



Draft Environmental Assessment
Kiowa County Memorial Hospital
Greensburg, Kansas
May 9, 2008



FEMA

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ACRONYMS AND ABBREVIATIONS

CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
ROI	Region of Influence
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

1.0 INTRODUCTION

The city of Greensburg, Kansas is located in the south-central portion of the state and is the seat of Kiowa County. Kiowa County Memorial Hospital and the entire city of Greensburg, Kansas experienced substantial damage from an Enhanced Fujita Scale Category 5 tornado estimated at up to 1.7 miles in diameter made a direct hit on Greensburg, virtually destroying the entire town of some 1, 574 residents on May 4, 2007. On May 7, 2007, President Bush declared a major disaster in the State of Kansas (DR-1699-KS) pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. Section 5121-5206. The incident period began on May 4, 2007 and closed June 7, 2007. Initially 9 counties were declared, with 31 additional counties added by August 1, 2007.

The site of the proposed Kiowa County Memorial Hospital is located between Highway 54 and Florida Avenue near Cherry Street in Greensburg, Kansas (figure 1, appendix A). The site was the location of the former John Deere dealership buildings and equipment and has been reduced to rubble following the tornado of May 4th, 2007. The site rubble has been removed and two new metal buildings constructed for office space and a parts/service building

The National Environmental Policy Act (NEPA) requires that Federal agencies evaluate the environmental effects of their proposed and alternative actions before deciding to fund an action. The President's Council on Environmental Quality (CEQ) has developed a series of regulations for implementing the NEPA. These regulations are included in Title 40 of the Code of Federal Regulations (CFR), Parts 1500–1508. They 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 Stafford Act and 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 EA was conducted in accordance with both CEQ and FEMA regulations for the NEPA.

2.0 PURPOSE AND NEED

2.1 PURPOSE AND NEED

Pursuant to Section 406 of the Robert T. Stafford Disaster and Emergency Assistance Act of 1988, as amended, the city of Greensburg 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 purpose of this project is to assist the Greensburg residents in their recovery from the natural disaster by using the FEMA Public Assistance Program to fund the construction of a new Kiowa County Memorial Hospital.

The need for the project is to replace and upgrade the Kiowa County Memorial Hospital Facility in response to a devastating tornado that struck Greensburg, Kiowa County, Kansas, on May 4, 2007. Currently, Kiowa County Memorial Hospital operates out of an inadequate temporary facility located on Highway 54. Kiowa County Memorial Hospital is the only medical facility located within Kiowa County and it also provides ambulance service to the community. If the hospital were not rebuild, the nearest critical care medical facility is located in Pratt, Kansas, which is approximately 30 miles to the east. In the advent of an emergency a medical facility that is so distant could seriously jeopardize the health of Greensburg's citizens if they were required to travel that distance. .

3.0 ALTERNATIVES

NEPA requires the investigation and evaluation of reasonable project alternatives as part of the project environmental review process. Two alternatives are addressed in this EA: the No Action Alternative, where FEMA would not build a new Kiowa County Memorial Hospital, and the Proposed Action, where FEMA would build a new Kiowa County Memorial Hospital in Greensburg, Kiowa County, Kansas. The discussion includes an Alternative Analyzed and Dismissed.

3.1 PROPOSED ACTION

The Proposed Action provides a new Kiowa County Memorial Hospital for the people affected by the tornado in the Greensburg vicinity of Kiowa County, Kansas. This alternative provides disaster victims relief from a temporary facility with minimum facilities. The Proposed Action would require the building a new Kiowa County Memorial Hospital located between Highway 54 and Florida Avenue near Cherry Street in Greensburg, Kansas. This location lies in Section 16, Township 28 South, and range 18 West of the 6th Principal Meridian in Kiowa County, Kansas.

Kiowa County Memorial Hospital would consist of approximately 36,000 square feet of new construction and a partial basement of approximately 12,000, which could also serve as emergency storage in disaster. The new hospital will have a 15 bed capacity and be built to all the current codes and standards. The new hospital will have increased emphasis on outpatient services.

The new facility would encompass all of the 5 separate facilities of the destroyed hospital, which include the Hospital, Clinic, Boiler Plant, Storage Building, and Ambulance Garage. Approximately 10.61 acres of land would need to be purchased for the construction of the Kiowa County Memorial Hospital (which is still under negotiation and not procured). A portion of the site could also be used for a new County Fire Station. The exact amount is yet to be confirmed. The property has been used as the site of the John Deere dealership in the past. Utility services including water, sewer, power, and telephone exist at the site.

There is an existing retention pond on the property. It currently does not have any natural outlet and causes flooding if not pumped out during large rain events. The new construction will involve relocation of the pond slightly and construction of a natural outlet to the west of the site along Highway 54 right of way. The new site will be returned to natural regional plant habitat as much as possible, including a designed wetlands area.

After the disaster, FEMA activated the Long-Term Community Recovery program, which integrated assistance from the State of Kansas and federal agencies focused on the community's long-term recovery goals after the tornado on May 4th, 2007. The program provided coordination of resources and planning services in support of the area's recovery effort. This Long-Term Community Recovery Plan process expressed the Greensburg and Kiowa County communities' vision for recovery in the aftermath of the tornado. This Recovery Plan was the result of an intensive 12-week process involving

many meetings and discussions among the citizens, civic groups, business owners, local, state, and federal officials, and the long-term recovery planning team.

As a result of this process, Greensburg and Kiowa County have a unique opportunity to become the national leader in the design and construction of highly efficient and environmentally sound facilities. Projects such as the rebuilding of the Kiowa County Memorial Hospital can become the model for environmental and energy efficient design and construction. The City of Greensburg and Kiowa County could become the leaders in developing a sustainable community. Designing and constructing public facilities to meet the most stringent environmental and energy efficient standards will increase the sustainability and add unique elements to Greensburg and Kiowa County. Few public buildings in the country have been designed and built to meet the US Green Building Council's Leadership in energy and environmental design (LEED) ® Platinum standard.

The construction is anticipated to start in the 4th quarter of 2008 with completion in the 1st quarter of 2010.

3.2 NO ACTION

The No-action Alternative would not replace the Kiowa Memorial Hospital. The city of Greensburg currently is operating out of a temporary facility provided by the National Guard. If the hospital were not rebuilt, the nearest critical care medical facility is located in Pratt, Kansas, which is approximately 30 miles to the east, therefore jeopardizing the health of the local populace in case of a medical emergency. In addition, Kiowa County Memorial Hospital provides ambulance service to the city of Greensburg and if that service were to be not be available it would be extremely difficult to transport victims to the nearest medical facility in the advent of an emergency.

3.3 ALTERNATIVES CONSIDERED AND DISMISSED

This alternative would repair the existing Kiowa County Memorial Hospital. The existing Kiowa County Memorial Hospital has been completely destroyed by a tornado. The repair of the existing Kiowa County Memorial Hospital would require bringing the destroyed facility up to the current codes and standards. This alternative was dismissed as being unfeasible due to the complexities in repairing the facility because of the destruction and that in order to be in compliance with the Americans with Disabilities Act standards there would not be enough available land on the current parcel for the required parking.

4.0 SUMMARY OF IMPACTS AND MITIGATION

Two alternatives were evaluated in this EA:

- No-action Alternative
- Proposed Action

Table 4-1 summarizes the potential environmental impacts expected with each of the two alternatives.

As shown in table 4-1, the No-action Alternative would continue to have impacts on the environment:

- Public Health and Safety concerns regarding the Kiowa County Memorial Hospital would continue, the residents of Greensburg would continue to be forced to utilize an inadequate temporary facility in Greensburg and not have access to adequate critical healthcare facilities as the nearest permanent Hospital is more than 30 miles away in Pratt, Kansas.

As shown in table 4-1, the selection of Proposed Action would result in insignificant environmental impacts from the temporary increase in noise, the disturbance of approximately 10.61 acres at the construction site, and the production of fugitive dust during construction.

Table 4-1: Summary of Impacts and Mitigation

Environmental Resource	No-action	Proposed Action
Air Quality	No impact	Fugitive dust would result from all construction activities; the project would be of short duration and would not require large amounts of heavy equipment; best management practices would be implemented
Biological Resources	No impact	No impact; in the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS
Executive Order 11990/Wetlands	No impact	No significant impact; best management practices would be used to protect wetlands during construction. If required, a Section 404 permit from USACE would be obtained
Threatened and or Endangered Species	No impact	No impact; in the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS
Geology and Soils	No impact	No significant impacts; construction activities would clear existing vegetation and expose soil in the area proposed Greensburg School area
Land Use and Planning	No impact	No impacts. Approximately 10.61 acres of land would be purchased for use as the Kiowa County Memorial Hospital. The land is currently zoned commercial
Noise	No impact	Construction activities would increase the noise levels in the immediate area of the construction project; activities are assumed to take place during daylight hours and no sensitive noise receptors are located near the project area
Public Health and Safety	Greensburg would continue to be forced to utilize an inadequate temporary facility in Greensburg and not have access to permanent healthcare facilities as the nearest permanent Hospital are more then 30	Beneficial impact; the city of Greensburg would be provided with a functioning critical care medical facility

	miles away in Pratt, Kansas	
Socioeconomics	No impact	Due to the purchase of goods and services by the construction crew, there would be a short-term beneficial impact
EO 12898, Environmental Justice	No impact	Implementation of this alternative would have little likelihood of having disproportionate impacts on any low-income or minority groups
Traffic	No impact	Flagmen and possibly escort vehicles would be utilized; construction the Kiowa County Memorial Hospital would temporarily disrupt local traffic within the project area
Water Quality/Water Resources	No impact	Implement construction best management practices . Install silt fences/straw bales to reduce soil erosion and sedimentation. Construction contractor to implement requirements of NPDES storm water discharge permit, if required.
Cumulative Impacts	No impact	Designing and constructing public facilities such as the Kiowa County Memorial Hospital to meet the most stringent environmental and energy efficient standards will increase the sustainability and add unique elements to Greensburg and Kiowa County. Few public buildings in the country have been designed and built to meet the US Green Building Council's Leadership in energy and environmental design (LEED) ® Platinum standard

Notes: USACE = U.S. Army Corps of Engineers, USFWS = U.S. Fish and Wildlife Service

5.0 AFFECTED ENVIRONMENT AND IMPACTS

The city of Greensburg is located in Kiowa County in the south-central portion of Kansas and is the seat of Kiowa County. Kiowa County was established in 1886. Greensburg was founded in 1886, and was named for stagecoach driver D.R. “Cannonball” Green. Green was elected Kiowa County’s first representative in the Kansas legislature in 1889 (Kiowa County, Kansas, 2008). Greensburg is an incorporated city in Kansas with a Mayor-Council style of government and a population of approximately 1,574 (U.S. Department of Commerce, 2000). Greensburg is located close to the intersection of U.S. Highway 183 and U.S. Highway 400.

Chapter 5 describes the existing environmental conditions that may be affected by the proposed construction of a new Kiowa County Memorial Hospital. The environmental impacts of the No-action alternative were also analyzed.

This chapter also describes the potential environmental consequences of the proposed alternatives by comparing them with the potentially affected environmental components. Proposed activities were also evaluated against existing environmental documentation on current and planned actions and information on anticipated future projects to determine the potential for cumulative impacts. The potential for significant environmental consequences was evaluated utilizing the context and intensity considerations as defined in CEQ regulations for implementing the procedural provisions of NEPA (40 CFR 1508.27).

5.1 AIR QUALITY

The National Ambient Air Quality Standards 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 (primary standard) and welfare (secondary standard) with a reasonable margin of safety. These standards include maximum concentrations for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter with a diameter of 10 microns or less.

The nearest Air Quality Monitoring System location is in Dodge City and is administered by the Bureau of Air and Radiation Section of the Kansas Department of Health and Environment. Kiowa County is considered an attainment area for all criteria pollutants listed above.

Air quality in the project and the surrounding area currently complies with Federal and State air quality standards as indicated by the entire state of Kansas being within an Air Quality Attainment Area. In addition, neither the city of Greensburg nor Kiowa County is covered by the State of Kansas Air Quality State Implementation Plan (Kansas Department of Health and Environment, 2008).

5.1.1 NO-ACTION

The No-action Alternative would not affect air quality. No construction activities would occur with the selection of the No-action Alternative.

5.1.2 PROPOSED ACTION

The Proposed Action would require the excavation of soil for the construction of the Kiowa County Memorial Hospital, which would result in the production of some fugitive dust. Best management practices would be utilized during construction to minimize dust. The proposed project would require approximately 12 months of construction and some heavy equipment including bulldozers, scrapers, and backhoes.

Construction activities would produce a minor, temporary, and localized impact from vehicle emissions and dust particles. Equipment use would temporarily increase emissions; however, no long-term air quality impacts are anticipated. Federal or state air quality attainment levels would not be exceeded. Based upon this information, there would be minimal impacts to air quality due to the implementation of the Proposed Action.

5.2 BIOLOGICAL RESOURCES

Native or naturalized vegetation, wildlife, and the habitats in which they occur are collectively referred to as biological resources. Existing information on plant and animal species and habitat types in the vicinity of the proposed sites was reviewed with special emphasis on the presence of any species listed as threatened or endangered by Federal or State agencies to assess their sensitivity to the effects of the alternatives.

Biological studies consisting of literature review, field reconnaissance, agency consultation, and map documentation were performed. Site visits were conducted on April 21st and 22nd, 2008. For the purpose of discussion, biological resources have been divided into the areas of protected species and habitats.

5.2.1 PROTECTED SPECIES AND HABITATS

The Endangered Species Act (ESA) of 1973 establishes a Federal program to conserve, protect, and restore threatened or endangered plants and animals and their habitats. ESA specifically charges Federal agencies with the responsibility of using their authority to conserve threatened or endangered species.

All Federal agencies must ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction of critical habitat for these species. During the field surveys of April 21st and 22nd, 2008 the following list and description of threatened or endangered species that may occur in Kiowa County was produced.

Table 5-1: Threatened and Endangered Species of Kiowa County, Kansas

Common Name	Scientific Name	Status	Potential Occurrence at Site	Reason
Arkansas River Shiner	Notropis girardi	Threatened	No	No habitat
Bald Eagle	Haliaeetus leucocephalus	Threatened	No	No habitat
Eskimo Curlew	Numenius borelais	Endangered	No	No habitat
Least Tern	Sterna antillarum	Endangered	No	No habitat
Piping Plover	Charadrius melodus	Threatened	No	No habitat
Whooping Crane	Grus americana	Endangered	No	No habitat

5.2.1.1 No-action

It was determined from the field survey and from review of available documentation that the project had no identifiable conflicts with threatened or endangered species that could be foreseen.

5.2.1.2 Proposed Action

The proposed construction of the Kiowa County Memorial Hospitals effect on threatened and endangered species has been determined to be negligible. No remaining native habitats are present on the site. FEMA reviewed lists from both USFWS and the Kansas Department of Wildlife and Parks for threatened and endangered species with potential to occur in Kiowa County. It was determined from documentation review and a field survey of the project that threatened or endangered species identified as having potential to occur in Kiowa County were not frequent to the area. In the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS.

5.3 CULTURAL RESOURCES

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended and implemented by 36 CFR Part 800. Requirements include the identification of significant cultural resources that may be impacted by the alternatives. Cultural resources are prehistoric and historic sites, structures, districts, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons.

Only those cultural resources determined to be potentially significant under NHPA are subject to protection from adverse impacts resulting from an undertaking. To be considered significant, a cultural resource must meet one or more of the criteria established by the National Park Service that would make that resource eligible for inclusion in the National Register of Historic Places (NRHP). The term “eligible for inclusion in the NRHP” includes all properties that meet the NRHP listing criteria, which are specified in the Department of Interior regulations Title 36 CFR 60.4 and NRHP Bulletin 15. Therefore, sites not yet evaluated may be considered potentially eligible for inclusion in the NRHP and, as such, are afforded the same regulatory consideration as nominated properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as “historic properties.”

For the purposes of this analysis, the term region of influence (ROI) is synonymous with the “area of potential effect” as defined under cultural resources legislation. In general, the ROI for cultural resources at each alternative’s site encompasses areas requiring ground disturbance (e.g. areas of grading, cut and fill, etc) associated with the proposed development of the Kiowa County Memorial Hospital.

According to the Kansas State Historic Preservation Office, there are three known structures within the affected area of Greensburg. Two of the structures may be eligible for the NRHP. One structure may be eligible at the state level. According to the Kansas State Historic Preservation Office, there are no known archaeological sites within the project site of the Proposed Action. The NRHP-eligible historic properties in Greensburg include the Kiowa County Courthouse and the Greensburg Well. The Kiowa County Courthouse (circa 1913-1914), located at 221 E. Florida Avenue, was damaged (but is still standing) during the tornado. The Greensburg Well (circa 1888) has served as a well-known landmark to Kiowa County for many years. The Robinette Building, located at 148 S. Main Street may be eligible at the state level only (degree of damage unknown). All of the properties mentioned above are well east of the proposed Kiowa County Memorial Hospital site (Department of Homeland Security, 2007).

5.3.1 ARCHEOLOGICAL

5.3.1.1 No-action

The No-action Alternative would not impact vegetation or wildlife in the project area. No construction activities would occur with the selection of the No-action Alternative.

5.3.1.2 Proposed Action

The proposed action would have no significant effect on archaeological resources within the project area. The proposed project would require approximately 12 months of construction and would require the use of some heavy equipment including a bulldozer, scraper, and a backhoe. Although no historic properties have been identified within the ROI, if during the course of activities, cultural resources (particularly human remains) are unexpectedly discovered, activities would cease in the immediate area and the Kansas State Historic Preservation Officer and the FEMA Regional Environmental Officer would be notified before work would continue.

5.3.2 HISTORIC

5.3.2.1 No-action

The No-action Alternative would have no significant effect on cultural resources within the project area. No construction activities would occur with the selection of the No-action Alternative.

5.3.2.2 Proposed Action

The proposed action would have no significant effect on historic resources within the project area. The proposed project would require approximately 12 months of construction and would require the use of some heavy equipment including a bulldozer, scraper, and a backhoe. Although no historic properties have been identified within the ROI, if during the course of activities, cultural resources (particularly human remains) are unexpectedly discovered, activities would cease in the immediate area and the Kansas State Historic Preservation Office and the FEMA Regional Environmental Officer would be notified before work would continue.

5.4 GEOLOGY AND SOILS

Kiowa County, Kansas, is divided between the Arkansas River Lowlands and the High Plains geologic regions (physiographic provinces). Greensburg is located at the confluence of these two regions. The Arkansas River Lowlands are generally characterized as flat alluvial plains comprised of sand, silt, gravel, and rocks deposited by the Arkansas River over the past 10 million years. The High Plains region includes vast flatlands and gently rolling hills developed on sediments from erosion of the Rocky Mountains during the Tertiary Geologic Period the last two million years (U.S. Department of Homeland Security, 2007). The topography of the proposed Kiowa County Memorial Hospital site is flat with a few lower depressions. Information from the U.S. Department of Agriculture Natural Resources Conservation Service shows that two soil types are present on the site.

Soils found at the proposed Kiowa County Memorial Hospital project area are Naron fine sandy loam and Ness silty clay. The symbols that accompany the soil descriptions correspond with those found on the Soils Survey Legend of the *Soil Survey of Kiowa County, Kansas*. Naron fine sandy loam (Map Unit Nb) is found with 1 to 3 percent slope. This deep, undulating, well drained soil is on uplands. Permeability of this soil is moderate, and runoff is slow. This soil is well suited to dwellings and septic tank absorption fields. Ness silty clay (Map Unit Ne). This deep, nearly level, poorly drained soil is in shallow upland depressions and is subject to ponding. Permeability is very low in the Ness soil, and runoff is ponded. This soil is generally not suited to building site development because of ponding (U.S. Department of Agriculture, 1986).

The Farmland Protection Policy Act (FPPA) was enacted in 1981 (P.L. 98-98) to minimize the unnecessary conversion of farmland to nonagricultural uses as a result of Federal actions. In addition, the act seeks to ensure that Federal programs are administered in a manner that will be compatible with State and Local policies and programs that have been developed to protect farmland. The policy of the NRCS is to protect significant agricultural lands from conversions that are irreversible and that result

in the loss of essential food and environmental resources. The NRCS has developed criteria for assessing the efforts of Federal actions on converting farmland to other uses, including Farmland Conversion Impact Rating form AD-1066 that documents a site-scoring evaluation process to assess its potential agricultural value. In accordance with Section 1541 of the FPPA, the alternatives were reviewed for potential impacts on prime farmlands. The Prime Farmland map of Kiowa County was consulted and indicates that Prime Farmlands are in the immediate vicinity of the Proposed Action. However, the U.S. Department of Agriculture states that proposed projects on land already in urban development or water storage are not subject to the provisions FPPA.

5.4.1 NO-ACTION

The No-action Alternative would have no significant effect on geology or soils. This alternative would not involve any construction, improvements, or ground disturbance to the project area.

5.4.2 PROPOSED ACTION

The Proposed Action would have no significant impact to geology and soils. Construction activities would clear the existing remaining slab of the destroyed John Deere facility and expose soil in the area proposed for the Kiowa County Memorial Hospital. Best management practices would be implemented during and after construction to control erosion. This would include, but not be limited to, the use of silt fence during construction.

5.5 LAND USE AND PLANNING

The current land use for the city of Greensburg includes developed land (residential and commercial), street, highway, and railroad rights-of-way, agricultural lands, and the public city dump. The project area encompasses the destroyed John Deere Dealership. Directly north of the site is U.S. Highway 54 and the temporary Kiowa Hospital Facility. Immediately south of the subject site is Florida Avenue followed by scattered residences and vacant land. Immediately east of the subject site is scattered residences and vacant land. West of the subject site is agricultural land that it supporting a winter wheat crop. The city of Greensburg's land use and zoning regulations are administered and enforced by the Mayor and City Council. The existing site of the John Deere Dealership and proposed location of the new hospital is currently owned by the city and is zoned for commercial use.

FEMA activated the Long-Term Community Recovery program, which integrated assistance from the State of Kansas and federal agencies focused on the community's long-term recovery goals after the tornado on May 4th, 2007. The program provides coordination of resources and planning services in support of the area's recovery effort. This Long-Term Community Recovery Plan process expresses the Greensburg and Kiowa County community vision for recovery in the aftermath of the tornado. This Recovery Plan was the result of an intensive 12-week process involving many meetings and discussions among the citizens, civic groups, business owners, local, state, and federal officials, and the long-term recovery planning team.

A total of four community meetings were held to gain input and feedback on plan ideas and concepts. Attendance at these public meetings averaged 400 people. The Draft Recovery Plan was presented to the community at a public meeting on August 2, 2007. Approximately 350 people attended the meeting and were able to review the draft, discuss issues, and provide input through discussion and posting notes on the plan boards. Projects receiving the most comments and highest priority from the attendees and Public Square stakeholders included:

- Rebuild City and County Buildings
- Rebuild Schools and Expand Educational Opportunities in Kiowa County
- Develop Affordable and Diverse Housing Opportunities
- Rebuild Medical and Emergency Service Facilities

The way a community chooses to rebuild following a disaster impacts not only those who construct and repair in the months and years after the event, but those who will live in the community for generations to come. Decisions made today and in the near future can influence rebuilding in a way that takes advantage of technology and traditional design to reduce the cost of living and makes the most of the assets of the community.

Greensburg and Kiowa County have the unique opportunity to rebuild in a way that will not only replace the parts of the community that were destroyed but will look at the real impact of that rebuilding on the community and the environment. Sustainable or “green” development creates livable, inspirational, and enduring places where the quality of life and the long-term quality of the community will be enhanced rather than depleted. When developing and redeveloping Greensburg and Kiowa County in a sustainable manner, it is important to look at the environmental, social and economic aspects of the community from a holistic perspective.

5.5.1 NO-ACTION

With the No-action Alternative, the existing Kiowa County Memorial Hospital would not be replaced and there would be no impact to the current zoning.

5.5.2 PROPOSED ACTION

Designing and constructing public facilities such as the Kiowa County Memorial Hospital to meet the most stringent environmental and energy efficient standards will increase the sustainability and add unique elements to Greensburg and Kiowa County. Few public buildings in the country have been designed and built to meet the U.S Green Building Council’s Leadership in energy and environmental design (LEED) ® Platinum standard. Land required for the Proposed Action would involve a single landowner and would be located at a site that was previously used as the John Deere equipment dealership. Approximately 10.61 acres of land would be purchased for use as the Kiowa County Memorial Hospital. The land is currently zoned commercial.

5.6 NOISE

The Noise Control Act was enacted in 1972 (P.L. 92-574). Inadequately controlled noise presents a growing danger to the health and welfare of the nation’s population. The major sources of noise include transportation vehicles and equipment, machinery,

appliances, other products in commerce, climate, and recreation. Sounds, which disrupt normal activities or otherwise diminish the quality of the environment, are designated as noise. Noise can be stationary or transient, intermittent or continuous.

5.6.1 NO-ACTION

The No-action Alternative would not affect noise levels within the project area or the surrounding community. No construction activities would occur with the selection of the No-action Alternative.

5.6.2 PROPOSED ACTION

The Proposed Action would increase the levels of noise in the vicinity of the project area during the construction of the Kiowa County Memorial Hospital. The proposed project would require approximately 12 months of construction and the use of some heavy equipment including a bulldozer, scraper, and backhoe. These noise levels would not be significant, as the increased level of sound would be similar to the increased construction activities occurring in the local area. No sensitive noise receptor (i.e., schools, etc) are located near the project area. It is anticipated that all construction activities would occur during daylight hours. Based upon this information, there would be minimal impacts to noise due to the implementation of the Proposed Action.

5.7 PUBLIC HEALTH AND SAFETY

The existing Kiowa County Memorial Hospital has been destroyed. Currently, Kiowa County Memorial Hospital operates a medical clinic out in an inadequate temporary facility located on Highway 54. Kiowa County Memorial Hospital is the only medical facility located within Kiowa County and it also provides ambulance service to the community. The nearest permanent medical facility is located in Pratt, Kansas, which is approximately 30 miles to the east.

5.7.1 NO-ACTION

With the No-action Alternative, Public Health and Safety concerns regarding the Kiowa County Memorial Hospital would continue, the residents of Greensburg would continue to be forced to utilize an inadequate temporary facility in Greensburg and not have access to adequate critical healthcare facilities as the nearest Hospital is more than 30 miles away in Pratt, Kansas. In the advent of an emergency a medical facility that is so distant could seriously jeopardize the health of Greensburg's citizens if they were required to travel that distance.

5.7.2 PROPOSED ACTION

Construction of a new Kiowa County Memorial Hospital would have a beneficial impact on public health by providing a permanent hospital and ambulance services to the residents of Greensburg.

5.8 SOCIOECONOMIC ISSUES

Greensburg is a small community with agriculture as its main economic source. Agricultural activities are dominated by the production of wheat, sorghum, forage/feed crops, and soybeans in descending order of acreage. After crop production, livestock production is the next largest agricultural activity. Greensburg commercial district is limited to a one mile stretch along highway 54 and three blocks north and south of Main Street. With the exception of a small handful of business on the east edge of town along Highway 54 Greensburg's business base was destroyed. Storefront businesses that were lost include but were not limited to three branch banks, two insurance companies and restaurants; one funeral home, video store, repair business, electrician, furniture store, theater, lumber yard, convenience store, and a hotel. The community has numerous home based businesses (U.S. Department of Commerce, 2007). Greensburg population has increased by 60 percent between 1980 and 2000, from 625 to 1,574 persons (table 5-1). Employment in the area includes a restaurant, a grocery store, and other numerous small businesses (U.S. Census Bureau, 2000).

Table 5-2: Population Statistics 1980 though 2000

Jurisdiction	1980	1990	2000
Kansas	2,363,679	2,477,574	2,688,418
Kiowa County	4,046	3,660	3,278
City of Greensburg	625	1,792	1,574

(U.S. Census Bureau, 2000)

The median household income in the city of Greensburg was \$28,438 in 2000. Approximately 12.4 percent of the residents of Greensburg have income below the poverty level. About 1 percent of the population of Greensburg is considered minority (U.S. Census Bureau, 2000).

5.8.1 NO-ACTION

The No-action Alternative would have no impact to the socioeconomics of the local area because no construction activity would occur.

5.8.2 PROPOSED ACTION

Activities associated with the implementation of the Proposed Action would be considered a positive impact with an influx of construction workers needed for the approximately 12 months of construction activities. Construction personnel would provide short-term benefits to the local businesses, which would include the purchase of food, gas, and other services. The Proposed Action would not displace or adversely affect any nearby residents during the construction phase. Greensburg and Kiowa County have a unique opportunity to become the national leader in the design and construction of highly efficient and environmentally sound facilities. Projects such as the rebuilding of the Kiowa County Memorial Hospital can become the model for environmental and energy efficient design and construction. The City of Greensburg and

Kiowa County could become the leaders in developing a sustainable community. Designing and constructing public facilities to meet the most stringent environmental and energy efficient standards will increase the sustainability and add unique elements to Greensburg and Kiowa County. Few public buildings in the country have been designed and built to meet the US Green Building Council's Leadership in energy and environmental design (LEED)® Platinum standard.

5.8.3 EXECUTIVE ORDER 12898, ENVIRONMENTAL JUSTICE

On February 11, 1994, President Clinton signed EO 12898, *"Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."* The EO directs Federal agencies to focus attention on human health and environmental conditions in minority and/or low-income communities. Its goals are to achieve environmental justice, fostering non-discrimination in Federal programs that substantially affect human health or the environment, and to give minority or low-income communities greater opportunities for public participation in and access to public information on matter relating to human health and the environment. Also identified and addressed, as appropriate, are disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States. Based on the findings in this EA, implementation of any of the proposed alternatives would have little likelihood of having disproportionate impacts on any low-income or minority groups. After construction, the improvements created by the proposed action would be beneficial and would not cause adverse environmental or economic impacts specific to any groups or individuals.

5.9 TRAFFIC CIRCULATION, VOLUME, AND PARKING ACCESS

U.S. Highway 54 connects the proposed Kiowa County Memorial Hospital with County Highway 33. This road is regularly utilized as the main route through the city of Greensburg. Currently, a study by the Kansas Department of Transportation is underway to relocate Highway 54 along a route north of the existing roadway. The proposed road would be relocated between the current Highway 54 and the railroad tracks, approximately 3 blocks to the north.

5.9.1 NO-ACTION

With the No-action Alternative, the demolished Kiowa County Memorial Hospital would not be repaired and there would be no impact to the existing traffic and circulation for the city of Greensburg because there would not be any construction activities.

5.9.2 PROPOSED ACTION

The construction of the Kiowa County Memorial Hospital would temporarily disrupt the traffic flow on U.S. Highway 54 during the approximately 12-month construction period. Local traffic would need to slow down or stop to accommodate equipment, such as bulldozers, backhoes, and graders, used during construction. Flagmen and possibly escort vehicles would be utilized to sustain traffic flow while maintaining safe working and traffic conditions. This activity would have a short-term effect on the level of service for the connecting roads during the construction period. This level of service would, however, be expected to return to normal at the completion of the project.

5.10 WATER RESOURCES

The United States Army Corps of Engineers (USACE) is responsible for permitting and enforcement functions dealing with building in U.S. waters and discharging dredged or fill material into U.S. waters. USACE regulations for building or working in navigable waters of the United States are authorized by the Rivers and Harbors Act of 1899. These regulations often go hand in hand with Section 404 of the Clean Water Act, which establishes the USACE permit program for discharging dredged or fill material. The regulations are often used together because building in navigable waters of the United States also constitutes discharging dredged or fill material into water of the United States. In addition to regulating construction or work being done in navigable water of the United States, USACE regulates discharging into wetlands through the Section 404 permit program (see section 5.10.1, Wetlands).

5.10.1 WETLANDS

Wetlands are defined by the USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that 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.” EO 11990, *Protection of Wetlands*, requires Federal agencies to take action to minimize the destruction or modification of wetlands, by considering both direct and indirect impacts to wetlands that may result from Federally funded actions.

Application of the 8-Step Decision-Making process is required to ensure that Federally funded projects are consistent with EO 11990 objectives. By its very nature, the NEPA compliance process involves the same basic decision process to meet the objectives found in the 8-Step Decision-Making Process. The 8-Step Decision-Making Process has been applied through implementation of the NEPA process followed as part of this EA. Activities disturbing jurisdictional wetlands require a permit from the USACE. Two types of authorization are available from the USACE for activities regulated under Section 404 of the Clean Water Act: general permits, which are issued for a specific category of similar activities and include nationwide permits defined in 33 CFR Part 30, and individual permits issued after review of the project, project alternative, and proposed mitigation.

The City of Greensburg, Kansas is in an unmapped area for Flood Insurance Rate Maps. However, based on topographic map review, the site has a surface elevation of approximately 2,240 feet above mean sea level, the nearest small drainage way is about 1.0 miles to the west and Rattlesnake Creek is located approximately 2.0 miles to the east with an elevation of about 2,210 feet. Based on this information the site does not appear to be subject to flooding; however, there is a storm water retention pond on the existing eastern portion of the site that is used to collect surface runoff during wet periods. Wetland areas mapped by the National Wetland Inventory maps showed no wetlands in the area of the Kiowa County Memorial Hospital.

5.10.1.1 No-action

The No-action Alternative would not affect wetlands. No construction activities would occur with the selection of the No-action Alternative.

5.10.1.2 Proposed Action

The Proposed Action would not have an impact on wetlands in the project area. The existing retention pond on the property currently does not have any natural outlet and causes flooding if not pumped out during large rain events. The new construction will involve relocation of the pond slightly and construction of a natural outlet to the west of the site along Highway 54 right of way. The new site will be returned to natural regional plant habitat as much as possible, including a designed wetlands area. Rainfall will be retained with bio-swales designed to accelerate the aquifer recharge on site.

Plantings on the site will be selected from a palette of native plants within the immediate area and others typical of this region. The landscape will be predominantly low water use plants with a minimum of irrigation. Final grading of the construction area would enable movement of water that helps support drainage. In order to minimize storm water pollutants from the construction activities of the Proposed Action that would impact 1 acre or more in the State of Kansas, a General National Pollutant Discharge Elimination System (NPDES) Permit, or a waiver of the permit, could be required to be obtained from the Kansas Department of Health and Environment. The General NPDES Permit is obtained by developing a Storm Water Pollution Prevention Plan that implement a series of best management practices (e.g., silt fences, hay bales, etc.).

The Contractor would implement specific best management practices to reduce or eliminate runoff impacts during proposed construction activities of the Proposed Action and to reduce the potential for soil erosion after construction, regardless of whether a NPDES Permit or a waiver from the permit requirement is secured (U.S. Department of Homeland Security, 2007). In addition, .if required in consultation with the USACE a Section 404 permit would be obtained.

5.10.2 FLOODPLAINS

The intent of Executive Order (EO) 11988 is to require Federal agencies to minimize the occupancy and modifications of floodplains. Specifically, EO 11988 prohibits Federal agencies from funding construction in 100-year floodplain (or 500-year floodplain for critical facility) unless there are no practical alternatives. Based on the findings in this EA the location of the Kiowa County Memorial Hospital is not located on an identified floodplain. The city of Greensburg does not participate in the National Flood Insurance Program.

5.11 CUMULATIVE IMPACTS

A cumulative impact is defined 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 action. The City of Greensburg and Kiowa County could become the leaders in developing a sustainable community thus creating a positive cumulative impact for the city of Greensburg and Kiowa County. Designing and constructing public

facilities such as the Kiowa County Memorial Hospital to meet the most stringent environmental and energy efficient standards will increase the sustainability and add unique elements to Greensburg and Kiowa County.

5.12 COORDINATION AND PERMITS

Federal, State, and local agencies were contacted and consulted during the preparation of this EA. The following coordination and/or permits may be required before implementation of the alternatives identified below.

5.12.1 NO-ACTION

With the No-action Alternative, the nearest critical care medical facility is located in Pratt, Kansas, which is approximately 30 miles to the east, therefore jeopardizing the health of the local populace in case of a medical emergency.

5.12.2 PROPOSED ACTION

In the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS (section 5.2.1.2, Protected Species and Habitats). If cultural resources (particularly human remains) are unexpectedly discovered during construction, activities would cease in the immediate area and the Kansas State Historic Preservation Officer and the FEMA Regional Environmental Officer would be notified before work would continue (section 5.3.1.2, Cultural Resources). Best management practices as recommended by the Kansas Department of Health would be implemented during and after construction to control erosion, with the selection of the Proposed Action (section 5.4.2, Geology and Soils). A General NPDES Permit, or a waiver of the permit, could be required to be obtained from the Kansas Department of Health and Environment and if required in consultation with the USACE a Section 404 permit would be obtained (section 5.10.1.2).

6.0 PARTIES CONSULTED AND REFERENCES

6.1 PARTIES CONSULTED

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6.2 REFERENCES

Kansas Department of Health and Environment, 2009 [Online]. Available:
www.kdheks.gov/bar/

Official Website of Greensburg, Kansas, 2008 [Online]. Available:
<http://www.greensburgks.org/visitor/kiowa-county-greensburg-history> [15 April].

U.S. Department of Agriculture, 1986. Soil Survey of Kiowa County, Kansas

U.S. Department of Commerce, 1980. Characteristics of the Population Number of Inhabitants Kansas

U.S. Department of Commerce, 2000. Characteristics of the Population Number of Inhabitants Kansas

U.S. Department of Commerce, 2007. Final Report Community Economic Impact Greensburg, Kansas, Tornado

U.S. Department of Homeland Security, 2007. Final Environmental Assessment Emergency Temporary Housing, Kansas Direct Housing Mission Severe Storms and Tornadoes Greensburg, Kiowa County, Kansas

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