Environmental Assessment

City of Cedar Rapids Main Library

Cedar Rapids, Iowa
FEMA DR-1763-IA

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FEMA

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Abbreviations and Acronyms

CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMU	Concrete Masonry Unit
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
IDNR	Iowa Department of Natural Resources
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
SHPO	State Historic Preservation Office
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

Cedar Rapids is the second largest city in the U.S. state of Iowa and is the county seat of Linn County. The city lies on both banks of the Cedar River. Beginning on June 11, 2008, the Cedar Rapids Main Library on 1st Street SE experienced extensive damage from the flooding of the Cedar River and its tributaries which flooded large portions of Cedar Rapids 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, damaged location of the Main Library is 500 1st Street SE and the temporary locations are Westdale Mall at 2600 Edgewood Road SW and 221 3rd St SE, in Cedar Rapids, Iowa. The Cedar Rapids Main Library serves the population of Cedar Rapids with a 2010 population of 126,326 and the surrounding metropolitan area.

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 Cedar Rapids Main Library 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 present location, FEMA and the City of Cedar Rapids conducted a thorough review of the practicable alternatives to restoring the function of this facility at a location outside the floodplain and not subject to repetitive flood damage.

2. PURPOSE AND NEED

Pursuant to Section 406 of the Robert T. Stafford Disaster and Emergency Assistance Act of 1988, as amended, the City of Cedar Rapids 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 Cedar Rapids and Linn County in their recovery from the natural disaster by using the FEMA Public Assistance Program to contribute funding towards the construction of the new Cedar Rapids Main Library. The proposed site of the new Cedar Rapids Main Library is located on the True North Block, which is bounded by 4th Avenue SE and 5th Avenue SE and the Cedar River Trail and 5th Street SE (Appendix B, Photographs 1-3). The need for the project is to replace and relocate the Cedar Rapids Main Library outside of the 100-year floodplain in response to a devastating flood that struck Cedar Rapids, Linn County, Iowa, beginning on June 11, 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 damaged Cedar Rapids Main Library has been terminated and the services have been relocated to temporary facilities in order to continue to meet the needs of the community, as the current structure was extensively damaged by flood waters. The Cedar Rapids Main Library provides essential services to the city and surrounding Linn County communities. These services include access to public information, reading and viewing materials, children's educational opportunities, and assistance to the general public in conducting research. If the Cedar Rapids Main Library is not relocated and rebuilt, the ability of the City to provide a much utilized and essential public service would be compromised.

3. ALTERNATIVES ANALYSIS

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. A number of alternatives were evaluated during the development of the proposed project. The alternatives included in this EA are: the No-action Alternative, where no FEMA grant funding is applied towards construction of a new Cedar Rapids Main Library, the repair and mitigation of the existing Main Library location, and the Proposed Action, where FEMA grant funding is applied towards construction of a new Cedar Rapids Main Library 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. Upon notification authorizing a permanent relocation from FEMA in October 2009, the city established a Working Group which developed key criteria for the site identification process and selection of the potential relocation sites, which were evaluated on their ability to meet the purpose and need of the proposed project; 1) downtown location, 2) location outside of the 100-year and the 500-year floodplains, 3) adequate space to accommodate appropriate parking for facility size, 4) location that would conform to a specific construction timeline. The Working Group identified 401 4th Avenue SE (True North site), 712 2nd Avenue SE (Emerald Knights site), and 501 2nd Avenue SE (Gazette site) and submitted these potential sites for FEMA's evaluation. FEMA's Environmental Planning and Historic Preservation (EHP) Branch provided a preliminary evaluation including relevant advantages and disadvantages of all three sites in February 2010. The city invited a competitive bidding process to dispose of the damaged site for redevelopment and selected a proposal by True North Companies on September 28, 2010.

3.1 No Action Alternative

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 Cedar Rapids would continue to use the two temporary locations or repair the Cedar Rapids Main Library at its damaged location. Therefore, no FEMA grant funding would be applied towards construction of a new Cedar Rapids Main Library and the city would be limited in providing an essential community service to its citizens.

3.2 Proposed Action

This alternative provides FEMA grant funding towards construction of a new Cedar Rapids Cedar Rapids Main Library at the proposed site currently occupied by True North Companies. This alternative was preferred because it best meets the purpose and need by providing the public with direct access to the library through all forms of public transportation including foot traffic and expanded parking for all employees and visitors. Moreover, the proposed action provides a centralized location to the downtown corridor outside of the 100-year floodplain. The City of Cedar

Rapids has contracted the design work for the proposed alternative to OPN Architects and contracted with Ryan Companies US, Inc. to serve as the city's general contractor. The proposed site of the new Cedar Rapids Main Library is located approximately three blocks north east of the damaged location bounded by 4th and 5th Avenue SE and 5th Street SE and the Cedar River Trail.

The project would involve constructing a three-story 89,481 total square-foot building, of which 41,902 square-feet will constitute the foundation footprint on the lot. Demolition of an existing commercial building will be required along with grading to achieve a positive slope for stormwater runoff. The total area of soil disturbance will be approximately 90,000 square-feet including the demolition area of the existing building. The proposed new library is designed to occupy the majority of the site and will substantially conform to the original facility's design, capacity, and function with the addition of an auditorium, green roof, and elevation on a 2 foot 6 inch building pad. The design also includes a skywalk to connect the adjacent 4th Avenue Parkade. Two roof cisterns are proposed to provide water for irrigation on the green roof and "Stormtech" underground stormwater detention chambers are also included in the design. The project is intended to be a Certified LEED Platinum Building.

3.3 Alternatives Considered and Dismissed

A number of alternatives were evaluated during the development of the proposed project. These alternatives included rebuilding or repairing the existing Cedar Rapids Main Library at its current damaged location and/or maintaining the two temporary facilities at Westdale Mall at 2600 Edgewood Road SW and 221 3rd St SE, in Cedar Rapids approximately four (4) miles southwest of the proposed location. The current temporary locations failed the Working Group's selection criteria including being within downtown limits, having good access for public transportation including foot traffic, and being centrally located. The other highly ranked proposed relocation sites considered by the Working Group included two locations within the downtown limits, however, these sites did not meet the purpose and need of the proposed project in terms of location desirability, access to public transportation and cost-effectiveness, so therefore they were dismissed as alternatives and the True North site became the preferred alternative as a result of the site selection process.

3.3.1 Rebuild Existing Facility

An alternative of rebuilding the existing damaged facility was evaluated by the Working Group. This alternative would have resulted in construction-related impacts and would require repairing the facility to current codes and standards. The repair of the damaged facility currently located within the 100-year floodplain would trigger compliance with the National Flood Insurance Program, and thereby require elevating it to at or above the 100-year floodplain in order to mitigate future flood damages. However, it was determined a critical facility, so elevating in place would require significant investment in the floodplain due to the additional requirements of EO 11988 for critical facilities elevated to the 500-year floodplain level in order to maintain the current function and essential services provided to the City of Cedar Rapids. Increased floodplain development would cause a negative impact to the Cedar River floodplain and not serve the intent and purpose of restoring the natural and beneficial functions of the floodplain, and moreover, would not be cost-effective over the life of the facility. Given the issues identified, this alternative did not meet the purpose and need, primarily due to the increased costs and accessibility associated with elevating a structure to the 500-year level, so therefore it was dismissed as being unfeasible due to the complexities in repairing the destruction to pre-disaster condition, and more importantly, because the location and access is still within the 100-year floodplain, it would remain vulnerable to future flood damage even in modified

configuration, and the relocation of critical facilities out of harm's way is predominately the preferred alternative in sound floodplain management decisions.

4. SUMMARY OF IMPACTS AND MITIGATION

Two alternatives were evaluated in this EA:

- No-action Alternative
- Proposed Action

Table 4-1 summarizes the potential environmental impacts expected with each of the two alternatives. Additional information is located in Section 5.

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

As shown in table 4-1, the selection of Proposed Action would result in minor environmental impacts from the temporary increase in noise and the production of fugitive dust during construction.

Table 4-1: Summary of Impacts and Mitigation

Environmental Resource	No-action	Proposed Action
Air Quality	No impact	No significant impact. Fugitive dust would result from all construction activities; the project would be of short duration and would not require large amounts of heavy equipment; best management practices would be implemented
Biological Resources	No impact	No impact; threatened or endangered species are not present in the project area
Executive Order 11990/Wetlands	No impact	No significant impact; best management practices would be used to protect wetlands during construction. If required, a Section 404 permit from USACE would be obtained
Executive Order 11988/Floodplain Mgmt	No impact	No significant impact; Project will have no long-term adverse effects to the floodplain. Use of BMP for erosion and sediment control is required.
Threatened and or Endangered Species	No impact	No impact; threatened or endangered species are not present in the project area
Cultural Resources	No impact	No significant impact: The Area of Potential Effects (APE) for this undertaking was considered moderately sensitive for the presence of pre-historic archaeological deposits, however, demolition of the extant building and site improvements will not notably disturb more ground than was disturbed by its original construction, and previous construction on the site. According to the master inventory of archaeological sites in Iowa, no previously recorded archaeological sites are located within the APE; however, seven (7) previously identified sites are located within one mile of the APE. Therefore, FEMA does not recommend a Phase 1 Archaeological Survey of the proposed action. FEMA consulted with the SHPO on FEMA's determination and the SHPO concurred that the construction of the proposed Main Library as designed will result in no historic properties affected within the site construction, and no adverse effect to historic properties within the APE of the proposed action.
Geology and Soils	No impact	No significant impact. Construction activities would expose soil in the proposed construction area and a Storm Water Pollution Prevention Plan will be needed.
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 Cedar Rapids Main Library.
Land Use and Planning	No impact	No impact. An approximately two acre parcel is being purchased under an agreement with the current occupant. The land is currently zoned C-4.

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 #1 (563) 927-2640. Work within the sensitive area should not resume until IDNR personnel indicates no further assessment is needed of the discovery.
Noise	No impact	No significant impact. Construction activities would increase the noise levels in the immediate area of the construction project; activities are assumed to take place during daylight hours and no sensitive noise receptors are located near the project area.
Executive Order 12898, Environmental Justice	No impact	No significant impact. Implementation of this alternative would have little likelihood of having disproportionate negative 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 Cedar Rapids Main Library 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 Cedar Rapids Main Library would not pose a significant cumulative impact from the Proposed Action Alternative or negatively impact the city of Cedar Rapids and surrounding area.

Notes:

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

5. AFFECTED ENVIRONMENT AND IMPACTS

Chapter 5 describes the existing environmental conditions that may be affected by the proposed FEMA grant funding being applied towards construction of a new Cedar Rapids Main Library. 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 (NO2), ozone (O3), particulate matter (PM10 and PM2.5), 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 Linn County Public Health Department, Air Quality Division, is authorized by the EPA to implement and enforce the Clean Air Act and the county's code on Air Quality. The Linn County Air Quality Division maintains a network of instruments and devices located throughout the Cedar Rapids metropolitan area to monitor ambient air. The nearest Air Quality Monitoring System location is 616 A Avenue at the Scottish Rite Temple in Cedar Rapids. As of April 21, 2011, no area within the State of Iowa is considered 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/ancl3.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 Cedar Rapids Main Library, thereby short-term emissions of criteria pollutants would occur during the construction phase. Construction equipment and personal vehicles would generate exhaust emissions, including NO2 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 February 22, 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 February 22, 2010 site visit, the following list and description of threatened and endangered species that may occur in Linn County was produced.

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

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

5.2.2 No Action

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

5.2.3 Proposed Action

The impact of the proposed FEMA funded construction of a new Cedar Rapids Main Library 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 developed commercially since 1855.

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 Linn 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 Linn 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 Cedar Rapids Cedar Rapids Main Library.

5.3.1 Archeological

5.3.1.1 No Action

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

5.3.1.2 Proposed Action

FEMA has considered the potential of the construction of the new facility to affect cultural resources. The site proposed for the new Cedar Rapids Main Library is limited to one city block within downtown Cedar Rapids which contains an existing structure. The existing structure will be demolished, the site prepared and the new library constructed. FEMA searched the University of Iowa-Office of the State Archeologist (OSA) I-Sites GIS and database, the Landscape Model for Archaeological Site Suitability (LANDMASS) for Linn County, historic maps and aerial photographs available through the Iowa Geographic Map Server at Iowa State University and the University of Iowa Libraries' Iowa Digital Library, 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, no previously recorded archaeological sites are located within the APE; however, seven (7) previously identified sites are located within one mile of the APE. In 1998 a Cultural Resources Survey was conducted for the Cedar Valley and Hoover Rails Connector (R&C 19980757002) along the rail road line, which runs north-south along 4th Street SE, the eastern edge of the block for the proposed project. According to the Web Soil Survey, the soil

data for this parcel has not been compiled. The site is located in a developed urban environment. The site is located just south of Green Square Park. According to the available Sanborn Fire Insurance Maps, the True North block originally housed Washington High School, first erected on that site in 1855. The second Washington High School was constructed on the same block just south of the 1855 school building and was completed in 1892. This Richardsonian Romanesque structure was a prominent building in the developing city. The Washington High School was demolished in 1946, and a new structure was built outside of the downtown to replace it. After the high school relocated, the block was used primarily for parking until the site was developed in 1971. The site is considered moderately sensitive for the presence of pre-historic (Native American) archaeological deposits, however, demolition of the extant building and site improvements will not notably disturb more ground than was disturbed by its original construction, and previous construction on the site. The site is largely covered by concrete and asphaltic parking surfaces. The proposed demolition of the extant building and site preparation plans include removal of the building and all surface paving within the city block. Therefore, FEMA does not recommend a Phase 1 Archaeological Survey in advance of the proposed demolition/construction or monitoring by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards during the demolition of the building, removal of the site improvements and construction of the new facility.

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 proposed for the new Cedar Rapids Main Library is limited to one city block within downtown Cedar Rapids which contains an existing structure. The existing structure will be demolished, the site prepared and the new library constructed. According to the Cedar Rapids Assessor, the True North building currently occupying the lot was originally constructed in 1971. The building originally featured a bowling alley and in the 1990s was converted into office space. The existing building has had several modifications and changes in use. FEMA has determined that this building does not meet the 50-year criterion required by the National Register Criteria for Evaluation, or the level of exceptional importance required by Criteria Consideration G to be considered eligible for listing in the NRHP. The proposed new design for the replacement facility will consist of a T-shaped two and three story structure. The building will feature set backs on the north and south sides with open green space, and a green roof. The scale and footprint are compatible with other structures within the APE. FEMA has evaluated the potential for this proposed design to effect historic properties. FEMA has referenced the Historical and Architectural Reconnaissance Survey for the Downtown and Industrial Corridors in Cedar Rapids, IA conducted by Marlys Svendsen in 1997. FEMA has identified all properties currently listed or previously recommended eligible for listing in the NRHP on adjacent blocks and those blocks surrounding Green Square Park, which would be within the view shed of the proposed library. At this time, no historic district has been identified within the APE, and should any such district exist, the current True North building would not be considered a contributing structure and any new construction on this site would likely not detract from a potential district. Therefore, FEMA has determined and the SHPO has concurred that the proposed

construction of the Cedar Rapids Main Library as designed will result in no adverse effect to historic properties within the vicinity of the undertaking.

5.4 Geology and Soils

The topography of the proposed Cedar Rapids Main Library site is generally flat and it is located in a well developed area of downtown Cedar Rapids. Information obtained from boring logs completed in the area of the proposed site by several drilling companies submitted to and provided by the Iowa Geological Survey Bureau indicate soils consisting of fill, sand with minimal clay and silt, with a layer of gravel underlain by dolomite bedrock at approximately 70 – 100 feet below grade. Because the proposed site is located within the downtown area of the City of Cedar Rapids, soil classifications have not been compiled for the area and therefore are not available.

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 proposed site is located downtown, within the city limits of the City of Cedar Rapids and surrounded by urban development; therefore, the proposed site is not considered prime farmland and corn suitability ratings have not been generated for this specific area.

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 Cedar Rapids Main Library would result in temporary disturbance of surface soils in the project area. Implementation of Best Management Practices (BMPs) identified in the Storm Water 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, Linn County (and the entire state of Iowa) is mapped within Zone 1 (EPA 2011). In addition, the Iowa Department of Public Health maintains a list of average radon test results for each zip code within the state. The proposed site is within the 52404 zip code, which according to the radon results table indicates an average of 4.3 pCi/L. 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

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 Cedar Rapids Main Library site.

5.6 Land Use and Planning

The proposed location of the new Cedar Rapids Main Library is the parcel of land bound by 4th Avenue and 5th Avenue and 5th Street and the Cedar River Trail. The site is currently occupied by True North, a regional insurance and financial services company headquartered in Cedar Rapids. Northeast of the site are Greene Square Park, commercial properties and parking structures that are adjacent parcels. Land-use and zoning regulations are administered and enforced by the city of Cedar Rapids. The site is located within the Central Business District and is consistent with the city's comprehensive plan goal of encouraging downtown cultural opportunities (Exhibit II-1: Cedar Rapids' Growth Objectives and Impacts; Freilich et al, 1999). The Sasaki Neighborhood Plan identifies the site as a potential park surrounded by "Art, Cultural and Community Assets" and "Mixed Use Reinvestment" and "Housing Reinvestment" land uses (page 8, page 12, & page 14; Sasaki, 2009). [1]

5.6.1 No Action

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

5.6.2 Proposed Action

Land required for the Proposed Action would involve one square block currently occupied by an insurance company building and parking lot. The existing facilities will need to be demolished prior to initiating construction of the proposed Main Library. The proposed Cedar Rapids Main Library structure will occupy the majority of the parcel with a limited number of surface-level parking spaces on the south east side of the structure. There will be significant soil disturbance during demolition and subsequent construction activities.

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 the Toxic Substances Control Act.

[1] Other planning documents were considered, but not included in the review for this Environmental Assessment. Such omitted resources include Sasaki's *City of Cedar Rapids Framework Plan for Reinvestment and Revitalization* (December 2008) and the Urban Land Institute's *Cedar Rapids Iowa: Strategies for the Downtown, An Advisory Services Panel Report* (June 1-4, 2009) in favor of "official" plans and more recent planning documents.

Several underground storage tank (UST) facilities exist within 0.50 miles from the proposed site. Three leaking underground storage tank facilities (LUST) are located within approximately 0.25 miles, with the majority of the facilities located to the northeast of the proposed site. Due to the facilities' current status (low risk or no further action, verified by Iowa Department of Natural Resources (IDNR) online database) and distance from the proposed site, it is unlikely that these facilities present an environmental concern.

Due to the documented historic uses of the proposed site which include a high school, a parking lot, bowling alley and most recently office spaces, the potential for soil and or groundwater contamination is of minimal concern. However if contamination is found during construction activities, the applicant will be required to coordinate with the IDNR prior to proceeding with the project. FEMA, after review of available construction plans, does not anticipate storage of hazardous substances at the proposed Cedar Rapids Main Library site.

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 IDNR should be contacted at Field Office #1 (563) 927-2640. 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 Cedar Rapids Municipal Code 56.02, any noise measured over 65 dBA at any time within a commercial district is prohibited.

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 for the construction of the new Cedar Rapids Main Library. Construction activities would be limited to daylight hours and, therefore should not affect ambient noise levels.

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. The proposed site is located in the downtown area of the City of Cedar Rapids surrounded by commercial development. In the long term, the proposed new Cedar Rapids Main Library will create more pedestrian and vehicular traffic noise as the facility will promote public use for all ages. 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 matter relating to human health and the environment. Also identified and addressed, as appropriate are, disproportionately high and adverse human health, or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

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 at the edge of Census Tract 27, Block Group 2 and Census Tract 19, Block Group 3 of Linn County; both block groups are thus considered the project area for the purpose of socio-economic evaluation (Appendix A Figure 4). As of the 2000 census, there were 120,758 people and 49,820 households residing in the City of Cedar Rapids. The proposed project area consists of 1,641 people and 877 households.

Compared to Cedar Rapids as a whole, this area has a significantly greater proportion of minority residents, exceeding the City's proportion by nearly 20%. The proportion of the area population is white 72.35% followed by 12.39% African American and 11.13% Asian compared to the City's proportions as a whole of 91.86%, 3.71%, and 1.77% respectively. Additionally, 2.09% of area residents report Hispanic or Latino heritage compared to the overall City proportion of 1.71%. The proposed project area has a greater proportion of residents over the age of 64 (21.6%) and a smaller proportion of residents under the age of 18 (13.9%) than the city as a whole, 13.1% and 24.5% respectively. The working-age population of the proposed project area is comparable to the city as a whole. Median age for Cedar Rapids is 34.7 while the median age of the proposed project area is older at 39.4. There are 877 households in the proposed project area with median household size of 3.21 compared to median size of 2.36 for Cedar Rapids as a whole.

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
Cedar Rapids	120,758	9,827	8.14%	117,240	8,843	7.54%
Project Area	1,671	462	27.65%	1,451	360	24.81%

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 diverge between the two block groups comprising the project area as defined in this section. Block Group 3 northwest of the proposed site has a median income of $29,677 while Block Group 2 southeast of the proposed site has a median income of $11,750. Both block groups are lower than the city-wide median income of $43,704, significantly so to the southeast. The population determined to be below the poverty threshold in the 2000 Census is significantly higher in the project area as defined at 24.81% compared to the city's figure of 7.54%.

Table 5-3: Population Statistics 1980 through 2000

Jurisdiction	**1980**	**1990**	**2000**
Iowa	2,913,808	2,776,755	2,926,324
Linn County	169,775	168,767	191,701
City of Cedar Rapids	110,243	108,772	120,758

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 Cedar Rapids Main Library 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 would not displace or adversely affect any nearby residents or minority populations during the construction phase. Thereby, the relocation of the public services offered by the Cedar Rapids Main Library are anticipated to be beneficial by centralizing and improving area access to its services. The positive impacts are anticipated for the city as a whole and for area populations that may lack transportation options typically associated with household and personal income. The implementation of the proposed alternative would have little likelihood of having disproportionate impacts on any low-income or minority groups, and the land-use improvements would be beneficial and would not cause adverse environmental or economic impacts specific to any groups or individuals.

5.10 Transportation

The proposed project area is bounded by the Rock Island and Pacific Railroad and three collector streets serving the immediate area. Collector streets are typified by lower level mobility and speed than arterials, generally having more numerous direct access points. The proposed project is located on existing public transportation routes as well as an existing bicycle trail (Cedar River Trail). The Level of Service for the surrounding roads is classified as “uncongested” (Chapter 2: State of the Region) and is projected to remain through 2040 (Figure 8-6: 2040 Forecast Daily Traffic Volumes and Levels of Congestion with Existing + Committed Network; CMPO 2010). The Cedar River Trail adjacent to the proposed project site is recommended for improvements in the years 2016-2020 in the regional Long Range Transportation Plan (Table 10-6: Fiscally Constrained Trails & Figure 10-3: Fiscally Constrained Trails Projects; CMPO 2010). The Sasaki Neighborhood Plan identifies a potential intermodal transportation facility at the intersection of 5th Street and 5th Avenue (page 11; Sasaki, 2009).

5.10.1 No Action

With the No-action Alternative, the damaged Cedar Rapids Main Library would not be relocated and there would be no impact to the existing traffic and circulation for the city of Cedar Rapids because there would not be any construction activities.

5.10.2 Proposed Action

Under this alternative, the construction of the Cedar Rapids Main Library at the proposed site would temporarily disrupt the traffic flow on the surrounding streets during the approximately 18 month construction period. Local traffic would need to slow down or stop to accommodate equipment, such as bulldozers, backhoes, and grazers, 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 and is anticipated to be partly mitigated by the urban street grid surrounding the site.

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 into waters of the United States, 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 February 22, 2010 to assess the occurrence of wetlands and other Waters. No hydrophytic vegetation or field indicators of wetland hydrology were observed on-site. 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 1987 *Corps of Engineers Wetlands Delineation Manual* provides methods for technical guidelines in identifying wetlands. The Corps’ manual requires the presence of all three parameters (greater than 50% dominance of hydrophytic vegetation, evidence of hydric soils, and presence of hydrologic indicators) for an area to be

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

5.11.1.1 No Action

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

5.11.1.2 Proposed Action

A review of the National Wetlands Inventory Map indicates no wetlands are located on the proposed site. There is a PFO1C (freshwater forested/shrub) wetland located within 0.75 miles of the proposed project site. The Contractor should 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).

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. As identified on FIRM panel 19113C0410D, dated 4/5/2010, the proposed Cedar Rapids Main Library is located in Zone X, outside the 500-year floodplain. The FIRM data indicates the proposed location of the new Cedar Rapids Main Library is situated within approximately 400 feet of a Shaded X Flood Zone (500–year floodplain) of the Cedar River and was recorded to be within the extent of the 2008 Flood of Record. (Appendix A, Figures 2 & 3)

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 Cedar Rapids Main Library will not be within the 100-year floodplain and therefore an eight-step review process is not required.

5.11.2.1 No Action

This alternative is not viable for the Cedar Rapids Main Library 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 a Zone X, areas of minimal flood hazard, which may have ponding and local drainage problems that 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 Cedar Rapids Main Library should not affect base flood levels or flood values or

characteristics; support occupancy or modification of floodplains; or directly or indirectly supports floodplain development.

5.12 Demolition

Land required for the Proposed Action will be included in a purchase agreement between the City of Cedar Rapids and True North Company, once True North vacates its current site, the City will demolish the commercial building at the proposed project site.

5.12.1 No Action

With the No-action Alternative, the damaged Cedar Rapids Main Library 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

The City of Cedar Rapids will demolish all structures, parking lot, and other appurtenances on the True North proposed project site once the parcel is vacated. 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 release 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 Cedar Rapids Main Library is not relocated and rebuilt outside of the 100-year floodplain, the quality of life for the citizens of Cedar Rapids will be negatively impacted. Therefore, the development of the site into the Cedar Rapids Main Library would not pose a significant cumulative impact from the Proposed Action Alternative or impact the city of Cedar

Rapids 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 Cedar Rapids Main Library would require a building permit from the Cedar Rapids 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 could continue (section 5.3 Cultural Resources). Work in sensitive areas cannot resume until a qualified archaeologist determines the extent of the discovery, consultations between SHPO and FEMA are complete, and the applicant has been notified by SHPO and FEMA.

Agency coordination and/or permits may be required before implementation of the Proposed Action Alternative. Cedar Rapids is required to obtain and comply with all required local, state, and federal permits. Development at the Proposed Action Alternative site shall comply with the approved site plan. Any expansion or alteration of this use beyond that initially approved 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 at Field Office #1 (563) 927-2640 and comply with all State environmental and EPA requirements.

6. CONCLUSION

The draft EA evaluated potentially significant resources that could be affected. The evaluation resulted in identification of no significant impacts associated with the resources of climate, historic, cultural, 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

7.1 Parties Consulted

7.2 References

City of Cedar Rapids, City Assessor GIS: Powered by Freeance 5.4.0.3620 – TDC Group Inc., Accessed June 2, 2011, [Online], Available: http://crgis.cedar-rapids.org/Freeance/Client/PublicAccess1/index.html?appconfig=City_Assessor_GIS (Assessor, 2011)

Corridor Metropolitan Planning Organization, *Connections 2040, The Corridor MPO's 2040 Long Rage Transportation Plan*, July 15, 2010 (CMPO 2010)

Freilich, Leitner & Carlsisle, *Comprehensive Plan for Cedar Rapids*, City of Cedar Rapids, Adopted May 19, 1999 (Freilich et al, 1999)

Iowa Department of Natural Resources, 2010 [Online], Available: https://programs.iowadnr.gov/ustlust/Pages/advanced.aspx

Sasaki, *City of Cedar Rapids Neighborhood Planning Process Executive Summary*, City of Cedar Rapids, September 2009 (Sasaki, 2009)

U.S. Census Bureau, American FactFinder Website, 2000 Decennial Census, [Online]. Available: http://factfinder.census.gov/home/saff/main.html?_lang=en

U.S. Department of Agriculture, Web Soil Survey, 2009, [Online], Available: http://websoilsurvey.nrcs.usda.gov/app/websoilsurvey.aspx

U.S. Environmental Protection Agency, Map of Radon Zones, 2011, [Online], Available: http://www.epa.gov/radon/zonemap.html

United States Fish and Wildlife Services. *Iowa Protected Species and Habitats.*

United States Government. 1972. *Noise Control Act, Public Law 92-574.*

United States Government. 1977. *Clean Water Act.*

United States Government. 1981. *Farmland Protection Policy Act, Public Law 98-98.*

United States Government. 1994. *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Executive Order 12898.*

United States Government. 1977. *Floodplain Management. Executive Order 11988.*

United States Government. 2008. *Code of Federal Regulations, National Environmental Policy Act, Title 40, Parts 1500-1508.* October 1.

United States Government. 2008. *Code of Federal Regulations, Stafford Act, Title 44, Part 10.* October 1.

United States Government. 2008. *Code of Federal Regulations, National Register of Historic Places, Title 36, Part 60.4.* October 1.

United States Government. 2008. *Code of Federal Regulations, National Historic Preservation Act, Title 36, Part 800.* October 1

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