

Draft Environmental Assessment

Proposed Emergency Operations Center  
Madison County, KY

Grant #'s: EMA-2010-CA-5250 and 12-KYDES-00486

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**FEMA**

**U.S. Department of Homeland Security**  
**Federal Emergency Management Agency Region IV**  
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Proposed Emergency Operations Center  
Chemical Stockpile Emergency Preparedness Program (CSEPP)  
Final Draft Environmental Assessment  
Madison County, Kentucky

Prepared For:  
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## ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADT	Average Daily Traffic Count
APE	Area of Potential Effect
BMPs	Best Management Practices
CEQ	[President's] Council on Environmental Quality
CSEPP	Chemical Stockpile Emergency Preparedness Program
dB	Decibels
dBA	Decibels on the A-weighted scale
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EOC	Emergency Operations Center
ESA	Endangered Species Act
ESC	Emergency Services Center
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
HMP	Habitat Mitigation Plan
HUC	Hydrologic Unit Code
IRZ	Immediate Response Zone
KDFWR	Kentucky Department of Fish and Wildlife Resources
KHC	Kentucky Heritage Council
KPDES	Kentucky Pollutant Discharge Elimination System
KSNPC	Kentucky State Nature Preserves Commission
LOS	Level of Service
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollution Discharge Elimination System
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places

NWI	National Wetland Inventory
OSHA	Occupational Safety and Health Administration
PAZ	Protective Action Zone
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
SR	State Route
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
UA	Urbanized Area
UPS	Uninterruptible Power Supply
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOUS	Waters of the United States

## 1.0 INTRODUCTION

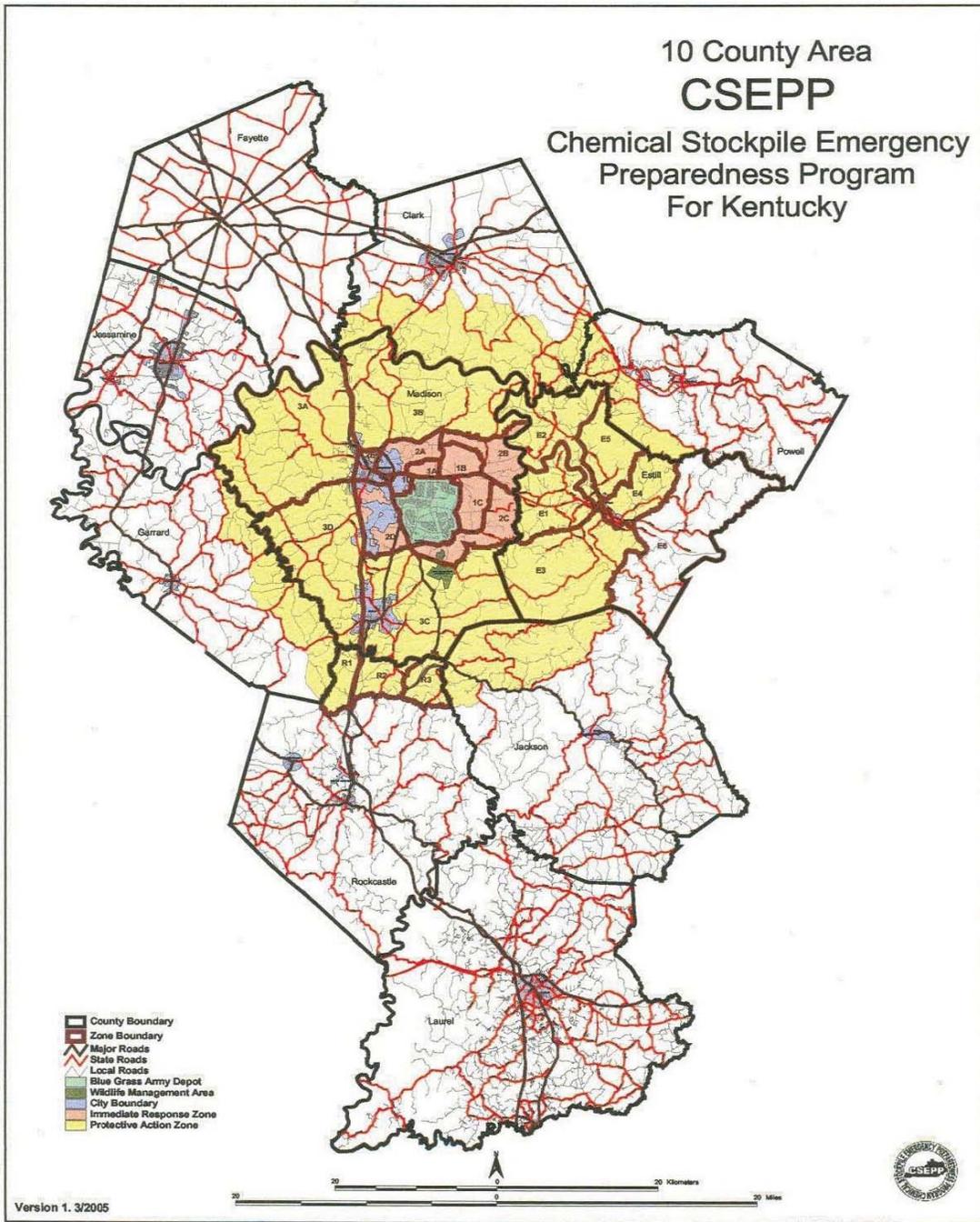
This Draft Environmental Assessment (EA) has been prepared on behalf of the Madison County Fiscal Court for the proposed renovation, construction, and operation of an Emergency Operations Center (EOC) in Richmond, Madison County, Kentucky. On January 18, 2012, the Federal Emergency Management Agency (FEMA), in partnership with the U.S. Department of the Army, provided funding for the Madison County EOC by means of a grant (EMA-2012-CA-5250) through the Chemical Stockpile Emergency Preparedness Program (CSEPP). The CSEPP for this proposed project has been administered through the Commonwealth of Kentucky as well as receiving additional FEMA funding under a separate cooperative agreement (12-KY-DES-00486) dated March 29, 2012.

The CSEPP was created in 1985 when the U.S. Congress passed a law directing the Army to dispose of its aging chemical weapons inventory with maximum protection of the public and environment as its primary consideration. Since its inception, the primary goal of CSEPP has been to educate and provide emergency preparedness assistance and resources to communities surrounding the Army's chemical warfare agent stockpiles. The last remaining stockpile in Kentucky is located at the Bluegrass Army Depot.

Ten counties in Kentucky have been determined to be in the immediate potential impact area of the chemical stockpile at Bluegrass Army Depot. Madison County, where the Bluegrass Army Depot is located, is designated as the CSEPP Immediate Response Zone (IRZ). Clark, Powell, Estill, Jackson, Rockcastle, and Garrard counties make up the Protective Action Zone (PAZ). Fayette, Jessamine, and Laurel counties are considered Host counties, in which citizens of the IRZ or PAZ may be deployed if a major event occurred at the depot (<http://csepp.ky.gov/>).

With the help of FEMA and the Army, these communities are expanding emergency plans and capabilities to meet the slight, but real threat of a chemical agent emergency. The communities have plans and procedures in place to deal with a chemical stockpile accident. These counties also received the grant funding to update their facilities to the required level of the CSEPP (see Figure 1).

This Draft EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, President's Council on Environmental Quality (CEQ) NEPA regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and FEMA NEPA regulations (44 CFR Part 10). FEMA must evaluate potential environmental impacts before funding or approving actions and projects. FEMA will use this EA's findings to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).



*Figure 1: Chemical Stockpile Emergency Preparedness Program Zones*

## **2.0 PURPOSE AND NEED**

The Chemical Stockpile Emergency Preparedness Program (CSEPP) was created in 1985 when the US Congress passed a law directing the Army to dispose of its aging chemical weapons inventory, with maximum protection of for the public and environment as its primary consideration.

Since its inception, CSEPP's primary goal has been to educate and enhance emergency preparedness in communities surrounding the Bluegrass Army Depot's chemical stockpile.

Until the entire chemical stockpile is safely destroyed, CSEPP will continue to support efforts to ensure communities' preparedness and safety in the unlikely event of a chemical agent accident (<http://csepp.ky.gov/history/>).

At present there are no facilities that are adequate to prepare the community for a biological, chemical, or physical hazard. The existing EOC is located in the Madison County Emergency Management Agency (EMA), which is part of the Emergency Management Services (EMS) campus. Responders housed in the facility include the Rescue Squad, 911 Call Center, Fire Department, and the Madison County Ambulance Service. The facility also houses the Coroner's Office and morgue. This EOC facility is inadequate for current functions and offers no room for growth.

There is a need for an EOC designed for rapid, flexible and cohesive disaster management to support the CSEPP, with space to house an Emergency Operations Room, a large training room and administrative staff, and that would be equipped with the technology adequate for emergency operations.

## **3.0 ALTERNATIVES ANALYSIS**

### **3.1 No-Action Alternative**

Under the No-Action Alternative, the existing EOC would not be renovated or expanded. There would not be enough room available for the necessary CSEPP facilities within the current EMA that now houses the EOC. This limitation would decrease communications, the ability to prepare and protect the public before and during chemical weapons decommissioning, and the overall level of public safety. In addition, Madison County's emergency preparedness plan would not be in compliance with the goals and objectives for counties within the CSEPP program area.

### **3.2 Proposed Action**

The proposed project would involve a new addition to and renovation of the existing 20-year old, approximately 29,000-square foot building, adding 11,000 square feet to the facility (Appendix C). The renovations would include updating the training facility, staff offices, heat and central air systems, technology room, and living/bathing quarters. The parking area would be re-graded and re-designed to add additional spaces and to provide safer ingress and egress. The Coroner's office and morgue would be relocated.

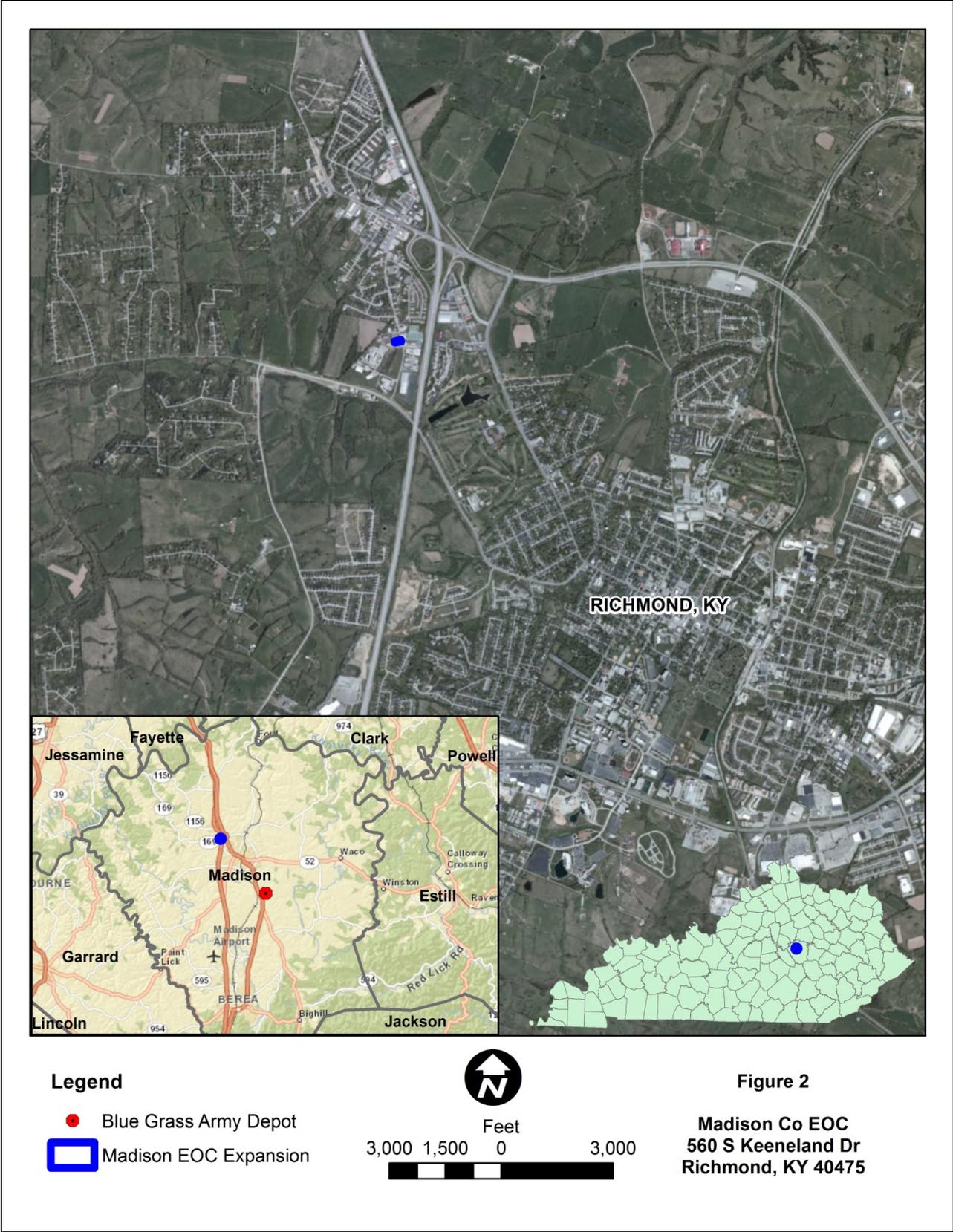
An updated fiber-optic cable would connect the new radio equipment in the renovated equipment room to the facility's Uninterruptible Power Supply (UPS) and generator. All utilities would be updated.

## **4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS**

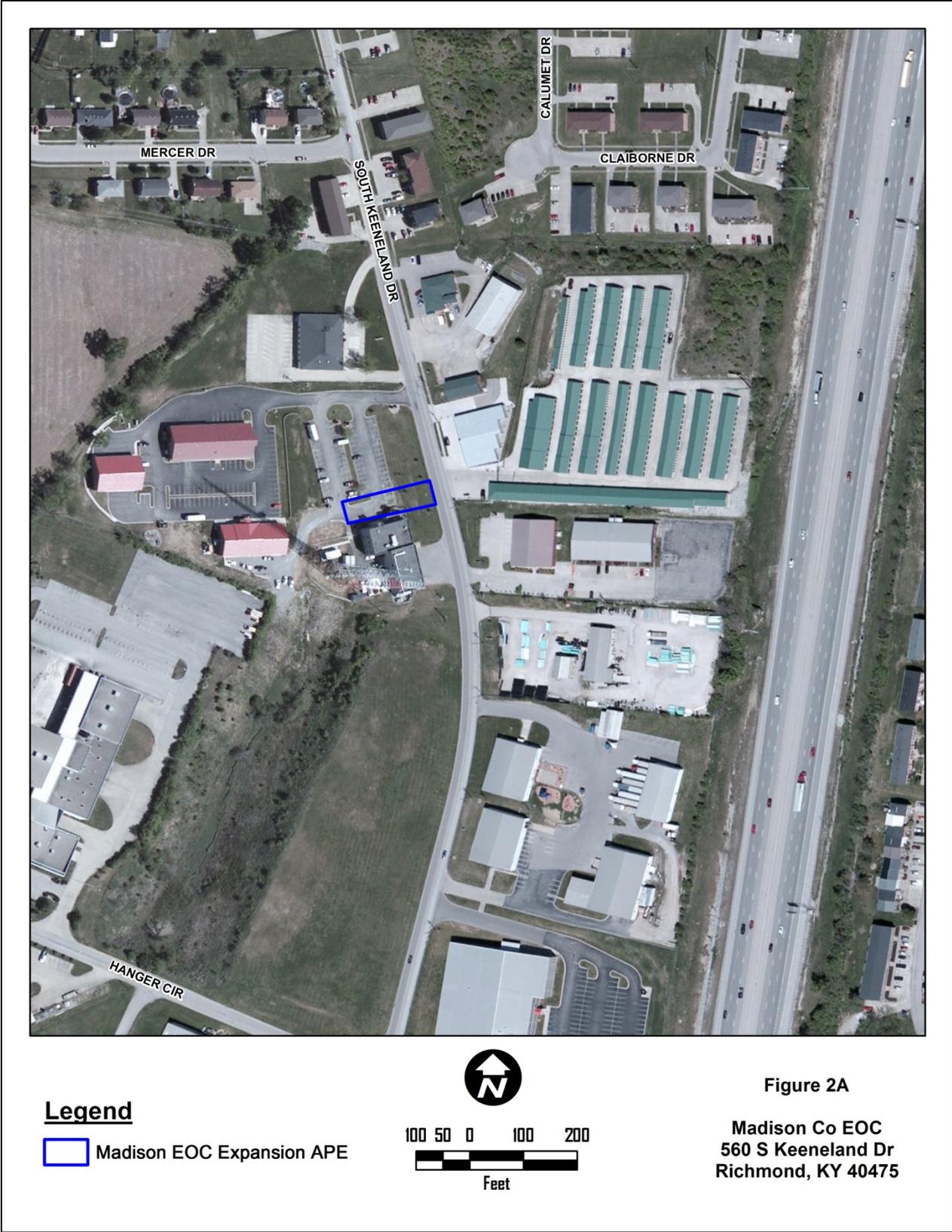
According to the 2010 United States Census Bureau, the City of Richmond, seat of Madison County, had a population of 82,916. It is part of the Lexington-Fayette County, KY Metropolitan Statistical Area. The city is a total of 23.10 square miles (59.82 km<sup>2</sup>), of which 22.81 (59.07 km<sup>2</sup>) is land; approximately 0.29 square-miles (0.75 km<sup>2</sup>) is water.

There are seven main highways in Madison County: Interstate 75 (I-75), US Highway 25, US Highway 421 (known both as Lexington Road and Berea Road), KY Route 876 (Dr. Robert R. Martin Bypass and Barnes Mill Road), KY Route 52 (Irvine and Lancaster Roads), KY Route 169 (Tates Creek Road), and KY Route 1986 (Red House Road). KY Route 169 (Tates Creek Road) and US 25 (Lexington Road) are near the facility location.

The project location (site of the current EOC building) is located at 560 South Keeneland Drive (37.76747°, -84.31956°), on a 0.17-acre lot within the Madison County Emergency Services Center (ESC), to the west/northwest of Richmond, Kentucky (see Figure 2 and 2A). The area is surrounded by the ESC, the Madison County Board of Education Administrative Office, storage units, and a commercial lot.



*Figure 2: Madison County Operations Center Proposed Site Location*



*Figure 2A: Madison County EOC Area of Potential Effect*

*Table 1: Summary of Impacts*

<b>Resource</b>	<b>No Significant Impact</b>	<b>Significant Impact</b>	<b>Mitigation/ Best Management Practices</b>
Geology and Soils	X		Minor, temporary soil disturbance. BMPs such as wetting exposed soil, covering dirt piles, and use of silt fences and hay bales would be used at the project and staging sites to control soil erosion.
Air Quality	X		BMPs, including proper maintenance of all vehicles and equipment, wetting exposed soil, and covering dirt piles, would be implemented at the project site and staging sites. Contractors will keep the road clear of soil and debris.
Water Quality	X		BMPs, including installation of silt fences and vegetation of soils, would be implemented to minimize soil erosion and off-site sediment transport.
Wetlands	X		None
Floodplains	X		None
Vegetation	X		None
Threatened and Endangered Species and Critical Habitat	X		None. USFWS letter dated March 21, 2013 (2013-B-0349) indicates that “no significant adverse impacts to wetlands or federally listed endangered or threatened species are anticipated.”
Migratory Birds	X		None. Existing tower will be used and there is a lack of migratory bird habitat on site.
Historic and Archaeological Resources	X		According to correspondence with the KHC, the Proposed Action would have no effect on cultural resources. However, if any human remains or funerary items are inadvertently discovered, all work must immediately cease and FEMA, the KHC, and the United Keetoowah Band of Cherokee Indians in Oklahoma must be contacted immediately.
Environmental Justice	X		None. The Proposed Action would benefit all populations in Madison County.

<b>Resource</b>	<b>No Significant Impact</b>	<b>Significant Impact</b>	<b>Mitigation/ Best Management Practices</b>
Noise	X		All construction activities would take place during normal business hours (between 7 am and 5 pm local time). Equipment and machinery would meet all local, state, and federal noise regulations. Noise from operating the generator is mitigated with standard noise shielding.
Traffic	X		Temporary increases in traffic volumes or brief traffic disruptions during construction would only take place during normal business hours (between 7 am and 5 pm local).
Public Service and Utilities	X		None
Public Health and Safety	X		Construction activities onsite will be fenced and appropriate signage will be placed for the protection of the residents in the surrounding area.

#### **4.1 Physical Resources**

##### **4.1.1 Geology and Soils**

###### ***Existing Conditions***

The proposed project site has been disturbed previously by grading for the current Madison County EOC, Fire Department, Coroner Office, 911 Call Center, and Emergency Management Agency (EMA) building. Based on the Natural Resource Conservation Service (NRCS) Soil Survey for Madison County, Madison County's elevation ranges from 530 to 1,660 feet; the project site is located on a plateau at roughly 900 feet. Soils within the proposed project site consist primarily of Cynthiana-Rock outcrop complex, 12 to 30% slopes (CyE), and Faywood silt loam, 12 to 30% slopes (FdE). Cynthiana-Rock outcrop complex consists of well-drained soils found along back and side slopes of hills with free face limestone rock outcrop. The parent material of Cynthiana soils consists of clayey residuum weathered from limestone. This soil is not considered hydric with the water table being more than 80 inches. The typical profile for Cynthiana-Rock outcrop complex is: 0 to 4 inches - silty clay loam; 4 to 18 inches -

flaggy silty clay; and 12 to 22 inches - unweathered bedrock. Faywood silt loam consists of well-drained soils found along back and side slopes of hills. Its parent material consists of clayey residuum weathered from limestone. This soil is not considered eroded. The typical profile for Faywood silt loam is: 0 to 6 inches - silt loam; 6 to 30 inches - silty clay; and 30 to 34 inches - unweathered bedrock.

A geo-technical report provided to the architect by Consulting Services Incorporated (CSI) of Kentucky, dated September 2013, provides more thorough geological and soils information (Appendix A).

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

Under the No Action Alternative, no construction would occur and there would be no impacts to geology or soils.

### ***Proposed Action***

As CyE and FdE soils are not classified as prime or unique farmland soils, there would be no impacts on prime or unique farmland soils, and no mitigation measures would be required. Soil removal at the site will occur where the parking area will be extended. BMPs, including wetting exposed soil, covering dirt piles, silt fences, and hay bales, would be implemented as needed to reduce soil erosion and off-site sediment transport.

## **4.1.2 Air quality**

### ***Existing Conditions***

The Clean Air Act (CAA) requires states to adopt ambient air quality standards – standards to protect the public from potentially harmful amounts of pollutants. Under the CAA, the US Environmental Protection Agency (USEPA) establishes primary and secondary air quality standards. Primary air quality standards protect public health, including the health of sensitive populations, such as people with asthma, children, and older adults. Secondary air quality standards protect public welfare by promoting ecosystem health and preventing decreased visibility and damage to crops and buildings. The USEPA set National Ambient Air Quality Standards (NAAQS) for the following five major pollutants: carbon monoxide (CO), ozone (O3), nitrogen dioxide (NO2), sulfur dioxide (SO2), and particulate matter (<http://www.epa.gov/cleanairactbenefits/economy.html>).

Madison County has been designated by the USEPA as being in attainment with respect to the NAAQS for the designated criteria pollutants of carbon monoxide, 8-hour ozone, nitrogen dioxide, sulfur dioxide, lead, particulate matter with a diameter of 2.5 microns, and particulate matter with a diameter of 10 microns.

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

Under the No Action Alternative, no construction would occur and there would be no impacts to air quality.

### ***Proposed Action***

The proposed EOC renovation and new addition would have minor, temporary impacts on air quality. Construction, grading, and adding fill material would temporarily leave soils exposed, creating dust; typical equipment and vehicles would emit exhaust. To reduce these air quality impacts, contractors would apply BMPs, including proper maintenance of equipment and machinery, watering down exposed soil (dirt), and covering soil piles if needed. The renovation would include primary and backup emergency generators. These generators would be tested periodically and would operate when power outages occur during facility operations. This occasional generator operation would have minor, temporary, local air quality impacts. Thus, the proposed project is expected to not have significant negative impact on the air quality of Madison County or the Bluegrass Intrastate Air Quality Control Region. No long-term air quality impacts are expected to occur.

## **4.2 Water Resources**

### **4.2.1 Water Quality**

#### ***Existing Conditions***

The Clean Water Act (CWA) regulates pollutant discharges into surface water resources. According to the U.S. Geological Survey (USGS) Richmond - North (2010), the elevation of the project site ranges from 920 to 925 feet with the lowest elevations on the west and southwest portion of the property.

No ponds, streams, or other “waters of the United States” (WOUS) exist at the project site. The project site is located within the Tates Creek watershed (HUC14 05100205-080-010) part of the Kentucky River (HUC8 15100204).

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

Under the No Action Alternative, no construction would occur and there would be no impacts to water quality.

### ***Proposed Action***

The proposed EOC renovation and new addition would not significantly impact water resources. Since no “waters of the United States” (WOUS) are located on the project site, no correspondence with U.S. Army Corps of Engineers (USACE) was warranted. Because the area to be disturbed during renovation is less than one acre, a Storm Water Management Plan (SWMP) will not be prepared and a Storm Water Pollution Prevention Plan (SWPPP) permit for stormwater would not be required from the Kentucky Division of Water (KDOW).

The Applicant will be required to obtain a Kentucky Pollutant Discharge Elimination System (KPDES) permit from the KDOW for the proposed construction activities. KPDES Form NOI-SWCA, associated with Construction Activity under the KPDES General Permit, avoids impacts to wetlands, surface waters, and groundwater. Associated BMPs would consist of erosion control in the form of silt fences, hay bales, etc., to prevent surface runoff sediment from entering storm drains.

## **4.2.2 Wetlands**

### ***Existing Conditions***

The USACE regulates the discharge of dredged and fill material into WOUS, including wetlands, pursuant to Section 404 of the CWA. Presidential Executive Order (EO) 11990 (Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impacts to wetlands. According to the National Wetlands Inventory (NWI) maps, no wetlands are located within the project site (<http://www.fws.gov/wetlands/>). A site visit conducted by Palmer Engineering in April 2013 confirmed that no wetlands are located within the 0.17-acre project site.

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

Under the No Action Alternative, no construction would occur and there would be no impacts to wetlands.

### ***Proposed Action***

Under the proposed action planned for the EOC, no impacts to WOUS, including wetlands, are anticipated because none exist on the project site, and erosion and sediment control BMPs would be used.

## **4.2.3 Floodplains**

### ***Existing Conditions***

EO 11988 (Floodplain Management) requires federal agencies to avoid to the extent possible the short- and long-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Per EO 11988, Flood Insurance Rate Maps (FIRMs) were examined during the preparation of this EA. The entire project site is located in Zone X, outside of the 500-year floodplain ([www.msc.fema.gov](http://www.msc.fema.gov) FIRM Number 21151C0139C; Date October 2, 2012).

The project site is within the Tate Creek watershed and is not located within a 500-year floodplain, according to FEMA's FIRM (FEMA 2010) (Appendix C). The elevation at the project site is roughly 36 feet higher than and 1,500 feet from the nearest stream.

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

Under the No Action Alternative, no construction would occur and there would be no impacts to floodplains.

### ***Proposed Action***

The project site is in Zone X, which is outside the 100-year and 500-year floodplains. There would be no impact to the floodplain. BMPs required for construction per the KPDES will protect from soil erosion impacts to stormwater drains during construction. Silt fencing along with soil removal off the roads during construction will eliminate

siltation from traveling into drainage ditches and stormwater drains. When construction is completed, the new pervious pavement and landscaping will help to minimize erosion.

### **4.3 Biological Resources**

#### **4.3.1 Vegetation**

##### ***Existing Conditions***

Since the project site previously has been cleared and graded for construction of the existing Madison County EOC, no natural vegetative habitat is present. Vegetation surrounding the structure consists of landscaped areas with no native grasses, and cultivated trees and shrubs. Commercial and industrial properties immediately surround the area, with a residential neighborhood approximately one-tenth of a mile to the north.

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

Under the No Action Alternative, no construction would occur and there would be no impacts to vegetation.

##### ***Proposed Action***

Some shrubs and a magnolia tree will be removed for construction of the addition. All new landscaping would comply with the City of Richmond and Madison County, Kentucky standards. The retention of the surrounding mature vegetation and the installation of additional landscaping would mitigate for potential impacts related to vegetation loss when construction of the EOC's impervious paved areas result in the removal of some of the site's present vegetation. As a result, minor impacts to vegetation would occur.

#### **4.3.2 Threatened and Endangered Species and Critical Habitat**

##### ***Existing Conditions***

The Endangered Species Act (ESA) requires federal agencies to determine the impacts of their actions on federally-listed threatened or endangered species and their designated critical habitat. The proposed project site is located within the Madison County EOC, on a regularly maintained, grassed lot. A few cultivated shrubs and trees are located along the north side. Surrounding areas consist primarily of industrial properties with a residential neighborhood approximately one-tenth of a mile north. No aquatic resources

are present on the property; the nearest are located approximately 1,500 feet away. The current (2008) USFWS list of threatened and endangered species for Madison County contains the following: federally-endangered Indiana bat (*Myotis sodalis*), federally-endangered gray bat (*Myotis grisescens*), federally-endangered running buffalo clover (*Trifolium stoloniferum*), and federal candidate globe bladderpod (*Lesquerella globosa*). No federal or state threatened or endangered species or critical habitats are known to exist on or near the project site (Appendix B).

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

Under the No Action Alternative, no construction would occur and there would be no impacts to federally-listed threatened or endangered species.

### ***Proposed Action***

No federally-listed endangered, threatened, or candidate species, or state species, or their designated critical habitats, are known to be present on the project site; therefore, no impacts to species would occur (Appendix B). In a response dated March 21, 2013, USFWS anticipated “no significant adverse impacts to wetlands or federally-listed endangered or threatened species” from the proposed action (2013-B-0349).

## **4.3.3 Migratory Birds**

### ***Existing Conditions***

Since the project location consists of landscaped areas within a commercial and industrial development zone, wildlife habitat is almost non-existent. While there are some mature trees located on properties adjacent to the project site, none exist on the parcel. Migratory birds may temporarily be present at the project site, but it would be unlikely due to the limited vegetation. There are no habitats present on the site that indicate that the project area would attract migratory birds to any greater degree than any nearby residential property. The project site is not located along a waterway or a ridge line that could be expected to attract migratory birds during migration. There is no portion of the site that would provide critical nesting or foraging cover for migratory birds.

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

Under the No Action Alternative, no construction would occur and there would be no impacts to migratory birds.

### ***Proposed Action***

Construction and renovation of the project would not require the removal of mature trees. The EOC and addition would use an existing tower. No additional potential hazards to migratory birds would be constructed.

## **4.4 Cultural Resources**

### ***Existing Conditions***

The National Historic Preservation Act (NHPA) of 1966, (PL 89-665; 16 USC 470 *et se.*) as amended, outlines Federal policy to protect historic properties and promote historic preservation in cooperation with states, tribal governments, local governments, and other consulting parties. The NHPA established the National Register of Historic Places (NRHP) and designated the State Historic Preservation Office (SHPO) as the entity responsible for administering state-level programs. The Kentucky Heritage Council (KHC) is the SHPO in Kentucky. The NHPA also created the Advisory Council on Historic Preservation (ACHP), the Federal agency responsible for overseeing the implementation of Section 106 process and providing commentary on Federal activities, programs, and policies that affect historic properties.

The proposed project consists of the addition of a wing and renovation to an existing structure located at 560 South Keeneland Drive in Richmond, Madison County, Kentucky. The existing structure was constructed circa 1990. It is located in an industrial and commercial area with no historic structures in the vicinity. Using the National Register Criteria for Evaluation, this property located at 560 South Keeneland Drive is not eligible for evaluation due to the age of the building. In conclusion, a new addition to this structure will have no adverse effect on historic properties or cultural resources. The KHC concurred with this determination in a letter dated April 25, 2013 (Appendix B).

#### **4.4.1 Archaeological Resources**

The area around the structure was previously disturbed by construction of the building; therefore, no Phase I Archaeological Survey was required. FEMA had determined that there is no effect to archaeological resources.

#### **4.4.2 Cultural Historic Resources**

Cultural historic reconnaissance of the APE was conducted by Jayne Goddard, Historic Preservation Specialist with Palmer Engineering, on June 13, 2012. Ms. Goddard is qualified under the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) in the discipline of history and architectural history. There are no listed or potentially eligible historic properties in the APE.

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

Under the No Action Alternative, no construction would occur and there would be no potential impacts to historic properties.

##### ***Proposed Action***

A letter was sent to the KHC on April 8, 2013, asking for concurrence with the determination of "No Historic Properties Affected" and that no mitigation measures would be required. The KHC concurrence to the findings was received on April 25, 2013 (Appendix B).

#### **4.4.3 Native American Consultation**

In letters to the Eastern Band of Cherokee Indians, the Absentee Shawnee Tribe of Oklahoma, the Cherokee Nation, the Chickasaw Nation, the Eastern Band of Cherokee Indians, the Eastern Shawnee Tribe of Oklahoma, the Miami Tribe of Oklahoma, the Shawnee Tribe, and the United Keetoowah Band of Cherokee Indians in Oklahoma, dated January 7, 2013, FEMA requested concurrence with their finding of "No Historic Properties Affected." The only response received was from the United Keetoowah Band of Cherokee Indians in Oklahoma on January 9, 2014, stating that the Tribe had no objection to or comments on the Proposed Action, but it requested that if any human remains or funerary items are inadvertently discovered, all work would cease and they be contacted immediately.

## 4.5 Socioeconomics

### 4.5.1 Environmental Justice

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations) requires federal agencies and those receiving federal funds to consider possible disproportionate and adverse environmental effects of their actions on minorities and low-income populations. Socioeconomic and demographic data for the project area were reviewed to determine if the proposed project would have a disproportionate and negative impact on any minority or low-income populations.

The project site is located within the city limits of Richmond in Madison County, Kentucky. As of 2010, Madison County had a population of 82,916. The City of Richmond had a poverty level (at approximately 19%) higher than both Madison County and the Commonwealth of Kentucky (USCB, 2010). Richmond also has a minority population level (at approximately 13%) slightly higher than that of the county and of the Commonwealth of Kentucky.

The site is located in Census Tract 010701, Block Group 010701-2, Census Block 2013. U.S. Census data from 2010 are the most recent data available on the percentage of minority and low-income populations in the project area. Data are available at the Census Block level for minority populations and at the Block Group level for low-income populations (US Census Bureau 2010). Richmond has a poverty level higher than that of Madison County and the Commonwealth of Kentucky. Detailed demographic information is provided in the table below.

*Table 2: 2010 U.S. Census Data for Minority and Low-Income Populations*

	<b>Kentucky</b>	<b>Madison County</b>	<b>City of Richmond</b>	<b>Block Group 010701-2</b>
Total population (2010)	4,339,367	82,916	31,364	1,545
Annual median household income	40,062	42,013	33,195*	31,481
% Family below poverty level	14.5	15.3	19	14.1
% Minority population	12.2	8.4	13	16.2
% Hispanic (may be of any race)	3.1	2.2	2.7	3.4

	<b>Kentucky</b>	<b>Madison County</b>	<b>City of Richmond</b>	<b>Block Group 010701-2</b>
% of population over 65	13.3	11.2	9.4	4.7

Source: 2010 United States Census Bureau  
\*2006-2010

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

Under the No Action Alternative, no new addition and renovation would occur and there would be no socioeconomic impact.

### ***Proposed Action***

Although the residents within the vicinity of the proposed project site represent a minority or low-income population greater than the populations elsewhere within Madison County, all populations would benefit from the emergency management public services that would be provided by the new addition and renovation of the Madison County EOC. Although minority or low-income populations may reside in the project site's vicinity, they would not be disproportionately or adversely affected; therefore, there would be no disproportionate and adverse impact related to Environmental Justice.

### **4.5.2 Noise**

Noise is generally defined as unwanted sound. Sound pressure levels are described in the dBA unit, which is weighted to approximate the human ear's response. Because of both the nature of the human ear and the logarithmic scale, an increase or decrease of 10 dBA sounds twice or half as loud, and a change of 20 dBA sounds four times or one quarter as loud. For this project, two noise standards are used. The first is the Day-Night Average Sound Level (DNL), an average measure of sound. The DNL descriptor is accepted by Federal agencies as a standard for estimating sound impacts for compatible land uses. The USEPA and other Federal agencies' guidelines state that outdoor sound levels exceeding 55 dB DNL are "normally" unacceptable for noise sensitive land uses, including residences (USEPA, 1974). The second set of noise standards relates to traffic noise impacts and is found in 23 CFR 772, which the Federal Highway Administration (FHWA) revised in July 2011. For this project, noise levels generated by traffic sources

impact residences and commercial sites when sound levels approach or exceed the applicable Noise Abatement Criteria (NAC) of 67 dBA and 72 dBA, respectively.

The project site is located within the Madison County EOC and has low to medium ambient noise sources, including normal street noise from South Keeneland Drive and Tates Creek Road. The site is located north of Hanger Drive and industrial property; east of a storage facility and other small businesses; south of Mercer Drive, a residential neighbor street; and west of the other organizations that encompass the existing EOC.

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

Under the No Action Alternative, no new addition and renovation would occur and there would be no noise impacts.

### ***Proposed Action***

Renovation and the new addition of the EOC would produce minor, temporary noise increases which are not expected to exceed the normal dBAs within the area. To reduce noise level impacts to adjacent residences and commercial sites, construction activities would be limited to normal business hours, between 7 am and 5 pm local time. Equipment and machinery used at the project site would meet all local, State, and Federal noise regulations. No long-term increases in noise levels are anticipated as a result of the proposed project.

Regular EOC operations will not result in significant traffic volumes and will not notably change the normal street noise currently existing at the site. Currently, impacts from traffic volumes within the project area do not exceed the NAC for residences or commercial sites. As future traffic volumes will not be impacted by the construction and renovation of the EOC, any future impacts relating to traffic noise within the project area would be a result of changes in traffic volumes on existing or new roadway facilities or changes in traffic patterns.

Mechanical air-handling equipment is in place outside the building, but it has minimal impact due to the building's location around other commercial/residential sites.

A back-up emergency generator would provide emergency power to the EOC during power outages and renovation. This generator would be tested periodically and would

operate during power outages. Operation of this generator could result in some minor noise impacts for variable and short periods of time. The noise levels would be mitigated with standard noise shielding. Due to the infrequent use of the generator and the use of noise shielding and the building's location, potential noise impacts would be minor. The generator noise is not expected to exceed the existing dBAs for the area.

### **4.5.3 Traffic and Transportation**

Existing roads, other than neighborhood or city streets, near the project site include South Keeneland Drive, the Dr. Robert R Martin Bypass (US 25 / US 421), I-75, Tates Creek Road (KY 169), Jacks Creek Road (KY 1156), and Goggins Lane. South Keeneland Drive is considered an urban collector with an Average Daily Traffic Count (ADT) of 476. Tates Creek Road is located south of the EOC with east-west traffic flow and is considered an urban collector with an ADT of 5,470. The Dr. Martin Bypass is located north of the EOC with north-south traffic flow and is considered a principal urban arterial with an ADT of 8,870. Goggins Lane located to the west of the EOC with north-south traffic flow. No traffic data is available for Goggins Lane.

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

Under No Action, no renovation or new addition would occur and there would be no impacts to traffic.

#### ***Proposed Action***

Access to the proposed EOC would be from South Keeneland Drive. Peak hours for traffic due to construction are estimated to be from 7 am to 8 am and 3 pm to 5 pm local time. South Keeneland Drive should not experience any traffic impact during site construction. Operations of the new EOC would not result in a significant increase in traffic along the Dr. Robert R Martin Bypass (US 25 / US 4241), Goggins Lane, or Tates Creek Road (KY 169). Traffic may be temporarily disrupted on South Keeneland Drive for upgrading underground utilities.

### **4.5.4 Public Service and Utilities**

The EOC area is serviced by Richmond Utilities (natural gas, water, and sewer), Kentucky Utilities, Time Warner Cable, and AT&T phone service. There are existing

utility connections on and near the proposed EOC site. Water connections run from South Keeneland Drive in three different sizes of lines to service the site. The four-inch copper domestic water line connects directly to the building from South Keeneland Drive. Gas and utility (electric, telephone, and cable) lines provide connections from South Keeneland Drive and run to the building at differing locations; some of these lines are underground (see Appendix C).

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

Under No Action, no construction would occur and there would be no impacts to public service and utilities.

### ***Proposed Action***

Changes to the utilities would include providing new gas service from the east side of the building to South Keeneland Drive. There would be a new four inch domestic water line constructed from the east side of the building to South Keeneland drive, and replacement of a eight inch water main line along the east side of the building for fire protection due to the need for relocation of a fire hydrant. New four inch sanitary sewer lines will be located in the new main entrance on the lower floor and throughout the structure. The underground electrical lines will run from a utility closure on the southwest portion of the building into the west side of the EOC. With the expansion of the parking lot, updates and relocation of the storm sewer is mandatory. During utility and storm sewer work the existing EOC will be temporarily connected to a generator while old lines are disconnected and new lines are connected. Construction will not cause utility impacts to any other buildings.

### **4.5.5 Public Health and Safety**

The existing Madison County EOC is located within the EMA facility and the ESC campus. The space is shared with the Fire Department, Madison County's 911 Call Center, Rescue Squad, Ambulance Service, and Coroner Office, along with the morgue. The present EOC space is inadequate for current functions, including the necessary CSEPP activities to prepare the public for, and respond to, an incident at the Bluegrass Army Depot. This limitation prevents more effective communications, hinders the ability

to prepare and protect the public during chemical weapons decommissioning, and decreases the overall level of public safety.

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

Under the No Action Alternative, no renovation would occur and there could be minor to moderate impacts to public health and safety due to compromised response times in case of a biological or chemical emergency.

### ***Proposed Action***

Adding an addition and renovating the Madison County EOC would provide better protection to county residents through education, preparation, and thorough up-to-date technology that would support rapid mobilization in the event of an emergency during chemical decommissioning. The remodeled EOC would enhance public health and safety by providing more safety features, adequate office, training, and work space, and an area required for a more effective state-of-the-art 911 Call Center.

### ***Construction Related Impacts***

During construction, all activities would be conducted in accordance with the standards specified in the Occupational Safety and Health Administration (OSHA) regulations and by trained qualified personnel. Construction activities onsite would be fenced and appropriate signage would be placed for the protection of the residents and children in the surrounding area.

## **5.0 CUMULATIVE IMPACTS**

According to the President’s Council on Environmental Quality (CEQ) regulations, cumulative impacts represent the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).”

As required by NEPA, this EA considers the combined effect of the proposed action and other actions occurring or proposed in the vicinity of the project site to evaluate reasonable and practical cumulative impacts. The project area is located within the Madison County EOC, surrounded by residential and light industrial and commercial businesses. At this time, no construction is planned for the EOC campus or the surrounding areas. If construction does occur during the time of the proposed project, there may be minor temporary cumulative impacts to noise levels and air quality in the area. No other cumulative impacts are anticipated.

## **6.0 PUBLIC INVOLVEMENT**

FEMA is the lead Federal agency for conducting the NEPA compliance process for the proposed project in Richmond, Madison County, Kentucky. It is the goal of the lead agency to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community, and to the purpose and need of the proposed action, while meeting the intent of NEPA and complying with all NEPA provisions.

A public notice will be published in The Richmond Register notifying the public of the proposed action and that FEMA has posted the Draft EA on their website and placed copies of the Draft EA in the Madison County Library. A 30-day public comment period will start on the date of posting.

## 7.0 AGENCY COORDINATION AND PERMITS

Coordination was conducted with the following agencies:

- Federal Emergency Management Agency
- Madison County Fiscal Court
- Madison County Chemical Stockpile Emergency Preparedness Agency
- United States Fish and Wildlife Service
- Kentucky Department of Fish and Wildlife Resources
- Kentucky State Natural Preserves Commission
- Kentucky Heritage Commission
- Kentucky State Historic Preservation Office
- Eastern Band of Cherokee Indians
- Absentee Shawnee Tribe of Oklahoma
- Cherokee Nation of Oklahoma
- Chickasaw Nation
- Eastern Shawnee Tribe of Oklahoma
- Miami Tribe of Oklahoma
- Shawnee Tribe
- United Keetoowah Band of Cherokee Indians in Oklahoma

There was no response from any of the above agencies indicating any issues and/or negative impacts related to this project.

Each state and locality has specific permits for building projects. The following permits and applications would be required for the proposed EOC construction:

- Kentucky State Building Permit
- City of Richmond Building Permit
- City of Richmond Grading Permit
- Kentucky Pollution Discharge Elimination Permit
- Kentucky Division of Water Sanitary Sewer Permit
- Kentucky Division of Water Waterline Extension Permit
- Advanced Disposal (trash services)

- Richmond Utilities (water, gas, and sewage works)
- Kentucky Utilities Company
- AT&T
- Time Warner Cable

## 8.0 REFERENCES

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