Facebook page specifically established for planning and construction updates and a source for subsequent comment. Placement of the new building location and subsequent willingness of Mercy Health to donate a portion of property to the Joplin School District was also covered in local print media by the Joplin Globe. One of the sites offered sufficient space but access to the site from 26th Street and McClelland Boulevard was a safety concern and other programming ideas planned by Mercy Health for the remainder of the property did not fit well with the proposed school. The second site that was considered also did not fit well with Mercy Health programming ideas and underground mine locations limited structure location. The third site that was considered did not offer sufficient space for school programming and would require the vacation of Picher Avenue and the acquisition of several residential and commercial properties. Acquisition of the properties was investigated, but several property owners had no interest in selling. The fourth site that was considered was underlain with mines in such a way that prohibited the proposed building from being located to avoid the mines. Ultimately, a location at the southern portion of the existing Mercy Health campus offered just over the required acreage at 16.3 acres and allowed the building to be located such that it will not be on top of any mapped mines.

#### **2.6.5 PROPOSED ACTION Alternative – Relocate or Reconfigure to Meet Existing Needs/Requirements**

The proposed action would involve the complete redevelopment of the southern portion of the Old St. John's site to accommodate the construction of a New Elementary School facility to house up to 600 students, Kindergarten to 5<sup>th</sup> Grade. The site provides good access and the location fits well with future programming of the remaining property. This development will include parking for 150 to 170 vehicles along with adequate entrances, drives, play-scape areas, and utilities to serve the facility. The building will be approximately 85,000 square feet and will primarily be on one level with the south classroom wing being a two story "split level". Key building features will include:

- A FEMA Hazard Mitigation Grant Program (Section 404) Community safe room with a dual function as a Gymnasium, approximately 5,600 square feet in size
- A FEMA Section 406 safe room designated for students and staff with a dual function as a Special Education Classroom Suite, approximately 3,500 square feet in size
- A Multi-Purpose Room for dining, assemblies, and Physical Education Classes, including a stage for events and presentations
- 24 standard classrooms
- A Science Lab for 4<sup>th</sup> and 5<sup>th</sup> grade

- Reading Labs
- Media Center/Library
- Music Room, Art Room, and Computer Lab
- Administration and support areas

The proposed action allows the Joplin School District to relocate and reconfigure existing facilities to this site, minimize the financial impact of the reconstruction and allow the Joplin School District to adequately meet the educational needs of the community.

## **2.7 Cecil Floyd Elementary**

### **2.7.1 Location of Site**

2201 W. 24<sup>th</sup> Street, Joplin – NW-1/4, Section 16, Township 27N, Range 33W Latitude 37 deg. 3' 56"N Longitude 95 deg. 32' 33"W

Cecil Floyd Elementary received damage from the EF-5 tornado on May 22. This building has been repaired.

### **2.7.2 Description of Site**

The existing site is located at approximately 1,060 feet AMSL and has already been developed for the existing building. Included on the site are the school building, playground area, parking, and sidewalks. The 13.7 acre site is bounded on the south by West 24<sup>th</sup> street and residential neighborhoods on the north, east, and west. The western part of the property consists of a dense stand of timber. The building has been repaired and a FEMA Hazard Mitigation Grant Program (Section 404) Community safe room is planned to be added to the existing building.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-008, JS-027, JS-062, JS-078 and JS-083.

### **2.7.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school

spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

#### **2.7.4 Alternatives Considered and Dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. While this location sustained damage from the EF5 tornado on May 22, it was not determined to be a total loss. In considering the various options for this building, it was determined that the most cost and time effective solution would be to repair the facility rather than to demolish and rebuild. Being able to provide students with acceptable educational facilities by the start of the next school year in August 2011 was of upmost importance to the Joplin School District. While there was damage to these structures, it was determined that it was not feasible or prudent to abandon the facility in total and that it would be possible to make necessary repairs within the required timeframe to start the next school year. Adequate repairs could be completed to these structures in order to restore them to fully functional educational and operational facilities, therefore relocation or reconstruction would not be warranted. As a result, the Joplin School District did not actively seek other sites for relocation.

#### **2.7.5 PROPOSED ACTION Alternative – Restore to Pre-Disaster Condition**

The proposed action would include the repair of the existing facility at its existing site location. This facility sustained damage from the EF5 tornado on May 22, 2011. In considering the various options for this structure, it was determined that the most cost and time effective solution would be to repair this facility rather than to demolish and rebuild. While this building sustained damage, it was determined that it was not feasible or prudent to abandon the facility in total. This structure was of an age that repair was a viable option without the concern that funds were being directed to a facility with a limited amount or remaining useful life. The Joplin School District was forced to evaluate in a short period of time the damaged facilities that could be repaired and utilized in order to provide locations that could be placed back in operation by the start of the next school year that began August, 2011. It was determined that adequate repairs could be completed to this structure at its current location in order to restore it to a fully functional and operational educational facility. The proposed action allows The Joplin School District to repair the existing facility, minimize the financial impact of the restoration and allows the Joplin School District to continue to meet the educational needs of the community. In addition to the repair of the building, a FEMA Hazard Mitigation Grant Program (Section 404) Community safe room will be added to the existing facility. No additional site development is anticipated at this time.

### **2.8 Emerson Elementary**

#### **2.8.1 Location of Site**

301 E. 19<sup>TH</sup> Street, Joplin – SW-1/4 Section 11, Township 27N, Range 33W – Latitude 37.07079; Longitude -94.51138

This school was damaged from the EF-5 tornado on May 22. The Joplin School District has elected not to repair this school, and the plans are for the school to be demolished.

### **2.8.2 Description of Site**

The existing site is located at an elevation of approximately 1,030 feet AMSL and was previously developed for the old school building. Included on the site were the school building, playground area, parking, and sidewalks. Prior to the storm, the site was bounded Pennsylvania Avenue to the west, 19<sup>th</sup> Street to the south, Kentucky Avenue to the east and 18<sup>th</sup> Street to the north and consisted of approximately 2.3 acres. Since the storm, residential structures damaged by the site became available and the Joplin School District expanded the site by additional property purchase to the south of 19<sup>th</sup> Street. Nineteenth Street between Pennsylvania Avenue and Kentucky Avenue will be located completely within the site and could be closed in the future to facilitate future construction with little, if any, impact to traffic patterns in the area.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-007, JS-044, JS-045, JS-056, JS-061, JS-078 and JS-083.

### **2.8.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

### **2.8.4 Alternatives Considered and Dismissed**

At this time, the Joplin School District has intentions of demolishing the existing damaged Emerson Elementary building and rebuilding an early childhood center or an elementary school that would contain a FEMA Hazard Mitigation Grant Program

(Section 404) Community safe room. After the May 22 tornado, additional properties were purchased to the south of the existing site. Prior to the storm, the site was situated on approximately 2.3 acres and surrounded on four sides by city streets. In contrast to the old Irving site, these surrounding streets were low volume residential streets. Vacation of these roadways to accommodate future site expansion may be a possibility; however, the relative small land area of the site limits construction potential. Given the additional property purchase to expand the Emerson Elementary campus, the site would be adequate for either an early childhood center or an elementary school facility. The location of the existing site is centrally located within the community and the Joplin School District has recently made a financial investment into expanding the site. Current plans are for this property to be retained by the District for other possible educational opportunities that have smaller land area requirements and no other sites have been considered.

### **2.8.5 PROPOSED ACTION Alternative – Relocate or Reconfigure to Meet Existing Needs/Requirements**

The proposed action is for Emerson Elementary to be demolished and the site cleared. While the structure was not considered over 50% damaged by FEMA, it was determined by the Joplin School District Board of Education and administration that, considering the extent of damage, the age of the buildings and the available land area at those locations, it would not be prudent to use funds to repair Emerson Elementary at its existing location. The position of the Joplin School District is that the financial outlay and other construction concerns associated with repair of an aging structure to such an extent would be cost prohibitive and not a good use of insurance proceeds or taxpayers dollars. Consequently, repair and restoration of the structure is not a viable option in the opinion of the Joplin School District. The Joplin School District has intentions construct an early childhood center or an elementary school that would contain a FEMA Hazard Mitigation Grant Program (Section 404) Community safe room once the existing building has been demolished. A timeline for such construction of new facilities has not yet been established.

In October of 2011, the State Historic Preservation Office (SHPO) made a determination that Emerson Elementary is eligible for listing in the National Register of Historic Places for criteria A and C (education and architecture). It was SHPO's opinion that in addition to that finding and in accordance with the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, section 800.5, the proposed project would have an Adverse Effect on the National Register eligible building. The Joplin School District will be required to resolve these outstanding issues with SHPO prior to beginning the Proposed Action. This may mean the development and execution of a Memorandum of Agreement (MOA) or formulation of some other method of resolution between SHPO and the Joplin School District to resolve this matter.

Site work for demolition of the facility would consist of the removal of the existing structure and its remaining contents as well as the excavation and removal of foundations, pavement, utilities and playground areas. Best Management Practices (BMPs) to prevent the off-site migration of sediment due to erosion are to be implemented as necessary on the project. Typical BMPs will include establishment of

rock stabilized construction entrance/exit drives, placement of filter fabric silt fence, placement of straw bale barriers, establishment of natural surface cover, and any other BMPs as deemed necessary due to land disturbance activities.

## **2.9. Joplin High School/Franklin Technology Center**

### **2.9.1 Location of Site**

20<sup>th</sup> and Indiana, Joplin – N-1/2 of Section 14, Township 27N, Range 33W Latitude 37 deg. 4' 3"N Longitude 94 deg. 30' 22"W

Prior to the storm, Joplin High School and Franklin Technology were located separately on the same campus. Joplin High School was determined a total loss and will be demolished. The existing Franklin Technology Center building was also considered a total loss and will be demolished as well. The new Joplin High School will be a combined building with Franklin Technology Center, relocated within the existing campus.

### **2.9.2 Description of Site**

The site lies between elevations of approximately 1,005 feet AMSL at the northeast corner of the property and 1,045 feet AMSL at the west property line. Following the tornado, additional property surrounding the existing site was purchased by the School District that consisted primarily of residential lots. The newly expanded site is bounded on the north by 20th street, east by Indiana Street, and west by Grand Avenue and by a residential neighborhood south of 24th Street on the south end of the campus. An existing drainage way exists that runs from south to north through the middle of the site along vacated Iowa Avenue. In addition to this drainage way, a FEMA designated floodway exists in the northeast corner of the site. There is also an existing sanitary sewer line that follows the existing drainage way along vacated Iowa Avenue that may need to be relocated. Other various utilities exist either within the site or surrounding the perimeter of the site. The Joplin High School/Franklin Technology Center campus now consists of approximately 66 acres (41.2 acres of existing and 24.8 acres newly acquired property). The entire site will be completely re-developed to accommodate the proposed action of a new combined facility and its necessary appurtenances.

FEMA Project Worksheet (PW) numbers associated with this site are: JS-018, JS-030, JS-032, JS-033, JS-035, JS-039, JS-046, JS-048, JS-076, JS-078, JS-081, JS-083, JS-084, JS-085 and JS-086.

### **2.9.3 No Action Alternative**

Funding would not be provided by FEMA if the No Action alternative were selected. The May 22 tornado damaged or destroyed multiple Joplin School District facilities. The selection of the No Action alternative would require that facilities damaged by the storm to remain in disrepair and would force the District to find alternative locations or attempt to educate students in unhealthy and possibly dangerous structures. For facilities destroyed by the storm, students would remain in temporary facilities which are designed to meet basic educational needs and are not intended to be used on a permanent basis. In addition, the school system plays an essential role in the social and economic development of a community. If permanent facilities were not restored or reconstructed, this situation would create social and economic hardship for the community as a whole. The Joplin School District is focused on student and staff suicide prevention and other mental, physical, and emotional health issues. As such, the return

to normalcy is important to the Joplin School District in terms of getting their students, staff, families and community back to whole. Staying in temporary facilities prolongs the angst and memory of the Joplin School District losses to those most impacted by the storm. Additionally, numerous reports at Joplin High School indicate a loss of school spirit which further adds to the depressive state of the student body and staff morale. Further, on-going operational expenditures related to the increased costs associated with transportation and staffing due to the scattered nature of temporary facilities. At the community level, the impact of a No Action approach would result in severe economic damage as a consequence of stifled housing starts and business opportunities, job creation, and workforce stability.

#### **2.9.4 Alternatives considered and dismissed**

Immediately after the storm event, Joplin School District Administration and the Board of Education began evaluating each respective site and its ability to be a viable option for being utilized by the District. Both the Joplin High School and Franklin Technology Center buildings sustained damage from the EF5 tornado on May 22. The damage was to such an extent that it is unfeasible to repair either and the structures were determined to be a total loss. A cost/benefit analysis was conducted and determined that the facility was not salvageable. After it was determined that the existing facilities would not be able to be repaired, the Joplin School District officials began exploring other alternatives for the reconstruction of these facilities.

Prior to the storm, the Joplin School District developed a long-term facilities plan. That plan identified the following key factors in regard to the Joplin High School facility:

- Overcrowding at Joplin High School is attributed to increases in student enrollment and an improving graduation rate.
- A 9<sup>th</sup> grade center concept is also strongly supported; however, more information is needed for clarification. Is it that a 9<sup>th</sup> grade center is supported, or are patrons just concerned with the size of the high school and would they accept alternatives that would reduce the number of students on the Joplin High School campus? Initial reoccurring cost estimates associated with the development of a 9<sup>th</sup> grade center range in the \$500,000 to \$750,000 range. This would put additional strain on an already tight operating budget.
- Franklin Technology Center is slated for a \$6 million expansion utilizing matching state funds set aside for career education construction projects. However, to date no appropriation has been made by the state legislature for this project.
- Joplin High School enrollment is a concern. In addition to the 9<sup>th</sup> grade center concept, grade level configurations considered to alleviate this concern included a K-6 elementary, 7-9 middle school, and a 10-12 High School configurations. Concerns exist about 7<sup>th</sup> graders sharing space with 9<sup>th</sup> grade students.

These concerns regarding Joplin High School were already being discussed prior to the storm and so they were utilized in order to consider options for redevelopment of this campus. Various options were considered and dismissed in regard to alternative sites for the new Joplin High School and Franklin Technology Center facility.

##### **2.9.4.1 Relocating the Joplin High School/Franklin Technology Center Campus**

The Joplin School District understood that the new facility needed to be moved from its existing location within a FEMA designated floodplain. The District was also concerned about overcrowding at the existing Joplin High School building and the space available for construction of a new facility adequately sized to accommodate the current and anticipated future student population. One option was to relocate the campus to an entirely new location. The existing campus location with the newly acquired properties offered many benefits to expediting the reconstruction process and minimizing relocation expenses. Consideration of relocation of the campus entirely offered many challenges and obstacles that the Joplin School District felt were undesirable. The first concern was the time that would be associated with locating and purchasing an acceptable piece of property within a compressed amount of time necessary to minimize the time students would be required to remain in temporary facilities. The other concern was finding a suitable piece of property of the necessary land size that was available for purchase. This site would need to be established in a central location to minimize operational expenses and to maximize access to the community. It would also need to be situated near adequate roadways to handle traffic that would be generated from such a development as well as have access to city infrastructure and other utilities such as water, sanitary sewer, communications, natural gas, and electric in order to minimize development costs. The School District went through such a process in an attempt to locate new sites for its Middle Schools within the last several years and found it extremely difficult to find such a piece of land with all these characteristics that was available at a reasonable price.

Upon consideration of alternatives it was felt that the current Joplin High School campus had all the desired attributes for redevelopment without the need to seek alternative sites. The existing campus is centrally located, has all necessary utilities and infrastructure available, is served by adequate roadways, and has sufficient land area already owned by the District to construct the new facility outside of the floodplain.

#### **2.9.4.2 Reuse of Existing Site Locations**

The existing Joplin High School site includes a FEMA designated floodplain. At its location prior to the storm, the High School structure itself was located within the FEMA designated floodplain. This situation was of concern to the Joplin School District and it was reluctant to allocate funds for a new facility that was located within the floodplain. In December of 2011, a site assessment was prepared for the existing Joplin High School site which evaluated the feasibility for reconstruction in the existing location.

The conclusions of that assessment are as follows:

“Construction of a new facility at the existing Joplin High School location would contain many sizable obstacles and safety hazards. Necessary expansion of the facility and raising the finished floor elevation of the building two feet above the Base Flood Elevation would require fill to be placed within a FEMA designated floodway, which is not allowed or recommended. Natural drainage patterns of the surrounding area would isolate the building during high water events

placing the public and the building itself in harm's way during such occurrences. Soils conditions in this area also warrant special foundation design considerations and techniques in order to adequately support a new structure. The presence of a high ground water table poses ongoing construction and maintenance issues that would need to be addressed.

It is the opinion of this assessment that construction of a new facility at the existing High School location would not be recommended and, in fact, be strongly discouraged. Reconstruction of a facility in such an area would not be a prudent use of public funds and would potentially endanger the health, safety and welfare of the students, faculty and visitors of the High School. There are other areas of the entire overall property owned by the Joplin School District at this location that would be significantly more conducive to construction of a new facility. It is recommended that the Joplin School District investigate reconstruction of the High School facility at other locations within this overall site.”

It was decided by the Joplin School District that the new facility would be relocated to an area outside of the floodplain. Properties obtained by the Joplin School District after the storm offered the opportunity to expand the existing campus such that a new facility could be constructed in this same location but outside of the floodplain.

#### **2.9.4.3 Two High School Alternative**

Splitting the existing single high school into two separate high schools was discussed and considered. If the Joplin School District was starting essentially at ground zero and it was known that there was an overcrowding problem prior to the storm, some in the community felt that this was an option worth exploring. This alternative would allow the Joplin School District to possibly construct one smaller facility at the existing location outside of the floodplain and then construct a second facility at a new location elsewhere in the community. This would allow for two smaller facilities and would be able to address the overcrowding problem. There are opinions within the community that two high schools with reduced student populations would be a more favorable learning environment. This situation would also potentially make the two high school facilities more readily accessible to its patrons by spreading the buildings out within the community and would potentially offer more students access to extracurricular activities with the thought that there may be twice as many opportunities with two high schools in lieu of one. Such a scenario would also provide some level of relief in the future from total devastation from natural disasters, fire or other catastrophe type circumstances that could affect a single high school serving the entire Joplin School District.

After the storm, the Joplin Citizens Advisory Recovery Team (CART) was formed to aid in the planning of recovery for the community and to provide a voice for Joplin area citizens. CART focused on four recovery sector groups: Economic Development (recovery, resources, sustainability), Schools & Community Facilities (future for schools, needs of various age groups, what other

community facilities will Joplin need, etc.), Housing & Neighborhoods (single family, multi family, affordability, trails & sidewalks, parks, creation of stable neighborhoods), Infrastructure & Environment (floodplains, mine issues, utilities, new development, trees, streets). This organization held numerous public input meetings and also has a Facebook page that has both been sources for public comment and information. The Joplin School District determined that there was far more support during the CART process for retaining the single high school configuration and reference to that effect was made in the report developed by CART that focused on community reconstruction recommendations as a result of these meetings and public comment opportunities.

After consideration, the Joplin School District felt that the two high school configuration was not a viable solution. District administrators felt that, while an option worth consideration, the possibility going to a two high school system was not economically feasible, did not have the support of the community and provided more obstacles in getting permanent facilities back into operation. Joplin School District officials concluded that two high schools would result in higher operating costs including staff, transportation, building maintenance, utilities, supplies, and would require the purchase of additional property. With separate high schools, the District would either need a separate technical school as well or incorporate technical schools into each high school which would also result in added construction, operation and maintenance costs. Due to associated costs and available resources, a two high school system would either require programming opportunities to be cut or to have equity disparity between the two facilities if some programs are able to be offered at one facility and not the other, such as the television station or advanced courses.

Finally, a two high school system would require the Joplin School District to purchase an additional parcel of property to construct the second high school. This would offer the same obstacles associated with property purchase as outlined in section 2.9.4.1 above for the relocating of the Joplin High School campus entirely.

The Joplin School District has made the decision to combine Joplin High School with Franklin Technology Center to enhance the educational experience and opportunities for all students. This is planned to include an early introduction to career pathways, collaborative learning, and joint programming with area colleges and universities, businesses, and organizations.

#### **2.9.5 PROPOSED ACTION Alternative – Relocate or Reconfigure to Meet Existing Needs/Requirements**

Each of these facilities, Joplin High School and Franklin Technology Center, sustained damage from the EF5 tornado on May 22, 2011. These existing facilities were damaged to such an extent that it is unfeasible to repair with each determined to be a total loss. As a result, repair and restoration of each structure was not a viable option. The existing Joplin High School building was located within a floodplain which also makes reconstruction at that particular location unsuitable. As a result of the storm, an opportunity was made available by the Joplin School District to purchase additional

property around the existing Joplin High School and Franklin Technology Center campus. The purchase of these additional properties will allow Joplin High School and Franklin Technology Center to be combined into a single facility and built outside of the floodplain while remaining at essentially the same general location.

The Joplin High School/Franklin Technology Center relocation is primarily due to the floodplain issue on the site and the available space necessary for a combined Joplin High/Franklin Technology Center facility. Joplin High School and Franklin Technology Center were both all well over 50 percent destroyed and it was determined by the Joplin School District that an investment in such aging facilities was not a prudent use of taxpayer or insurance funds.

The proposed action would involve the complete redevelopment of the site to accommodate the new combination Joplin High School and Franklin Technology Center. The new facility will accommodate up to 2,500 students. The building is projected to be approximately 450,000 square feet and will consist of 3 floors. The facility will be geared toward 5 career pathways and will allow for a filtering through the building of all students. The primary reason for these career pathways is to give students a deeper understanding of the career options and choices that they have when entering the world of work. The five career pathways will include business/information technology, technical sciences, human services, arts/communication, and health sciences. Each pathway will include studios, workshops, labs, resource rooms, open boxes, think tanks, info links, and interdisciplinary rooms. Other key building features will include:

- A FEMA Hazard Mitigation Grant Program (Section 404) Community safe room with a dual function as a Gymnasium
- Multiple FEMA Section 406 safe rooms for students and staff
- A Performing Arts Center

The site will include student parking areas of about 800 spaces and staff/visitor parking areas of about 300 spaces. The site will also include the necessary entrances, drives, walkways and utilities to serve the facility. Other key features of the site include:

- Athletic fields for football, track, soccer, baseball, softball, and tennis
- Future Practice fields for football, soccer, and band
- Athletic concessions/restroom/storage facilities
- An existing drainage way that will be designed to convey storm water and complement educational programming by providing a naturalistic setting in which to potentially conduct various classroom activities
- Future space for additional parking

The proposed action allows The Joplin School District to relocate and reconfigure these existing facilities, minimize the financial impact of the reconstruction and allows the Joplin School District to adequately to meet the educational needs of the community.

## **2.10 FEMA Hazard Mitigation Grant Program (Section 404)**

In addition to those mentioned above, the Joplin School District intends to add FEMA Hazard Mitigation Grant Program (Section 404) community safe rooms at the following sites:

- Duenweg Elementary
- Duquesne Elementary
- Columbia Elementary
- Eastmorland Elementary
- Jefferson Elementary
- Junge Stadium
- McKinley Elementary
- Stapleton Elementary
- West Central Elementary
- Royal Heights Elementary

FEMA has developed a Programmatic Environmental Assessment for Hazard Mitigation Safe Room Construction and issued a Finding of No Significant Impact in June 2011. All HMGP Safe Rooms have been evaluated in accordance with the PEA and FONSI and no further environmental analysis of these sites are warranted. This information is provided to support cumulative effects analysis under NEPA.

On March 31, 2012, the Joplin Globe printed an article that focused on the safe room construction proposed for the Joplin School District in the event the April bond issue passed.

According to the article, Joplin Schools' officials state that safe rooms would be able to hold in excess of 20,000 people, in addition to all of the District's more than 7,100 students and staff. Given the trauma seen by residents of the community, it is thought that the safe rooms would provide more comfort to the students and staff while at the schools as well as give parents relief and peace of mind. Safe rooms were identified in the district's long-range plan prior to the May 22 tornado but after the storm, school officials want to go beyond protecting students and staff and provide a similar type of safe location to the community as well. The safe rooms are proposed to be multipurpose gymnasiums that will include restrooms, concessions, storage and a janitor's closet. The shelters will have natural gas backup generators and each will be able to house between 1,500 and 2,000 people. Joplin School District officials are working on safe room procedures and how to coordinate a plan that would stretch across town simultaneously in the event of severe weather. District officials are working with city and county emergency managers and they have also toured other schools in the state to learn about their procedures and policies.

### **3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

The subsections below discuss the applicable regulatory parameters and the existing conditions for the following resource areas in Missouri that may be impacted by the proposed action alternative and the no action alternative considered:

- Geology and Soils
- Hydrology and Floodplains
- Wetlands
- Water Quality
- Air Quality
- Vegetation and Wildlife
- Threatened and Endangered Species
- Cultural Resources
- Socio-economic
- Environmental justice
- Noise
- Safety and Security
- Hazardous Materials and Toxic Wastes
- Traffic and Transportation

This discussion is broad and regional in nature. It does not include a complete inventory of each resource, but does provide information to characterize those resources. This section also describes the potential impacts that each alternative could have on the identified resources. In order to meet the proposed purpose and need of permanent educational facilities, an environmental review process was conducted to analyze all natural and human environmental issues associated with the proposed sites. The environmental review process included field visits at the sites, background research, and agency consultations. The field visits were conducted on February 1, 2012, March 2, 2012 and March 6, 2012. Background research consisted of a review of census statistics, wetland maps, FEMA floodplain maps, hazardous materials databases, archaeological and historic structures databases, threatened and endangered species information, soil surveys, and other available information. Agency consultation through written communications was conducted with the Natural Resources Conservation Service (NRCS), U.S. Department of the Interior, Fish and Wildlife Service (USFWS), Missouri Department of Conservation (MDC), Missouri Department of Natural Resources (MDNR), Missouri State Historic Preservation Office (SHPO), U.S. Environmental Protection Agency (USEPA), Jasper County Health Department and U.S. Army Corps of Engineers (USACE).

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	Impact				MITIGATION	Agency Coordination/ Permits	Comments
	Negligible	Minor	Moderate	Major			
Geology & Soils		X			BMPs, lead abatement	EPA, Health Department	The implementation of construction BMPs will reduce sedimentation. Soil testing will be necessary for determination of presence of lead.
Hydrology & Floodplains	X				BMPs, Construct facilities such that floodplains will not be impacted.	Floodplain administrator	New sites will be constructed outside designated FEMA 100 year floodplain. BMPs implemented to minimize runoff impacts. The old St. John's site and Joplin High school site are both located on properties that contain a floodplain.
Wetlands	X				None		The sites do not contain Jurisdictional wetlands
Water Quality		X			Implement construction BMPs. Install silt fences/straw bales to reduce soil erosion and sedimentation. Construction contractor to implement requirements of NPDES stormwater discharge permit and SWPPP, if required.	MDNR land Disturbance Permits to be obtained, where required, and SWPPP prepared for sites over 1 acre.	Stormwater plans/drainage system will be required to meet State and local requirements/BMPs will be implemented.
Air Quality		X			Periodic wetting during construction would reduce fugitive dust.		County air shed is in attainment for criteria pollutants per the Clean Air Act.
Vegetation & Wildlife		X			None		Disturbed areas to be stabilized and seeded when construction is complete.
Threatened & Endangered	X				None	USFWS (3/16/12) and MDC (3/27/12) determinations	No State of Federally Listed Endangered Species at these sites.
Cultural Resources (National Historic Preservation Act)	X				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 until an appropriate plan of action is determined by applicable agencies.	SHPO (Section 106 Review) Determination	Projects will not affect known historic or archeological sites with the exception of Emerson Elementary. The Joplin School District will need to coordinate proposed action on Emerson Elementary with SHPO as it has been determined eligible for National Register listing.
Socioeconomic	X				None		
Environmental Justice	X				None	FEMA	Schools benefit entire community and do not result in disproportionate adverse effects to minority populations and/or low income populations.

**Table 1 Continued**

Affected Environment/ Resource Area	Impact				MITIGATION	Agency Coordination/ Permits	Comments
	Negligible	Minor	Moderate	Major			
Noise		X			If possible, construction activities should be limited to daylight hours during the work week.	Contractor shall coordinate with construction management company.	
Safety & Security		X			Implement BMPs for construction. Appropriate construction fencing and signage.	The contractor will coordinate with city, county and state governments to obtain required permits.	All activities will be conducted in a safe manner in accordance with applicable OSHA regulations.
Hazardous Materials	x				Site soils will need to be tested for presence of lead and, if elevated lead levels are found, remediation will be necessary. Joplin School District should implement formal long term stewardship plan or something similar.		No potential environmental hazards were observed during the field visit. The entire community is in a superfund site. District will work with County Health Department and USEPA when any issues arise where high lead levels occur.
Traffic & Transportation		x			Improvements will be made in accordance with the recommendations of any applicable Traffic Impact Studies.	The construction contractor will coordinate with appropriate city staff.	Improvements will be made to mitigate traffic impacts at Joplin High School/Franklin Technology Center campus and at East Middle School/New Elementary School site. Traffic impact studies have been completed for Old St.John's/New Elementary Site and the Joplin High School/Franklin Technology Center campus.

### **3.1 Geology and Soils**

Jasper County lies on the northwest slope portion of the Ozark Uplift. The Ozark Uplift is structurally, as well as topographically, a broad, low dome of elliptical outline. This portion of the Ozark Uplift is not located far from its margin, and is included in the more plateaulike, less dissected portion of the region. Throughout the district the physical features are closely related to the geology. The rocks are wholly sedimentary and those outcropping at the surface belong (with few and relatively unimportant exceptions) to two formations the Boone and the Cherokee. The Boone, composed of limestone and interbedded chert, is the more resistant of the two and covers the larger part of the district. The Cherokee, stratigraphically higher than the Boone, consists of shale and sandstone and is confined largely to the western and northwestern portions, though small patches are abundant all over the district and there are a few larger isolated areas. These scattered outcrops are outliers of the main area on the west, having been left as remnants in the erosion of this formation, which formerly covered the entire district. Both these formations have been important factors in the development of the topography of the district. 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). The rocks of the region are in the main of sedimentary origin. Both Mississippian and Pennsylvanian rocks outcrop in the Joplin region. The project sites are situated on the Springfield Plateau of the Ozark Uplift. The Springfield Plateau is underlain by limestone and chert, a flint-like rock. Since limestone is easily dissolved by water, cave and solution, or karst features are prominent. Surface water may drain directly into channels in limestone, where it can move rapidly and without filtration to the surface as a spring, at a location that is unpredictable without extensive testing.

Stream flow is locally controlled by fracture systems in the rock. Rock fracturing not only affects the direction of flow of streams, but is of major importance in the movement of ground water. The courses which ground water first follows are determined by beddingplane openings, lithologic variations, and tectonic features such as fractures, faults, and minor folds. In the mining area at Joplin much of the rock fracturing and brecciation is a result of solution and collapse of limestone and chert beds; the effect on the availability and movement of water is considerable. Important aquifers in the area occur in rocks of Cambrian, Ordovician, and Mississippian age.

The Natural Resources Conservation Service (NRCS) was consulted to initiate a soils review of each of the sites listed within this assessment. A determination was made by the NRCS that all project locations are located within the city limits of Joplin and Duquesne, Missouri and that no prime farmland or farmland of statewide importance will be converted as part of the proposed action. It was also determined that no hydric soils or known wetlands will be impacted as part these projects. A copy of their findings has been included within Appendix A of this assessment.

#### **3.1.1 Past Mining Activity**

Lead was discovered in Joplin before the Civil War, it was after the war however, when significant development took place. Numerous mining camps had developed in the valley by 1871. The city was named after Reverend Harris G. Joplin who founded the first Methodist congregation in the area in mid-century. Joplin started to grow and develop due to the lead, but it was zinc, that put its mark on the map. Many railroads began to sprout up in the area and Joplin began to grow dramatically. By the turn of the

century, Joplin became a regional metropolis, trolley and rail lines made Joplin the hub of southwest Missouri and the center of what was the Tri-state district, and it soon became the lead and zinc capital of the world.

The Orongo-Duenweg Mining Belt Site, as the EPA refers to Joplin as, is the inactive lead and zinc mining and smelting area in the southwestern portion of Jasper County, MO. The mining operations began in the mid-1800s and included hundreds of mines and 17 smelters. One of the smelters operated in Joplin until the 1970s, which produced air emission and fugitive dust contaminating a large soil area. Also contaminated were about 7,000 acres with over 10 million tons of surface mining wastes, which are uncovered and unstable. Leachate and run-off from these piles enter ground and surface water streams. Samples show that soil, groundwater, and surface water are contaminated with lead, zinc and cadmium (hazardous substances) from the mining and smelting operations. Ingestion of the contaminated ground water, soil or mine waste present a risk. There were 2,600 residential homes within the smelter and mine waste areas that had yard soil above the established site action level for lead. EPA identified approximately 200 homes that were supplied bottled water due to contaminated private wells. A 1994 human health exposure study by the Missouri Department of Health (MDOH - and now known as MDHSS) showed that 14 percent of the children under seven years old had blood-lead concentrations exceeding the health-based standard of ten micrograms per deciliter. The risk assessment for the residual mine waste areas identified a current risk for people living on or near mine wastes and a future risk for people building new homes on mining waste areas where surface soil or the mining wastes contain contaminants that exceed the action levels. Contaminant concentrations in surface water exceed the Federal Ambient Water Quality Criteria, and the concentrations in some stream sediments exceed severe effect sediment toxicity criteria, indicating significant aquatic risk at the Site. Risks to terrestrial vertebrate populations and communities were evaluated by comparing the average daily dose to selected toxicity reference values and concluded that terrestrial vertebrates that consume earthworms in soils with elevated contaminant of concern concentrations may experience adverse chronic effects.

Record of Decision, which identifies sub-aqueous disposal as the primary approach for cleanup of mine wastes, was completed in September 2004. The EPA completed the cleanup of the mine waste piles and mine waste contaminated lands on 75 acres in Carterville in 2008 and began work on an additional 800 acres in an adjacent area. Cleanup of the entire 7,000 acre area is expected to take 10 years.

Installation of public water supplies is complete. Approximately 500 homes have been connected to public water supplies, and no longer rely on contaminated private water wells. Residential yards soils contaminated with lead have been cleaned up. yard soil cleanup activities have resulted in a 78 percent reduction in the number of children with elevated blood-lead levels. A decision on cleanup of the mining wastes was made in 2004. Remedial action for cleanup of the mining wastes in high priority areas is underway on the first 900 acres and is expected to be completed in 2010. A County building ordinance has been implemented to prevent improper construction of residences in contaminated areas until the cleanup is completed and a state ground

water well drilling rule has been passed to prevent the use of shallow ground water in contaminated areas of Jasper and Newton counties.

On May, 22, 2011, a tornado struck Joplin destroying 25% of the city, including a hospital and several of Joplin's schools. Several of the schools were destroyed, some severely damaged, and some only suffered minor damage. As such, the Joplin school board has decided to rebuild and relocate the damaged schools.

The city passed a new ordinance after the tornado mandating that prior to issuance of a building permit that:

In the area of the city designated as the expedited debris removal (EDR) area, no building permit shall be issued for any property to be used for a residential dwelling or dwelling unit, child occupied facility including, but not limited to, day care centers, preschools or kindergartens, or recreational areas such as parks or ball fields where children are likely to congregate, until after testing of soil has been conducted and results indicate less than 400 parts per million (ppm) lead and 75 parts per million (ppm) cadmium if such property is more than 50 percent destroyed or when the construction costs exceed 50 percent of the value of the structure at the time of destruction or if additions to any structure are going to be made that require soil excavation.

Due to the extensive soil contamination, the Joplin School District has limited options for siting a school on a property that does not have lead contamination. The EPA has guidelines for school siting that outline procedures to follow and identifies resources available when you have to site a school on property that has soil contamination. Existing Joplin School District sites were tested for lead in the late 1990's and remediated if determined necessary. The Joplin School District plans to test each new or reconfigured facility location for lead levels and if found to be elevated, will remediate as necessary.

As a result of the community's past mining history, research and reconnaissance was conducted relative to mining activities at the following locations where new buildings will be constructed and is described as follows:

### **3.1.2 Joplin High School/Franklin Technology Center:**

As part of the geotechnical site evaluation completed in December of 2011 and Geotechnical Engineering Report that was completed in February of 2012, research of reasonably available historic documents of past mining activities on the 66 acre site was reviewed. Several underground mine workings were mapped within the general vicinity of the project site as well as numerous prospect holes and several vertical mine shafts. Based on the review of available mine maps, onsite boring efforts were geared toward discovering those mapped areas. One mapped underground working is located at the intersection of vacated Missouri and 22<sup>nd</sup> Street and was discovered during boring operations. Wood timber was discovered at 18.8 feet below the existing ground surface, and very soft and wet material was encountered when extended through the timber to a depth of 29 feet where the boring was discontinued. Fourteen (14) additional probe borings were drilled within the general vicinity to better define and determine the shallow horizontal extent of the feature. With the exception of one

probe boring, no apparent signs of the mine feature were discovered within the additional probe borings. The one additional probe boring that revealed the mine feature was about 5 feet away from the initial bore that encountered the possible mine working. This bore resulted in a similar discovery of wood timber at about 19 feet and similar soil conditions. If the feature is exposed or encountered during construction, corrective measures will need to be taken and evaluated on a case by case basis. Additionally, this site will be tested for the presence of lead. Remediation of lead will occur if elevated levels are found to be present on the site.

### **3.1.3 Old St. John's/New Elementary School:**

According to the geotechnical investigation that was completed in March 2012, extensive mining research has been performed in the past on the Old St. John's campus and was utilized to evaluate the site in which the New Elementary School will be located. Based upon research, several mining related features such as underground mine workings, prospect areas and mine tailings, as well as reported collapses from previous St. John's maintenance personnel are present on the project site. Careful consideration has been given to the design and placement of the new facility to avoid any mapped mining features where possible.

A second phase of Geotechnical investigations was conducted on this site in April of 2012. This work consisted of searching for existing surface mine features, such as shafts, prospect holes, pits, etc., at the project site using geophysical methods. A feasibility study was also included as part of Phase 2 of this project to assess if the methods used provide useful data in locating possible mine features prior to performing a full scale study. Geophysical methods utilized included Ground Penetrating Radar (GPR) and the frequency-domain electromagnetic method (EM). Using a plan indicating the location of mapped mine features located at the project site, four (4) areas were marked in the field for investigation using the above geophysical methods. A grid was laid out over the area to be analyzed, making the search grid as large as practically possible to account for differences in the mapped mine feature location, as compared to the actual location in the field. Data was obtained and taken back to the office to be analyzed. These methods proved unsuccessful in locating possible mine features at the site. The GPR method was most likely unsuccessful due to the limited vertical extent in which data could be gathered using this method. Thicker deposits of fill material or other materials overlying a mine feature can block the signal from reaching the shaft backfill, making detection difficult.

If any mining features are discovered or exposed during construction corrective measures may be required and will need to be evaluated on a case by case basis. Additionally, this site will be tested for the presence of lead. Necessary remediation of lead will occur if elevated levels are found to be present on the site.

### **3.1.4 East Middle School:**

According to the geotechnical investigation that was completed in March 2012, research of reasonably available historic documents of past mining activities on or near the site was reviewed. Specifically Plate 1-A: Underground Mines and Shafts, Joplin East Quadrangle, Missouri, by Michael C McFarland, 1982, Plate 2-A: Open Shafts, Pits & Subsidences, Joplin West Quadrangle, Missouri, by Michael C McFarland, 1982, and

Plate 3-A: Mine and Mill Waste (Piles & Ponds), Joplin West Quadrangle, Missouri, by Michael C McFarland, 1982, as published by the Missouri Department of Natural Resources, Division of Geology and Land Survey, Rolla Missouri was reviewed. Review of Plate 1-A did not show the presence of a mine prospect hole on the building site. One (1) prospect hole was found to be located approximately 100 feet outside the south property boundary and six (6) more were found to be located approximately 1,000 feet or more from any building areas on the site. Review of Plate 2-A did not show the presence of open shafts, pits and subsidences on the site. Finally review of Plate 3-A did not show the presence of previous mine waste piles on the building site. In addition, no mine and mill waste piles and ponds are shown to have been present within ¼ mile of the site development.

This site will be tested for the presence of lead. Necessary remediation of lead will occur if elevated levels are found to be present on the site.

### **3.1.5 Proposed Action**

The proposed action should have no adverse impact on site geologic features or soils. It is determined that no impacts to geology would be anticipated due to the minimal depth of disturbance from excavation activities necessary to repair, relocate or reconstruct facilities. Project sites soils would be disturbed, and there is a potential for localized increase in soil erosion during construction. There is also the potential during construction for the uncovering soil containing elevated levels of lead or the transport of fill material, with increased lead levels, into the site from other surrounding areas. In the event elevated lead levels are found, remediation would be required, as necessary. If there are any mining features that are exposed during construction, corrective measures will need to be evaluated on a case by case basis.

### **3.1.6 No Action Alternative**

The No Action Alternative does not have the potential to affect geology, soils, or prime or unique farmland. This alternative would have no repair, construction, or other actions, and therefore, would also result in no adverse impacts to site geology and soils.

## **3.2 Hydrology and Floodplains**

Flooding is a result of heavy or continuous rainfall exceeding the absorptive capacity of soil and the flow capacity of rivers, streams, and coastal areas. This causes a watercourse to overflow its banks onto adjacent lands. Floodplains are, in general, those lands most subject to recurring floods, situated adjacent to rivers and streams. Floodplains are therefore "flood-prone" and are hazardous to development activities if the vulnerability of those activities exceeds an acceptable level. Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

As a topographic category, a floodplain is quite flat and lies adjacent to a stream or waterway; geomorphologically, it is a landform composed primarily of unconsolidated depositional material derived from sediments being transported by the related stream; hydrologically, it is

best defined as a landform subject to periodic flooding by a parent stream. Most simply, a floodplain can be defined as a strip of relatively smooth, low-lying land bordering a stream and is inundated at a time of high water.

Floods are usually described in terms of their statistical frequency. A "100-year flood" or "100-year floodplain" describes an event or an area subject to a 1% probability of a certain size flood occurring in any given year. This concept does not mean such a flood will occur only once in one hundred years. Whether or not it occurs in a given year has no bearing on the fact that there is still a 1% chance of a similar occurrence in the following year. Since floodplains can be mapped, the boundary of the 100-year flood is commonly used in floodplain mitigation programs to identify areas where the risk of flooding is significant. Any other statistical frequency of a flood event may be chosen depending on the degree of risk that is selected for evaluation, e.g., 5-year, 20-year, 50-year, 500-year floodplain. Frequency of inundation depends on the climate, the material that makes up the banks of the stream, and the channel slope.

Hydrology is the scientific study of the properties, distribution, and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere. Evaluating the hydrologic characteristics of a site is valuable in determining the potential impacts of development to the nearby waterways, wildlife, soils, vegetation and human inhabitants.

### **3.2.1 Proposed Action**

#### **3.2.1.1 Joplin High School/Franklin Technology Center**

The West Joplin US Geological Survey (USGS) quadrangle map of the proposed site for the new Joplin High School/ Franklin Technology Center shows the site elevation is approximately 1,005 feet above mean sea level (AMSL) at the northeast corner of the property and 1,045 feet AMSL at the west property line. An existing drainage way exists that runs from south to north through the middle of the site along vacated Iowa Avenue. In addition to this drainage way, examination of the FEMA floodplain map shows that the northeast corner of the site is located within a floodplain. Additional property has been purchased surrounding the existing site to expand the current campus such that the new structure can be constructed outside of the established floodplain. The reconfigured campus will be designed with a major north/south running drainageway to convey stormwater and complement educational programming by providing a naturalistic setting in which to potentially conduct various classroom activities. A detailed hydrologic analysis will be completed for the new high school campus development. The proposed permanent structures for the High School facility will be constructed outside of the floodplain. Since the new building is proposed to house critical structures, specifically tornado safe rooms, the structure will be located above the 0.2% annual chance of flood elevation (500-year floodplain).

#### **3.2.1.2 Old St. John's/New Elementary School**

The West Joplin US Geological Survey (USGS) quadrangle map of the proposed site for the new elementary school (Old St. John's) shows the site lies between elevations of approximately 960 feet AMSL at the south property line and approximately 980 feet AMSL at the north property line. Examination of the

FEMA floodplain map for this site indicates that the floodplain and an existing drainageway runs north to south through the east side of the property. A detailed hydrologic analysis has been completed for the Old St. John's/New Elementary school development. In summary, the hydraulics and hydrology analysis indicates that no fill will be placed in the floodway and that the proposed construction of the building and improvements/additions to the parking lot will require modifications to the floodplain. It was concluded that these modifications to the floodplain will result in zero rise for the 100-year flood elevation at any location beyond the property limits. The proposed permanent structures for the new elementary school at this location will be constructed a minimum of 2 feet above the established 100-year floodplain elevation so that no floodplains will be adversely impacted by the Proposed Action. Since the new building is proposed to house critical structures, specifically tornado safe rooms, the structure will be located above the 0.2% annual chance of flood elevation (500-year floodplain).

### **3.2.1.3 East middle School/New Elementary**

The East Joplin US Geological Survey (USGS) quadrangle map of the site for the new East Middle School shows the site lies between elevations of approximately 1,075 feet AMSL at the north property line and 1,095 feet AMSL at the south property line. Examination of the FEMA floodplain map for this site indicates the proposed building location will not be in a designated floodplain.

All of the remaining sites included within this assessment are being repaired at their current locations where floodplains were not present. Floodplains will not be impacted by their construction activities.

Stormwater runoff may be increased by the activities of the Proposed Action due to increased impervious areas. Efforts should be made to minimize the affects of increased stormwater runoff such as the construction of detention facilities and water quality basins. Best Management Practices should be implemented at each construction location to reduce the impacts of erosion on surrounding area soils and waterways.

### **3.2.2 No Action Alternative**

The No Action Alternative would result in no construction on the proposed projects. This alternative would have no adverse impact on hydrology or floodplains.

## **3.3 Wetlands**

The Clean Water Act (CWA) established the basic framework for regulating discharges of pollutants into the waters of the United States (WUS). The US Army Corps of Engineers (USACE) regulates the discharge of dredged or filled material into WUS, including wetlands, pursuant to Section 404 of the CWA (USACE 1998). 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 the CWA, 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 vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance. Wetlands are valuable biological resources that perform many functions, including groundwater recharge, flood flow attenuation, erosion control, and water quality improvement. Habitat for many plants and animals, including threatened and endangered species are provided by wetlands. Executive Order (EO) 11990 "Protection of Wetlands" directs all federal agencies to "minimize the destruction, loss or degradation of wetlands". In addition, EO 11990 (Protection of Wetlands) requires Federal agencies to follow avoidance, mitigation, and preservation procedures with public input before proposing new construction in wetlands. A permit from the USACE may be required if an action has the potential to affect wetlands.

### **3.3.1 Proposed Action**

Under the Proposed Action, permanent Joplin School District facilities would be repaired, reconstructed or reconfigured on previously developed land, therefore not anticipated to impact wetlands or WUS. U.S. Fish and Wildlife (USFWS) National Inventory Maps (NWI) did not identify any wetlands within the proposed sites. A number of field visits from December 2011 to March 2012 also resulted in no observations of the appearance of wetlands on the included sites. There is an existing drainage way running from south to north through the middle of the proposed Joplin High School/Franklin Technology Center along vacated Iowa Avenue. The New Elementary/Old St. John's site also has an existing drainageway running north to south through the east side of the property. All remaining sites covered under this assessment contain no known drainageways or jurisdictional streams. Construction of school facilities on the subject properties would result in no impacts to jurisdictional wetlands.

### **3.3.2 No Action Alternative**

The No Action Alternative would result in no construction on the proposed projects. This alternative would have no adverse impact on any jurisdictional wetlands.

## **3.4 Water Quality**

The Clean Water Act (The Federal Water Pollution Control Act of 1972 as amended in 1977) grants the Environmental Protection Agency (EPA) authority to regulate surface and groundwater quality. The EPA is responsible for developing national standards for clean water. The Clean Water Act (CWA) establishes the basic structure for regulating pollutant discharges to navigable waters of the United States. It sets forth procedures for effluent limitations, water quality standards and implementation plans, national performance standards, and point source programs such as municipal wastewater discharges and nonpoint source programs such as stormwater. The CWA also establishes the National Pollutant Discharge Elimination System (NPDES) under Section 402 and permits for dredged or fill material under Section 404 (USEPA 2008b). In addition, the USACE regulates the discharge of dredged or filled material into waters of the United States, including wetlands, pursuant to Section 404 of the CWA (USACE 1998).

An abundant supply of good, clean water must support a variety of beneficial uses. These include drinking water for domestic use and stock watering; industrial, commercial, agricultural,

irrigation, and mining use; fish and wildlife maintenance and enhancement; recreation; generation of electrical power; and preservation of environmental and aesthetic values. Water quality is a term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose. The development of property and the associated construction activities may impact various surrounding water resources which may require special protective measures.

#### **3.4.1 Proposed Action**

Existing drainageways runs through the proposed Joplin High School/Franklin Technology Center site and also the Old St. John's/New Elementary site. These drainage areas, as well as other drainage channels near the sites, will be affected by altered hydrological and topographical components of the proposed projects, as described in the Hydrology and Floodplain section of this report. Detailed hydrologic studies will be completed for each of these sites.

Minor, short-term impacts to the downstream surface waters may occur during the construction activities due to soil erosion. However project activities under this alternative are not anticipated to impact waters of the United States. Existing stormwater drains and ditches located within or adjacent to the proposed Joplin High School/Franklin Tech, New Elementary/Old St. John's and East Middle School project sites would be removed and reconfigured to provide improved drainage and accommodate reconstruction. Sites included as part of this assessment where repairs were being made to existing structures would have little, if any, soil disturbance and would not impact waters of the United States. Finally, the remaining sites where structures were destroyed and were to be demolished would also have existing stormwater drains removed and backfill material placed such that runoff could be accomplished by the use of natural grade. Any construction activity that disturbs more than one (1) acre on a given site would be required to obtain a Land Disturbance permit from the Missouri Department of Natural Resources and be required to draft a Stormwater Pollution Prevention Plan (SWPPP) as part of the project. Best Management Practices will be implemented at each location in order to reduce the negative impacts to the water quality of the surrounding area.

Even though protective measures will be implemented, the Proposed Action will likely result in increases to the particles and sediment in stormwater runoff from the proposed project locations that will adversely affect water quality. Water Quality impairment may occur as a result of oil and greases, metals, soil sediment, salts, trash or other pollutants once the Proposed Action is complete. All of these locations contained development prior to the Proposed Action, which, therefore, would result in only minor increases in levels of water quality impairment from levels that existed prior to the storm event. It is anticipated that minor water quality impacts will occur with the Proposed Action.

#### **3.4.2 No Action Alternative**

The No Action Alternative will result in no construction of the proposed project which, in turn, would result in no adverse impacts to water quality.

### **3.5 Air Quality**

This section discusses the potential effects of the proposed action and no action alternatives on air quality. The National Ambient Air Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency (EPA) define the allowable concentrations of pollutants that may be reached but not exceeded in a given time period to protect human health and welfare with a reasonable margin of safety. Air quality is regulated by the U.S. Environmental Protection Agency (EPA) under jurisdiction of the Federal Clean Air Act of 1970 and its amendments. The NAAQS standards are classified as either "primary" or "secondary" standards. The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead (Pb). Three sets of air pollutants would be of concern with regards to the alternatives: Criteria pollutants regulated under the National Ambient Air Quality Standards, Mobile Source Air Toxics (MSATs), and general carbon emissions from motor vehicles. The NAAQS were formulated to protect public health, safety, and welfare from known or anticipated air pollutants. Areas that do not meet these NAAQS standards are called non-attainment areas or maintenance areas; areas that meet both primary and secondary standards are known as attainment areas. These locations are categorized separately as to their ability to meet these standards for each pollutant. See Table 2 below for a listing of the National Ambient Air Quality Standards.

**Table 2. National Ambient Air Quality Standards**

POLLUTANT	STANDARD VALUE	STANDARD TYPE
<b>Carbon Monoxide (CO)</b>		
8-hour average	9ppm (10mg/m <sup>3</sup> )	P
1-hour average	35ppm (40mg/m <sup>3</sup> )	P
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>		
Annual arithmetic mean	0.053ppm (100µ/m <sup>3</sup> )	P and S
<b>Ozone (O<sub>3</sub>)</b>		
8-hour average	0.08ppm (157µg/m <sup>3</sup> )	P and S
1-hour average	0.12ppm (235µg/m <sup>3</sup> )	P and S
<b>Lead (Pb)</b>		
Quarterly average	1.5µg/m <sup>3</sup>	P and S
<b>Particulate&lt;10 micrometers (PM-10)</b>		
Annual arithmetic mean	50µg/m <sup>3</sup>	P and S
24-hour average	150µg/m <sup>3</sup>	P and S
<b>Particulate&lt;2.5 micrometers (PM-2.5)</b>		
Annual arithmetic mean	15µg/m <sup>3</sup>	P and S
24-hour average	65µg/m <sup>3</sup>	P and S
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>		
Annual arithmetic mean	0.03ppm (80µg/m <sup>3</sup> )	P
24-hour average	0.14ppm (365µg/m <sup>3</sup> )	P
3-hour average	0.50ppm (1300µg/m <sup>3</sup> )	S

Legend: P = Primary S = Secondary

Source: USEPA 2006.

ppm= Parts per million

mg/m<sup>3</sup> = Milligrams per cubic meter of air µg/m<sup>3</sup> = micrograms per cubic meter of air

\* Parenthetical value is an approximate equivalent concentration

The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. Following the passage of Amendments to the Clean Air Act (CAA) in 1990, the Federal Conformity Rule was first initiated in 1993 by the USEPA. The rule mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS. Amendments to the Clean Air Act have established time schedules for the states to reduce pollutant levels to comply with the NAAQS in nonattainment areas. Region VII of the USEPA and MDNR coordinate air quality programs within the area of the facilities included within this assessment. According to the EPA Green Book, Nonattainment Status for Each County 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.

### **3.5.1 Proposed Action**

Due to the Proposed Action, temporary and minor increases in air pollution would occur from the use of construction equipment and the disturbance of soils during construction. Construction equipment would be required for site preparation. Construction workers would temporarily increase the combustible emissions in the atmosphere during their commute to and from the project area. Construction activity associated with the Proposed Action would produce pollutant emissions. Heavy equipment would produce small amounts of hydrocarbons and exhaust fumes while emissions from delivery trucks would also contribute to the overall air emissions discharged. Material delivery vehicles as well as employee transportation would increase traffic during construction and subsequently increase local air emissions. Equipment utilized to complete construction and other vehicular traffic would temporarily increase emissions; however, no long-term air quality impacts are anticipated. Federal or state air quality standards are not anticipated to be exceeded due to the Proposed Action. It would be expected that some air pollutants would increase in the project areas; however, it is not anticipated that the concentrations of these pollutants would not cause the region to reach nonattainment status. During the construction of the proposed projects, proper and routine maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards for each item. Dust suppression measures, such as by the use of wetting solutions should be applied to the construction area in order to minimize the emissions. By using these Best Management Practices, air emissions from the Proposed Action are anticipated to be short term during construction only and should not significantly impair air quality in the region.

### **3.5.2 No Action Alternative**

The No Action Alternative would allow air quality to remain unchanged at its current levels. This action would result in fewer emissions overall and less impact to air quality. It is expected that there would be no localized or regional effects to air quality.

## **3.6 Vegetation and Wildlife**

Site locations included within this assessment were developed prior to the May 22 tornado. Of the locations where educational facilities will be repaired or reconstructed, there are not proposed to be any sites that were previously undisturbed or undeveloped. These sites all

included structures, parking areas, drive surfaces, lawn areas and public utilities prior to the storm event.

### **3.6.1 Proposed Action**

The Proposed Action areas are located within the city limits of Joplin and City of Duquesne and are surrounded by residential areas, roadways, parking areas, commercial establishments and public utilities. Most of the sites proposed for total reconstruction or reconfiguration have been devastated by the May 22 tornado and have been cleared of most vegetation or other structures. Sites that include facilities that will be repaired are in developed areas and will not require any additional clearing of land. These areas do not serve as a conduit for wildlife travel or would not be considered wildlife habitats. Wildlife and/or vegetation would not be impacted by this action.

### **3.6.2 No Action Alternative**

The No Action Alternative would entail no construction or preparation of sites for school facilities; therefore, there would be no impacts to vegetation or wildlife.

## **3.7 Threatened and Endangered Species**

The Endangered Species Act (ESA) of 1973 assigned the Department of the Interior, U.S. Fish & Wildlife Service (USFWS) to establish a Federal program to conserve, protect, and restore threatened and endangered plants and animals and their habitats. The ESA mandates that all federal agencies must ensure that any action authorized, funded, or implemented by that particular agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or negatively impact critical habitat of these species. In the State of Missouri, the Missouri Department of Conservation (MDC) oversees determinations of the appropriate level of protection for wildlife and plants. The MDC and the Missouri Conservation Commission were created by Article IV Sections 40-42 of the Missouri Constitution, which were adopted by the voters of the state in 1936 as Amendment 4 to the constitution. Hundreds of parcels of land in all counties of the state are administered by the MDC. Most areas are owned by the department, but some are leased to the department, and some areas are leased by the department to other entities for management. The department only acquires land from willing sellers and compensates local taxing authorities for the loss of property taxes. In 1972, the Missouri General Assembly passed an Act (Section 252.240 RSMo.) charging the MDC with establishing a list of endangered species and providing for their protection. The Missouri Natural Heritage Program (MONHP) was created in 1981 through a joint effort of the Nature Conservancy, Missouri Department of Natural Resources and Missouri Department of Conservation. This program was created to identify species and natural communities of conservation concern in Missouri.

The MDC maintains a Natural Heritage Database for occurrences of natural heritage resources that includes habitats of rare, threatened, or endangered plant and animal species, and unique or exemplary natural communities. Several threatened and endangered species have been identified for Jasper County in Missouri.

Table 3 – Threatened and Endangered Species Located in Jasper County, Missouri

Threatened and Endangered (T&E) species located in Jasper County Missouri. (related to resources found on project site)			
Species	Jasper County	State T&E Listing	Federal T&E Listing
	E = Extant Populations (seen within 25 years) H = Historic Populations (not seen in 25 years) NP = No Populations Present	T = Threatened E = Endangered	R = Rare NL = Not Listed
<b>Insect</b>			
American Burying Beetle	NP	E	E
<b>Fish</b>			
Ozark Cave Fish	E	E	T
<b>Birds</b>			
Greater Prairie-chicken	E	E	NL
<b>Mammals</b>			
Grey Bat	E	E	E
Plains Spotted Skunk	E	E	NL
Black Tailed Jackrabbit	E	E	NL
Swamp Rabbit	H	NL	NL

**Source:** Missouri Natural Heritage Program, 2012. Missouri species and communities of conservation concern checklist. Missouri Department of Conservation, Jefferson City, Missouri, pp. 51 and the Missouri Department of Conservation, 2000, Missouri Animals of Conservation Concern.

### 3.7.1 Proposed Action

The Proposed Action of repair and reconstruction of educational facilities on previously developed land has minimal impact on threatened or endangered species. Both the USFWS and MDC were consulted regarding federally listed or state listed threatened and/or endangered species with potential to occur in Jasper County. The USFWS responded on March 16, 2012, by stating that “they reviewed the proposed action and determined that no federally listed species, candidate species, or designated critical habitat occurs within the project area and they determined that this action will have negligible impacts on wetlands, migratory birds, and other priority fish and wildlife resources.” A response was issued by the MDC on March 27, 2012, stating that “heritage records identify no wildlife preserves, no designated wilderness areas, or critical habitats, no state or federal endangered-list species records within one mile of the site, or in the public land survey section listed or sections adjacent.”

### 3.7.2 No Action Alternative

The No Action Alternative would entail no construction or preparation of sites for school facilities. This alternative does not have the potential to impact threatened or endangered species.

### **3.8 Cultural Resources**

Section 106 of the National Historic Preservation Act (NHPA) and implementing regulations (36 CFR Part 800) outline the procedures to be followed in the documentation, evaluation, and mitigation of impacts on historic properties. The Section 106 process applies to any Federally funded project that may potentially affect historic properties. The Purpose of Section 106 review is that the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. Procedures are defined in regard to how Federal agencies meet these statutory responsibilities. The Section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

This section discusses whether proposed actions will potentially impact historic properties that are currently listed or may be eligible to be listed on the National Register of Historic Places (NRHP). The NRHP is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. Sites included on this register can be any building, structure, object, district or landscape that is deemed significant based upon established criteria. More than 80,000 properties listed in the National Register represent 1.4 million individual resources such as buildings, sites, districts, structures, and objects. Almost every county in the United States has at least one place listed in the National Register. Archaeological sites may include ruins and foundations of historic-era buildings and structures where past peoples left evidence of their existence and culture which has been preserved in some fashion. Traditionally, archeological sites are distinguished by the presence of both artifacts and features. Common features include the remains of hearths and houses or ecofacts, which are biological materials such as bones or scales which are the result of human activity but are not deliberately modified.

#### **3.8.1 Proposed Action**

This alternative includes some ground disturbing activities, therefore, there is the potential to affect subsurface historic properties. This alternative also involves the demolition of existing structures which raises concern that historic properties or historic districts may potentially be impacted by this action. During the NHPA process, consideration must be given to the impacts to historic properties. Prior to the implementation of a Proposed Action, potential impacts to historic properties must be reviewed.

Consultation was initiated with the Missouri State Historic Preservation Office (SHPO) in March, 2012 regarding the sites included within this assessment. A section 106 review was completed by the SHPO which included the structures located at these sites along with the Area of Potential Effects (APE) surrounding each of these sites. A response was issued by the Missouri SHPO on March 7, 2012 for the Old St. John's/New Elementary, East Middle School, Joplin High School/Franklin Technology Center, Cecil Floyd Elementary and Kelsey Norman Elementary sites. Old South Middle School and Old

Irving Elementary were addressed in an email from Rebecca Rost, Historian, SHPO on April 26, 2012. Roi S. Wood Administration Building was issued a response on April 26, 2012. There are no known National Register Districts, National Register listed properties, archeological sites or any past archeological investigations or survey work in the APE for each of these properties. All of these responses provided written documentation that there are no historic properties affected within the project locations. A listing of these sites along with their section 106 review number and applicable review dates are listed below:

- Irving Elementary School, 2727 McClelland Blvd., Joplin: #126-JP-12 – March 7, 2012. (This site is referred to within this Programmatic Environmental Assessment as New Elementary/Old St. John’s site)
- East Middle School, 4594 East 20<sup>th</sup>, Joplin: #127-JP-12 – March 7, 2012.
- Joplin High –Franklin Tech School, 2104 Indiana, Joplin: #128-JP-12 – March 7, 2012.
- Cecil Floyd Elementary School, 2201 West 24<sup>th</sup> Street, Joplin: #129-JP-12 – March 7, 2012.
- Kelsey Norman Elementary School – 1323 East 28<sup>th</sup> Street, Joplin: #135-JP-12 – March 7, 2012.
- Old Irving Elementary School, 311 Gabby Street Boulevard, Joplin: No formal SHPO review number, Email confirmation from the SHPO on April 26, 2012.
- Old South Middle School, 22nd and Wall, Joplin: No formal SHPO review number, Email confirmation from the SHPO on April 26, 2012.
- Roi S. Wood Administration Building, 1717 E. 15th Street, Joplin:#252-JP-11- April 26, 2012.

Given these review responses by the Missouri SHPO, it is determined that there will be No Adverse Effect by the proposed action on historic properties for these locations listed above.

A Section 106 review resolution has not yet been made between the Joplin School District and the SHPO on the following location:

- Emerson Elementary School, 301 E. 19<sup>th</sup>, Joplin: #252-JP-11. Consultation for this project with the SHPO has been conducted.

In a letter from SHPO on October 27, 2011, the SHPO determined that Emerson Elementary is eligible for listing in the National Register of Historic Places under criteria A and C (education and architecture) and the SHPO asked the school district to provide documentation that other alternatives to demolition be explored. For the purpose of this PEA, Emerson Elementary is only being evaluated for the safe room project. Any other work at this site will be resolved in a Memorandum of Agreement or other document and the Section 106 review will be completed at that time.

### **3.8.2 No Action Alternative**

It is possible that historic properties would be considered for temporary educational facilities in a No Action Alternative. Since FEMA would not participate in a No Action

Alternative, it does not need to consider actions of the School District under such an alternative. Given the No Action alternative, FEMA would not need to consider such impacts to any known National Register listed or eligible listed historic properties.

### **3.9 Socio-economic**

Social impacts due to the Proposed Action on minorities, elderly, handicapped and other special groups are evaluated in regard to potential changes in access, travel patterns, affordable housing, neighborhood or public safety. Economic impacts of the Proposed Action on such things as consideration of costs, employment opportunities, economic development trends, business development and tax revenues will also be evaluated. Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) requires Federal lead agencies to ensure rights established under Title VI of the Civil Rights Act of 1964 when analyzing environmental effects. FEMA and most Federal lead agencies determine impacts on low-income and minority communities as part of the NEPA compliance process. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority or low-income populations. Executive Order 12898 also tasks Federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible. Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks) requires Federal agencies to identify and assess health risks and safety risks that may disproportionately affect children. As with Executive Order 12898, FEMA and most Federal lead agencies determine impacts on children as part of the NEPA compliance process.

In April of 1997, President Clinton issued Executive Order 13045 - Protecting Children from Environmental and Health Risks. This EO directs each federal agency to make it a high priority to identify, assess, and address those risks that expose children to environmental health and safety risks. Out of this order, a task force was created to strategize recommendations for protecting children's health and safety. A task force of Environmental Health Risks and Safety Risks to Children workgroups was created; one of the goals of the work group was to develop a set of recommendations to eliminate childhood lead poisoning in the US by 2010. Out of this strategy, a report was created to expand efforts to correct lead paint hazards, especially in low income housing, as a major source of lead exposure to children. Children are exposed to lead from paint either directly by eating paint chips or indirectly by ingesting lead-contaminated house dust or soil through normal hand-to-mouth contact. Unless proper precautions are followed, lead paint can contaminate dust or soil when it deteriorates or is disturbed during maintenance, repainting, remodeling, demolition, or lead paint removal. In fact, it has been determined that dust and soil contaminated from lead paint are now the main sources of lead exposure for children. Residences with exterior lead paint are more than three times as likely to have higher levels of lead in the surrounding soil (exceeding 500 parts per million) than are dwellings without exterior lead paint (21% versus 6%). For buildings with deteriorating exterior lead paint, soil contamination is eight times more common (48%) than at residences without exterior lead paint. Without measures to prevent children's exposure to contaminated dust and debris, extensive removal of lead paint from homes of poisoned children has been shown to cause increases in children's blood lead levels. Consequently, federal, state, and local regulations and guidelines have prohibited certain hazardous paint removal methods and required safe-work practices, cleaning, and lead dust testing ("clearance") prior to re-occupancy. Recent long-term studies of lead hazard controls have evaluated strategies that combined measures to repair deteriorated lead paint with other measures to reduce and prevent re-accumulation of lead

dust. The studies showed that these treatments resulted in substantial, sustained reductions in interior lead dust and children's blood lead levels.

Hazard control techniques should be developed for evaluating exterior urban lead contaminated soil and dust. Research has shown that soil and dust from a number of sources of lead, including fallout from leaded gasoline, paint, and hazardous waste sites are important contributors to children's exposure. Even though lead in gasoline was banned in the late 1970s, the soil in urban settings (especially near roadways) that have not been disturbed for long periods may still contain elevated levels of lead. Although not tested for their effectiveness, specific actions might reduce exposure to lead in some situations. For example, soil with a thin layer of contaminated lead may be tilled to reduce lead concentration to acceptable levels. These and other methods require further study.

For lead contamination already in place, the critical public health question concerns the best methods for remediation. Limited data indicate that building demolition and deterioration or removal of leaded paint from buildings and other large structures such as bridges may also contribute to ongoing contamination. Additionally, efforts to reduce exposure to existing contamination may be ineffective if neighborhoods are recontaminated by uncontrolled emissions from paint deterioration, paint removal, or demolition of buildings and structures. Thus, additional research is needed to determine the amount of contamination associated with these activities and to achieve effective controls. The entire Joplin community is contained within a superfund site for lead contamination in soils. Given this fact, the Joplin School District does not have many options for siting educational facilities to avoid the risk of elevated lead levels in soils.

### **3.9.1 Proposed Action**

The Proposed Action is located within the City of Joplin and City of Duquesne city limits. Both of these Cities are located in, Jasper County, Missouri. According to the 2010 Census, the City of Joplin had a population of 50,150, experiencing a growth rate of 10.2 percent from the previous 2000 Census population figure indicated at 45,504. 2000 Census data indicated that the City of Duquesne had a population of 1,640 people, with 672 households, and 475 families residing in the City. U.S. Census 2010 data indicated that there were 114,756 persons, 43,625 households, and 28,982 families residing in Jasper county. Data indicates that approximately 62% of the available labor pool in the area has at least some college experience and almost 93% of potential employees have a high school diploma. Prior to the storm, 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. The average household size was 2.57 and the average family size was 3.13. 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 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 median age was 34.4 years. The labor force in Jasper County totaled approximately 57,069 in 2010, which represents a decline of 6.2 percent from 2005.

Management, professional, and related occupations was the employment industry that provided the largest percentage of workers for Jasper County at 26.1 percent. Sales and office occupations was next at 25.7 percent and production, transportation, and material moving occupations make up 19.3 percent of the jobs in the county. According to the 2010 Census, the unemployment rate in Jasper County was 8.0 percent.

The Joplin School District provided educational opportunities to 7,785 students in 2011. After the May 22 storm, the Joplin School District still maintained an enrollment of over 7,700 students. During the time period of 2004-2009, the Joplin School District received the state of Missouri's annual Distinction in Performance award. This award is a reflection of Joplin School's increased student achievement and level of academic performance. The Joplin School District has received the Commissioner's Award of Excellence for Professional Development – an award recognizing the high quality professional development programs available to Joplin teachers.

The Joplin School District maintains 13 elementary schools, 3 Middle Schools, 1 High School, 1 Technical School and 1 early Childhood Center. The District maintains a staff of 665 Certified Staff (teachers, counselors, etc.) and has a classified staff (custodians, bus drivers, secretaries, etc.) of 497.

The ethnic diversity breakdown for the Joplin School District as of 2010 was as follows: Asian 1.8%, Black 5.9%, Hispanic 6.0%, Native American 1.8%, White 84.5%. It was indicated that in 2011, 58.1%, or 4,451 students were eligible for the free or reduced lunch program. The state average during that same time period was 47.8 percent.

The Joplin School District offers a well-rounded curriculum to students at all levels including fine arts programs, and extensive range of co-curricular activities. Joplin High School also offers a selection of Advanced placement (AP) and Dual Credit (DC) courses. The following is a listing of the programs offered by the Joplin School District:

- Technology Integration Courses
- Honors Courses (Advanced Placement / Dual Credit) –
- Foreign Language Studies (German, French, Spanish)
- Music and Drama (Orchestra, Band, Vocals) –
- Gifted Education Program (K-12)
- Comprehensive Reading Program
- TV Production Classes (JET-14 TV)
- Vocational/Technical Courses
- All-Day Kindergarten
- Early Childhood Services – Parents as Teachers, Early Childhood Preschool program
- Intervention Programs to help students reach graduation
- Summer School: JumpStart introduces incoming Kindergartners to school; summer learning opportunities are offered to elementary students; 6th Grade

Academy introduces incoming 6th graders to middle school life; credit recovery options are offered to high school students.

The Proposed Action would result in substantial social and economic benefits to the community. Educational opportunities resulting from the Proposed Action would be offered to families and individuals regardless of their race or economic background. The proposed action would have a positive impact on the quality of life, personal development, economic development, safety, community pride, and employment in the area. The negative impacts from the loss of the school facilities would be significantly lessened by the construction of the permanent replacement school facilities. Construction activities would also add to the economic prosperity of the community by the creation of jobs, purchasing of materials, increased sales tax revenue, sales of petroleum, food purchases and other ancillary purchasing such as food and clothing that would be seen within the area due to an increased work force. Opening the temporary schools in a timely fashion and the rebuilding of the schools will help to keep families in the community. Short-term negative impacts would likely occur such as an increase in noise levels, traffic volume and air emissions.

### **3.9.2 No Action Alternative**

The No Action Alternative would likely result in reduced social and economic opportunities for low-income, handicapped and minority populations. These individuals would be the most likely to be affected by the lack of adequate public educational facilities. This alternative would allow no repair, reconstruction or redevelopment of the sites existing educational facilities damaged or destroyed by the May 22 storm. The residents and the City of Joplin would not have the benefit of the permanent school facilities. Temporary educational facilities would be considered undesirable by many. Individuals with the ability to relocate or seek private educational opportunities would most likely consider doing so under this scenario.

### **3.10 Environmental Justice**

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment is defined by the US Environmental Protection Agency (USEPA) as stating that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies. Meaningful involvement is defined by the USEPA that: (1) people have an opportunity to participate in decisions about activities that may affect their environment and/or health; (2) the public contribution can influence the regulatory agency's decision; (3) their concerns will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected. The USEPA has this goal for all communities and persons across this Nation. It is stated that it will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work. With its roots dating back the the 1960's Civil Rights Movement, Environmental Justice Regulations were established to address disproportionately high and adverse human health or environmental effects that projects funded by the federal government may have on minority and low-income populations. The Environmental Justice requirements

were established by Executive order 12898 entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” in 1994. This mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of proposed project on minority and low-income populations.

### **3.10.1 Proposed Action**

The Proposed Action will allow for the construction of new school facilities built to current code requirements and in accordance with American with Disabilities Act (ADA) standards. These new facilities will provide more modern facilities with added amenities for persons with disabilities. Facilities where repairs were made will comply with current ADA standards on all rebuilt or repaired portions of the structure. The Proposed Action would not have disproportionately high and adverse impacts on minority or low-income populations. In fact, this action provides benefit to all income populations. The new locations will provide better access, more modern facilities, expanded educational opportunities and convenience for every student. Equally equipped facilities will be provided by the Joplin School District to each student regardless of race, mental or physical ability, income or social status.

### **3.10.2 No Action Alternative**

The No Action Alternative would entail no construction or preparation of sites for school facilities; however, failure to permanently repair, reconstruct or relocate the school facilities would have negative impacts on the community as a whole, regardless of race, mental or physical ability, income, or social status. Hundreds of staff members and 3,200 students attend temporary schools at this time.

## **3.11 Noise**

Noise is generally described as unwanted or undesirable sound, which can be based either on objective effects, such as hearing loss or damage to structures or on subjective determinations such as community annoyance or interference with communication. Sound is usually represented on a logarithmic scale with a unit called the decibel (dB) and can vary in level, range, time and duration. Sound on the decibel scale is referred to as sound level.

Pain or discomfort occurs around the 120 dB level and a human is generally capable of hearing in the 0 dB range. It is commonly accepted that noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day.

### **3.11.1 Proposed Action**

Some of the construction activities anticipated in the Proposed Action have the potential to convey noise emissions to surrounding areas. To minimize this impact, whenever possible, construction activities should be limited to daylight hours during the work week when most of the residents are at school or at work. Efforts should be made to reduce noise impacts associated with construction to the maximum extent possible. Noise buffer areas should be included within the design of each of the sites, if possible,

in order to minimize noise impact to neighboring property owners. None of the Proposed Action sites were previously undeveloped, therefore, additional noise after the completion of these projects is not anticipated.

### **3.11.2 No Action Alternative**

A No Action Alternative would result in no repairs, reconfiguration, relocation or reconstruction of the Joplin School District facilities. As a result, there would be no construction activity or increase in vehicular traffic to increase the level of noise in and around each of these sites.

## **3.12 Safety and Security**

Efforts shall be undertaken such that operations conducted at each location are undertaken in a manner that will provide safe working conditions for all employees and the protection for the public and all others who may be affected by construction activities. Safety and security must be an integral part of the work site and the work performed at each project location. Full participation, cooperation, and support are necessary to ensure the safety, security, and health of all persons and property involved in the project as well as the safety of those who will occupy the buildings or live in close proximity to these sites. Hazardous areas and materials should be clearly identified to prevent unauthorized incursions into the area by personnel, vehicles, equipment, or community members during construction.

### **3.12.1 Proposed Action**

For the Proposed Action, project contractors shall evaluate the work to be completed and the proposed work area for areas that offer potential safety hazards or concerns. Workers are entitled to working conditions that do not pose a risk of serious harm. Safety during construction is a high priority for both the personnel constructing the sites, and residents associated with the Proposed Action. In addition, security is of paramount importance for the school when it is operating. Local fire departments and law enforcement will provide police and fire protection to each site. Contractors shall provide first aid supplies and be committed to training personnel in applicable first aid application techniques. Fencing of construction sites may be considered where large equipment, deep excavations, tall open structures or other significant hazards are present and accessible to the public. Sites involving reconstructed or reconfigured facilities will be designed to meet the guidelines established by the Uniform Federal Accessibility Standards (UFAS) standards.

With the Occupational Safety and Health Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance. All construction shall be required to be in accordance with applicable OSHA requirements and workers shall receive all necessary OSHA training and certifications required for the work in which they are involved.

The permanent replacement school facilities will be secured by both electronic and conventional means. Points of entry on new facilities will be minimized to control access to the facilities, staff and students. Security cameras will be located throughout

the interior and exterior of the repaired, reconstructed or reconfigured facilities. Outdoor lighting will be present to provide safe passage while entering and exiting the facilities and for parking areas and walkways. Security officers will be assigned to be present at each location and personnel will be trained on how to efficiently contact emergency services when necessary. The proposed action would have little or no impact on safety and security issues surrounding these projects.

### **3.12.2 No Action Alternative**

The No Action Alternative would result in no construction on the proposed projects. This alternative would have no adverse impact on safety or security.

## **3.13 Hazardous Materials and Toxic Wastes**

Hazardous waste is defined by the Environmental Protection Agency (EPA) as waste that is dangerous or potentially harmful to our health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes. Hazardous materials and wastes are regulated in the U.S. under a variety of Federal and state laws which govern the assessment, transportation, and disposal of hazardous materials and wastes. The Missouri Department of Natural Resources (MDNR) has established a Hazardous Waste Program. The goal of the MDNR Hazardous Waste Program is to protect human health and the environment from threats posed by hazardous waste. The program does the following to accomplish this goal:

- Encourages the reduction of hazardous waste generation.
- Regulates the management of hazardous waste.
- Oversees the cleanup of contamination
- Promotes property reuse.
- Removal and cleanup of petroleum storage tanks in the state.

In order for a waste to be considered hazardous, it must exhibit at least one of the four characteristics of hazardous waste; ignitability, corrosivity, reactivity, or toxicity. If the waste exhibits just one of these characteristics, it is given the title of hazardous waste.

### **3.13.1 Proposed Action**

A review of potential hazardous and toxic materials has been made for each of the respective sites included within this assessment. Each site will be tested for the presence of lead. Jasper County and the City of Joplin both have ordinances regarding testing of lead. Remediation of lead will occur if elevated levels are found to be present. Visual site observations were conducted at each location in an attempt to identify any hazardous or toxic materials. During the site observations, no apparent visual signs of hazardous or toxic materials were identified. MDNR has been contacted and will provide written documentation from Federal and State resources on hazardous and toxic wastes that may be located on or near the sites included within this Assessment. This documentation includes information on superfund sites, underground storage tanks, hazardous waste or resource recovery facilities, brownfields and voluntary clean-up sites. All of these locations have been previously developed by

either educational facilities, or commercial, medical or residential development. Based upon the documentation provided by visual site observations, as well as information to be provided by MDNR and the EPA, it was concluded that no hazardous sites exist in the vicinity of the sites that comprise this assessment.

Schools can be safely located on sites where all waste and contaminated media have been removed, as well as those with residual contamination, provided that the location is carefully managed over time to ensure that no exposure to the contamination can occur. In cases where complete removal of contamination is not feasible, exposures can be prevented through the use of engineering controls and/or institutional controls. For example, vapor intrusion from soil or ground water contaminated with certain chemicals can pose a risk to the people who use buildings that are located above the contamination. Engineering controls can be used to alter the flow of contaminated air or restrict land use in a specific area so that contaminated air does not enter the building's indoor air. The use of engineering and institutional controls can prevent exposures, but only if effective systems are in place to maintain and enforce them, such as periodic monitoring to ensure their continued protectiveness and safe operation. Nationwide, brownfields and other formerly contaminated lands, including those with residual contamination, now safely support housing, schools, clinics, hospitals and other reuses that meet community needs.

Criteria for establishing the degree of cleanup needed should be based on state or local cleanup rules or guidance, where they exist. The environmental standards used for determining the appropriate level of cleanup should be based on either 1) standards developed for schools or residential use, or 2) risk-based levels set for residential use. If the site will have residual contamination at concentrations above these levels after the cleanup has been completed, engineering and/or institutional controls will be needed to ensure no exposure occurs. As part of their review of the cleanup plan, state and local regulatory agencies should consider the ability of the Local Education Agency (LEA) and other governmental bodies to effectively maintain those controls. In the event that there is concern that these controls cannot be effectively and reliably managed, then the LEA may need to clean the site to residential levels, or select another location.

Before a school or portion of a school is occupied, all contamination that could pose a risk of harmful exposure to students and staff should be removed. In cases where there is residual contamination, any necessary engineering and institutional controls should be in place and the site certified by the state or local regulatory agency as suitable for occupancy.

Selecting sites where environmental reviews have recently been conducted and documented (within the past six months) or performing an environmental review on candidate locations is the only means of determining if there are any onsite or offsite environmental hazards that may pose a health risk to students and staff. If there are potential hazards associated with the preferred location, in addition to identifying the potential hazards, the LEA and/or the school siting committee (SSC) with meaningful public involvement can use the environmental review process to determine what cleanup, mitigation and long-term stewardship should be implemented to ensure the safety and health of all school occupants. A thorough and transparent environmental

review process will help reduce the likelihood that natural hazards (e.g., flooding) or environmental hazards (e.g., site contamination) will be discovered after the school is located and operating, thus reducing potential adverse environmental and public health effects on children, legal and financial liability and/or public backlash. The rationale for choosing one location over another should be clearly articulated based on a robust review of candidate locations, especially if the environmental review is a deciding factor. Moreover, all engineering and scientific reporting must comply with applicable federal, state, and local regulations. Stakeholder groups such as parents, teachers and other school personnel, and nearby residents are most directly impacted by school siting decisions and should be fully engaged in the review and decision-making process. The USEPA has guidelines that provide important information and links throughout, especially in the Quick Guide to Environmental Issues and on the Resources page of the guidelines website, to address the need for technical assistance and training to enable meaningful participation by parents and nearby residents, including minority and low-income populations. State and local environmental regulatory agencies may play a central role in oversight and approval of the environmental review where contaminated sites are being considered. Their involvement is critical in any site remediation and site management plans as well as ensuring the integrity of long term stewardship plans including any institutional and engineering controls are in place to prevent exposures, so they can be relied upon over the long term.

Obtaining meaningful public comment is an integral step throughout the school siting decision-making process. Before the siting process begins, a long range facilities plan should be developed by the LEA. This document will take into account the specific needs of the LEA and consider such things as population trends of the community, system wide LEA school enrollment trends including enrollment trends for individual facilities, age of facilities, amenities at individual facilities, facility locations, and desired programs and facility amenities desired by the LEA. The Joplin School District recently completed a long-term facilities plan prior to the tornado in January of 2011. A citizens committee was formed and worked with Joplin School District administrators and representatives over a 14-month period to develop the plan. Once it is determined that new facilities or relocated facilities are necessary in such a facilities plan, environmental siting considerations should be investigated for potential locations. Desirable school location attributes such as locations that do not increase environmental health or safety risks, proximity to population and infrastructure, implications of facility location regarding transportation options, the ability to provide safe routes to school programs that can be supported by alternative modes of transportation, potential uses of the facility as an emergency shelter, potential onsite and nearby hazards and screening locations for potential environmental hazards should be evaluated. After potential sites are narrowed down, an environmental review process should be undertaken to identify any potential environmental concerns and, if any are determined to be present, initiate evaluation of site specific mitigation/remediation measures that may be required. In the case of the Joplin School District, after the storm, numerous public meetings were held to discuss the future plans of the District to get its facilities back in operation. A Citizens Advisory Recovery Team (CART) was also formed within the community to address area-wide recovery alternatives and one focus of this committee was on the rebuilding of local schools. In addition to the public meetings and creation of the CART, Facebook pages were created and the Joplin School District website and

television station, as well as local radio, print and network television media, were utilized as tools to provide information and solicit comments on the rebuilding process. Documentation of the public meetings, lines of communication with patrons and avenues for the receipt of public comment have been provided in Section 6 of this assessment. Design professionals were hired by the Joplin School District to assist in the school siting process. As part of that process, geotechnical investigations and research were conducted regarding past mining activity for the various locations where facilities were being considered. The Joplin School District will also test soils at facility locations for the presence of lead. In the event it is found that elevated levels of lead are present, remediation and mitigation measures will be evaluated in accordance with local, state and federal guidelines. Potential variables such as type of contamination, extent of contamination, concentration of contamination, depth of contamination, potential transport (e.g., runoff or migration to ground water, air transport) of contamination, geology and soil characteristics, water table, access or exposure potential (e.g., dermal contact/ingestion), and barriers (e.g., plants, grass, ground cover, pavement) should be considered by the Joplin School District as factors influencing exposures and potential hazards and risks if it is determined that elevated levels of lead or other contaminants are present on a given site. Based upon these factors and the levels of contaminants found, potential mitigation options such as site cleanup and removal, on-site treatment, Engineering controls (e.g., cap, venting systems, vapor barriers), and/or Institutional controls should be evaluated.

Criteria for establishing the degree of cleanup needed should be based on state or local cleanup rules or guidance. Currently, the Jasper County Health Department has adopted an Environmental Contamination Ordinance and the contents are available on its website. The City of Joplin, Code of Ordinances, Part II Code of Ordinances, Chapter 26-Buildings and Building Regulations, Article III - Building Code, Section 26-76: Soil Testing for Lead and Cadmium Prior to Building Permit Issuance in Designated Areas also addresses soil contamination and testing. Compliance with both the county and City ordinances will be verified by the Joplin School District by completing applicable testing for each site. The environmental standards used for determining the appropriate level of cleanup should be based on either 1) standards developed for schools or residential use, or 2) risk-based levels set for residential use. If the site will have residual contamination at concentrations above these levels after the cleanup has been completed, engineering and/or institutional controls will be needed to ensure no exposure occurs. As part of their review of the cleanup plan, state and local regulatory agencies should consider the ability of the LEA and other governmental bodies to effectively maintain those controls. In the event that there is concern that these controls cannot be effectively and reliably managed, then the LEA may need to clean the site to residential levels, or select another location.

The environmental review process for candidate school sites is designed to answer the following questions:

- Are site surface soils, subsurface soils, soil gases, ground water or surface water contaminated with hazardous materials and substances to a degree that the site should be remediated before use or should not be used for school purposes (i.e., onsite contamination);

- Are there offsite sources of pollution, contaminants or other environmental hazards affecting the site such that the hazards should be mitigated before use of the site or the location should not be used for school purposes (i.e., offsite environmental impacts); and
- Are there environmental and public health impacts associated with putting a school on the site that should be mitigated or that are so significant that the site cannot safely be used for school purposes (i.e., impacts of the project on the environment)?

If the remedial action workplan includes partial cleanup in conjunction with the use of institutional and engineering controls to prevent potentially harmful exposures to contaminants, the LEA should develop a preliminary long-term stewardship plan as part of the remedial action plan to ensure full consideration of long-term feasibility and cost. A preliminary long-term stewardship plan should include:

- Identification of contaminants of concern and, if possible, maps showing the location of contamination, property boundaries, and institutional and engineering controls;
- Proposed plans to contain contaminants, including any engineering and institutional controls to be used;
- Long-term maintenance and monitoring measures necessary to ensure the long-term integrity of engineering and institutional controls;
- A detailed evaluation of the resources and expertise necessary to implement the plan and a discussion of alternative measures considered and the basis for their rejection;
- A demonstrated commitment of funding sufficient to ensure the implementation and maintenance of all plan components over the long term (i.e., the life of the school);
- A remedial action workplan that addresses cleanup of the entire contaminated site when a school is proposed for only a portion of a known contaminated site. In this case, the long-term stewardship plan should outline the ongoing security measures which will ensure that only authorized persons can gain access to the unremediated portion of the contaminated site;
- Plans for monitoring institutional and engineering controls should include timeframes for monitoring (annual monitoring reviews should be adopted at least for the first few years when institutional controls/engineering controls are employed), recordkeeping and reporting;
- Conditions and procedures for modification and termination of institutional controls; and
- Recommendations for the final site sampling to be done after the cleanup has been completed to ensure that all residual contamination is less than the cleanup goals defined for the site. Such sampling recommendations should be designed to discover the highest possible concentrations of contamination at the candidate site.

Due to the extensive soil contamination and the fact that the community is located within an EPA superfund site, the Joplin School District has limited options for siting a school on a property that does not have lead level concerns. In the event that testing indicates a given site contains elevated lead levels and depending on the extent of the

actual test results; the Joplin School District will either remove the contaminated soil and replace, cover the contaminated soil with a cap of acceptable soil, relocate areas where children will be present such that they will not be in contact with the contaminated soil or other means as determined necessary to complete the remediation required for compliance with applicable local, county, state and federal regulations.

There are a number of resources that document types of remediation, costs and effectiveness for a range of contaminants, engineering controls and institutional controls that can be effective in managing contaminants, including EPA's Office of Solid Waste and Emergency Response onsite cleanup ([www.epa.gov/oswer/cleanup/index](http://www.epa.gov/oswer/cleanup/index)) and EPA's Clu-In ([www.clu-in.org/](http://www.clu-in.org/)) websites, which are listed on the Resources ([www.epa.gov/schools/siting/resources](http://www.epa.gov/schools/siting/resources)) page of the guidelines website. While these websites provide extensive materials, the cost, effectiveness and variety of methods will vary with the site and need to be properly monitored and maintained to remain protective.

### **3.13.2 No Action Alternative**

The No Action Alternative would result in no construction on the proposed projects. No evidence of hazardous materials or toxic wastes were present at any of the sites. This alternative would have no adverse impact in regard to hazardous materials or toxic wastes.

## **3.14 Traffic and Transportation**

The Missouri Department of Transportation (MoDOT) has jurisdiction over the planning, design, construction and maintenance of all state highways in the State of Missouri. The City of Joplin and the City of Duquesne are responsible for local roadways in and around the community for which the Joplin School system is located. Traffic impacts should be considered on each location where usage or configuration of the property will be significantly altered. Traffic volumes, patterns and access points can have significant impacts on the users of the facilities on a given property as well as the community as a whole if not properly addressed.

### **3.14.1 Proposed Action**

Short-term increased traffic volumes associated with facility repairs and reconstruction may occur as a result of these projects. Increased traffic volumes stemming from material delivery and worker transport will increase throughout the duration of these projects. Traffic patterns may also be altered for periods of time due to truck traffic or construction activities that affect the normal flow of traffic in these areas. Although lane or road closures are not anticipated for most of the Proposed Action work, adjacent residential neighborhoods and commercial/industrial areas would be notified in advance of any such construction activities and/or rerouting of local traffic. In such circumstances, traffic control measures that meet all applicable regulatory guidelines shall be required. Such impacts to traffic should be limited to the duration of the project construction.

There is not anticipated to be any permanent increase in traffic volumes or modifications to traffic flow at the Kelsey Norman Elementary, Cecil Floyd Elementary and Roi S. Wood Administration building sites where the existing facility is being repaired. All of the remaining sites included within this assessment were developed prior to the storm, however, some locations have changed the use of the site while other locations have been reconfigured to add additional facilities compared to that which existed prior to the storm.

Joplin High School/Franklin Technical Center will be located on the same site as prior to the storm event. As part of the redevelopment of the Joplin High School campus, additional properties were purchased surrounding the site. This was done to allow the new facility to be constructed outside of the floodplain located in the northeast corner of the property. In purchasing the additional property, several existing roadways would now be found within the Joplin High School campus property boundary and would need to be vacated to accommodate reconstruction of the new facility. These roadways to be vacated are Iowa Avenue Iowa Street from 20<sup>th</sup> to 3 lots south of 24<sup>th</sup> Street, Missouri Avenue from 1 lot south of 24<sup>th</sup> street to 22<sup>nd</sup> street, 24<sup>th</sup> street from Ohio Avenue to Grand Street, Minnesota Avenue 3 lots south of 24<sup>th</sup> street and Ohio Avenue 3 lots south of 24<sup>th</sup> street. Vacation of these streets has already been formally approved by the City of Joplin. The student and staff population at Joplin High School will remain as it was previously with no additional students attending as a result of redistricting or transport from other locations or facilities and there are no staff increases proposed. Traffic volume should remain as it was in this area once the new facility is complete, however, the reconfiguration of the facilities on the site will alter traffic patterns in the area. Due to the changes in traffic pattern and the vacation of the existing roadways, a traffic impact study (TIS) has been completed for the area surrounding the Joplin High School campus. The TIS includes an investigation of the roadway system surrounding the proposed development such as intersection geometrics, intersection and driveway spacing, existing traffic control and site distance at existing and proposed drives. Trip generation figures will be developed so that traffic can be distributed and assigned to the adjacent roadway networks. Capacity and queuing analysis for the access points to the property and nearby intersections will be conducted. The TIS recommended that Grand Street to the west of the campus should be widened and turn lanes installed to the east of the campus along Indiana Street in order to accommodate the new configuration of the site.

The New Elementary/Old St. John's location will also be located at a site that was previously developed. The use of the site was for medical offices and a day care facility, so the intended use of the property will be altered from that prior to the storm. Given these changes in use and occupancy levels of the new educational facility, it is assumed that traffic patterns, flow and volumes will be altered. A TIS was completed for this location as well. The study determined that the existing roadways are sufficient to accommodate the traffic generated by the Proposed Action without the need for further improvements.

Reconfiguration of the site at the East Middle School/New Elementary school location will also alter traffic in this area. East Middle school alone occupied this site prior to the storm. After the tornado, the District had opportunity to purchase additional properties surrounding the site. These properties were purchased the Joplin School District and will allow for the reconfiguration of the facility to include both East Middle school and a new elementary school within a common structure. The new combination Middle

School and Elementary School is designed to house approximately 750 middle school students and 450 elementary students. The student population for East Middle school will be nearly the same as that which existed prior to the storm, however, the 450 elementary students along with appropriate staff will be new to this location. To accommodate the traffic volume that will be added to this location, a roundabout is proposed to be constructed on the north side of the site, at the main entrance, as well as the widening of a portion of 20<sup>th</sup> street which is the main road accessing the site to the North. Additionally, property was obtained for a back entrance to the site if it is needed in the future. This would allow access to the site from 24<sup>th</sup> street which is located to the south of the site in a residential neighborhood.

Old Irving Elementary, Old South Middle School and Emerson Elementary have either been demolished or do not have any future plans at this time. Traffic flow and patterns would not be adversely affected for these locations.

### **3.14.2 No Action Alternative**

The No Action Alternative would result in no construction on the proposed projects. This alternative would have no adverse impact on traffic or transportation.

## **4.0 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 3.0. In reviewing these, socioeconomic resources were identified as having the most potential to experience significant cumulative effects. The geographic scope includes Joplin and surrounding area that are in the Joplin School District. Repairs and new construction planned for the Joplin School District is projected to be complete by June, 2015.

### **4.1 Proposed Action**

Along with destroying a portion of the City of Joplin, Missouri, the May 22 tornado destroyed the Joplin High School, Old Irving Elementary School, and Old South Middle School. Students and school personnel have been placed in temporary quarters in various locations in the City of Joplin. The school district proposes to build a new high school and technical school at the Joplin High School campus, construct a new elementary school at the old St. John's site that has been donated to the school by Mercy (Old St. John's), and construct a new middle school and elementary school at the old East Middle School campus. These facilities will replace structures destroyed by the storm. Other Joplin School District facilities damaged by the storm have been repaired in an effort to get those back into service as expeditiously as possible while reducing the need for additional temporary facilities. The Joplin School District also intends to construct safe rooms at facilities that were damaged and/or destroyed by the tornado as well as to upgrade existing undamaged schools to include Tornado Safe Shelters to provide near absolute level of protection to school occupants and adjacent community population.

The Joplin School District has been very active in getting public input on these plans to repair, restore to predisaster condition, consolidate, reconstruct and reconfigure some schools to obtain the most favorable long term plan for the school district. Joplin School District facilities were discussed as part of the Citizen's Advisory Recovery Team (CART) efforts in which this committee conducted public hearings and prepared a summarizing report for its recommended improvements. A Facebook page was also created by the Joplin School District in an effort provide an outlet for public comment and updates on the reconstruction process. Additionally, numerous public hearings were held where patrons were able to comment on planned projects as well as articles run in the local print media recapping the various meetings and detailing reconstruction plans. The Joplin School District also provided information regarding proposed plans and decision making on its website. All of these efforts to keep the public informed are contained in Section 6.0 of this assessment. The \$62 million bond issue that was passed by voters on April 3, 2012, allows an increased tax levy for new schools suitable for 21st century needs.

The rebuilding of the Joplin School District is the first major step to recovery for the community. Quality schools and the availability of wide-ranging public educational opportunities benefit all

persons regardless of all race, income level or physical ability. Education is a focal point to the community. The Joplin School District is ranked in the top 6 percent of Missouri school districts in terms of progress. The prospect of not repairing or reconstructing damaged buildings and continuing to educate at temporary facilities is not seen as acceptable to the current administration, business community or citizens. This is evident in that the proposed bond issue was passed by voters with over 57% approval given the poor economic climate of the country. Currently, approximately 3,400 students attend school in temporary buildings, leased to the school district at an annual cost of \$2.4 million. Trailers at several of these facilities now serve as classrooms, gyms and kitchens. Costs to maintain the lease of temporary space will take a financial toll on the School District if allowed to extend out over a prolonged period of time. The ability to construct more energy efficient structures would provide cost savings to taxpayers over the long term. Innovative approaches were taken by Joplin School District administration in order to utilize the temporary spaces such that each student in the school system was provided a place to learn by the opening of the next school year, but that is an undesirable long term solution for the community.

Under a scenario where education is carried out by the use of temporary facilities, minorities, those with mental and physical challenges and the financially disadvantaged are affected the most. Temporary facilities are acceptable for short-term, disaster period solutions, however, they are not able to meet the needs of 21<sup>st</sup> century learning and provide the services and facilities for the disadvantaged. Persons of more favorable income status may use financial means or other career alternatives to attend private institutions or relocate where more modern facilities are available. If allowed to continue and if the school facilities were not repaired, opportunities for all citizens of the community would be decreased with the likely increase of crime and poverty in the community. Under current curriculum direction for the Joplin School District, Joplin High School students, if rebuilt, would have the opportunity to earn specialized certifications and even an associate's degree while attending High School. Prior to the storm, citizens collaborated with District staff in laying out a vision to learning environments that focused on career pathways. This group included area business leaders, from all sectors, who have studied the concepts, and provided input and strongly supported the school's direction. The career path approach would offer students the opportunity to explore options that will help them make better decisions about their futures, while giving them real job-related skills. Advanced learning environments in each of the schools, if repaired or reconstructed, will challenge students to not only think in terms of scoring well on a test, but to be successful in life. Whether a student wants to go on to college and needs part-time work or head straight to a full-time job, he or she will have better-paying career options as a result of quality, permanent school facilities. These opportunities would be available to all Joplin School District patrons, and would especially benefit those of disadvantaged backgrounds. Arne Duncan, U.S. secretary of Education, recently stated that, "School leaders in Joplin continue to think creatively about how to best serve students as they rebuild their classrooms and the ideas are phenomenal — from establishing high school career paths to rethinking course schedules and classroom dynamics. Although devastating, the recent storm allows the Joplin community to build a better educational system available to all its citizens by the repair and reconstruction of its school facilities. Not many communities are afforded that opportunity.

Currently, the Joplin metropolitan area unemployment is 6.5 percent and has nearly 82,000 people employed. As the population continues to grow, many people will continue to look for work. Although well-paid jobs are available, local business sectors such as manufacturing,

trucking, technology and medical care rely on quality public schools to recruit potential employees with the right skills. A large concern for employers is that many of the available jobs don't require a four-year college degree, but they do require a solid high school education and some level of job training. Providing education through the use of temporary facilities would hinder the ability of Joplin area citizens to meet those requirements. Local companies would be forced to look outside the area or relocate entirely if the school system was not equipped to meet the needs of the business community. This in turn would limit the quantity and quality of professional opportunities available to the citizens and also hurt the local economy. Business's would also find it difficult to attract potential employees from outside the area if the public schools available were being carried out in temporary facilities. In the same light, the Joplin area would be at a disadvantage to attracting new companies or industries if the community lacked acceptable public educational facilities. A school district that is delivering a solid basic education, plus the opportunity for students to get career skills, is something the best companies with the best job opportunities seek. Not only would the reconstruction and repair of the facilities provide public educational opportunities to all its citizens, it would allow the community to continue to grow and prosper economically.

The Joplin School District plans to construct FEMA Section 404 Tornado Safe Shelters to provide near absolute level of protection to school occupants and adjacent community population using funding available through FEMA's Hazard Mitigation Grant Program (HMGP) at all facilities that are repaired or reconstructed, with the exception of the Roi S. Wood Administration building. The District also plans on constructing Section 406 student and faculty safe rooms in each of the totally reconstructed facilities. In addition to schools that were damaged and/or destroyed by the tornado, Joplin Public Schools intends to upgrade existing undamaged schools to include the FEMA Section 404 community safe rooms as well. These safe rooms would provide citizens of the community safe and secure structures to take refuge during future threatening storm events or other disaster situations that are currently not available. Given the devastation of the past storm event, this scenario would provide considerable peace of mind and act to enhance the overall safety and welfare of the community. The Proposed Action will provide near absolute protection for an estimated 20,000 citizens within 5-minute access to the planned safe room locations in addition to staff and students at the schools themselves. This will positively impact the human environment.

The CEQ regulations implementing NEPA define cumulative impacts as 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 nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40CFR 1508.7). Section 203 (Pre-Disaster Mitigation (PDM) grants) and 404 (Hazard Mitigation Grant Program [HMGP]) of the Robert T. Stafford Relief and Emergency Assistance Act, 42 U.S.C. § 5121 *et seq.*, authorize FEMA to provide funding to eligible grant applicants for cost effective activities that have the purpose of reducing or eliminating risks to life and property from hazards and their effects. Mitigation grant program regulations and guidance that implement these authorities identify various types of hazard mitigation projects or activities that meet this purpose and may be eligible for funding. These projects represent a range of activities that protect structures, the contents within those structures, and/or the lives of their occupants. There is a need throughout the nation for structures that provide "near absolute protection" during extreme wind events. In order to provide this acceptable level of hazard mitigation protection during extreme wind events, a structure has to meet design criteria intended for a

specific purpose, which exceed the design criteria for structure and building envelope protection only.

According to FEMA, it is their experience that safe room projects would have minimal adverse cumulative impacts given the relatively small amount of land that will be physically affected by the proposed projects. These facilities constructed in localized areas near the population at risk, and the construction impacts are typically short-term and temporary. However, site and project-specific information will be needed for all projects to appropriately take into consideration the potential for cumulative impacts on the various resource areas discussed in this PEA. FEMA will take cumulative impacts into account when evaluating whether the particular action fits within this PEA. FEMA will prepare Records of Environmental Considerations (REC) for each individual or group of actions and will take into account the unique project and site conditions. In doing this evaluation, FEMA will take a hard look at cumulative impacts when the safe room project is likely to produce moderate effects on a particular resource or area of concern.

#### **4.2 No-Action Alternative**

Under the No-Action Alternative, the permanent school facilities would not be constructed. Direct effects would include the fact that the students and staff would continue in temporary facilities for schools that were destroyed by the tornado, repairs would not be made to existing schools damaged by the tornado, and the planned tornado safe rooms would not be constructed. Several sites would remain undeveloped, creating opportunities for erosion, unsafe and unsanitary conditions.

In the event that the damaged facilities were not repaired or reconstructed, temporary facilities would be relied upon to meet the public educational needs of the community for an undetermined period of time. Minorities, the financially disadvantaged, and individuals with physical and mental challenges would be impacted substantially from such a lack of educational opportunities. In addition, the local economy would suffer as well. The area would offer a less attractive work force to area employers. The community would be a less desirable location for companies looking to relocate and would present more obstacles for the recruitment of prospective employees if the Joplin School District did not provide permanent, fully functioning options for educational facilities.

The no action alternative could have moderate cumulative effects on human health and safety and disproportionate adverse effects on minority and low-income populations. Under this alternative, FEMA would not provide grant funding for the installation or construction of safe rooms that would protect lives during an extreme wind event (hurricane, tornado, etc.). Therefore, residents of communities susceptible to these hazard risks would remain vulnerable.

## **5.0 Mitigation**

### **5.1 Geology and Soils**

Most site locations were previously graded and contoured during previous development, it is anticipated that any soil loss would be minimal. Short-term impacts to soils would occur during any additional ground clearing or site preparation. Any soil loss would be directly from ground disturbing activities or indirectly via wind or water. Site preparation for construction of the proposed project would require stripping and grading of existing soils. Best Management Practices (BMP), such as the development and implementation of an erosion and sedimentation control plan, the use of silt fences or hay bales, revegetation of disturbed soils, and maintenance of site soil stockpiles, would be utilized to prevent soils from eroding and dispersing off-site. For areas that disturb more than one acre, it is required that a Site Stormwater Pollution Prevention Plan be prepared and an MDNR land disturbance permit shall be obtained.

### **5.2 Hydrology and Floodplains**

Floodplains exist on two of the sites included within this assessment. Those sites are the Joplin High School/Franklin Tech Campus and the new elementary (Old St. John's) site. Permanent structures will not be constructed within the 100-year floodplain in either of these locations. A detailed hydrologic analysis will be prepared for each of these sites. The new Joplin High School/Franklin Technology Center will be relocated on its existing campus outside of the floodplain. A detailed hydrologic analysis has been completed for the Old St. John's/New Elementary school development. In summary, the hydraulics and hydrology analysis for that site indicates that no fill will be placed in the floodway and that the proposed construction of the building and improvements/additions to the parking lot will require modifications to the floodplain. It was concluded that these modifications to the floodplain will result in zero rise for the 100-year flood elevation at any location beyond the property limits. The proposed permanent structures for the new elementary school at this location will be constructed a minimum of 2 feet above the established 100-year floodplain elevation, as required by the local floodplain manager, so that no floodplains will be adversely impacted by the Proposed Action.

All other site locations included within this assessment are not located near areas where hydrology or floodplain impacts are anticipated. Changes to site conditions in any of the construction areas may result in increased hydrologic impacts to nearby drainage channels and streams. Best Management practices should be implemented to minimize the impacts of such potential construction runoff. These Best Management Practices may include the installation of silt fences, straw bale protection, protective site entrance drives, water quality basins or bioswale areas, detention facilities, native grasses or constructed wetlands. These measures can assist in reducing erosion while protecting nearby streams and drainageways.

### **5.3 Wetlands**

No wetlands appear to exist on any of the sites included within this assessment. No mitigation measures for wetland areas will be required.

### **5.4 Water Quality**

To reduce or eliminate runoff impacts to the downstream surfacewaters during construction, appropriate Best Management Practices will be utilized, such as installing silt fences, straw bale barriers, stone construction drives and revegetating bare soils. A Missouri Department of Natural Resources Land Disturbance Permit and the preparation of a Site Stormwater Pollution Prevention Plan will be required for all sites where one or more acres of land is anticipated to be disturbed. Sewage would be transported by a conventional wastewater collection system for ultimate treatment at a licensed Waste Water Treatment Plant (WWTP). In addition, stormwater would be conveyed to the local municipal stormwater system or treated on-site by water quality basins, detention ponds or other methods. Stormwater control measures in accordance with State of Missouri and local requirements will be required that result in no adverse impact to water quality.

### **5.5 Air Quality**

Temporary and minor increases in air pollution are anticipated to occur from the use of construction equipment and the disturbance of soils during construction. During the construction of the proposed projects, proper and routine maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of each. Dust suppression measures, such as by the use of wetting solutions, should be applied to the construction area in order to minimize the emissions. These measures would help reduce air quality impacts on the surrounding area and its inhabitants.

### **5.6 Vegetation and Wildlife**

Construction of the Proposed Action would not impact wildlife or vegetation. Areas disturbed during construction will be replanted and landscaped to provide wildlife habitat and vegetative growth opportunities for these areas.

### **5.7 Threatened and Endangered Species**

There are negligible impacts to threatened and endangered species due to the Proposed Action. Mitigation measures are not required.

### **5.8 Cultural Resources**

With the exception of Emerson Elementary, there are no historic or archaeological issues associated with the Proposed Action for facilities listed in section 3.8.1 that have received Section 106 reviews, therefore mitigation measures are not required. The State Historic Preservation Office (SHPO) determined that Emerson Elementary is eligible for listing in the National Register of Historic Places under criteria A and C (education and architecture) and the SHPO asked the Joplin School District to provide documentation that other alternatives to demolition be explored. For the purpose of this PEA, Emerson Elementary is only being evaluated for the safe room project. Any other work at this site will be resolved in a Memorandum of Agreement or other document and the Section 106 review will be completed at that time.

If during the course of work, archaeological artifacts or human remains are discovered, construction activity shall stop in the vicinity of the discovery and all reasonable measures shall be taken to avoid or minimize harm to the finds. Consultation shall be made with FEMA, the

Missouri SHPO, SEMA, FEMA PA, and the FEMA Environmental and Historic Preservation Advisor prior to resuming construction in order to formulate a course of action regarding the find.

### **5.9 Socio-economic**

It is anticipated that the Proposed Action would have positive impacts on the Socio-Economic aspects of the community. Mitigation measures are not required.

### **5.10 Environmental Justice**

It is anticipated that the Proposed Action would have no impacts to minority, disadvantaged or low-income populations within the community. Mitigation measures are not required.

### **5.11 Noise**

To minimize this impact, whenever possible, construction activities should be limited to daylight hours during the work week when most of the residents are at school or at work. Efforts should be made to reduce noise impacts associated with construction to the maximum extent possible. Noise buffer areas should be included within the design of each of the sites, if possible, in order to minimize the permanent noise impact to neighboring property owners.

### **5.12 Safety and Security**

All construction shall be required to be in accordance with applicable OSHA requirements and workers shall receive all necessary OSHA training and certifications required for the work in which they are involved. Contractors shall provide first aid supplies and be committed to training personnel in applicable first aid application techniques. Fencing of construction sites may be considered where large equipment, deep excavations, tall open structures or other significant hazards are present and accessible to the public. Sites involving reconstructed or reconfigured facilities will be designed to meet the guidelines established by the Uniform Federal Accessibility Standards (UFAS) standards. Best Management Practices for construction shall be observed with the implementation of approved safety and management plans for applicable work zones. Proper signage shall be installed at each location to identify hazardous areas, equipment or materials for workers as well as site visitors, regulatory inspectors and the community at large. Given the history of the area, past mining activity may be uncovered during construction activity. In the event that areas of past mine workings are uncovered, work shall be stopped in that area until an appropriate plan of action can be formulated for the condition discovered. The plan of action will be determined on a case by case basis depending on the extent of the underground activity that was discovered. Proper planning, communication, techniques, procedures and notification are all essential to maintaining safe and secure working environments.

### **5.13 Hazardous Materials and Toxic Wastes**

Project activities are not anticipated to impact hazardous materials or wastes. Some excavations or other activities that involve ground disturbance could potentially expose or otherwise affect unknown subsurface hazardous wastes or materials. Should contractors on any of these projects encounter any materials determined to be hazardous or toxic during site

clearing, excavation and/or demolition, construction activities should cease in that area and appropriate regulatory agency guidelines followed to minimize any potential harm to human health or the natural environment. All debris, material and waste associated with these projects shall be required to be removed and disposed of in accordance with all Federal, state, and local regulations.

Given the Joplin community is located in an EPA Superfund site, there is the potential during construction for the uncovering soil containing elevated levels of lead or the transport of fill material, with increased lead levels, into the site from other surrounding areas. Soils at Joplin School District sites will be tested for the presence of lead and in the event elevated lead levels are found, remediation would be required, as necessary.

If the remedial action workplan includes partial cleanup in conjunction with the use of institutional and engineering controls to prevent potentially harmful exposures to contaminants, the Joplin School District should develop a preliminary long-term stewardship plan as part of the remedial action plan to ensure full consideration of long-term feasibility and cost. A preliminary long-term stewardship plan should include:

- Identification of contaminants of concern and, if possible, maps showing the location of contamination, property boundaries, and institutional and engineering controls;
- Proposed plans to contain contaminants, including any engineering and institutional controls to be used;
- Long-term maintenance and monitoring measures necessary to ensure the long-term integrity of engineering and institutional controls;
- A detailed evaluation of the resources and expertise necessary to implement the plan and a discussion of alternative measures considered and the basis for their rejection;
- A demonstrated commitment of funding sufficient to ensure the implementation and maintenance of all plan components over the long term (i.e., the life of the school);
- A remedial action workplan that addresses cleanup of the entire contaminated site when a school is proposed for only a portion of a known contaminated site. In this case, the long-term stewardship plan should outline the ongoing security measures which will ensure that only authorized persons can gain access to the unremediated portion of the contaminated site;
- Plans for monitoring institutional and engineering controls should include timeframes for monitoring (annual monitoring reviews should be adopted at least for the first few years when institutional controls/engineering controls are employed), recordkeeping and reporting;
- Conditions and procedures for modification and termination of institutional controls; and
- Recommendations for the final site sampling to be done after the cleanup has been completed to ensure that all residual contamination is less than the cleanup goals defined for the site. Such sampling recommendations should be designed to discover the highest possible concentrations of contamination at the candidate site.

## 5.14 Traffic and Transportation

Traffic and Transportation are not anticipated to be adversely affected as sites where existing structures are being repaired or have been demolished. These locations include Kelsey Norman Elementary, Cecil Floyd Elementary, Roi S. Wood Administration Building, Old Irving Elementary, Old South Middle School and Emerson Elementary. The School District intends on demolishing Emerson Elementary in the near future and has no current set plans for that site. The buildings in these locations will either provide the same services as prior to the storm, have been demolished or will be demolished, therefore, traffic and transportation mitigation will not be required as part of the proposed action.

A traffic impact study (TIS) has been prepared for both the Joplin High School/Franklin Technology Center and the New Elementary/Old St. John's sites. The study recommends that no improvements will be required to mitigate traffic and transportation concerns by the proposed action at the New Elementary/Old St. John's site. The following items have been recommended by the TIS as traffic and transportation mitigation measures at the Joplin High School Campus:

- A 200 foot long right turn lane into the main campus entrance for southbound traffic on Indiana Avenue.
- A 200 foot long left turn lane into the main campus entrance for northbound traffic on Indiana Avenue.
- The widening of Grand Avenue by 8 feet along the west side of the new Joplin High School Campus boundary.

A TIS has not been completed for the East Middle School/New Elementary campus, however, given the additional student population that is to be placed at that site, the following roadway improvements will be necessary and made part of the project to mitigate traffic concerns:

- Construction of a roundabout on 20th street at the main facility location on the north side of the site.
- The widening of a portion of 20<sup>th</sup> street along on the north side of the site.
- Purchase of additional property for future south access to the site from 24<sup>th</sup> street.

## 6.0 Public Involvement

An extensive public involvement process was undertaken for this project, including communications and active involvement from community leaders, the public, parents, and representatives from the Joplin School District. Public meetings were conducted, local print, television and radio media covered events, plans for reconstruction and assisted in notifying the public of scheduled events. The local print media, the Joplin Globe, ran numerous articles which documented the topics of the various public meetings, summarized any proposed plans discussed and quoted public patrons who voiced opinions at such events. Facebook was also utilized to get information out to the public. The Joplin School District completed a patron survey to determine their views on the performance of the District and obtain their opinions on ideas being considered for potential ballot issues. As part of this survey and in effort to more efficiently and successfully get information out to the public, the survey provided information on where the patrons of the District received their information. A detailed summary of public involvement for this project is listed below.

### 6.1 Website

The Joplin School District has a website at <http://www.joplinschools.org>. The purpose of the website is to share information about the planned projects for the Joplin School District and provide information as to their scope and the variables involved with the decision making process. The Joplin School District is active at updating the website in an effort to provide the public with the latest information.

### 6.2 Public Meetings

Since the May 22, 2011 tornado, the Joplin School District has prioritized public involvement and the receipt of public input regarding the reconstruction of the facilities damaged during the storm. Numerous community wide meetings have been held to discuss ideas, goals and desires for the new facilities. This input has been used to assist the Joplin School District and its design professionals in developing a plan for reconstruction of the facilities. Advertisement for these meetings was accomplished by numerous methods including the local circulation newspaper, public postings, the School District website, email, television, radio and social network media sites such as Facebook. After the storm, the Joplin Citizens Advisory Recovery Team (CART) was formed to aid in the planning of recovery for the community and to provide a voice for Joplin area citizens. CART focused on four recovery sector groups: Economic Development (recovery, resources, sustainability), Schools & Community Facilities (future for schools, needs of various age groups, what other community facilities will Joplin need, etc.), Housing & Neighborhoods (single family, multi family, affordability, trails & sidewalks, parks, creation of stable neighborhoods), Infrastructure & Environment (floodplains, mine issues, utilities, new development, trees, streets). This organization held numerous public input meetings and also has a Facebook page that have both been sources for public comment and information. A report was developed by the CART that focused on community reconstruction recommendations as a result of its public meetings and public comment opportunities. The following is a listing of the public meeting events held to discuss future plans for the Joplin School District:

**July 12, 2011, 1 pm to 3 pm and 5:30 pm to 7:30 pm, Memorial Middle School Gym, 310 West 8th Street, Joplin:** A public input session was held to share ideas about what is important to the community for recovery. Schools were one of the items discussed at this meeting. Attendees were asked to write and post comments on boards or to provide written comment. Comments

were also obtained via the KOAM-TV Facebook page. Comments received at the meeting and via Facebook were recorded and have been transcribed for reference.

**August 16, 2011, 1 pm to 3 pm and 5:30 pm to 7:30 pm, College Heights Christian School, 4311 E. Newman Road, Joplin:** A public input meeting was held to share ideas about what is important to the community for recovery. The meeting allowed community members to review the work the Citizens Advisory Recovery Team (CART) has done to date and to make recommendations on recovery priorities. Community members were offered the opportunity to discuss recovery options with a panel of experts. Schools were one of the items discussed at this meeting. The public was offered the opportunity to make comment at this meeting. Comments received were recorded and transcribed. The open house session was followed by a panel discussion and featured representatives from the U.S. Environmental Protection Agency, American Institute of Architects, Missouri Housing Development Commission and U.S. Department of Housing and Urban Development. The panel discussion was recorded and made available online at the CART web site.

**October 13 and 14, 2011, Forest Park Baptist Church, Main Campus, 725 S Highview Avenue, Joplin:** The American Institute of Architects (AIA) Central States Chapter, in conjunction with the Citizens Advisory Recovery Team (CART), hosted a community design workshop to visually explore concepts and ideas, including input regarding Joplin School District reconstruction, that were identified through the recovery planning process. The event was held at Forest Park Baptist Church on October 13 and 14, 2011. Preliminary sketching began at noon, Thursday October 13. All residents were encouraged to stop by anytime from noon to 6:00 p.m. to participate in conversations and provide input to design exploration and again on Friday starting at 8:00 a.m. The event continued all day Friday and culminated in a formal “pin-up” at 4:00 p.m. on Friday when the sketches of the two days conclusions were displayed. The AIA staffed the event with 50-60 professionals including city planners, architects, landscape architects and designers who worked with community members.

**November 7th, 2011, 6:00 pm, Joplin City Hall, 6th and Main Street, Joplin:** The Citizens Advisory Recovery Team (CART) made a presentation to the Joplin City Council regarding input received to date from community members on their desires for a rebuilt Joplin.

**November 30, 2011, 8 am to 4 pm, Fellowship Baptist Church Family Life Center, 2827 E. 32nd Street, Joplin:** The Joplin School District hosted its third “Dream” planning session from 8 am to 4 pm at Fellowship Baptist Church Family Life Center, 2827 E. 32nd St., Joplin. The meeting brings together students, parents, teachers, administrators, community members, experts in the field of education, and architects to help develop a vision for the new high school and technology center. This session will focus on how to design career pathways at JHS / FTC and on the question of whether to build a freshman wing or create a freshman experience.

**December 8, 2011, 6 pm, Joplin School District Administration Building, 3901 E. 32nd Street, Joplin:** Hollis and Miller, the architects for the rebuilding of the middle school and one elementary school hosted a community visioning session at 6:00 pm. The visioning session was held at the Joplin School District Administration Building, 3901 E. 32nd St. This session focused on Joplin's vision for the new middle school and elementary school, 21st century learners, and the character statements for the projects (the overall philosophy that will guide the design and build) for the two facilities. The team from Hollis and Miller presented ideas and sought input from attendees, including a question and answer session. This is the first of several sessions that will be held. The public was invited and encouraged to attend.

**January 4, 2012, 3:45 pm, Joplin High School 11-12 Campus, Northpark Mall, 101 N. Range Line Road, Joplin:** The Joplin School District hosted a vision planning meeting for community business leaders at the Joplin High School 11-12 Campus at 3:45 pm. Business leaders were able to discuss the needs and desires for the new Joplin schools from a business standpoint and lay out a vision for the new facilities.

**January 12, 2012, 5:30 pm to 7:30 pm, Joplin Area Chamber of Commerce, 320 East 4th Street Road, Joplin:** The Citizens Advisory Recovery Team hosted a community open house on January 12, 2012. The meeting provided an opportunity for community members to review the work done to date by the Citizens Advisory Recovery Team and ask questions about the implementation steps. The open house featured display boards organized according to the four recovery sectors: Infrastructure and Environment, Housing and Neighborhoods, Schools and Community Facilities, and Economic Development. Attendees were able to review themes that have emerged from the public comments and identify what they see as their top priority recovery issues and opportunities. Members of the Citizens Advisory Recovery Team and community leaders were on hand to discuss the process and ideas.

**January 30, 2012, 2:30 - 5:00 pm, Joplin High School 11-12 Campus, Northpark Mall, 101 N. Range Line Road, Joplin:** Joplin School District – Joplin High School/Franklin Tech design input meeting. The Joplin School District hosted a meeting at the 11-12 Campus at Northpark Mall. Business and industry representatives were invited to attend and share their ideas for the development of career-interest pathways for our high school students. Our design team for the new Joplin High School / Franklin Tech combined campus will use the input to help guide their design. Questions asked included: What kinds of laboratory classrooms do we need? What types of career fields should we offer? Careers fields to consider include dental assistant program, EMT, nursing, law, engineering, cosmetology, construction, manufacturing, graphic arts, machining, TV productions, natural resources, auto tech, teaching, industrial tech, computer programming, phlebotomy, accounting, welding and others. The expert advice gained from this and additional meetings that will be held will help shape the career opportunities offered at the new campus and impact the future of education in Joplin.

**February 7, 5:30 pm, Joplin High School, 9-10 Campus, Memorial Educational Center, 310 West 8th Street, Joplin:** The Joplin School District held a public meeting to inform the patrons and community members of the proposed modifications to the existing roadways necessary to accommodate the redevelopment of the high school campus. A sign-in sheet of attendees was obtained and minutes of the meeting taken. The public was offered the opportunity to comment and responses to those comments were made by Joplin School District representatives. The proposed improvements were modified by the Joplin District as a direct result of the public comment received at this meeting.

**February 9, 5:30 pm, Joplin High School, 11-12 Campus, Northpark Mall, 101 N. Range Line Road, Joplin:** The Joplin School District hosted a community input meeting at 5:30 pm, on Thursday, February 9, at the JHS 11-12 Campus at Northpark Mall, 101 N. Range Line Rd., Joplin. Administrators from the Joplin School District and architects from CGA Architects and the DLR Group were on hand to share tentative concepts for the project. They also discussed information regarding 21st Century Learning and career paths - two education philosophies helping to guide the design of the new school. The public was invited and encouraged to attend. There was opportunity for the public to ask questions and share ideas.

**February 13, 2012, 4:00 pm, Joplin City Hall, 6<sup>th</sup> and Main Street, Joplin:** The City of Joplin Planning and Zoning Commission held a public meeting to inform community members and

allow discussion of the proposed modifications to the existing roadways necessary to accommodate the redevelopment of the high school campus. The Joplin School District requested that roadways, now included within the expanded property boundaries of the Joplin High School campus area, be vacated to provide for the rebuilding of the new Joplin High School facility. Modifications to existing roadways necessary to accommodate the rebuilding of the facility were also discussed. The public was offered an opportunity to comment at the meeting. Three individuals made comment and all were generally in favor of the proposed improvements.

**February 16, 2012, 6:00 pm, Joplin School District Administration Building, 3901 E. 32nd**

**Street:** The Joplin School District hosted a community input meeting for the Irving Elementary School rebuild on Thursday, Feb. 16, at 6:00 pm at the Joplin School District Administration Building, 3901 E. 32nd Street. The architects shared concepts for the project and community members had an opportunity to provide feedback. (This meeting was originally scheduled for Monday, Feb. 13 and was rescheduled due to inclement weather).

**March 5, 2012, 6:00 pm, Joplin City Hall, 6<sup>th</sup> and Main Street, Joplin:** The City Council of the City of Joplin held a public meeting to inform community members and allow discussion of the proposed modifications to the existing roadways necessary to accommodate the redevelopment of the high school campus. The Joplin School District requested that roadways, now included within the expanded property boundaries of the Joplin High School campus area, be vacated to provide for the rebuilding of the new Joplin High School facility. Modifications to existing roadways necessary to accommodate the rebuilding of the facility were also discussed. The public was offered an opportunity to comment regarding this issue at the meeting. No public comment was made.

**March 29, 2012, 5:30 pm at the Joplin High School 11-12 Campus, Northpark Mall, 101 N.**

**Range Line Road:** The Joplin School District hosted a Community Meeting at 5:30 pm at the JHS 11-12 Campus at Northpark Mall, 101 N. Range Line Rd. The architects for each project were on hand to share information about the building projects. Attendees also had an opportunity to view virtual tours of all of the new schools and ask questions regarding the rebuilding and the April 3 Bond Request.

**April 3, 2012:** A school bond election was held on April 3 in the amount of \$62 million. The bond issue passed with 57.68% approval (4,982 yes votes out 8,637 total votes). The passing of the bond issue was essential to the rebuilding efforts and will ensure that the permanent new High School/Franklin Technology Center and tornado safe rooms are built. Other funds obtained by the school district were earmarked for facilities that house elementary and middle school students.

### **Community Forum**

**March 28, 2012, Broadcast live on KGCS-TV, also broadcast on the Joplin Globe website, and**

**rebroadcast March 31, 2012 on KODE-TV and April 1, 2012 on KSNF-TV:** A panel of six Joplin residents compiled questions about a \$62 million bond issue that was proposed by the Joplin School District as a way to build back a combined Irving and Emerson Elementary school, a combined Duquesne and Duenweg Elementary School, East Middle School and a combined Joplin High School and Franklin Technology Center. The Joplin Globe was the host of the forum. The Joplin Globe indicated that they tried to pick people with a broad base of perspectives, but also people who are stakeholders in the community. The questions were developed by the individuals on the panel and the Joplin Globe indicated that they were questions that the panelists felt their neighbors, friends and co-workers wanted to know the answers to. Joplin

School District officials and representatives answered the questions and were not given the panelists questions ahead of time.

**April 1, 2012, Print edition of the Joplin Globe:** The Joplin Globe submitted the same questions as those asked by the panelists at the March 28, 2012 community forum directly to Joplin School District Superintendent, Dr. CJ Huff. The responses to those questions were provided in a Joplin Globe article. The public was offered the ability to make comment on the Joplin Globe website.

### **Parent Informational Nights**

Below are dates that Parent Informational Nights were held by the Joplin School District. These meetings were conducted to discuss the April 3, 2012 Bond Issue, provide information relative to the construction and financial details of the improvements planned for the Joplin School District facilities and allow opportunity for public comment. At each of these meetings a sign-up sheet for attendees was obtained. At the end of each meeting, the public was offered the opportunity to comment and responses to those comments were made by Joplin School District representatives. Each of the meetings was advertised in the Joplin Globe, on the Joplin School District website as well as through handouts to students within the Joplin School District.

#### **February 28, 2012, 6pm**

Jefferson Elementary, 130 McKinley, Joplin.

#### **March 1, 2012, 6pm**

Emerson Elementary, 1301 South Duquesne Road, Duquesne, MO.

Joplin High School - 9-10 Campus, Memorial Educational Center, 310 West 8th Street, Joplin.

#### **March 1, 2012, 6:30 pm**

East Middle School, 7501 East 26th, Joplin.

#### **March 2, 2012, 5:30 pm**

Irving Elementary, 130 McKinley, Joplin.

#### **March 5, 2012, 6 pm**

Royal Heights Elementary, 2100 Rolla Street, Joplin.

Cecil Floyd Elementary, 2201 West 24th, Joplin.

#### **March 6, 2012, 6 pm**

South Middle School, 900 East 50th, Joplin.

West Central, 1001 West 7th Street, Joplin.

Kelsey Norman, 1323 East 28th, Joplin.

**March 8, 2012, 6 pm**

North Middle School, 102 Gray, Joplin.

Eastmorland Elementary, 1131 Highview, Joplin.

Joplin High School, 11-12 Campus, Northpark Mall, 101 North Range Line Road, Joplin.

**March 8, 2012, 6:30 pm**

East Middle School, 7501 East 26th, Joplin.

**March 12, 2012, 6 pm**

Stapleton Elementary, 4031 Hearnese Boulevard, Joplin

Columbia Elementary, 610 West F Street, Joplin

**March 13, 2012, 6 pm**

McKinley Elementary, 611 Highland, Joplin.

Duenweg and Duquesne Elementary, 801 Erwin, Duenweg, MO.

In addition to the listing of meetings above, the Joplin School District Board of Education discussed rebuilding efforts routinely at each of their monthly meetings held from July 2011 to March 2012. These meetings were open to the public, publicly posted and advertised, and many of which were televised on the Joplin School District television channel which is Channel 13 for CableOne, the Joplin Cable television service provider. These meetings aired repeatedly throughout each month on Cable Channel 13 beginning the day after actual Board meeting. In addition to the School Board meetings, Joplin School District Television has repeatedly aired interviews with Joplin School District officials, employees and community members regarding the April 3 Bond Issue and rebuilding plans for the Joplin School District. The daily local circulation newspaper, the Joplin Globe, has published multiple informational news articles each week dating back to just following the May 22, 2011 tornado which focused on the rebuilding plans of the Joplin School District. Local television stations, KODE (ABC), KOAM (CBS) and KSNF (NBC) as well as local radio stations have also been very instrumental in informing the public of the plans for reconstructing the Joplin School District. The Joplin School District and CART have established Facebook pages to provide opportunities for the public to comment on proposed reconstruction efforts and to capture comments about rebuilding, the recent bond issue and associated responses. The Joplin School District also actively utilizes its website to provide answers to “frequently answered questions” and to offer an avenue for updates to the public.

**6.3 Patron Survey**

**2012 Patron Survey, Joplin School District, December 2011 and January 2012, Executive Summary, January 26, 2012:** The Joplin School District completed a patron survey to determine their views on the performance of the District and obtain their opinions on ideas being considered for potential ballot issues. As part of this survey and in effort to more efficiently and successfully get information out to the public, the survey provided information on where the patrons of the District received their information. The survey was conducted on 400 randomly selected, head-of-household, registered voter patrons in the Joplin School District.

## **7.0 Agencies Consulted**

Preparation of this EA has been coordinated with appropriate Federal, State, and local agencies, and other interested parties including the Environmental Protection Agency (EPA), Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service (USFWS), Army Corps of Engineers (USACE), Missouri Department of Conservation (MDC), Missouri Department of Natural Resources (MDNR) and Missouri State Historic Preservation Office (SHPO).

## **8.0 List of Preparers**

Below is a listing of persons and affiliations responsible for the preparation of this Programmatic Environmental Assessment:

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**Appendix A**  
**Review Agency Correspondence**

**CULTURAL RESOURCE ASSESSMENT  
Section 106 Review**

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830 East Primrose, Suite 200  
Springfield, Missouri 65807

Kenneth Sessa, FEMA  
Chelsea Klein, FEMA

**PROJECT:**

Irving Elementary School Safe Room, 2727 McClelland Blvd., Joplin

**FEDERAL AGENCY**

FEMA

**COUNTY:**

JASPER

The State Historic Preservation Office has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

After review of initial submission, the project area has a low potential for the occurrence of cultural resources. A cultural resource survey, therefore, is not warranted.

Adequate documentation has been provided (36 CFR Section 800.11). There will be "no historic properties affected" by the current project.

An adequate cultural resource survey of the project area has been previously conducted. It has been determined that for the proposed undertaking there will be "no historic properties affected".

For the above checked reason, the State Historic Preservation Office has no objection to the initiation of project activities. PLEASE BE ADVISED THAT, IF THE CURRENT PROJECT AREA OR SCOPE OF WORK ARE CHANGED, A BORROW AREA IS INCLUDED IN THE PROJECT, OR CULTURAL MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, APPROPRIATE INFORMATION MUST BE PROVIDED TO THIS OFFICE FOR FURTHER REVIEW AND COMMENT. Please retain this documentation as evidence of compliance with Section 106 of the National Historic Preservation Act, as amended.

By:



Mark A. Miles, Deputy State Historic Preservation Officer

March 7, 2012

Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
STATE HISTORIC PRESERVATION OFFICE  
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Judith Deel, (573) 751-7862. Please be sure to refer to the project number:  
126-JP-12

**CULTURAL RESOURCE ASSESSMENT  
Section 106 Review**

**CONTACT PERSON/ADDRESS**

**C:**

Brent Davis, P.E.  
Toth and Associates, Inc.  
830 East Primrose, Suite 200  
Springfield, Missouri 65807

Kenneth Sessa, FEMA  
Chelsea Klein, FEMA

**PROJECT:**

East Middle School Safe Room, 4594 East 20<sup>th</sup>, Joplin

**FEDERAL AGENCY**

FEMA

**COUNTY:**

JASPER

The State Historic Preservation Office has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

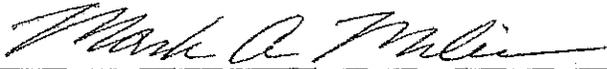
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By:



Mark A. Miles, Deputy State Historic Preservation Officer

March 7, 2012

Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
STATE HISTORIC PRESERVATION OFFICE  
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Judith Deel, (573) 751-7862. Please be sure to refer to the project number:  
127-JP-12

**CULTURAL RESOURCE ASSESSMENT  
Section 106 Review**

**CONTACT PERSON/ADDRESS**

**C:**

Brent Davis, P.E.  
Toth and Associates, Inc.  
830 East Primrose, Suite 200  
Springfield, Missouri 65807

Kenneth Sessa, FEMA  
Chelsea Klein, FEMA

**PROJECT:**

Joplin High Franklin Tech School Safe Room, 2104 Indiana, Joplin

**FEDERAL AGENCY**

FEMA

**COUNTY:**

JASPER

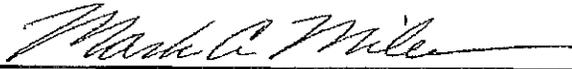
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By:   
Mark A. Miles, Deputy State Historic Preservation Officer

March 8, 2012  
Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
STATE HISTORIC PRESERVATION OFFICE  
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Judith Deel, (573) 751-7862. Please be sure to refer to the project number:

128-JP-12

**CULTURAL RESOURCE ASSESSMENT  
Section 106 Review**

**CONTACT PERSON/ADDRESS**

**C:**

Brent Davis, P.E.  
Toth and Associates, Inc.  
830 East Primrose, Suite 200  
Springfield, Missouri 65807

Kenneth Sessa, FEMA  
Chelsea Klein, FEMA

**PROJECT:**

Cecil Floyd Elementary School Safe Room, 2201 West 24<sup>th</sup> Street, Joplin

**FEDERAL AGENCY**

FEMA

**COUNTY:**

JASPER

The State Historic Preservation Office has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

After review of initial submission, the project area has a low potential for the occurrence of cultural resources. A cultural resource survey, therefore, is not warranted.

Adequate documentation has been provided (36 CFR Section 800.11). There will be "no historic properties affected" by the current project.

An adequate cultural resource survey of the project area has been previously conducted. It has been determined that for the proposed undertaking there will be "no historic properties affected".

For the above checked reason, the State Historic Preservation Office has no objection to the initiation of project activities. PLEASE BE ADVISED THAT, IF THE CURRENT PROJECT AREA OR SCOPE OF WORK ARE CHANGED, A BORROW AREA IS INCLUDED IN THE PROJECT, OR CULTURAL MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, APPROPRIATE INFORMATION MUST BE PROVIDED TO THIS OFFICE FOR FURTHER REVIEW AND COMMENT. Please retain this documentation as evidence of compliance with Section 106 of the National Historic Preservation Act, as amended.

By: Mark A. Miles  
Mark A. Miles, Deputy State Historic Preservation Officer

March 7, 2012  
Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
STATE HISTORIC PRESERVATION OFFICE  
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Judith Deel, (573) 751-7862. Please be sure to refer to the project number:  
129-JP-12

**CULTURAL RESOURCE ASSESSMENT**  
**Section 106 Review**

**CONTACT PERSON/ADDRESS**

**C:**

Brent Davis, P.E.  
Toth and Associates, Inc.  
830 East Primrose, Suite 200  
Springfield, Missouri 65807

Kenneth Sessa, FEMA  
Chelsea Klein, FEMA

**PROJECT:**

Kelsey Norman Elementary School Safe Room, 1323 East 28<sup>th</sup> Street, Joplin

**FEDERAL AGENCY**

FEMA

**COUNTY:**

JASPER

The State Historic Preservation Office has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

After review of initial submission, the project area has a low potential for the occurrence of cultural resources. A cultural resource survey, therefore, is not warranted.

Adequate documentation has been provided (36 CFR Section 800.11). There will be "no historic properties affected" by the current project.

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By:



Mark A. Miles, Deputy State Historic Preservation Officer

March 7, 2012

Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
STATE HISTORIC PRESERVATION OFFICE  
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Judith Deel, (573) 751-7862. Please be sure to refer to the project number:  
135-JP-12

**CULTURAL RESOURCE ASSESSMENT**  
**Section 106 Review**

**CONTACT PERSON/ADDRESS**

**C:**

Mr. Michael Keaton, E.I.  
Allgeier, Martin and Associates, Inc.  
7231 E. 24<sup>th</sup> Street  
Joplin, MO 64804

Ken Sessa, FEMA  
Chelsea Klein, FEMA

**PROJECT:**

Roi S. Wood Safe Room Project, 1717 E. 15<sup>th</sup> Street, Joplin

**FEDERAL AGENCY**

FEMA

**COUNTY:**

JASPER

The State Historic Preservation Office has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

After review of initial submission, the project area has a low potential for the occurrence of cultural resources. A cultural resource survey, therefore, is not warranted.

Adequate documentation has been provided (36 CFR Section 800.11). There will be "no historic properties affected" by the current project.

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By:   
Mark A. Miles Deputy State Historic Preservation Officer

April 26, 2012  
Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
HISTORIC PRESERVATION PROGRAM  
P.O. Box 176, Jefferson City, Missouri 65102  
For additional information, please contact Rebecca Rost, 573-751-7958.  
Please be sure to refer to the project number: 252-JP-11

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

www.dnr.mo.gov

March 14, 2012

Mr. Brent Davis  
Toth and Associates, Inc.  
830 East Primrose, Suite 200  
Springfield, MO 65807

Re: **SHPO Project Number: 125-JP-12** -- Emerson School Safe Room, 301 E. 19<sup>th</sup>, Joplin, Jasper County, Missouri (FEMA)

Dear Mr. Davis:

Thank you for submitting information about the above-referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which require identification and evaluation of cultural resources.

Enclosed please find a copy of our original determination that Emerson School is eligible for listing in the National Register of Historic Places and that the proposed tornado safe room project will have an adverse effect on historic properties. At this time, we have begun consultation with the Federal Emergency Management Agency (FEMA) and FEMA has agreed that they will assume their lead agency status in fulfilling FEMA's Section 106 obligations (36 CFR 800.2[a]). Our expectations are that FEMA will submit the following information to our office so that we can begin negotiating a Memorandum of Agreement for the proposed undertaking:

1. Documentation of the alternatives to demolition that have been explored, and
2. Evidence that the public participation aspect has been fulfilled (including any parties that may be interested locally and tribes), and
3. Documentation of the Advisory Council on Historic Preservation's intent to participate/not participate in the consultation, and
4. A draft MOA to outline the proposed steps for mitigation.

**If you have any of this information already, please provide it to FEMA so that we can work to conclude this process expeditiously.**

If you have any questions please write Missouri Department of Natural Resources, State Historic Preservation Office, Attn: Review and Compliance, P.O. Box 176, Jefferson City, Missouri 65102, or call Rebecca Rost at (573) 751-7958. Please be sure to include the **SHPO Project Number (125-JP-12)** on all future correspondence relating to this project. If the information is provided via telephone call, please follow up in writing for our files.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE



Mark A. Miles  
Director and Deputy  
State Historic Preservation Officer

C: Ken Sessa, FEMA  
Chelsea Klein, FEMA



## Chris Erisman

---

**From:** Rost, Rebecca <Rebecca.Rost@dnr.mo.gov>  
**Sent:** Thursday, April 26, 2012 10:03 AM  
**To:** Chris Erisman; Klein, Chelsea (Chelsea.Klein@fema.dhs.gov)  
**Subject:** RE: Joplin Schools EA

Hi Chris-

- 1) Roi S. Wood was received. We agree that no historic properties will be affected by the project. The letter will go out in the mail next week.
- 2) Old South Middle School: Our office failed to comment within the 30 days required by law and FEMA proceeded with demolition. There are currently no historic properties that will be affected by construction of the safe room.
- 3) Old Irving: This building had lost integrity and I'm assuming has already been demolished. We find that no historic properties will be affected by construction of the safe room.
- 4) Emerson: we're awaiting information from FEMA to complete this one.

Thanks!

Rebecca Rost  
Historian  
State Historic Preservation Office  
P.O. Box 176  
Jefferson City, Missouri 65102  
(573) 751-7958  
[rebecca.rost@dnr.mo.gov](mailto:rebecca.rost@dnr.mo.gov)

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**From:** Chris Erisman [<mailto:Chris.Erisman@AMCE.com>]  
**Sent:** Thursday, April 26, 2012 9:46 AM  
**To:** Rost, Rebecca  
**Subject:** FW: Joplin Schools EA

Rebecca,

Copy of past correspondence from Chelsea Klein regarding Joplin Schools. She didn't seem to have anything on Old South Middle School. Do you need anything else on Old Irving or will this suffice? Thank you.

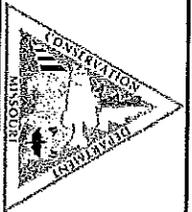
Chris Erisman, P.E.  
ALLGEIER, MARTIN and ASSOCIATES, INC.  
P.O. Box 2627 Joplin, MO 64803-2627  
7231 East 24th Street Joplin, MO 64804  
417-680-7200, 417-680-7300 (Fax)  
[Chris.Erisman@AMCE.com](mailto:Chris.Erisman@AMCE.com)

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**From:** Klein, Chelsea [<mailto:Chelsea.Klein@fema.dhs.gov>]  
**Sent:** Monday, April 16, 2012 3:30 PM  
**To:** Chris Erisman  
**Subject:** RE: Joplin Schools EA

Chris,

Sorry it has take so long for me to get back to you. We had to clarify some things.



Missouri Department of Conservation

Heritage Review Report

March 27, 2012 -- Page 1 of 2

Resource Science Division
P. O. Box 180
Jefferson City, MO 65102
Prepared by: Emily Clancy
Emily.Clancy@mdc.mo.gov
(573) 522 - 4115 ext. 3182

Allgeier, Martin and Associates, INC
Attn: Michael Keaton, EI
P.O. Box 2627
Joplin, MO 64803-2627

Table with 2 columns: Field Name (Project type, Location/Scope, County, Query reference, Query received) and Value (Facility/Building, Section 15 of T27N R33W, Jasper, Joplin Schools - FEMA, March 19, 2012)

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and sensitive resources known to have been located close to and/or potentially affected by the proposed project. On-site verification is the responsibility of the project. Heritage records were identified at some date and location. This report considers records near but not necessarily at the project site. Animals move and, over time, so do plant communities. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean a protected species will not be encountered. These records only provide one reference and other information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed in order to avoid or minimize impacts. More information may be found at http://mdc.mo.gov/discover-nature/places-go/natural-areas and mdc4.mdc.mo.gov/applications/mofwis/mofwis\_search1.aspx. Contact information for the department's Natural History Biologist is online at http://mdc.mo.gov/contact-us.

Level 3 (federal-listed) and Level 2 (state listed) issues:
Records of listed species or critical habitats:

Heritage records identify no wildlife preserves, no designated wilderness areas or critical habitats, no state or federal endangered-list species records within one mile of the site, or in the public land survey section listed above or sections adjacent.

The project should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any "Clean Water Permit" conditions. Revegetate areas in which the natural cover is disturbed to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Pollutants, including sediment, can have significant impacts far downstream. Use silt fences and/or vegetative filter strips to buffer streams and drainages, and monitor those after rain events and until a well-rooted ground cover is reestablished.

FEDERAL LST species/habitats are protected under the Federal Endangered Species Act. Consult with U.S. Fish and Wildlife Service, 101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007. 573-234-2132

General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific heritage records):

- Gray bats (Myotis grisescens, federally and state listed "endangered") are likely to occur in the project area, as they forage over streams, rivers, and reservoirs in this part of Missouri. Avoid entry or disturbance of any cave inhabited by gray bats and when possible retain forest vegetation along the stream and from the gray bat cave opening to the stream. See http://mdc.mo.gov/104 for best management recommendations.
Jasper county has known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in heritage records, and ones not noted here may be encountered at the project site

- or affected by the project. Cave fauna (many of which are species of conservation concern) are influenced by changes to water quality, so check your project site for any karst features and make every effort to protect groundwater in the project area. See [http://mdc.mo.gov/nathis/caves/manag\\_construc.htm](http://mdc.mo.gov/nathis/caves/manag_construc.htm) for best management information.
- Streams in the area should be protected from soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. Best management recommendations relating to streams and rivers may be found at <http://mdc.mo.gov/79>. The project should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any "Clean Water Permit" conditions. Revegetate areas in which the natural cover is disturbed to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Pollutants, including sediment, can have significant impacts far downstream. Use silt fences and/or vegetative filter strips to buffer streams and drainages, and monitor those after rain events and until a well-rooted ground cover is reestablished.
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
  - ◆ Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
  - ◆ Drain water from boats and machinery that has operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
  - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT water ( $\geq 104^{\circ}$  F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

*These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Heritage records largely reflect only sites visited by specialists in the last 30 years. This means that many privately owned tracts could host unknown remnants of species once but no longer common.*

**Pre-screen heritage review requests at <http://tinyurl.com/heritagereview>. A "Level 1 response" will make further submission to MDC or USFWS unnecessary.**

MISSOURI



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 Schools - Tornado Project

Date: April 6, 2012

To: Mr. Michael Keaton, E.I.  
Allgeier, Martin & Associates, Inc.  
P.O. Box 2627  
Joplin, MO 64803-2627

File Code: 310-11-12- 5

Dear Mr. Keaton

Enclosed for the above referenced project is the completed AD - 1006 forms. All project locations are located within the city limits of Joplin and Duquesne, 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 hydric soils or known wetlands will impacted by the proposed project site.

Soil descriptions of the soil series located in the project area can be obtained at the following Internet address:

<http://soils.usda.gov>

Please call if I can be of any more assistance.

Sincerely,

Allan R. Johnston  
Area Resource Soil Scientist

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

---

AN EQUAL OPPORTUNITY EMPLOYER

Cecil Floyd Elementary  
 2201 W. 24th  
 NW 1/4 S-16 Twp 27N  
 Range 33W

U.S. Department of Agriculture

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-12-12</u>	
Name Of Project <u>Joplin Schools - Tornado Protect</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co, Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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)		Acres Irrigated	Average Farm Size
Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined In FPPA Acres: %	
Name Of Land Evaluation System Used		Name Of Local Site Assessment System	
		Date Land Evaluation Returned By NRCS	

	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

<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>				
Relative Value Of Farmland To Be Converted (Scale Of 0 To 100 Points)				
	0	0	0	0

PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points	Alternative Site Rating			
		Site A	Site B	Site C	Site D
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 Buildup 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 type="checkbox"/>
----------------	-------------------	--

Reason For Selection:

*Olson R J Lester*

Old St. John's/New Elementary School  
 Old 32nd St + McClelland Blvd  
 U.S. Department of Agriculture

SW 1/4 S15 Twp 22 N R. 33 E  
**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-12-12</u>	
Name Of Project <u>Joplin Schools - Torpedo Project</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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: %	Amount Of Farmland As Defined in FPPA Acres: %
Name Of Land Evaluation System Used		Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site <i>Approx</i>		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)				

PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points	Alternative Site Rating			
		Site A	Site B	Site C	Site D
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 type="checkbox"/>
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Reason For Selection:

*Alan Johnson*

Old Irving Elementary School  
 311 Gabby Street Blvd. U.S. Department of Agriculture  
 NE 1/4 S 15 Twp 47N  
 Range 33W

## FARMLAND CONVERSION IMPACT RATING

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-12-12</u>	
Name Of Project <u>Indian Schools - To Road Project</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co, Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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)		Acres Irrigated	Average Farm Size
Name Of Land Evaluation System Used		Date Land Evaluation Returned By NRCS	

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site <u>Approx</u>		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>				
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)				
0	0	0	0	0

PART VI (To be completed by Federal Agency)	Maximum Points	Site A	Site B	Site C	Site D
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 type="checkbox"/>
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Reason For Selection:



Old South School  
 22nd & WALL  
 NE 1/4 S 15 Twp 27N Range 33W

U.S. Department of Agriculture

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-12-12</u>	
Name Of Project <u>Joplin Schools - Tornado Project</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co, Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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
Name Of Land Evaluation System Used		Name Of Local Site Assessment System	Average Farm Size
		Amount Of Farmland As Defined In FPPA Acres: %	
		Date Land Evaluation Returned By NRCS	

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site		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)				

PART VI (To be completed by Federal Agency)	Maximum Points	Site A	Site B	Site C	Site D
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 Bullup 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 type="checkbox"/>
Reason For Selection:		

*Alton Johnston*

*Emerson Elementary*  
 301 E. 19th Street  
 SW 1/4 S 11, TWP 27N Range 33W

U.S. Department of Agriculture

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <i>3-12-12</i>	
Name Of Project <i>Joplin Schools - Tornado Relief</i>		Federal Agency Involved <i>FEMA</i>	
Proposed Land Use <i>Unknown At This Time</i>		County And State <i>Jasper Co. Mo</i>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <i>03/17/12</i>	
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"/>
		Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined In FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	

<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	<i>0</i>			
B. Total Acres To Be Converted Indirectly	<i>Approx</i>			
C. Total Acres In Site	<i>Approx</i>	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"/>
Reason For Selection:		

*Allen R. [Signature]*

Joplin High School / Franklin Tech  
 20th & Indiana

U.S. Department of Agriculture

NY<sub>2</sub> S 14 Twp 27 N Range 33 W **FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-2-12</u>	
Name Of Project <u>Joplin Schools - Tornado Project</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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	Date Land Evaluation Returned By NRCS

	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site		0.0	0.0	0.0

**PART IV (To be completed by NRCS) Land Evaluation Information**

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	

**PART V (To be completed by NRCS) Land Evaluation Criterion**

Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	0	0	0	0
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Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points	Alternative Site Rating			
		Site A	Site B	Site C	Site D
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

**PART VII (To be completed by Federal Agency)**

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 type="checkbox"/>
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Reason For Selection:

*Alan D. Johnston*

*Kelsey Norman Elementary School*  
 1323 E. 28th St.  
 SE 1/4 S14 Twp 27N Range 33W  
 U.S. Department of Agriculture  
**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>	Date Of Land Evaluation Request <i>3-12-12</i>
Name Of Project <i>Joplin Schools Tornado Project</i>	Federal Agency Involved <i>FEMA</i>
Proposed Land Use <i>School Facilities</i>	County And State <i>Jasper Co, Mo</i>
<b>PART II (To be completed by NRCS)</b>	Date Request Received By NRCS <i>03/17/12</i>

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"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined In FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS	

<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	0			
B. Total Acres To Be Converted Indirectly	<i>Approx</i>			
C. Total Acres In Site	<i>Approx</i>	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: Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)</b>	0	0	0	0
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<b>PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))</b>	Maximum Points				
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 type="checkbox"/>
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Reason For Selection:

*Alton R. Johnston*

Rolls. Wood Adm Bldg  
 1717 E 15th St  
 NE 1/4 S11, Twp 27N Range 33W

U.S. Department of Agriculture

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-2-12</u>	
Name Of Project <u>Tipton Schools-Tornado Protect</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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 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	

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0			
B. Total Acres To Be Converted Indirectly	<u>APPROX</u>			
C. Total Acres In Site	<u>APPROX</u>	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)				

PART VI (To be completed by Federal Agency)	Maximum Points	Site A	Site B	Site C	Site D
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 type="checkbox"/>
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Reason For Selection:



East Middle School  
 4594 E. 20th St  
 N 1/2 S17 Twp 27 N Range 32 W

U.S. Department of Agriculture

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>3-12-12</u>	
Name Of Project <u>Joplin Schools - Tornado Project</u>		Federal Agency Involved <u>FEMA</u>	
Proposed Land Use <u>School Facilities</u>		County And State <u>Jasper Co Mo</u>	
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>03/17/12</u>	
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: %	Amount Of Farmland As Defined In FPPA Acres: %
Name Of Land Evaluation System Used		Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS

<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	0			
B. Total Acres To Be Converted Indirectly	<u>Approx</u>			
C. Total Acres In Site	<u>Approx</u>	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				

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

0	0	0	0
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<b>PART VI (To be completed by Federal Agency)</b> Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points	Site A	Site B	Site C	Site D
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>	Maximum Points	Site A	Site B	Site C	Site D
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  No

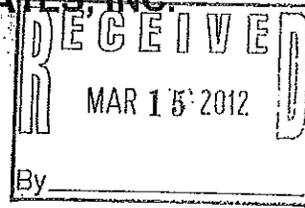
Reason For Selection:



**ALLGEIER, MARTIN and ASSOCIATES, INC.**

CONSULTING ENGINEERS and SURVEYORS  
www.amce.com

March 12, 2012



U. S. Fish and Wildlife Service  
Region 3 Ecological Field Office  
101 Park DeVille Drive, Suite A  
Columbia, MO 65203-0007

Re: Joplin Schools - Tornado Project

Dear Sir or Madam:

Joplin Schools is preparing a National Environmental Policy Act (NEPA) environmental review regarding a funding application with the Federal Emergency Management Agency that provides supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster damaged, publicly owned facilities due to the F-5 tornado that damaged and/or destroyed schools in the Joplin School District on May 22, 2011.

We are requesting your review of this proposed project to determine the potential for any adverse environmental impacts to endangered species and/or habitats and also for impact to wetlands.

The proposed project has several locations that are outlined below. A description of the proposed activities for each school by all funding sources is attached.

Kelsey Norman School, 1323 E. 28<sup>th</sup> Street, Joplin.  
ROI S. Wood Administration Building, 1717 E. 15<sup>th</sup> Street, Joplin  
Cecil Floyd School Elementary School, 2201 W. 24<sup>th</sup> Street, Joplin  
Old Irving School, 311 Gabby Street Blvd, Joplin.  
Old St. John's/New Elementary School, Old 32<sup>nd</sup> Street and McClelland Blvd., Joplin  
East Middle School, 4594 E. 20<sup>th</sup> Street, Joplin  
Emerson Elementary School, 301 E. 19<sup>th</sup> Street, Joplin  
Joplin High School/Franklin Tech School, 20<sup>th</sup> Street and Indiana, Joplin  
Old South Middle School, 22<sup>nd</sup> and Wall, Joplin

Enclosed you will find the following items:

1. Topographic maps with project sites clearly identified
2. Aerial Photos with sites identified
3. Photographs of Subject Sites

Your prompt reply would be greatly appreciated as the school is on a tight schedule for restoring adequate school facilities for the students of Joplin.

Please contact me at 417-680-7200 or by e-mail at Michael.Keaton@AMCE.com if you have any questions or require additional information. Thank you for your assistance.

"The U.S. Fish and Wildlife Service (Service) has reviewed the proposed action and determined that no federally listed species, candidate species, or designated critical habitat occurs within the project area. Furthermore, the Service has determined that this action will have negligible impacts on wetlands, migratory birds, and other priority fish and wildlife resources."

Very truly yours,  
Allgeier, Martin & Associates, Inc.  
  
Michael Keaton, E.I.

P.   
Joplin for the Field Supervisor

3-12-12  
Date

7231 East 24<sup>th</sup> Street  
Joplin, MO 64804



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

April 24, 2012

Mr. Michael Keaton  
Algeier, Martin & Associates  
Consulting Engineers & Surveyors  
P.O. Box 2627  
Joplin, Missouri 64803-2627

Re: Proposed Demolition of Joplin Schools, Joplin, Missouri

Dear Mr. Keaton:

The Missouri Department of Natural Resources (department) appreciates the opportunity to review the information submitted for the proposed demolition of schools that suffered tornado damage in Joplin. The department offers the following comments for consideration.

### **Water Resources Issues**

Ecological Drainage Unit: The proposed sites lie within the Ozark/Neosho Ecological Drainage Unit.

Watersheds: The proposed sites lie within the Hydrologic Unit Codes 11070207 09 01 Turkey Creek Sub-Watershed, 11070207 08 06 Shoal Creek Sub-Watershed, and 11070207 09 04 Short Creek - Spring River Sub-Watershed.

Rapid Watershed Assessment: The U.S. Department of Agriculture, Natural Resources Conservation Service, has assessed several watersheds across the country including this location. The resulting report and data could provide valuable knowledge of the watershed. Watershed resource information can be found at <http://www.mo.nrcs.usda.gov/technical/RWAs.html> under 'Spring River Sub-basin, 11070207.'

Classified Streams: No classified waters exist on the proposed sites. A few of the sites are within two miles of classified streams. Shoal Creek, Water Body Identification Number 3222, is classified for 41.1 miles as a permanently flowing water with the designated beneficial uses of protection of aquatic life and human health-fish consumption, cool water fishery, drinking water supply, industry, irrigation, livestock and wildlife watering, secondary contact recreation and whole body contact recreation-Category A. Turkey Creek, Water Body Identification Number 3217, is classified for 6.1 miles as a permanently flowing water with the designated beneficial

Proposed Demolition of Joplin Schools  
Page Two

uses of protection of aquatic life and human health-fish consumption, livestock and wildlife watering, and whole body contact recreation-Category A. Through their designated beneficial uses, the streams shall be protected by numeric water quality criteria contained in 10 CSR 20-7.031(4) and Table A.

Unclassified Streams: The sites drain to several unclassified streams. Unclassified streams are protected by the general water quality criteria outlined in 10 CSR 20-7.031(3).

Project planners should ensure that proper Best Management Practices are in place to protect the stream's chemical, physical and biological characteristics, especially when a stream is crossed by equipment. Re-establish vegetation as soon as possible on any stream banks and riparian corridors denuded of vegetation. Heavy equipment must stay out of the water as much as possible.

Karst Topography – Springs, Sinkholes and Caves: There may be springs, caves and sinkholes in or near the project areas, particularly in the southwest corner of the city. Project planners should be vigilant to ensure that activities near these resources do not adversely impact water quality, as Karst features can provide a more direct access to sensitive species and groundwater. Should the construction impact these areas, extra precautions may be necessary to protect these sensitive resources. Comments on geology are provided below, and questions may be directed to the department's Division of Geology and Land Survey at (573) 368-2100.

Sensitive Waters: According to the department's current water quality standards, there are no cold water fisheries, losing streams, outstanding state and national resource waters, metropolitan no-discharge streams, or biocriteria reference locations within or near the property.

Impaired Waters: Shoal Creek, Water Body Identification Number 3222, is listed as impaired for bacteria from rural nonpoint sources. Turkey Creek, Water Body Identification Number 3217 is listed as impaired for bacteria, cadmium, lead and zinc due to rural nonpoint sources and abandoned mining areas. Turkey Creek also has an approved Total Maximum Daily Load (TMDL) for zinc (approved October 25, 2006, <http://www.dnr.mo.gov/env/wpp/tmdl/3203-center-3216-3217-turkey-cks-record.htm>).

Land Disturbance Permits: Construction work disturbing an area of one acre or more requires a Land Disturbance Permit to be acquired prior to any earth work. Please contact the department's Southwest Regional Office at (417) 891-4300 for permit information.

Water Quality Certification: A Clean Water Act Section 404 Permit secured from the U.S. Army Corps of Engineers and a Clean Water Act Section 401 Water Quality Certification secured from the department are needed when placing dredged or fill material into the jurisdictional waters of the United States. Examples are culverts under road crossings, riprap along stream banks and stormwater outfall pipes. The term jurisdictional waters refer to large lakes, rivers, streams and

Proposed Demolition of Joplin Schools  
Page Three

wetlands, including those that don't always contain water. Should any jurisdictional waters be impacted, please contact the U.S. Army Corps of Engineers' Regulatory Branch in the Little Rock District at (501) 324-5295 and the department's 401 Certification Unit at (573) 751-1300 for more information.

**Geospatial Data:** Department geospatial data is available upon request, and all published data is available on the Missouri Spatial Data Information Service website at <http://msdis.missouri.edu/>.

### **Hazardous Wastes**

Asbestos-containing materials and lead-based paint have the potential to adversely affect human health and the environment. If properly handled, however, the risks are substantially reduced. The abatement of asbestos-containing material and lead-based paint is regulated by various federal, state and local laws and regulations. Along with the appropriate industry practices, a number of laws and regulations must be followed during asbestos and lead-based paint abatement projects.

All public, commercial and, in some cases residential structures must be inspected by a Missouri certified asbestos inspector prior to beginning any demolition or renovation project. A listing of currently certified asbestos inspectors is available on the department's website at <http://www.dnr.mo.gov/env/apcp/asbestos.htm> or by contacting the Air Pollution Control Program at 573-751-4817 or [cleanair@dnr.mo.gov](mailto:cleanair@dnr.mo.gov). A Demolition Project Checklist may be helpful in planning your project, and can be found on the department's website at <http://www.dnr.mo.gov/pubs/pub2374.pdf>.

Demolition debris need not be tested for lead-based paint prior to disposal, as long as they are not chipped, shredded, milled, ground, mulched or similarly processed to enhance their leachability prior to disposal. Unprocessed wastes may be disposed of in either a sanitary or a demolition landfill in Missouri.

### **Geologic Resources**

#### East Middle School

The 1939 aerial photographs show no indication of mining activity on this tract, only a predominance of undisturbed rural land consistent with farming and associated buildings (house and outbuildings). There are no mine maps on file for this area. It is reasonable to conclude no mining has taken place on this tract.

#### Old St. John's/New Elementary School

The 1939 aerial photographs show that nearly the entire tract had been disturbed by mining activity. By 1974, most of the tract had been redeveloped so that mining activity was not evident on the aerial photos. Mine maps indicate that several underground workings existed and many

Proposed Demolition of Joplin Schools  
Page Four

mine shafts were dug on the tract. Attached files 00313.pdf and 00313b.pdf show parts of the mine maps and the shaft locations illustrated by red dots.

Emerson Elementary School

The 1939 aerial photographs show no indication of mining activity on this tract, only the original school building and surrounding homes. There are no mine maps on file for this area. There is no indication of mining activity at this location.

Joplin High School

The 1939 aerial photographs show that the southwest portion of the tract had been disturbed by mining activity. A mine map (see attached file 00329.pdf) shows underground mine workings in the blocks bounded by 22<sup>nd</sup> and 26<sup>th</sup> streets between Missouri and Grand avenues. It also shows many mine shafts in those blocks and elsewhere on the tract.

**Solid Waste**

All the waste generated from the demolition of the structures must be recycled, reused or taken for proper disposal at a permitted landfill or transfer station. The waste must not be stockpiled at an alternate site for separation at a later time.

Any asbestos-containing material that has been identified and determined to be nonfriable, which would not require a registered asbestos contractor for removal, must be taken to a permitted landfill or transfer station for disposal. The landfill or transfer station will require prior notification before disposal.

No waste may be buried on-site except for certified clean fill. Certified clean fill includes: uncontaminated soil, rock, sand, gravel, asphaltic concrete and unpainted concrete, cinder blocks, and brick. Clean fill must not contain protruding metals or demolition debris. Please note that any material used for clean fill must adhere to the requirements of a 404 Permit and 401 Certification if it is to be placed into the jurisdictional waters of the United States.

The following technical bulletin would be good to pass along: "Managing Construction and Demolition Waste". The bulletin is PUB2045, dated 10/2008 and can be found on the department's web site at <http://dnr.mo.gov/pubs/pub2045.pdf>

**Cultural Resources**

The department's State Historic Preservation Program (SHPO) continues to work with project planners to resolve issues related to Section 106 review of historic resources prior to demolition. This letter does not constitute Section 106 clearance – project planners should obtain final Section 106 clearance directly from the SHPO.

Proposed Demolition of Joplin Schools  
Page Five

We appreciate the opportunity to provide comments for the proposed demolition of schools that suffered tornado damage in Joplin, Missouri. If you have any questions or need clarification, please contact me, phone number (573) 751-3195. The address for correspondence is Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

Thank you.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES



Jane Beetem  
Policy Coordinator

JB/kc

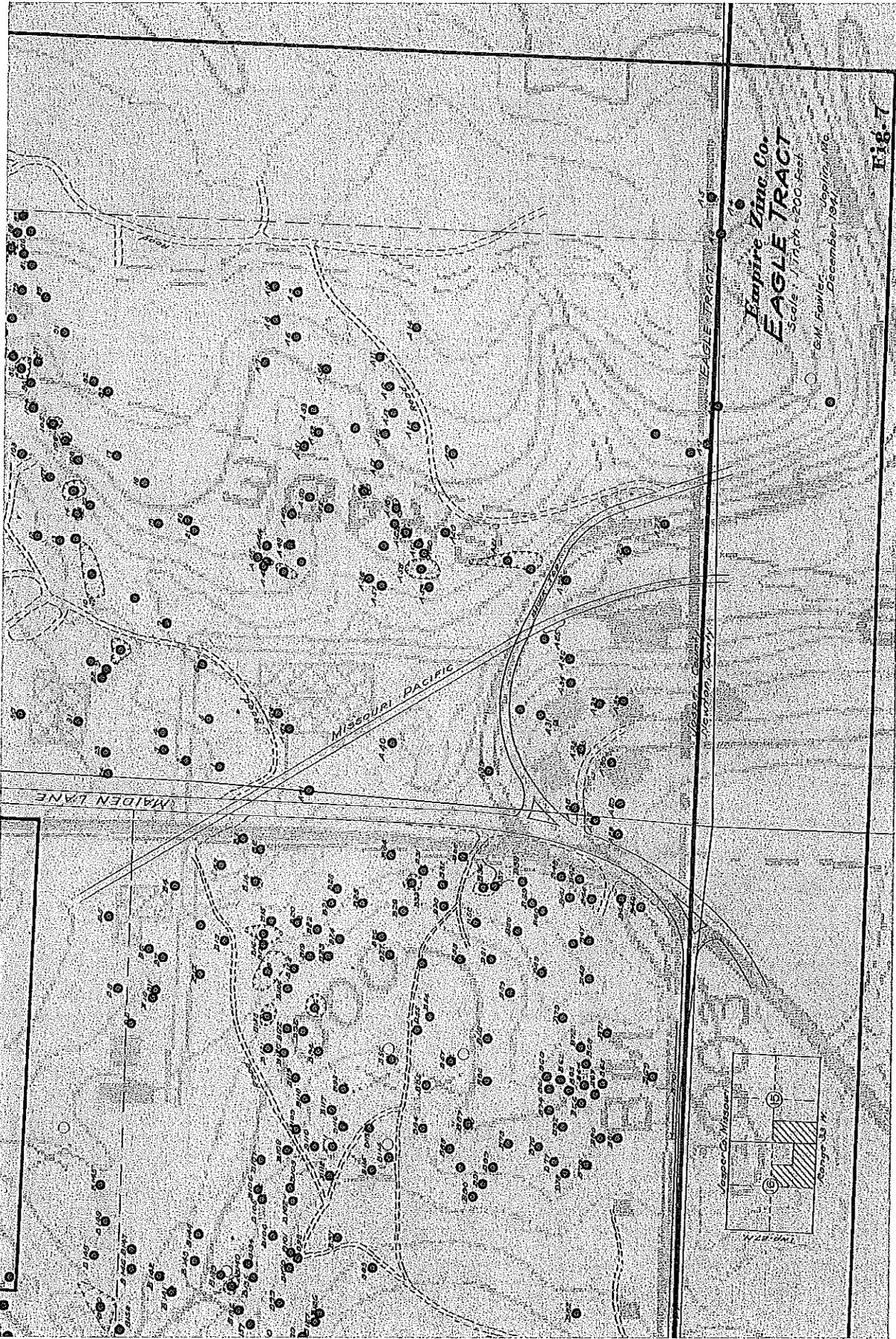


Fig. 7

23  
(9015)



## Michael C. Keaton

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**From:** Beetem, Jane <jane.beetem@dnr.mo.gov>  
**Sent:** Wednesday, April 25, 2012 8:53 AM  
**To:** Michael C. Keaton; Craig, Kay  
**Subject:** RE: Comments - Proposed Demo fo Joplin Schools

Michael, I checked with our Hazardous Waste Program, and they did not have any comments after checking their databases. If they do find something in the project area, they send me a map of the sites within the project area. That doesn't mean there aren't any underground tanks on school property, just that we don't have documentation of them. But we found no references to superfund sites, etc. in relation to the schools proposed for demolition.

Jane Beetem  
Director's Office  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102  
(573) 522-2401

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**From:** Michael C. Keaton [<mailto:Michael.Keaton@amce.com>]  
**Sent:** Wednesday, April 25, 2012 8:51 AM  
**To:** Craig, Kay  
**Cc:** Beetem, Jane  
**Subject:** RE: Comments - Proposed Demo fo Joplin Schools

Kay,

I was wondering, are we were also going to see any comments or mapping with regards to underground storage tanks, superfund sites, resource recovery sites, etc. within the project areas? Just checking.

Sincerely,

Michael Keaton, E.I.

[Michael.Keaton@AMCE.com](mailto:Michael.Keaton@AMCE.com)

ALLGEIER, MARTIN & ASSOCIATES, INC.  
CONSULTING ENGINEERS AND SURVEYORS

P.O. Box 2627, Joplin, Missouri 64803-2627  
7231 East 24th Street, Joplin, Missouri 64804  
Phone: (417) 680-7200 (Direct Line: 7325) FAX: (417) 680-7300

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**From:** Craig, Kay [<mailto:kay.craig@dnr.mo.gov>]  
**Sent:** Tuesday, April 24, 2012 3:41 PM  
**To:** Michael C. Keaton  
**Subject:** Comments - Proposed Demo fo Joplin Schools

All of the attached documents will go out in tomorrow's mail.

Thanks

*Kay Craig*

DNR Director's Office  
1101 Riverside Drive  
Jefferson City, MO 65102  
Phone: 573-751-3195

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

www.dnr.mo.gov

May 8, 2012

Allgeier, Martin & Associates, Inc.  
Michael Keaton  
7231 East 24<sup>th</sup> Street  
P.O. Box 2627  
Joplin, Missouri 64803-2627

RE: Joplin Schools -Tornado Project

Dear Mr. Keaton:

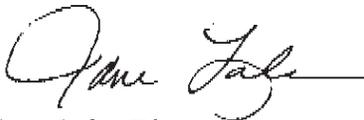
The Department of Natural Resources, Division of State Parks, Planning and Development Program has reviewed the plans you sent regarding the above referenced project. Based on the information provided, we have determined that this project will have **no impact** to the state parks or federally funded parks located in this area.

This clearance applies only to the rules and regulations governing Missouri State Parks and the National Parks Service's Land and Water Conservation Fund program. Additional clearances from our Department may be required.

Please feel free to contact Chris Buckland at (573) 751-0848 or write to Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102 if you have any questions. Thank you for the opportunity to serve the residents of the City of Joplin.

Sincerely,

DIVISION OF STATE PARKS



Jane Lale, Director  
Planning and Development

JL/cbc

