



Draft Environmental Assessment

City of Greene Community Center

City of Greene, Iowa

FEMA DR-1763-IA

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FEMA

Federal Emergency Management Agency
Department of Homeland Security
9221 Ward Parkway, Suite 300
Kansas City, MO 64114-3372

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Abbreviations and Acronyms

CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMU	Concrete Masonry Unit
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
ESC	Educational Services Center
FEMA	Federal Emergency Management Agency
FIRMS	Flood Insurance Rate Maps
FPPA	Farmland Protection Policy Act
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

1. INTRODUCTION

The city of Greene is located in the Northeast portion of the state of Iowa in Butler County. Beginning on June 9th 2008, the Greene Community Center experienced extensive damage from the flooding of the Shell Rock River which flooded most of the city. On May 27, 2008, President Bush declared a major disaster in the State of Iowa (DR-1763-IA) 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 25, 2008 and closed August 13, 2008. The current location of the Greene Community Center is the corner of North 1st Street and East Dow Street (Figure 1, Appendix A Site A). The Greene Community Center is a structural clay block building with a concrete foundation, a barrel roof with wooden trusses and a single-ply membrane roof system. The original construction was completed in 1925. The structural integrity of the structural masonry walls has been severely compromised as a result of this event. During the time the second level was wet, the wood tongue and groove flooring swelled, creating a horizontal force parallel to the floor and contained by the masonry side walls of the building. This force was greater than the sidewalls could effectively absorb which subsequently bowed and cracked the north and south walls. (Section 7.1 References, Flood Damage Structural Condition Assessment from Howard R. Green Company dated June 26, 2008) Note specifically the last page summary indicating that north and south load bearing walls are structurally unsound and that second level wood floor has deteriorated and will continue to deteriorate. These walls will be difficult and impractical to repair to pre-disaster conditions.

The National Environmental Policy Act (NEPA) requires that Federal agencies evaluate the environmental impacts 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 purpose and need for Federal action and a discussion of the potential environmental impacts of the 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, as it relates to the 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 the Federal Emergency Management Agency (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 NEPA and will address the environmental issues associated with the FEMA grant funding as applied towards construction of a new City of Greene Community Center at the proposed site.

Executive Order (EO) 11988 (Floodplain Management) requires that Federal Agencies assume a leadership role in avoiding direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. The damaged facility is located within the 100-year floodplain and subject to repetitive flooding. Rather than repair the facility at its present location, FEMA and the city of Greene conducted a thorough review of the practicable alternatives to restoring the function of this facility at a location outside the floodplain and not subject to repetitive flood damage.

2. PURPOSE AND NEED

Pursuant to Section 406 of the Robert T. Stafford Disaster and Emergency Assistance Act of 1988, as amended, the Greene has requested funding through 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 action is to assist the city of Greene and the citizens of Butler County in their recovery from the natural disaster by using the FEMA Public Assistance Program to contribute funding towards the construction of a new Community Center located at 202 West South Street in Greene, Iowa 50636 (Appendix A, Figure 1). The need for the project is to replace and relocate the Greene Community Center outside of the 100-year floodplain as they recover from a devastating flood that impacted the city of Greene, Butler County, Iowa, beginning on June 9th, 2008.

Since the June 2008 floods, the functional use of the Community Center has been terminated and the essential community services that were once offered to the citizens of Greene have been discontinued. In addition, the first level that once served as the evacuation shelter for the city's residents during severe weather events when local power was out of service, and for a source of electricity for residents to charge batteries for mobile phones, flashlights, and power tools is no longer in operation as a result of the extensive damage to the Community Center. Action is needed to restore these essential public services to the population of the city of Greene. If the Greene Community Center is not relocated and rebuilt, the quality of life and safety for the citizens of Greene will be negatively impacted. To further enhance the function of the community shelter, FEMA analyzed the option of hardening a portion of the new structure to FEMA 361 Standards: Design and Construction Guidance for Community Safe Rooms.

3. ALTERNATIVES ANALYSIS

NEPA requires the investigation and evaluation of a range of reasonable project alternatives as part of the project environmental review process. Two alternatives are addressed in this EA: the No-action Alternative, where no FEMA grant funding is applied towards construction of a new Greene Community Center, and the Proposed Action, where FEMA grant funding is applied towards construction of a new Greene Community Center at an alternate location outside the floodplain in Greene, Butler County, Iowa. The discussion includes Alternatives Analyzed and Dismissed. Furthermore, during the city's screening process, numerous criteria were identified in evaluating potential sites including; location outside of the 100-year floodplain, accessibility to Greene's citizens, and an arterial road location for a community safe room. For example, prospective sites would need to be located on "all weather roads" (snow routes, elevated roadways). This criterion was of particular importance to the city, because the Community Center also functions as the evacuation shelter during extreme weather events. Therefore, the above criteria limited the available project relocation alternatives.

3.1 No Action

Inclusion of a No Action Alternative in the environmental analysis and documentation is required under NEPA. The No Action Alternative is defined as maintaining the status quo with no FEMA funding for an alternative action.

The No Action Alternative is used to evaluate the effects of not providing eligible assistance for the project, thus providing a benchmark against which "action alternatives" may be evaluated. For the purposes of this alternative, it is assumed that the city of Greene would not be able to rebuild the Community Center and provide the facilities to house the services provided within the center. Therefore, no FEMA grant funding would be applied towards construction of a new Community Center and the city would be unable to provide essential community services to its citizens.

As a focused Environmental Assessment, only the No Action Alternative and the Proposed Action will be carried forward for review.

3.2 Proposed Action

This alternative provides FEMA grant funding towards construction of a new Community Center at the proposed site of 202 West South Street. The city has contracted the design work for the proposed alternative to Struxture Architects. As noted, one of the principal criterion guiding the site relocation process was locating a city-owned parcel outside the 100-year floodplain. Equally important was a site easily accessible to citizens of Greene. The proposed site, located on west South Street and Hwy 14 is classified by the National Flood Insurance Program (NFIP) as a Zone C, an area determined to be outside the 100-and 500-year floodplains. The Community Center will consist of a 1-story building totaling approximately 10,500 square feet devoted to functional space equipped to accommodate weddings, community dinners and youth gatherings, including 3400 square feet devoted to a senior center, which will also serve as the community Tornado Safe Room which will be incorporated into the design of the center.

3.3 Alternative Considered and Dismissed

This alternative would repair the existing Greene Community Center at the current location at the corner of North 1st Street and East Dow Street in Zone A7, within the 100-year floodplain (Appendix A, Figure 4,) in the city of Greene, Iowa. The existing Greene Community Center has been extensively damaged by the flooding beginning on June 9th, 2008. The repair of the existing Community Center would require bringing the facility up to the current codes and standards, as well as, restoring the structural integrity of the building in order to provide the citizens of Greene with the same essential community services that were offered prior to the flood of 2008. Furthermore, repairing the existing Community Center would not afford the mitigation opportunity to construct a Tornado Safe Room for the community during severe weather events. This alternative was dismissed as being unfeasible due to the complexities in repairing the destruction and reaching compliance requirements with the Americans with Disabilities Act (ADA) standards, and more importantly, because the existing Greene Community Center is located in the Special Flood Hazard Area and is prone to repetitive flooding. Once FEMA and the city of Greene identified practicable alternative locations outside the floodplain, the current floodplain location was eliminated as an alternative.

4. 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. Additional information is located in Section 5.

As shown in table 4-1, the No-action Alternative could result in no environmental impacts on the environment.

As shown in table 4-1, the selection of Proposed Action would result in minor environmental impacts from the temporary increase in noise 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	No significant 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; threatened or endangered species are not present in the project area
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
Executive Order 11988/Floodplain Mgmt	No impact	No significant impact; Project will have no long-term adverse effects to the floodplain. Use of BMP for erosion and sediment control is required.
Threatened and or Endangered Species	No impact	No impact; threatened or endangered species are not present in the project area
Cultural Resources	No impact	No impact: The Area of Potential Effects (APE) for this undertaking was considered sensitive for the presence of prehistoric archaeological sites. As a result, FEMA required the applicant to undertake an archeological survey of the proposal action. The survey resulted in the identification of no archaeological materials within the APE . FEMA consulted with the SHPO on the results of the survey and concurred with FEMA's determination that no historic properties affected
Geology and Soils	No impact	No significant impacts; construction activities would clear existing vegetation and expose soil in the proposed construction area
Radon	No impact	The contractor will use radon resistant construction techniques to minimize the potential for radon gas to migrate into the proposed elementary school.
Land Use and Planning	No impact	Land required for the Proposed Action would involve property already owned by the City of Greene and would be located at a site that was previously used for residential homes. The land is currently vacant and is zoned for Restricted Residential dwelling. The City of Greene will need to apply for a land use change in order to locate the facility in the proposed location. The Community Center will also contain a safe room for a public safety mitigation project.
Hazardous Substances	No impact	No significant impact: In the event that a hazardous substance is discovered during construction activities, the Iowa Department of Natural Resources (IDNR) should be contacted at Field Office #2 (641) 424-4073. Work within the sensitive area should not resume until IDNR personnel indicates no further assessment is needed of the discovery.
Noise	No impact	No significant 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
Executive Order 12898, Environmental Justice	No impact	No impact: Implementation of this alternative would have little likelihood of having disproportionate impacts on any low-income or minority groups
Transportation	No impact	No significant impact: Flagmen and possibly escort vehicles would be utilized; construction of the Greene Community Center would temporarily disrupt local traffic within the project area
Water Quality/Water Resources	No impact	No impact: The proposed new site is located in a Zone C, outside of the 100-year floodplain and thus consistent with EO 11988
Cumulative Impacts	No impact	No significant impact: If the Greene Community Center (which includes a tornado safe room), is not relocated and rebuilt, the quality of life and safety for the residents of Greene will be negatively impacted. This action planned by the city of Greene would not pose a significant cumulative impact from the Proposed Action Alternative or impact the city of Greene and surrounding area. Furthermore, while some terrestrial habitat may be eliminated, due to the scope of work, no loss of any sensitive species is expected that would contribute a measurable amount to the cumulative effects.

Notes:

NPDES
USACE
USFWS

National Pollutant Discharge Elimination System
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

5. AFFECTED ENVIRONMENT AND IMPACTS

Chapter 5 describes the existing environmental conditions that may be affected by the proposed FEMA grant funding being applied towards construction of a new Greene Community Center. The environmental impacts of the No-action alternative were also analyzed.

This chapter also describes the potential environmental consequences of the proposed alternative by comparing it 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 Part 1508.27).

5.1 Air Quality

The National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency 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 is located in Waterloo, Blackhawk County, approximately 45 miles away, and is monitored by the Linn County Health Department. Butler 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 Iowa being within an Air Quality Attainment Area.

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 Greene Community Center, 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 18 months of construction and 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 site 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. For the purpose of discussion, biological resources have been divided into the areas of protected species and habitats.

5.2.1 Protected Species and Habitat

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 survey of August 4th, 2009, the following list and description of threatened or endangered species that may occur in Butler County was produced.

Table 5-1: Federally Protected Species of Butler County, Iowa

Common Name	Scientific Name	Status	Potential Occurrence at Site	Reason
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	No	No habitat
Prairie bush clover	<i>Lespedeza leptostachya</i>	Threatened	No	No habitat

5.2.2 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.

5.2.3 Proposed Action

The proposed FEMA grant funding being applied towards construction of a new Greene Community Center effect on threatened and endangered species has been determined to be “no effect”. No remaining native habitats are present on the site as the site had been utilized as agricultural fields for the past 150 years. The community center will be constructed in an area that has been previously disturbed.

FEMA reviewed lists from both U.S. Fish and Wildlife Service (USFWS) and the Iowa Department of Wildlife and Parks for threatened and endangered species with potential to occur in Butler County. It was determined from documentation review of the project that threatened or endangered species

identified as having potential to occur in Butler County were not present in the area or would be impacted by the project. In the event that threatened or endangered species are encountered in the project area, the FEMA Regional Environmental Officer shall request a Section 7 ESA 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 undertaking. Cultural resources are prehistoric and historic sites, structures, districts, buildings, objects, 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, Part 60.4 and NRHP Bulletin 15. Sites not yet evaluated may be considered potentially eligible for inclusion in the NRHP and, as such, are afforded the same regulatory consideration as nominate 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 Greene Community Center.

5.3.1 Archeological

5.3.1.1 No Action

The No-action Alternative would not impact cultural resources in the project area. No construction activities would occur with the selection of the No-action Alternative.

5.3.1.2 Proposed Action

The Area of Potential Effects (APE) for this undertaking was considered sensitive for the presence of prehistoric archaeological sites. As a result, FEMA required the applicant to undertake an archeological survey of the proposal action. The survey resulted in the identification of no archaeological materials within the APE of the undertaking. FEMA consulted with the SHPO on the results of the survey and concurred with FEMA’s determination that no historic properties would be affected by the implementation of the proposed undertaking.

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

In consultation with the SHPO, FEMA evaluated two properties associated with the undertaking for eligibility for listing in the NRHP. The original facility was determined not eligible, and as such its demolition resulted in no effect to historic properties. The new site for the proposed Green Community Center is adjacent to the Greene Elementary School, which was determined eligible for listing in the NRHP. FEMA determined that the construction of the new facility on the lot adjacent to the school will not affect any character defining features of the historic property. Project implementation would not result in the introduction of visual elements that diminish the integrity of the property's significant historic characteristics or features. While the facility would be a new element within the viewshed of the school, it would be partially shielded from the existing facility by vegetation. Additionally, the visual character of the area surrounding the resource has been compromised to a degree, specifically by the past construction of a bus barn facility adjacent to the site of the proposed community center. Therefore, the proposed action would result in no effect to historic properties.

5.4 Geology and Soils

The topography of the proposed Greene Community Center is flat with a few lower depressions. Information from the U.S. Department of Agriculture Natural Resources Conservation Service shows that three soil types are present on the site. Soils found at the proposed Greene Community Center project area are Rockton loam, Ostrander loam, and Cresco loam. (See Appendix A Figure 3, U.S. Department of Agriculture, 1986) The symbols that accompany the soil descriptions correspond with those found on the Soils Survey Legend of the Soil Survey of Butler County, Iowa.

Rockton loam is found with 0 to 2 percent slope consisting of well drained soils, a depth to limestone (bedrock) of about 30 to 40 inches, and is not prone to frequent flooding;

Ostrander loam with a 2 to 5 percent slope and consisting of well drained soils, a depth to water table of over 80 inches, and is not prone to frequent flooding;

Cresco loam with a 2 to 5 percent slope consisting of well drained soils, a depth to water table of over 80 inches, and is not prone to frequent flooding;

The Iowa Department of Soil Conservation analyzes soil types throughout the state and assigns a rating to farmlands called the Corn Suitability Rating. Corn suitability ratings provide a relative ranking of all soils mapped in the state of Iowa based on their potential to be utilized for intensive row crop production. The Corn Suitability Rating is an index that can be used to rate one soil's potential yield against another over a period of time. The Corn Suitability Rating considers average weather conditions as well as frequency of use of the soil for row crop production. Ratings range from 100 for soils that have no physical limitations, occur on minimal slopes, and can be continuously row cropped to as low as 5 for soils with severe limitations for row crops.

The average corn suitability rating for the Proposed Action in Butler County is 82, suitable for corn production, but not considered State Prime Farmland (USDA, 2009). The Prime Farmland threshold for Butler County is defined as 70 or greater.

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 Natural Resources Conservation Service (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 Butler 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 FPPA provisions. (U.S. Department of Agriculture, 1986).

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 expose soil in the area proposed for the Greene Community Center. Best management practices (BMPs) would be implemented during and after construction for sediment and erosion control. Non-structural BMPs may utilize the minimization of disturbance, preservation of natural vegetation and re-vegetation of exposed slopes and soils to minimize erosion and to stabilize slopes. Structural erosion control BMPs include the placement of mulch or grass and the covering of stockpiles. Structural sediment control BMPs include silt fencing and sediment traps.

5.5 Radon

Radon is a naturally occurring radioactive gas that is produced by the decay of uranium found within soil, rocks, and groundwater. The U.S. Environmental Protection Agency (EPA) currently considers residential radon exposure at or above 4.0 pico Curies per liter (pCi/L) as a public health risk. The EPA created a map for each county in the U.S. which identifies the potential for elevated indoor radon levels, with Zone 1 having the highest potential for predicted average indoor screening levels greater than 4.0 pCi/L. According to the EPA's Map of Radon Zones, Butler County is mapped within Zone 1 (USEPA 2008b). The information reviewed is limited in nature and should not be used other than as a guide to anticipating radon levels in any specific location. Site specific radon testing would need to be performed prior to construction of the proposed facility in order to determine whether or not radon levels are elevated. Radon-resistant construction techniques may vary for different foundations and site requirements, but in general include five key concepts:

- Gas Permeable Layer – Usually a 4-inch layer of clean gravel used beneath the slab or flooring system to allow soil-gas to move freely.

- Plastic sheeting – Polyethylene sheeting is placed on top of the gas permeable layer and under the slab to help prevent migration of the soil gas from entering the facility.
- Vent Pipe – A PVC pipe runs from the gas permeable layer up through the structure to the roof to safely vent radon above the facility.
- Junction Box – An electrical junction box is installed in case an electrical venting fan is needed later.
- Sealing and Caulking – Openings in the concrete foundation are sealed to prevent soil gas from entering the facility.

5.5.1 No Action

The No Action alternative would not involve any movement or excavation of soil therefore there would be no potential for adverse effects caused by elevated concentrations of radon gas.

5.5.2 Proposed Action

With the movement and excavation of the shallow soils associated with the construction of this complex there is a potential for encountering elevated concentrations of radon gas at the site. Therefore, the architect and or contractor involved in the design phase will account for radon potential and include applicable radon mitigation methods in the construction phase to minimize the potential for radon exposure to citizens using the Greene Community Center.

5.6 Land Use and Planning

The current land use plan for the Greene Community Center includes developed land (residential and commercial), street, highway, and agricultural lands. The proposed site of the Greene Community Center is currently a vacant parcel of land. Immediately west of the subject site are residential properties. The city of Greene’s land use and zoning regulations are administered and enforced by the Mayor and City Council. The proposed location of the new Greene Community Center is currently owned by the City of Greene and is zoned for Restricted Residential dwellings.

5.6.1 No Action

The No-action Alternative would have no significant effect on land use and planning. This alternative would not involve any construction, improvements, or ground disturbance to the project.

5.6.2 Proposed Action

Land required for the Proposed Action would involve property already owned by the city of Greene and would be located at a site that was previously used for residential homes. The land is currently vacant and is zoned for Restricted Residential dwelling. The city of Greene will need to approve a land use change in order to locate the facility in the proposed location..

5.7 Hazardous Substances

Hazardous wastes, as defined by the Resource Conservation and Recovery Act (RCRA), are defined as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may; (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or; (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed.”

Hazardous materials and wastes are regulated in Iowa by a combination of federal and state laws. Federal regulations governing the assessment and disposal of hazardous wastes include RCRA, the RCRA Hazardous and Solid Waste Amendments, Comprehensive Environmental Response, Compensation and Liability Act, Solid Waste Act, and Toxic Substances Control Act.

According to project files reviewed for the hazard mitigation portion of this project, which is the inclusion of the safe room within the community center, the proposed development area was previously a welding shop prior to the relocation of State Highway 14 and County Road C13. The welding shop building was torn down in the 1960's. The welding shop is not likely to present an environmental concern as contamination resulting from the shop would have most likely been an air quality issue.

On the adjacent parcel of property operated by Greene Community Schools as a bus maintenance/garage area to the west of the proposed project location was formerly an underground storage tank (UST) facility (Registration #8604930) and currently appears to operate at least two above ground storage tanks (ASTs). Contents and capacity of the ASTs are unknown. According to the Iowa Department of Natural Resources Online UST/LUST (leaking underground storage tank) database, the USTs which existed at the School property consisted of a 1000 gallon gasoline and a 1000 gallon diesel. The gasoline UST was installed in 1969 and the diesel was installed in 1982. The database indicates that both USTs were removed in 1988.

5.7.1 No Action

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

5.7.2 Proposed Action

In the event that a hazardous substance is discovered during construction activities, the Iowa Department of Natural Resources (IDNR) should be contacted at Field Office #2 (641) 424-4073. Work within the sensitive area should not resume until IDNR personnel indicates no further assessment is needed of the discovery.

5.8 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.

5.8.1 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.

5.8.2 Proposed Action

The Proposed Action would increase the levels of noise in the vicinity of the project area during the construction of the Greene Community Center. The proposed project would require approximately 18 months of construction including the use of heavy equipment. 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 receptors 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.

5.9 Socioeconomic Considerations

As of the 2000 Census there were 1,099 people living in Greene distributed among 508 households. Given the size of the City of Greene and the relative size of Census block groups compared to the city, the whole city is considered the local area for the purpose of demographic analysis. The minority population in the city is fewer 1% while the white population of the area is greater than 99%. Of the small minority population, Asian and African American populations are equal at 42.86% followed by 14.29% of the minority population reporting more than one race. About 1% of City residents reported Hispanic or Latino heritage in the 2000 Census.

The population of Greene under the age of 18 amounts to 21.11% compared to the population 65 and over at 29.3%, median age within the city is 46.7. As of the 2000 Census, there were 508 households with an average size of 2.13 residents; nearly 61% of the city households are defined as family households. Median household incomes for the city are \$34,063 with 5.79% of the population below the poverty threshold. Residents with at least one type of disability comprise 6.86% of the city population.

Table 5-2: Population Statistics 1980 through 2000

Jurisdiction	1980	1990	2000
Iowa	2,913,808	2,776,755	2,926,324
Butler County	17,668	15,731	15,305
City of Greene	1,332	1,142	1,099

5.9.1 No Action

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

5.9.2 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 18 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 will also complete a needed service for Greene residents and businesses. The Proposed Action would not displace or adversely affect any nearby residents during the construction phase beyond temporary impacts.

5.9.3 Executive Order 12898, Environmental Justice

On February 11, 1994, President Clinton signed Executive Order (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 matters relating to human health and the environment. Also identified and addressed, as appropriate, is 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.

5.10 Transportation

Currently, the project site does not interfere with normal traffic circulation within the City of Greene.

5.10.1 No Action

The No-action Alternative would have no impact to existing traffic and circulation of the local area because no construction activity would occur.

5.10.2 Proposed Action

The construction of the Greene Community Center at the proposed site would temporarily disrupt the traffic flow on West South Street during the 18 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.

5.11 Water Resources

The U.S. 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).

Additionally, Executive Order (EO) 11990 (Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands. EO 11988 requires the federal government to minimize the occupancy and modification to floodplains. Specifically, EO 11988 prohibits federal agencies from funding new construction in the 100-year floodplain, or 500-year floodplain for a critical facility (e.g. Hospital, Fire Station), unless there are no practical alternatives.

5.11.1 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.

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.

Consistent with EO 11990, a review of the U.S Fish and Wildlife Service National Wetlands Inventory Map indicates no wetlands are located on the proposed project site.

5.11.1.1 No Action

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

5.11.1.2 Proposed Action

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 National Pollutant Discharge Elimination System (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.

5.11.2 Floodplain

Executive Order 11988 (Floodplain Management) requires that a Federal agency avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA uses Flood Insurance Rate Maps (FIRMs) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). Butler County, Iowa is a participant in the NFIP.

Consistent with EO 11988, FIRMs were examined during the preparation of this EA. Per Flood Insurance Rate Map (FIRM) 1900370001B, dated 10/15/1982, the proposed City of Greene Community Center is located in Zone C, outside of the 100 year floodplain. The Proposed Action will have no significant, long-term adverse effects to the floodplain; support occupancy or modification of floodplains; or directly or indirectly support floodplain development. Construction should occur during non-flood seasons, but in the event of construction within a flood season all equipment would need to be staged in an area not susceptible to flood events.

See Appendix A, Figures 4 & 5: FIRM Map for existing sites and proposed site for the City of Greene Community Center.

5.11.2.1 No Action

The existing Community Center is located within an area classified by the National Flood Insurance Program as a Zone A7, within the Special Flood Hazard Area (100-year floodplain). The No Action would not be consistent with Executive Order 11988.

5.11.2.2 Proposed Action

The proposed new site is located in a Zone C, outside of the 100-year floodplain and thus be consistent with EO 11988.

5.12 Cumulative Impacts

The CEQ regulations for implementing NEPA require an assessment of cumulative effects during the decision-making process for federal projects. Cumulative effects are 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 actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR Part 1508.7). Cumulative effects are considered for both the No Action and Proposed Action alternatives. Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions.

If the Greene Community Center (which includes a tornado safe room), is not relocated and rebuilt outside of the 100-year floodplain, the quality of life and safety for the citizens of Greene will be negatively impacted. The development of the site into the Greene Community Center would not pose a significant cumulative impact from the Proposed Action Alternative or impact the city of Greene and surrounding area. Furthermore, while some terrestrial habitat may be eliminated, due to the scope of work, no loss of any sensitive species is expected that would contribute a measurable amount to the cumulative effects.

5.13 Coordination and Permits

Relocation of the Community Center would require a building permit from the Butler County Zoning Department. In the event that archaeological deposits (soils, features, artifacts), or other remnants of human activity are uncovered, or if archaeological deposits are discovered during construction of the project, activities would cease in the immediate area, and the Iowa State Historic Preservation Officer and the FEMA Regional Environmental Officer would be notified before work would continue (section 5.3.1.2, Cultural Resources). Work in sensitive areas cannot resume until a qualified archaeologist determines the extent of the discovery, consultations between SHSI and FEMA are complete, and the applicant has been notified by SHSI and FEMA.

Agency coordination and/or permits may be required before implementation of the Proposed Action Alternative. Butler County is required to obtain and comply with all required local, state, and federal permits, and if applicable, a floodplain permit and a no-rise certification prior to any construction activities. Development at the Proposed Action Alternative site shall comply with the approved site plan. Any expansion or alteration of this use beyond that initially approved would require a new or amended permit. A general NPDES Permit, or a waiver of the permit, could be required to be obtained from the Iowa Department of Health and Environment, and if required upon consultation with the USACE, a Section 404 permit may need to be obtained.

6. CONCLUSION

The draft EA evaluated potentially significant resources that could be affected. The evaluation resulted in identification of no significant impacts associated with the resources of climate, geology and soils; floodplains; wetlands and water resources; vegetation; biological resources (endangered species act); and socioeconomic and environmental justice. Obtaining and implementing permit requirements along with appropriate Best Management Practices will avoid or minimize any effects associated with the action. Should no significant impacts be identified during the public comment period, it is recommended that a Finding of No Significant Impact (FONSI) to the human or natural environment be issued for the Proposed Action Alternative.

7. PARTIES CONSULTED AND REFERENCES

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8. LIST OF PREPARERS

8.1 Government Preparers

Eric Wieland, EHP Branch Chief, Iowa Recovery Center, Federal Emergency Management Agency, Region VII

Beth Held, Lead Environmental Specialist, Iowa Recovery Center, Federal Emergency Management Agency, Region VII

Jeff Carr, Lead Historic Preservation Specialist, Iowa Recovery Center, Federal Emergency Management Agency, Region VII

Ginger Thune, Environmental Specialist, Iowa Recovery Center, Federal Emergency Management Agency, Region VII

John Dawson, Environmental Specialist, Iowa Recovery Center, Federal Emergency Management Agency, Region VII