



Draft Environmental Assessment

# Iowa City Animal Care and Adoption Center

Iowa City, Iowa

FEMA DR-1763-IA

*June 14, 2011*



**FEMA**

**Federal Emergency Management Agency**  
**Department of Homeland Security**  
9221 Ward Parkway, Suite 300  
Kansas City, MO 64114-33

# TABLE OF CONTENTS

1. Introduction .....	1
2. Purpose and Need .....	2
3. Alternatives Analysis .....	3
3.1 No Action .....	3
3.2 Proposed Action .....	3
3.3 Alternatives Considered and Dismissed .....	4
4. Summary of Impacts and Mitigation .....	5
5. Affected Environment and Impacts .....	8
5.1 Air Quality .....	8
5.1.1 No Action .....	9
5.1.2 Proposed Action .....	9
5.2 Biological Resources .....	9
5.2.1 Protected Species and Habitat .....	10
5.2.2 No Action .....	11
5.2.3 Proposed Action .....	11
5.3 Cultural Resources .....	11
5.3.1 Archaeological .....	12
5.3.2 Historic .....	12
5.4 Geology and Soils .....	13
5.4.1 No Action .....	14
5.4.2 Proposed Action .....	14
5.5 Radon .....	14
5.5.1 No Action .....	15
5.5.2 Proposed Action .....	15
5.6 Land Use and Planning .....	15
5.6.1 No Action .....	15
5.6.2 Proposed Action .....	15
5.7 Hazardous Substances .....	15
5.7.1 No Action .....	16
5.7.2 Proposed Action .....	16
5.8 Noise .....	16
5.8.1 No Action .....	17
5.8.2 Proposed Action .....	17
5.9 Socioeconomic Considerations .....	18
5.9.1 No Action .....	19
5.9.2 Proposed Action .....	19
5.10 Transportation .....	19
5.10.1 No Action .....	19
5.10.2 Proposed Action .....	20
5.11 Water Resources .....	20
5.11.1 Wetlands .....	20
5.11.2 Floodplain .....	21

5.12 Demolition .....	22
5.12.1 No Action.....	22
5.12.2 Proposed Action .....	22
5.13 Cumulative Impacts.....	23
5.14 Coordination and Permits .....	23
6. Conclusion .....	24
7. Parties Consulted and References .....	25
7.1 Parties Consulted .....	25
7.2 References .....	25
8. List of Preparers.....	26
8.1 Government Preparers .....	26

## Tables

<i>Table 4-1: Summary of Impacts and Mitigation.....</i>	<i>6</i>
<i>Table 5-1: Federally Protected Species of Johnson County, Iowa.....</i>	<i>10</i>
<i>Table 5-2: 2000 Total minority and below poverty level populations.....</i>	<i>18</i>
<i>Table 5-3: Population Statistics 1980 through 2000.....</i>	<i>19</i>

## APPENDICES

### Appendix A

- Figure 1: Approximate Site Plan for Proposed Iowa City Animal Care and Adoption Center
- Figure 2: Soils Map for Proposed Site of Iowa City Animal Care and Adoption Center
- Figure 3: FIRM for Proposed Site of the Iowa City Animal Care and Adoption Center
- Figure 4: FIRM for Site of Original Damaged Iowa City Animal Care and Adoption Center

### Appendix B

- Site Photographs

### Appendix C

#### Correspondences

- Figure 1: Section 106 National Historic Preservation Act Demolition Letter Dated September 30, 2010
- Figure 2: Section 106 National Historic Preservation Act SHPO Concurrence Letter for Relocation Dated June 2, 2011

## 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
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
ROI	Region of Influence
EPA	Environmental Protection Agency
USDA	U.S. Department of Agriculture
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

# 1. INTRODUCTION

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Iowa City is the sixth largest city in the U.S. state of Iowa and is the county seat of Johnson County. The city lies on both banks of the Iowa River. Beginning on June 9th 2008, the Iowa City Animal Care and Adoption Center on Kirkwood Boulevard experienced extensive damage from the flooding of the Iowa River and its tributaries which flooded portions of Iowa City and the surrounding area. 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, flood damaged location of the Iowa City Animal Care and Adoption Center is 111 Kirkwood Avenue and the temporary location is 4852 Sand Road SE in Iowa City, Iowa. (Appendix B, Photographs 2 and 3). The Iowa City Animal Care and Adoption Center serves the populations of the Johnson County area with an estimated 2008 population of 128,094 which is projected to continue to rise over the next couple decades. Despite the increase in human population, the shelter has tracked a consistent number of animal populations served. There was an unsurprising spike in animal intake in 2008 resulting from families who had to relocate and needed temporary shelter for their pets during the flooding event. The Iowa City Animal Care and Adoption Center serves additional purposes beyond housing and adoption of strays and unwanted pets, including licensing and tagging animals, free education programs, investigation of animal cruelty complaints, and a public lending library of animal care books, magazines, and videos.

The National Environmental Policy Act (NEPA) requires that Federal agencies evaluate the environmental effects of their proposed and alternative actions before deciding to fund an action. The President's Council on Environmental Quality (CEQ) has developed a series of regulations for implementing the NEPA. These regulations are included in Title 40 of the Code of Federal Regulations (CFR), Parts 1500–1508. They require the preparation of an Environmental Assessment (EA) that includes an evaluation of alternative means of addressing the problem and a discussion of the potential environmental impacts of a proposed Federal action. An EA provides the evidence and analysis to determine whether the proposed Federal action will have a significant adverse effect on human health and the 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 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 Iowa City Animal Care and Adoption 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. At present, the damaged facility is located within the 100-year floodplain and subject to repetitive flooding. Rather than repair the facility at its current location, FEMA and the City of Iowa City 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

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Pursuant to Section 406 of the Robert T. Stafford Disaster and Emergency Assistance Act of 1988, as amended, the City of Iowa City 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.

The purpose of this project is to assist the citizens of Iowa City and Johnson County in their recovery from the natural disaster by using the FEMA Public Assistance Program to contribute funding towards the construction of the new Iowa City Animal Care and Adoption Center. The proposed site of the new Animal Care and Adoption Center is located on Napoleon Lane, west of South Gilbert Street and north of McCollister Boulevard, east of the Iowa River (Appendix B, Photograph 1). The need for the project is to replace and relocate the Animal Care and Adoption Center outside of the 100-year floodplain in response to a devastating flood that struck Iowa City, Johnson County, Iowa, beginning on June 9th, 2008 in a manner that prevents them from being susceptible to repetitive flood damage.

Since the June 2008 floods, the functional use of the existing Animal Care and Adoption Center has been terminated and the services have been relocated to temporary facilities in order to continue to meet the needs of the community with housing and medical care for abandoned or injured pets, as the current structures were extensively damaged by flood waters. The Animal Care and Adoption Center provides essential services to the Johnson County area communities. These services include animal adoption, licensing and tagging animals, free education programs, investigation of animal cruelty complaints, and a public lending library devoted to animal care books, magazines, and videos. If the Iowa City Animal Care and Adoption Center is not relocated and rebuilt, the City's ability to respond to animal cruelty complaints, assist in animal adoption, and provide a much utilized and essential public service would be compromised.

### **3. ALTERNATIVES ANALYSIS**

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NEPA requires the investigation and evaluation of reasonable project alternatives as part of the project environmental review process. EO 11988 requires the investigation of practicable alternatives prior to Federal agencies taking actions that provide direct or indirect support of floodplain development. Two alternatives are addressed in this EA: the No-action Alternative, where no FEMA grant funding is applied towards construction of a new Iowa City Animal Care and Adoption Center, and the Proposed Action, where FEMA grant funding is applied towards construction of the Animal Care and Adoption Center in Iowa City, Johnson County, Iowa at a location outside the 100-year floodplain. The discussion includes Alternatives Analyzed to repair or restore this facility at its current location, which was dismissed because a practicable location outside the 100-year floodplain was identified. The City of Iowa City established an Animal Shelter Location Study Committee, which identified criteria and assigned a value as high, medium, and low paired with numerical scores which were evaluated on their ability to meet the purpose and need of the proposed project in order to aid in the site selection process. Selection criteria included access to open space, proximity to existing infrastructure, compatibility with the surrounding neighborhood, easy accessibility, and proximity away from high-frequency or random noise sources among other criteria. The final selection of the proposed location met the majority of the criteria while avoiding what were identified as “fatal flaws”, such as a significant portion of the parcel being located within the 100-year floodplain. As a result, the Study Committee narrowed the initial selection of thirty-two (32) sites down to six (6), of which two were proposed for FEMA’s review. FEMA’s Environmental Planning and Historic Preservation (EHP) Task Force provided a preliminary review of the two (2) sites with a list of relevant advantages and disadvantages for each site. City of Iowa City selected the proposed project location based on these factors and their evaluation of criteria thereby limiting the available project relocation alternatives considered here.

#### **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 Iowa City would continue to use the temporary location and not be able to construct a new Animal Care and Adoption Center and provide the facilities to house the necessary services within the Animal Care and Adoption Center. Therefore, no FEMA grant funding would be applied towards construction of a new Iowa City Animal Care and Adoption Center and the city would be unable to provide essential community services to its citizens.

#### **3.2 Proposed Action**

This alternative provides FEMA grant funding towards construction of a new Iowa City Animal Care and Adoption Center at the proposed site on Napoleon Lane south of Napoleon Park. This alternative was preferred because it best meets the purpose and need by providing the public with easy accessibility and close proximity to existing infrastructure. Moreover, the proposed action provides a

location outside of the 100-year floodplain. The City of Iowa City has contracted the design work for the proposed alternative to Jackson & Ryan Architects.

The project would involve constructing a 7200 square-foot building with an additional 85 square-feet devoted to codes and standards upgrades. Excavation and grading will be required in order to remove trees and woody debris, as the construction will occur on an existing vacant lot. A Stormwater Pollution Prevention Plan was developed to identify acceptable runoff coefficients, along with space necessary to accommodate the needs for animal adoption, licensing and tagging animals, free education programs, and a public library devoted to animal care books, magazines, and videos. One of the critical factors identified in guiding the site relocation process was location outside the 100-year floodplain. The proposed site of the new Iowa City Animal Care and Adoption Center is located next to the existing Napoleon Park north of McCollister Blvd and adjacent to existing public works facilities on one of two parcels that were acquired through a pre-disaster purchase agreement. These parcels are identified for the planned Terry Trueblood Park, and are designated by the National Flood Insurance Program (NFIP) as being located in Zone X, an area determined to be outside the 100- and 500-year floodplains and thus be consistent with EO 11988. The site will have access to open space, be compatible with the surrounding neighborhood and have sufficient distance from high-frequency or random noise sources. A Phase II addition is being considered for the future that will be funded by the City of Iowa City.

### **3.3 Alternatives Considered and Dismissed**

A number of alternatives were evaluated during the development of the proposed project. These alternatives included maintaining the temporary facility at 4852 Sand Road SE, approximately four (4) miles south of the proposed location while repairing the existing damaged facility. The current temporary location failed the City's selection criteria including being within city limits, having good access for public transportation, and being located in close proximity to open space. The repair of the existing damaged facility would require bringing the facility up to current codes and standards for the City of Iowa City and would trigger compliance with the National Flood Insurance Program and require elevation to at or above the 100-year floodplain in order to mitigate future flood damages. This alternative was dismissed as being unfeasible due to the complexities in repairing the destruction to pre-disaster condition, and more importantly, because the location is within the 100-year floodplain and would remain vulnerable to future flood damage. Other highly ranked sites considered by the Location Study Committee included two locations within Scott Park, Hieronymus Property, Trueblood Park, and on Water Treatment Plant grounds. However, these sites did not meet the purpose and need of the proposed project and ranked lower in terms of desirability for the new Iowa City Animal Care and Adoption Center as demonstrated by the selection process and were dismissed as alternatives.

## 4. SUMMARY OF IMPACTS AND MITIGATION

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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. The proposed new site is located in a Zone X, outside of the 500-year floodplain and thus consistent with EO 11988. Project will have no long-term adverse effects to the floodplain.
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 significant impact. The Area of Potential Effects (APE) for this undertaking was considered highly sensitive for the presence of prehistoric archaeological sites. According to the master inventory of archaeological sites in Iowa, the proposed relocation site is located in an area of high potential for archaeological material and cultural deposits. There are several known sites identified within one mile of the APE of the proposed relocation, and one known site within the APE. In addition, multiple archeological surveys have been completed within and around the APE. As a result, the majority of the APE had not been previously surveyed and based on the high level of sensitivity for archaeological sites FEMA required the sub-grantee to have a Phase I Intensive Archaeological Investigation completed for the site. FEMA has reviewed the report, and both FEMA and the SHPO agree with the findings that no archaeological resources are located within the APE, and that the portion of site 13JH744 within the APE does not contain sufficient historic or pre-historic deposits to be considered eligible for listing in the National Register of Historic Place. Therefore no further archaeological work is recommended for the proposed construction of the new Iowa City Animal Care and Adoption Center.
Geology and Soils	No impact	No significant impact. Construction activities would clear existing vegetation and expose soil in the proposed construction area.

Radon	No impact	No significant impact. The contractor will use radon resistant construction techniques to minimize the potential for radon gas to migrate into the proposed Iowa City Animal Care and Adoption Center.
Land Use and Planning	No impact	No impact. A 5.33 acre parcel was purchased under a pre-disaster agreement which will be partially occupied by the Iowa City Animal Care and Adoption Center. The land is currently zoned interim residential multi-family.
Hazardous Substances	No impact	No significant impact. In the event that a hazardous substance or soil contamination is discovered during construction activities, the Iowa Department of Natural Resources (IDNR) should be contacted at Field Office #6 (319) 653-2135. 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. Noise from the public works facilities adjacent to the project area may have impacts on the animals at the shelter during primarily daylight hours and possibly all hours during winter.
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 Iowa City Animal Care and Adoption Center would temporarily disrupt local traffic within the project area
Water Quality/Water Resources	No impact	No impact. Implement construction best management practices. Install silt fences/straw bales to reduce soil erosion and sedimentation. Contractor to implement requirements of NPDES storm water discharge permit, if required.
Cumulative Impacts	No impact	No significant impact. The development of the site into the Iowa City Animal Care and Adoption Center would not pose a significant cumulative impact from the Proposed Action Alternative or impact the city of Iowa City and surrounding area. 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

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Chapter 5 describes the existing environmental conditions that may be affected by the proposed FEMA grant funding being applied towards construction of a new Iowa City Animal Care and Adoption 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 them with the potentially affected environmental components. The proposed activity was also evaluated against existing environmental documentation on current and planned actions and information on anticipated future projects to determine the potential for cumulative impacts. The potential for significant environmental consequences was evaluated utilizing the context and intensity considerations as defined in CEQ regulations for implementing the procedural provisions of NEPA (40 CFR 1508.27).

### 5.1 Air Quality

The 1990 Clean Air Act, its amendments, and NEPA require that air quality impacts be addressed in the preparation of environmental documents. The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants; carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide and lead, and define the allowable concentrations 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.

Primary and secondary standards for NAAQS have been established for most of the criteria pollutants. The EPA is authorized to designate those locations that have not met the NAAQS as non-attainment and to classify these non-attainment areas according to their degree of severity. Attainment pertains to the compliance/violation of any of the National Ambient Air Quality Standards (NAAQS) for the six criteria pollutants mentioned above. Each year, states are required to submit an annual monitoring network plan to EPA. The network plans provide for the creation and maintenance of monitoring stations, in accordance with EPA monitoring requirements specified in 40 CFR (Code of Federal Regulations) Part 58. The State of Iowa’s most recent Monitoring Network Plan was approved by EPA Region 7 in December 2010.

The Ambient Air Quality division of the University of Iowa Hygienic Laboratory (UIHL) works in conjunction with the Iowa Department of Natural Resources and the EPA to preserve the air quality of the state. UIHL maintains a network of instruments and devices located throughout the state to monitor ambient air with the exception of Linn and Polk Counties, whose air monitoring networks are maintained by their respective health departments. A map of the air monitoring network and historical air quality monitoring data maintained by UIHL can be found at the following web address: <http://www.uhl.uiowa.edu/services/ambient/>. The nearest Air Quality Monitoring System location is located at the Hoover School, 2200 East Court in Iowa City. UIHL maintains this monitoring location which includes a special purpose monitor (SPM) and SLAMs (state and local air monitoring station) which monitor for particulate matters. Currently, the State of Iowa is not listed as a non-attainment area for the six criteria pollutants according to the EPA’s “Currently Designated Non-Attainment Areas for Criteria Pollutants” (<http://www.epa.gov/oar/oaqps/greenbk/anc13.html#Notes>).

### 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

Under this alternative, the Proposed Action would require the excavation of soil for the construction of the Iowa City Animal Care and Adoption Center, thereby short-term emissions of criteria pollutants would occur during the construction phase. Construction equipment and personal vehicles would generate exhaust emissions, including NO<sub>2</sub> and CO; the operation of motor vehicles on unpaved surfaces and the use of earthmoving equipment may also generate particulate matter. The moving and handling of soil during construction would increase the potential for emissions of fugitive dust; however, any deterioration of air quality would be a localized, short-term condition that would be discontinued when the project has been completed and disturbed soils have been stabilized or permanently covered. The proposed action would require approximately eighteen (18) months of construction and heavy equipment including; bulldozers, scrapers, and backhoes. Construction activities would be required to minimize fugitive dust emissions through watering, controlling entrainment of dust by vehicles, and/or other measures to reduce the disturbance of particulate matter. Increases in ambient concentrations of the criteria pollutants resulting from heavy equipment would be minimal, and federal or state air quality attainment levels would not be exceeded. The proposed action is expected to have no long-term adverse impacts on the air quality of the area.

#### Mitigation

- Construction activities would be required to minimize fugitive dust emissions through watering, controlling entrainment of dust by vehicles, and/or other measures to reduce the disturbance of particulate matter.
- During site preparation and construction, the contractor would:
  - Minimize land disturbance;
  - Suppress dust on traveled paths that are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust from entering ambient air;
  - Cover trucks when hauling soil;
  - Minimize soil track-out by washing or cleaning truck wheels before leaving the construction site;
  - Stabilize the surface of soil piles; and
  - Create wind breaks.
- During site restoration, the contractor would:
  - Revegetate any disturbed land not used with native species in accordance with Executive Order (EO) 13112
  - Remove unused material, and
  - Remove soil piles via covered trucks.

## 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, and map documentation were performed. A site visit was conducted on July 7, 2010. 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. Following the July 7, 2010 site visit, the following list and description of threatened and endangered species that may occur in Johnson County was produced.

A long-dead specimen of the federally protected species, Sheepnose (*Plethobasus cyphus*), has been found in 1985 within the channel of the Iowa River adjacent to the proposed project area. According to the Species Assessment Form, populations of the sheepnose were generally considered extant if live or fresh dead specimens have been collected since the mid-1980s. Therefore, sheepnose is determined to not be present in the vicinity of the project area.

Numerous specimens of the state protected species, Pistolgrip (*Tritogonia verrucosa*) and Yellow Sandshell (*Lampsilis teres anodontoides*), have been found within 450 feet of the proposed project area. All known state and federal protected species known in the vicinity are located in the channel of the Iowa River and have been previously relocated as part of the McCollister Boulevard Bridge construction project located immediately south of the proposed project location.

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

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>	<b>Potential Occurrence at Site</b>	<b>Reason</b>
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	No	No habitat
Prairie bush clover	<i>Lespedeza leptostachya</i>	Threatened	No	No habitat
Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	Threatened	No	No habitat
Indiana bat	<i>Myotis sodalis</i>	Endangered	No	No habitat
Sheepnose mussel	<i>Plethobasus cyphus</i>	Candidate	No	Relocated
Eastern massasauga	<i>Sistrurus c. catenatus</i>	Candidate	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 impact of the proposed FEMA funded construction of a new Iowa City Animal Care and Adoption Center upon 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 for agricultural purposes and non-native settlement since the 1830s with the town of Napoleon. Furthermore, the last known protected species was relocated as part of the McCollister Bridge project prior to the flooding disaster of 2008.

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 Johnson County. It was determined from documentation review and a field visit to the project area, that threatened or endangered species identified as having potential to occur in Johnson 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 further 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 Iowa City Animal Care and Adoption Center.

### **5.3.1 Archaeological**

#### **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**

FEMA has considered the potential of the construction of the new facility to affect cultural resources. FEMA searched the University of Iowa-Office of the Archaeologist's I-Sites GIS and database, the Landscape Model for Archaeological Site Suitability (LANDMASS) and the USDA Natural Resources Conservation Service Web Soil Survey to determine if archaeological sites have been identified within the vicinity of the APE. According to the master inventory of archaeological sites in Iowa, the proposed relocation site is located in an area of high potential for archaeological material and cultural deposits. There are several known sites identified within one mile of the APE of the proposed relocation, and one known site within the APE. In addition, multiple archeological surveys have been completed within and around the APE. A FEMA archaeologist utilized the hard-copy surveys in the collection to accurately map the survey boundaries of surrounding surveys in comparison to the proposed construction site. One survey, R&C19971052500 appears to be mapped incorrectly on I-Sites. As the majority of the APE had not been previously surveyed and based on the high level of sensitivity for archaeological sites, FEMA required the sub-grantee to have a Phase I Intensive Archaeological Investigation completed for the site. This survey was completed in April 2011 by the Office of the State Archaeologist (OSA), the results of which are documented in the Archaeological Survey Report. FEMA has reviewed the report, and both FEMA and the SHPO agree with the findings that no archaeological resources are located within the APE, and that the portion of site 13JH744 within the APE does not contain sufficient historic or pre-historic deposits to be considered eligible for listing in the National Register of Historic Place. Therefore no further archaeological work is recommended for the proposed construction of the new Iowa City Animal Care and Adoption Center.

### **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**

FEMA has considered the potential of the construction of the new facility to affect historic standing structures. The parcel of land for the proposed facility was previously zoned as a residential district containing houses over 50 years old. Prior to the 2008 disaster, the City of Iowa City identified the area as the site of a new City park, and began acquiring and demolishing these residential structures. The site was cleared of all standing structures prior to the selection for the location of the Animal Care and Adoption Center, therefore there are no extant historic standing structures located within the APE. FEMA has determined and the SHPO has concurred that the proposed construction of the new Iowa City Animal Care and Adoption Center will result in no effects to historic properties. (Appendix C, Figures 1 and 2)

## 5.4 Geology and Soils

The topography of the proposed Iowa City Animal Care and Adoption Center slopes from the east to the west toward the river. On the west side of the proposed site there is a distinct change in topographic contours from north to south that would indicate the boundaries of the 100-year floodplain delineation. Information from the U.S. Department of Agriculture Natural Resources Conservation Service shows that three (3) soil types are present on or immediately adjacent to the site. Soils found at the proposed Iowa City Animal Care and Adoption Center project area are; Sparta loamy fine sand, Waukee loam, and Perks-Spillville Complex. The project is located predominantly on the Sparta loamy fine sand soil classification. (Appendix A, Soils Map, Figure 2)

Sparta loamy fine sand is found with 0 to 2 percent slope and is primarily on the eastern portion of the proposed project area. The Sparta loamy fine sand consists of excessively drained soils. Sparta Loamy fine sand has a depth to water table of more than 80 inches and is not prone to frequent flooding.

Waukee loam is found with 0 to 2 percent slope and is located to the south of the proposed project area, potentially outside of the area of work. Waukee loam consists of well drained soils. Waukee loam has a depth to water table of more than 80 inches and is not prone to frequent flooding.

Perks-Spillville Complex is found with 0 to 2 percent slope and is primarily located on the western portion of the proposed project area. Perks-Spillville Complex consists of excessively drained soils. Perks-Spillville Complex has a depth to water table of more than 80 inches is prone to frequent flooding.

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 Iowa Department of Soil Conservation analyzes soil types throughout the state and assigns multiple metrics for evaluating, rating, and classifying the productivity of soils. The Corn Suitability Rating (CSR) is one measure only used in Iowa. This metric is frequently used at a County level for defining farmland for protection through zoning and land use regulations as well as for calculating crop yield projections. A comparable metric is the Crop Productivity Index which is a numerical index, like the CSR, ranging from 0 to 100 with higher ratings indicating more productive soils under standard circumstances. The NRCS Soil map of Johnson County was consulted and indicates that the primary soil at the proposed site has a CSR below 50 which is lower than the 65 to 75 rating that is generally considered a high productivity soil in Iowa; the Crop Productivity Index rating is not available for this site. The definition of the primary soil at the proposed site includes a land capability classification within the map unit legend indicating that the site has "soils [which] have very severe limitations that restrict the choice of plants or require very careful management, or both" and "made

up of soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content” (USDA-NRCS, 2009).

The soils within the proposed project area are not specifically classified as prime farmland, reflect limited growing potential through the land capability classification, and therefore are not determined to be prime agricultural farmland. 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). This site is located within the urban boundaries of the City of Iowa City and surrounded by urban development.

#### **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 construction of the Iowa City Animal Care and Adoption Center would result in temporary disturbance of surface soils in the project area. Implementation of Best Management Practices (BMPs) identified in the Stormwater Pollution Prevention Plan (SWPPP) would minimize soil erosion and loss until construction is complete and the site is permanently stabilized. Therefore, the Proposed Action would have no significant impact to geology and soils. 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, Johnson County is mapped within Zone 1 (EPA 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 and therefore there would be no potential for adverse effects caused by elevated concentrations of radon gas.

### **5.5.2 Proposed Action**

Under this alternative, with the movement and excavation of the shallow soils associated with the construction of this facility there is a potential for encountering elevated concentrations of radon gas at the site and within the proposed building. Therefore, the contractor should use applicable radon-resistant construction techniques and/or mitigation methods to minimize the potential for radon gas to migrate into the proposed animal shelter.

## **5.6 Land Use and Planning**

The proposed site of the new Iowa City Animal Care and Adoption Center includes the north east portion of a parcel that the City purchased prior to the 2008 disaster. The site is located between South Gilbert Street and the Iowa River, north of McCollister Boulevard; both of these roads are designated arterial roadways. To the east of the proposed site is a salt storage and public works facility and to the north is the Napoleon Park Lift Station with Napoleon Park being located just beyond the lift station to the north. Land-use and zoning regulations are administered and enforced by the city of Iowa City. The site is currently zoned ID-RM (Interim Development, Residential Multifamily), adjacent to P1 (Neighborhood Public). The South Planning District boundaries includes the proposed Iowa City Animal Care and Adoption Center and is expected to grow in residential population with expansions to existing and developing new neighborhoods.

### **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 has been acquired as part of the future Terry Trueblood Park; the proposed Iowa City Animal Care and Adoption Center will be located at the northern edge of the park near existing city facilities. There will be significant soil disturbance and vegetation removal during the construction of the new facility and Terry Trueblood Park.

## **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 (CERCLA), Solid Waste Act, and Toxic Substances Control Act.

A significant amount of approximately five-gallon empty metal cans with unknown previous contents were observed along the southeastern portion of the proposed site. Labeling on the cans was not legible to identify previous contents. The contents of the cans themselves or the metal from the cans may have leached into the soil and groundwater. FEMA recommends the City conduct a Phase I Environmental Site Assessment to determine whether soil contamination exists on the site.

FEMA also understands that the proposed location previously contained residential properties and it is unknown how the demolitions were performed or if asbestos and/or lead surveys were conducted prior to demolition. No other sources of potential contamination are known on the site.

The potential for soil contamination is unknown, however if contamination is present, the applicant will be required to coordinate with the Iowa Department of Natural Resources prior to proceeding with the project. The nearest DNR Field Office is #6 located in Washington, south of Iowa City.

### **5.7.1 No Action**

The No-action Alternative would have no significant effect on unidentified 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 soil and/or groundwater contamination is discovered during construction activities, the Iowa Department of Natural Resources (IDNR) should be contacted at Field Office #6 (319) 653-2135. Work within the sensitive area should not resume until IDNR personnel indicates no further assessment is needed of the discovery. See 5.7 Hazardous Substances for further discussion on this topic.

## **5.8 Noise**

The Noise Control Act was enacted in 1972 (P.L. 92-574). EPA does not have regulatory authority governing noise in local communities. In 1982, the EPA shifted federal noise control policy and transferred the primary responsibility of regulating noise to state and local governments. The Noise Control Act of 1972 and the Quiet Communities Act of 1978, however, were not rescinded by Congress and remain in effect. 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. Noise is considered unwanted sound and is typically measured in decibels (dB). The day-night average sound level (Ldn) is the 24-hour average sound level, in dB, obtained after the addition of 10 dB to the sound levels occurring between 10 p.m. and 7 a.m. and is used by agencies for estimating sound

impacts and establishing guidelines for compatible land uses. The U.S. Department of Housing and Urban Development (HUD) regulations set acceptable noise levels at 65 Ldn or less (24 CFR Part 51, Subpart B). Typical residential construction codes require a minimum exterior to interior insertion loss, or noise reduction, of 20 dBA. The EPA identifies a 24-hour exposure level of 70 decibels (dB) as the level of environmental noise which will prevent any measurable hearing loss over a lifetime. Likewise, levels of 55 dB outdoors and 45 dB indoors are identified as preventing activity interference and annoyance (e.g., spoken conversation, sleeping, working, recreation) (EPA 1974). The levels represent averages of acoustic energy over long periods of time such as 8 hours or 24 hours rather than single events. (<http://www.epa.gov/history/topics/noise/01.htm>). These noise levels are contained in a new EPA document, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." According to the Iowa City Code, "any noise that interferes with the comfortable enjoyment of life or property of the neighborhood" is forbidden. The City does not authorize amplified sound in a residential area with the exception of events held at churches or schools.

### **5.8.1 No Action**

The No-action Alternative would not affect noise levels within the proposed 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 result in short-term increases in noise levels in the vicinity of the project area from the construction of the Animal Care and Adoption Center. Construction activities would be limited to daylight hours and, therefore would not affect ambient noise levels at night in surrounding residential areas.

The proposed project would require approximately 18 months of construction and 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. Long term increases in noise are not anticipated to be significant due to the relatively close proximity of the Iowa City Airport approximately half a mile away. The initial building plan provided by the architects indicates design factors to minimize noise from barking dogs within the facilities, as well as, minimize noise originating from adjacent facilities from impacting animals housed within the Animal Care and Adoption Center.

The presence of the Salt Storage building adjacent to the proposed project site and heavy equipment associated with Quonset buildings and public works operation to the south may present disruptive noise to the Animal Care and Adoption Center. However, most of this potential noise may be assumed to take place primarily during daylight hours for the majority of the year, with the exception during winter months of potentially occurring at all hours. No known sensitive noise receptors are located near the project area. It is anticipated that all construction activities would occur during daylight hours. The proposed action is expected to have no long-term adverse impacts on the noise quality of the area.

## 5.9 Socioeconomic Considerations

### 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 are, disproportionately high and adverse human health, or environmental effects of its programs, policies, and activities on minority and low-income populations in the United States.

The data used for this Environmental Justice analysis was taken from the 2000 Census (U.S. Census Bureau, 2000) as the 2010 Decennial Census data is not sufficiently available for this analysis as of the time of this writing. The construction footprint for the Proposed Action falls within Census Tract 18, Block Group 2 of Johnson County. As of the 2000 census, there were 62,220 people and 25,202 households residing in the City of Iowa City. The 2008 American Community Survey (ACS) estimates the Iowa City population at 84,507; however estimation methods for the ACS differ from those used for the Decennial Census potentially limiting the functional comparison with the 2000 population. Compared to the rest of Iowa City this area has a greater proportion of minority residents, exceeding the City’s proportion by 6.8%. The white population of this area is 80.53% followed by 9.34% African American and 5.13% Asian compared to the City’s proportions of 87.33%, 3.75%, and 5.64% respectively. Additionally, 5.51% of area residents report Hispanic or Latino heritage compared to the overall City proportion of 2.95%. A greater proportion (27.6%) of the area population is under 18 than for the rest of the city (2.7%); this comparison is potentially distorted by the large student population of Iowa City however. At the same time, there is a smaller proportion of area population over the age of 64 (3.3%) than for the rest of the City (7%). Median age for Iowa City is 25.4 while the median age of the proposed project area is 27.5. There are 1,348 households in the proposed project area with median household size of 2.45 compared to median size of 2.23 for Iowa City as a whole. The proportion of the population (71.6%) of the area with families is greater than the proportion for the rest of the city (52.1%) with average family sizes of 2.99 as opposed to family sizes for the whole city at 2.90 on average.

*Table 5-2: 2000 Total minority and below poverty level populations.*

Geography	Minority Status (SF1 Data)			Poverty Status (SF3 Data)		
	Total	Minority Population	Percentage	Total	Population in Poverty	Percentage
Iowa City	62,220	1,048	1.68%	56,302	12,234	21.73%
Block Group 2	3,374	657	19.47%	3,358	589	17.54%

Note: The difference between the total columns for Minority and Poverty status is due to Census methodologies between SF1 Data and SF3 Data. SF1 Data represents a 100% count whereas SF3 Data results from estimating methods for confidentiality protection.

Median household incomes within the area are \$38,897 while the same figure for the City as a whole is \$34,977. A smaller proportion of the area population (17.5%) was determined to be below the

poverty threshold than for the City as a whole (21.7%). These figures may be distorted slightly by the large student population of the City, which is largely clustered outside of the proposed project area.

Table 5-3: Population Statistics 1980 through 2000

<b>Jurisdiction</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>
Iowa	2,913,808	2,776,755	2,926,324
Johnson County	81,717	96,119	111,006
City of Iowa City	50,508	59,738	62,220

### 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

Construction of the Animal Care and Adoption Center under this alternative would result in 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 necessary service for the Iowa City residents and businesses and would not displace or adversely affect any nearby residents or minority populations during the construction phase. The surrounding land uses are public facilities and open space which combined with the proposed Animal Care and Adoption Center, may provide a positive attraction and further opportunities to the area. The concentration of families and children in the project area as defined may benefit by the proximity and access to the services and resources available through the Iowa City Animal Care and Adoption Center. The implementation of the proposed alternative would have little likelihood of having disproportionate long term adverse impacts on any low-income or minority populations. The land-use improvements would be beneficial to the area and would not cause adverse environmental or economic impacts specific to any groups or individuals.

## 5.10 Transportation

The proposed project area is located near the junction of two arterial roadways designed to carry greater traffic loads than residential streets. The proposed project will generate additional traffic in the area; however it is not expected to be a substantial amount. The selection of the proposed site included accessibility criteria including vehicular, pedestrian, bike, and mass transit.

### 5.10.1 No Action

With the No-action Alternative, the damaged Iowa City Animal Care and Adoption Center would not be relocated and there would be no impact to the existing traffic and circulation for the city of Iowa City because there would not be any construction activities.

## 5.10.2 Proposed Action

Under this alternative, the construction of the Animal Care and Adoption Center at the proposed site would temporarily disrupt the traffic flow on Gilbert Street during the approximately 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, as appropriate, 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 a comparable level upon completion of the project.

## 5.11 Water Resources

The U.S. Army Corps of Engineers (USACE) regulates the placement of dredged or fill material into Waters of the United States (Waters) under the federal Clean Water Act (CWA). Authorization from the USACE and the Iowa Department of Natural Resources would be required under CWA Sections 404 and 401 for discharge of dredged or fill material to Waters, including wetlands (see section 5.10.1, Wetlands). Furthermore, EO 11990 directs federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the values of wetlands. A site visit was conducted on July 7, 2010 to assess the occurrence of wetlands and other Waters. No hydrophytic vegetation or field indicators of wetland hydrology were observed on-site. Soils mapped in the project area are not identified as hydric soils by the NRCS. No drainages were observed in the project area that would potentially be considered jurisdictional Waters by the USACE. The project site does not support wetlands or other Waters; therefore, permitting under CWA Sections 404 and 401 would not be required.

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 coincide 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 concurrently because building in navigable waters of the United States also constitutes discharging dredged or fill material into waters of the United States. In addition to regulating construction or work being done in navigable waters 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.

The City's planning documents identify the area as a sensitive area with "potential unwooded wetlands." 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. Across the Iowa River are the nearest wetlands located approximately 600 feet downstream classified as PFO1C (Palustrine Forested Seasonally Flooded). Other wetlands on the same side of the Iowa River as the proposed project site are located upstream or across McCollister Boulevard outside the area of work.

#### **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**

A review of the National Wetlands Inventory Map indicates no wetlands are located on the proposed site. There is a wetland located within 0.25 miles of the proposed project site. 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**

EO 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). Linn County, Iowa is a participant in the NFIP.

Consistent with EO 11988, FIRMs were examined during the preparation of this EA. Per FIRM Panel 19103C0195E, dated 2/16/2007, the proposed Iowa City Animal Care and Adoption Center is located in Zone X, outside the 100-year floodplain. The FIRM data indicates the western section of the parcel that is immediately to the west of the identified project location is located in Zone AE within the 100-year floodplain.

FEMA's procedures for implementing EO 11998 (44 CFR Part 9, Section 9.6) include an eight-step review process that decision-makers must use when considering projects that have potential impacts to or within a floodplain. However, the proposed new location for the Iowa City Animal Care and Adoption Center will not be within the 100-year floodplain and thereby not require an eight-step review process. (Appendix A, Figures 3 & 4).

### **5.11.2.1 No Action**

This alternative is not viable for the Iowa City Animal Care and Adoption Center due to its pre-disaster location in Zone AE Floodplain, Special Flood Hazard Area.

### **5.11.2.2 Proposed Action**

The proposed new site is located in Zone X, areas of minimal flood hazard, which may have ponding and local drainage problems, but do not warrant a detailed study or designation as a base floodplain. Zone X is the area determined to be outside the 500-year floodplain. The construction of the new Iowa City Animal Care and Adoption Center should not affect base flood levels or flood values or characteristics; support occupancy or modification of floodplains; or directly or indirectly support floodplain development.

## **5.12 Demolition**

Land required for the Proposed Action would involve a section of one of two parcels the City has acquired through a pre-disaster agreement. The agreement requires the sellers to remove existing structures from the site prior to the City taking possession at the sellers' expense. The structures on the parcel are located in Zone AE within the 100-year floodplain.

### **5.12.1 No Action**

With the No-action Alternative, the damaged Iowa City Animal Care and Adoption Center would not be relocated and the existing building would not be demolished so there would be no impact to the adjacent parcels because of the demolition activities.

### **5.12.2 Proposed Action**

Under this alternative, all demolition activities on this parcel will be the responsibility of the private sellers per the pre-disaster agreement between the City of Iowa City and the sellers. The demolition work must comply with all Federal, state, and local abatement and disposal requirements for materials containing asbestos, lead paint, and/or hazardous materials.

Iowa DNR requires that structures be tested for asbestos containing material prior to demolition. If testing is not conducted, all debris or demolition material must be disposed of as if it contained asbestos. IDNR requires at least 10 days notice prior to renovation, repairs, or demolition. Call 515.281.6175 for details or visit <http://www.iowaworkforce.org/labor/asbestos.htm>.

The demolition activities should use best management practices to prevent the releases of erosion and sedimentation to the surrounding, nearby, or adjacent wetlands and waterways. This includes equipment storage and staging of construction to prevent erosion and sedimentation to ensure that wetlands are not adversely affected per the Clean Water Act and Executive Order 11990.

## 5.13 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 in the project vicinity.

There were no reasonably foreseeable actions identified in the project vicinity that would have the potential for a cumulative impact. If the Iowa City Animal Care and Adoption Center is not relocated and rebuilt outside of the 100-year floodplain, the quality of life for the citizens of Iowa City will be negatively impacted. Therefore, the development of the site into the Iowa City Animal Care and Adoption Center would not pose a significant cumulative impact from the Proposed Action Alternative or impact the City of Iowa City and surrounding area. The project’s potential adverse impacts were limited to potential effects on land use, visual and aesthetics, and construction, and it was determined that there were no cumulative impacts as a result of the effects.

## 5.14 Coordination and Permits

Relocation of the Iowa City Animal Care and Adoption Center would require a building permit from the Iowa City Building 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 Office and the FEMA Regional Environmental Officer would be notified before work would continue (section 5.3 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. Iowa City 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 the initially approved plan 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. If soil contamination is discovered, the City is required to contact the Iowa Department of Natural Resources Field Office #6 in Washington at (319) 653-2135 and comply with all State environmental and EPA requirements.

## 6. CONCLUSION

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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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### 7.1 Parties Consulted

Kumi Morris, Architectural Services Coordinator, Engineering Division, City of Iowa City. 410 E Washington Street, Iowa City, IA, 319-356-5044.

### 7.2 References

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## **8. LIST OF PREPARERS**

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### **8.1 Government Preparers**

Beth Held, EHP Task Force Lead, Iowa Closeout Center, Federal Emergency Management Agency, Region VII

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

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

Ann Schmid, Historic Preservation Specialist, Iowa Closeout Center, Federal Emergency Management Agency, Region VII