



UNITED STATES MARINE CORPS  
MARINE FORCES RESERVE  
2000 OPELOUSAS AVENUE  
NEW ORLEANS, LA 70114-1500

IN REPLY REFER TO  
5090  
FAC  
17 NOV 15

From: Assistant Chief of Staff Facilities, Marine Forces Reserve  
To: Commander, Marine Forces Reserve  
Subj: FINDING OF NO SIGNIFICANT IMPACT FOR THE ENVIRONMENTAL ASSESSMENT FOR CONSTRUCTION OF A JOINT MARINE-NAVY RESERVE CENTER IN THE DES MOINES, IOWA REGION

Ref: (a) MCO P5090.2A "Environmental Compliance and Protection"

**Introduction:**

Pursuant to the Council on Environmental Quality regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508) implementing the National Environmental Policy Act regulations (32 CFR Part 775), and Marine Corps Order P5090.2A Change 3, Chapter 12, the Marine Forces Reserve (MARFORRES) gives notice that an Environmental Assessment (EA) has been prepared for the construction of a Joint Marine-Navy Reserve Center in the Des Moines, Iowa region.

**Proposed Action:** The Marine Forces Reserve (MARFORRES) is proposing to construct a new Joint Marine-Navy Reserve Center in the Des Moines, Iowa region. The purpose of the Proposed Action is to provide adequate and efficiently configured facilities to support training, vehicle maintenance, administrative, storage, armory, and recruiting functions in the Des Moines area. The current Joint Marine-Navy Reserve Center, located in Building 47 at Fort Des Moines, can no longer support the mission requirements for the Marine and Navy reserve units due to space and structural constraints. A 46,200-square foot reserve training building, a 3,250-square foot vehicle maintenance facility, an 800-square foot vehicle wash rack, and associated parking facilities are proposed for construction on a 24-acre parcel located at the corner of NW Saylorville Drive and NW 110<sup>th</sup> Court in Jefferson Township, Polk County, Iowa. The parcel is located 0.25 miles from the northwest property boundary of Camp Dodge Joint Maneuver Training Center.

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**Existing Conditions:** The parcel is undeveloped property that has been utilized for agricultural crop production since the deeded date of 1931. No buildings exist on the property. According to 2010 US Census data, this property is located in a Block with only 39 residents (less than 18 persons per square mile) and contains zero minorities.

The surrounding area is primarily agriculture with very few residences. The habitat onsite includes plowed agricultural field surrounding by herbaceous field-edge, and a "single-tree" border along the property line. No streams or wetlands occur onsite.

A Phase I Cultural Resources Investigation (DoN 2014a) of the parcel was completed in May 2014 (Appendix B). The bed of a circa 1918 railroad spur was identified, matching the location on the 1918 U.S. Geological Service 15-foot Camp Dodge Topographic Quadrangle. Also, a period culvert/cistern was recorded along the railroad bed. The culvert/cistern was recorded as an historic feature associated with the railroad spur and was issued site number 13PK1004 and entered into the State of Iowa's archaeological site database. Based upon the results of this survey, no further cultural resource investigations were recommended.

USFWS Information for Planning and Conservation (IPaC) Trust Resource Report for this property reported three ESA-listed species (two bats and one plant) for this area. These include the Indiana bat (*Myotis sodalists*) listed as Endangered, the Northern long-eared bat (*Myotis septentrionalis*) listed as Threatened, and the Western prairie fringed orchid (*Platanthera praeclar*) listed as Threatened. It also listed 14 birds of conservation concern through the Migratory Bird Treaty Act.

**Alternatives Analyzed:** In addition to the Proposed Action, the MARFORRES considered a No Action Alternative. The new Joint Marine-Navy Reserve Center must be built in the Des Moines area and this location is the only property owned by MARFORRES in that area. All training activities occur on other bases and are covered by other NEPA documentation. The site concept was designed specifically for this property and planned development is positioned in a way that minimizes environmental impacts. There are no other alternatives to the Proposed Action beyond the No Action Alternative.

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No Action. Under the No Action Alternative, a new Joint Marine-Navy Reserve Center would not be constructed and the Navy and Marine Reserve units would remain in Building 47 at Fort Des Moines, which does not meet current training and operational requirements. Personnel will continue to store equipment and gear outside or in personal vehicles, be unable to accomplish proper maintenance on tactical vehicles, and be out of compliance with Anti-Terrorism/Force Protection (AT/FP) requirements. The alternative of no action does not meet the MARFORRES purpose and need. However, the No Action Alternative serves as a baseline against which the impacts of the proposed action can be measured and evaluated.

**Environmental Effects:** The following is a summary of the environmental consequences of the Alternatives. The categories of resources addressed in this EA are: cultural resources, biological resources, water resources, and land use.

Cultural Resources.

**No significant impacts to cultural resources would be expected from implementation of the Proposed Action. MARFORRES determined the Proposed Action would result in "No adverse effect" on historic properties.**

The Phase I Cultural Resources Investigation did not identify any Native American or Pre-1900 European American archaeological deposits or artifacts on the parcel. The circa 1918 culvert/cistern was entered into the State of Iowa's archaeological site database. This site is located in the extreme southeastern corner of the property, away from the construction area.

In accordance with Section 106 of the National Historic Preservation Act, the MARFORRES, in consultation with the Iowa State Historic Preservation Office, determined that site 13PK1004 was not eligible for inclusion in the National Register of Historic Places. The Iowa State Historic Preservation Office concurred with the MARFORRES no adverse effect determination on March 30, 2015. Based upon the results of the survey, no further cultural resource investigations were recommended at site 13PK1004 or any part of the parcel.

Biological Resources.

*Protected Species*

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**No significant impacts to mammals, plants or bird populations are expected to result from implementation of the Proposed Action. MARFORRES has determined the proposed actions and undertakings will have "No effect" to the Indiana bat, Northern long-eared bat and western prairie fringe orchid.**

None of these three species are anticipated to occur on or in the vicinity of this site. The property has been in crop agriculture for over 80 years and contains no forested or wet grassland areas. Both the Indiana or Northern long-eared bats prefer forested areas that include trees with peeling bark and the western prairie fringe orchid prefers undisturbed wet grassland. No impacts are anticipated to these protected bats or the orchid because no suitable habitat exists on or in the vicinity of this property.

**The Proposed Action would not result in a "take" of migratory birds as defined by MBTA regulations or eagles as defined in the Bald and Golden Eagle Act.** All land disturbing activities would occur in former agricultural field which does not contain suitable bird habitat. No trees would be removed as a part of this project. Noise generated by construction equipment has the potential to disturb birds but it should be temporary and very similar to noise generated by the agricultural equipment currently utilized onsite.

*Habitat and Wildlife*

**No significant impacts to wildlife or wildlife habitats are anticipated due to the Proposed Action.** Since this property has been actively cultivated for decades, the habitat present is highly disturbed and does not represent natural conditions. The row-crop, field edge/roadside, and scrub habitats do not support a high diversity of species and are the predominant habitat types in the surrounding area. The disturbance area for the new reserve center is entirely within the area currently disturbed by agricultural practices.

Water Resources.

**No significant impacts to water resources are anticipated due to the Proposed Action.** No streams or wetlands exist onsite. All land disturbing activities would occur on the western portion of the property, reserving the eastern half for stormwater management. The Contractor would be responsible for designing and acquiring the appropriate permits for stormwater controls. Stormwater management shall be designed to meet the requirements of the state of Iowa drainage laws and the Department of Defense

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Low Impact Development Policy. The Iowa Storm Water Program requires a Construction Stormwater Permit (NPDES) and associated Stormwater Pollution Prevention Plan for construction activities greater than one acre.

Land Use.

**No significant impacts to land use are anticipated due to the Proposed Action.** Although the construction of the new reserve center is not consistent with the existing zoning as Estate Residential, the change in land use represented by the Proposed Action is consistent with the land uses currently present in the surrounding area including military (listed in Polk Land Use Plan as simply "Camp Dodge"), agricultural, estate residential (> 3 acres), and rural residential (< 3 acres) (Polk County 2006). This property represents a small fraction of the available residential land in the area. Although prime farmland soils exist onsite, construction for national defense purposes is not subject to Farmland Protection Policy Act and the property is surrounded by farmland containing these soils (7 CFR § 658.3(b) [citing 7 USC § 4208(b)]).

Cumulative Impacts.

**The Proposed Action, in conjunction with any past, present, or reasonably foreseeable future actions, are not expected to result in significant impacts to biological or land use resources.** There are no recently completed, under construction or scheduled transportation improvement projects in the vicinity of this project. Minor improvement projects are planned to occur at Camp Dodge between the years 2015 and 2020. All projects will occur within the cantonment area and will not result in a noticeable increase in personnel, traffic or development in the area. No impacts to biological resources or land use are anticipated from these projects.

Public comment period.

The draft EA was available for public comment for a 15-day period October 5, 2015 to October 20, 2015. An EA notice of availability was published in the Des Moines Register from October 4, 2015 to October 6, 2015, which included instructions on how to obtain and return comments regarding the EA.

**Finding:** Based on the analysis presented in the EA and through coordination with Iowa State Historic Preservation Office and US Fish and Wildlife Service, the MARFORRES finds that

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implementation of the Proposed Action will not significantly  
impact the quality of the human or natural environment or  
generate significant controversy. Therefore, an Environmental  
Impact Statement will not be prepared.

The EA prepared by the MARFORRES is on file and interested  
parties may obtain a copy from: Naval Facilities Engineering  
Command, Atlantic, Code EV-22JB, 6506 Hampton Boulevard,  
Norfolk, Virginia 23508.

11/30/15

Date



Brandon W. Shearer  
Colonel, Marine Forces Reserve,  
Assistant Chief of Staff,  
Facilities

# **FINAL ENVIRONMENTAL ASSESSMENT**

## **CONSTRUCTION OF A JOINT MARINE-NAVY RESERVE CENTER IN THE DES MOINES, IOWA REGION**

**December 2015**

For further information, contact:

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## EXECUTIVE SUMMARY

The U.S. Marine Forces Reserve (MARFORRES) prepared this Environmental Assessment (EA) to evaluate the potential impacts of constructing a new Joint Marine-Navy Reserve Center in Polk County, Iowa. The proposed plan calls for a 46,200-square foot reserve training building, a 3,250-square foot vehicle maintenance facility, an 800-square foot vehicle wash rack, and associated parking facilities.

The new Joint Marine-Navy Reserve Center would be home to the Navy Operational Support Center Des Moines and the Marine Corps Rifle Company E, 2nd Battalion, 24th Marine Regiment, 4th Marine Division. The Navy Operational Support Center Des Moines is composed of seven active duty and up to 207 Navy reserve personnel. The Marine Corps unit is composed of 10 active duty Marines and 181 Marine Forces Reserve personnel. Currently, the Navy Operational Support Center and Marine Corps Reserve leases facilities from the Department of the Army (Army) at Fort Des Moines in Des Moines, Iowa.

The purpose of the Proposed Action is to provide adequate and efficiently configured facilities to support training, vehicle maintenance, administrative, storage, armory, and recruiting functions in the Des Moines area. The need for the project is to support the Navy and Marine reserve mission through providing adequate and efficiently configured facilities and comply with the Anti-Terrorism/Force Protection (AT/FP) standards.

This EA has been prepared in accordance with relevant environmental laws, regulations, and Executive Orders. These authorities include the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, National Historic Preservation Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Act, Executive Order 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), and Executive Order 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*).

This EA analyzes the Proposed Action and a No Action Alternative. Under the No Action Alternative, a new reserve center would not be constructed and the Navy and Marine Reserve units would remain in Building 47 at Fort Des Moines, which does not meet current training and operational requirements. Navy and Marine Reserve units would continue to operate and train in an inadequate facility and would continue to use workarounds for training, drilling, and maintenance, including borrowing space from the Army, when available, and storing equipment and gear outside due to the limited size of the current facility. The No Action Alternative does not meet the MARFORRES purpose and need.

The categories of resources addressed in this EA are cultural resources, biological resources, water resources, land use, and environmental justice. Construction activities associated with the Proposed Action would be expected to result in less than significant impacts to biological resources and land use. Implementation of the Proposed Action would not be expected to result in significant impacts to any of the resource areas.

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## LIST OF ACRONYMS AND ABBREVIATIONS

<b>AT/FP</b>	Anti-Terrorism/Force Protection
<b>Army</b>	Department of the Army
<b>CAA</b>	Clean Air Act
<b>CWA</b>	Clean Water Act
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act
<b>CEQ</b>	Council on Environmental Quality
<b>CFR</b>	Code of Federal Regulations
<b>EA</b>	Environmental Assessment
<b>EIS</b>	Environmental Impact Statement
<b>ESA</b>	Endangered Species Act
<b>FONSI</b>	Finding of No Significant Impact
<b>FPPA</b>	Farmland Protection Policy Act
<b>IDNR</b>	Iowa Department of Natural Resources
<b>MARFORRES</b>	U.S. Marine Forces Reserve
<b>MBTA</b>	Migratory Bird Treaty Act
<b>MDAS</b>	Material Documented as Safe
<b>MEC</b>	munitions or explosives of concern
<b>NAAQS</b>	National Ambient Air Quality Standards
<b>NEPA</b>	National Environmental Policy Act
<b>NHPA</b>	National Historic Preservation Act
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PAH</b>	polycyclic aromatic hydrocarbon
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>SHPO</b>	State Historic Preservation Office
<b>U.S.</b>	United States
<b>USFWS</b>	U.S. Fish and Wildlife Service

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# 1 Purpose and Need for the Proposed Action

## 1.1 Introduction

The U.S. Marine Forces Reserve (MARFORRES) prepared this Environmental Assessment (EA) to evaluate the potential impacts of constructing a new Joint Marine-Navy Reserve Center in Polk County, Iowa. The proposed plan calls for a 46,200-square foot reserve training building, a 3,250-square foot vehicle maintenance facility, an 800-square foot vehicle wash rack, and associated parking facilities.

The new Joint Marine-Navy Reserve Center would be home to the Navy Operational Support Center Des Moines and the Marine Corps Rifle Company E, 2nd Battalion, 24th Marine Regiment, 4th Marine Division. The Navy Operational Support Center Des Moines is composed of seven active duty and up to 207 Navy reserve personnel. The Marine Corps unit is composed of 10 active duty Marines and 181 Marine Forces Reserve personnel.

Currently, the Navy Operational Support Center and Marine Corps Reserve leases facilities from the Department of the Army (Army) at Fort Des Moines in Des Moines, Iowa. The present location is approximately 15 miles from Camp Dodge, where the reserve units train. MARFORRES is proposing to construct the new Joint Marine-Navy Reserve Center on a parcel located 0.25 miles northwest from the Camp Dodge property boundary (Figure 1-1).

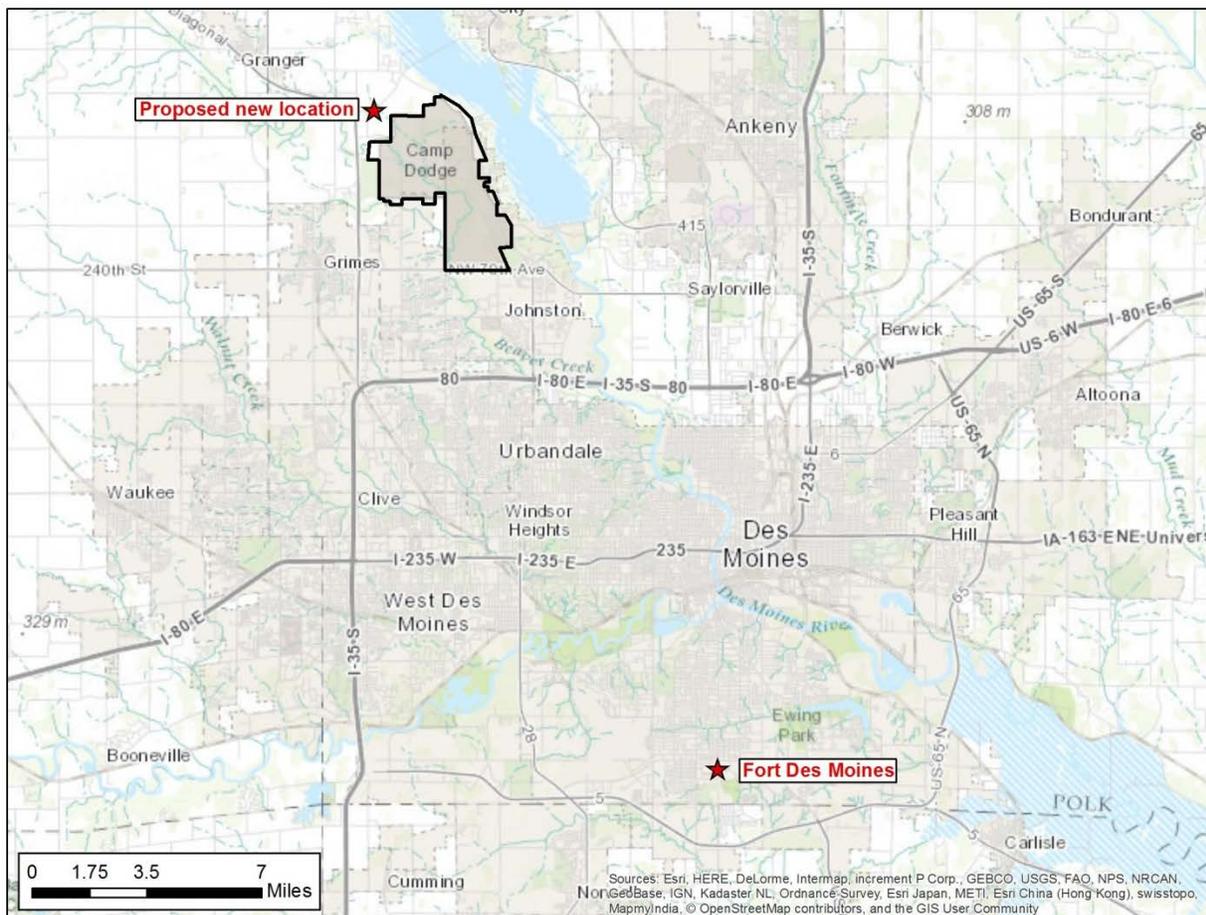


Figure 1-1 Project Location Map

## 1.2 Background

### 1.3.1 MARFORRES

The MARFORRES is the reserve component of the Marine Corps and is headquartered in New Orleans, Louisiana. It is organized, administered, trained, and supplied under the direction of the Commander of the Marine Forces Reserve.

The mission of MARFORRES is to augment and reinforce active duty Marine Corps forces in times of war, national emergency or contingency operations; provide personnel and operational tempo relief for the active forces in peacetime; and provide service to the community.

MARFORRES is equipped, trained, and educated to the same rigorous, high standards as active Marine Corps forces to include training in joint operations and the ability to provide rapid response when called upon. MARFORRES reservists typically train one weekend per month in addition to one annual two-week training.

### 1.3.2 Camp Dodge

The Marine Corps Reserve unit trains at Camp Dodge, also known as the Camp Dodge Joint Maneuver Training Center. Camp Dodge has a total area of approximately 4,400 acres and has the capacity to train 2,400 Soldiers at one time. Camp Dodge serves as a training area for the Army National Guard, Air National Guard, Army Reserve, Marine Corps Reserve, Reserve Officer's Training Corps, as well as state law enforcement agencies. In addition to military training, Camp Dodge is used by state agencies, youth organizations, veteran's groups, and environmental groups. Camp Dodge training areas are also used for hunting and fishing.

The reserve unit utilizes the small arms ranges at Camp Dodge and performs field training exercises, including patrolling and land navigation training. MARFORRES training activities occurring at Camp Dodge would not change. Bases that host training are responsible for providing environmental compliance associated with training activities.

### 1.3.3 Fort Des Moines Joint Marine-Navy Reserve Center

The current Joint Marine-Navy Reserve Center is located in Building 47 at Fort Des Moines, an Army reserve installation that is home to a host of activities and commands with varied missions and operations. The building is owned by the Army and leased to the Marine Corps and Navy reserve units. Building 47 is listed in the National Register of Historic Places as a contributing property to the Fort Des Moines National Historic Landmark. Conversion of the building into a reserve training facility occurred in the mid-1950s and consisted of constructing a reserve training building inside the outer red brick envelope of the historic structure, historically referred to as the "Riding Hall" (see Figure 1-2).



**Figure 1-2 Joint Marine-Navy Reserve Center (Building 47) at Fort Des Moines**

### 1.3 Purpose and Need

The purpose of the Proposed Action is to provide facilities to support MARFORRES training, vehicle maintenance, administrative, storage, armory, and recruiting functions in the Des Moines area. The need for the project is to support the Navy and Marine reserve mission through providing adequate and efficiently configured facilities and comply with the Anti-Terrorism/Force Protection (AT/FP) standards.

The current Joint Marine-Navy Reserve Center in Building 47 can no longer support the mission requirements for the Marine and Navy reserve units due to space and structural constraints. The Center has no vehicle maintenance facility resulting in the inability to accomplish proper maintenance on tactical vehicles. In order to conduct vehicle maintenance activities, the Marine reserve unit borrows maintenance space from the Department of the Army, when it is available.

Due to lack of storage space, the Marine reserve unit is not able to maintain required and authorized equipment on site. As a workaround, the Marines transport personal protective and combat equipment from their homes to drills and store tactical and training equipment in personally-owned vehicles. The unit is also forced to store equipment and gear outside due to the limited size of storage areas. Due to parking constraints on site, the reserve units have to park their personally owned vehicles off-site and walk to the drill site. In addition, classroom activities are held in non-classroom areas.

Structural constraints are related to the fact that the reserve center is a separate structure built inside the envelope of historically significant horse training facility that was originally constructed in 1903. Alterations cannot occur to the outer building without adverse effect to cultural resources. Expanding the building to meet MARFORRES space requirements has the potential to be a challenging and time consuming process.

In addition, the current Joint Marine-Navy Reserve Center does not meet Anti-Terrorism/Force Protection (AT/FP) requirements. The purpose of the AT/FP standards is to minimize the possibility of mass casualties and establish a level of protection against terrorist attacks. These standards are mandatory for all new military construction and any building that requires renovations, modifications, repairs, and restorations in excess of 50 percent of its replacement cost. The reserve center at Fort Des Moines does not meet AT/FP standards, which places Navy and Marine Reserve personnel at greater risks from terrorist attacks. The new facilities will comply with Anti-Terrorism/Force Protection (AT/FP) standards (Unified Facilities Criteria 4-010-01, 22 January 2007) requiring standoff distances depending on wall type and whether the building is within a controlled perimeter. The standoff distance for Building 47 is 80 feet.

## 1.4 The Environmental Review Process

### 1.4.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 requires the consideration of potential environmental consequences of federal actions. Regulations for federal agency implementation of the Act were established by the President's Council on Environmental Quality (CEQ). Under NEPA, federal agencies must prepare an environmental assessment (EA) or an environmental impact statement (EIS) for any major federal action, except those actions that are determined to be "categorically excluded" from further analysis.

An EA is a concise public document that provides sufficient analysis for determining whether the potential environmental impacts of a proposed action are significant, resulting in the preparation of an EIS, or not significant, resulting in the preparation of a Finding of No Significant Impact (FONSI). An EIS is prepared for those federal actions that may significantly affect the quality of the human environment. Thus, if MARFORRES were to determine that the Proposed Action would have a significant impact on the quality of the human environment, an EIS would be prepared. An EA should include: brief discussions of the purpose and need for the proposal, the proposed action, the alternatives, the affected environment, the environmental impacts of the proposed action and alternatives, agencies and persons consulted and a discussion of the cumulative impacts associated with the alternatives.

The draft EA was available for public comment for a 15-day period October 5 to October 20, 2015. An EA notice of availability was published in the Des Moines Register October 4-6, 2015, which included instructions on how to obtain and return comments regarding the EA. No comments were received.

MARFORRES reviewed this Final EA and make a determination regarding the Proposed Action that a FONSI is appropriate. A FONSI summarizing the issues presented in this EA has been prepared and signed by MARFORRES and a notice of availability will be published in the Des Moines register.

MARFORRES has prepared this EA in accordance with applicable federal and state regulations and instructions, as well as with other applicable laws, rules and policies. These include, but are not limited to, the following:

- NEPA as amended by Public Law 94-52, July 3, 1975 (42 U.S. Code of Federal Regulations [CFR] 4321 *et seq.*), which requires environmental analysis for major federal actions significantly affecting the quality of the environment.
- CEQ regulations, as contained in 40 CFR Parts 1500 to 1508, which direct federal agencies on how to implement the provisions of NEPA.
- Department of the Navy Regulations for Implementing NEPA 32 CFR Part 775.
- Marine Corps Order, Environmental Compliance and Protection Manual (MCO P5090.2A Ch 2).

#### 1.4.2 Agency Coordination

This EA will focus its analysis of impacts based on the appropriate and relevant laws, regulations, permits, and licenses that are applicable to the proposed action, including the following (see Appendix A for agency correspondence):

- Compliance with the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
- To comply with Section 106 of the National Historic Preservation Act (NHPA), MARFORRES consulted with the Iowa State Historic Preservation Office (SHPO) and other interested stakeholders.
- Coordination with the U.S. Fish and Wildlife Service (USFWS) on the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and the Bald and Golden Eagle Act.
- Compliance with the Clean Water Act (CWA) and Executive Order 11990 *Protection of Wetlands*.
- Compliance with the Clean Air Act (CAA).
- Compliance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* and Executive Order 13045, *Environmental Health Risks and Safety Risk to Children*.

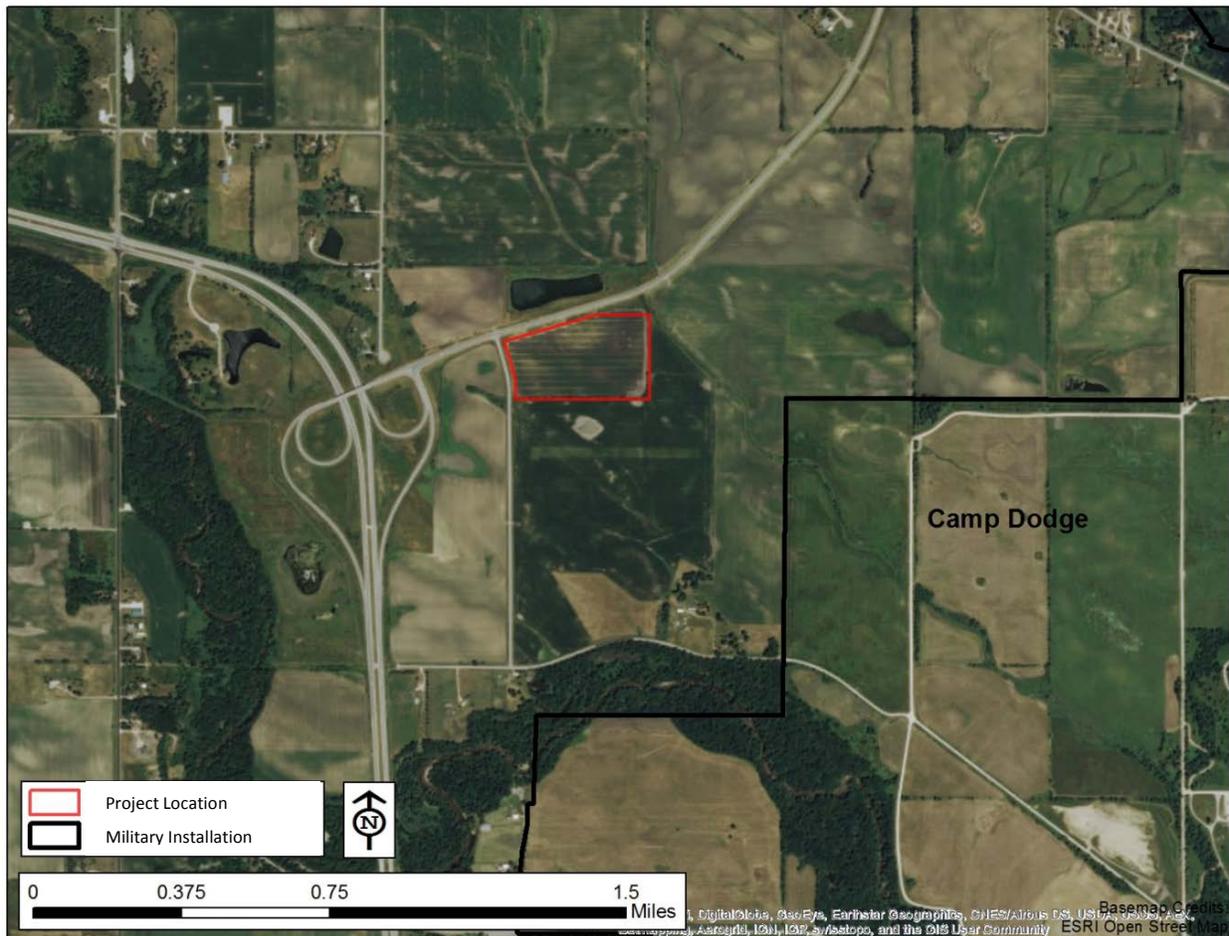
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## 2 Proposed Action and Alternatives

This chapter provides a detailed description of the Proposed Action and a description of project alternatives.

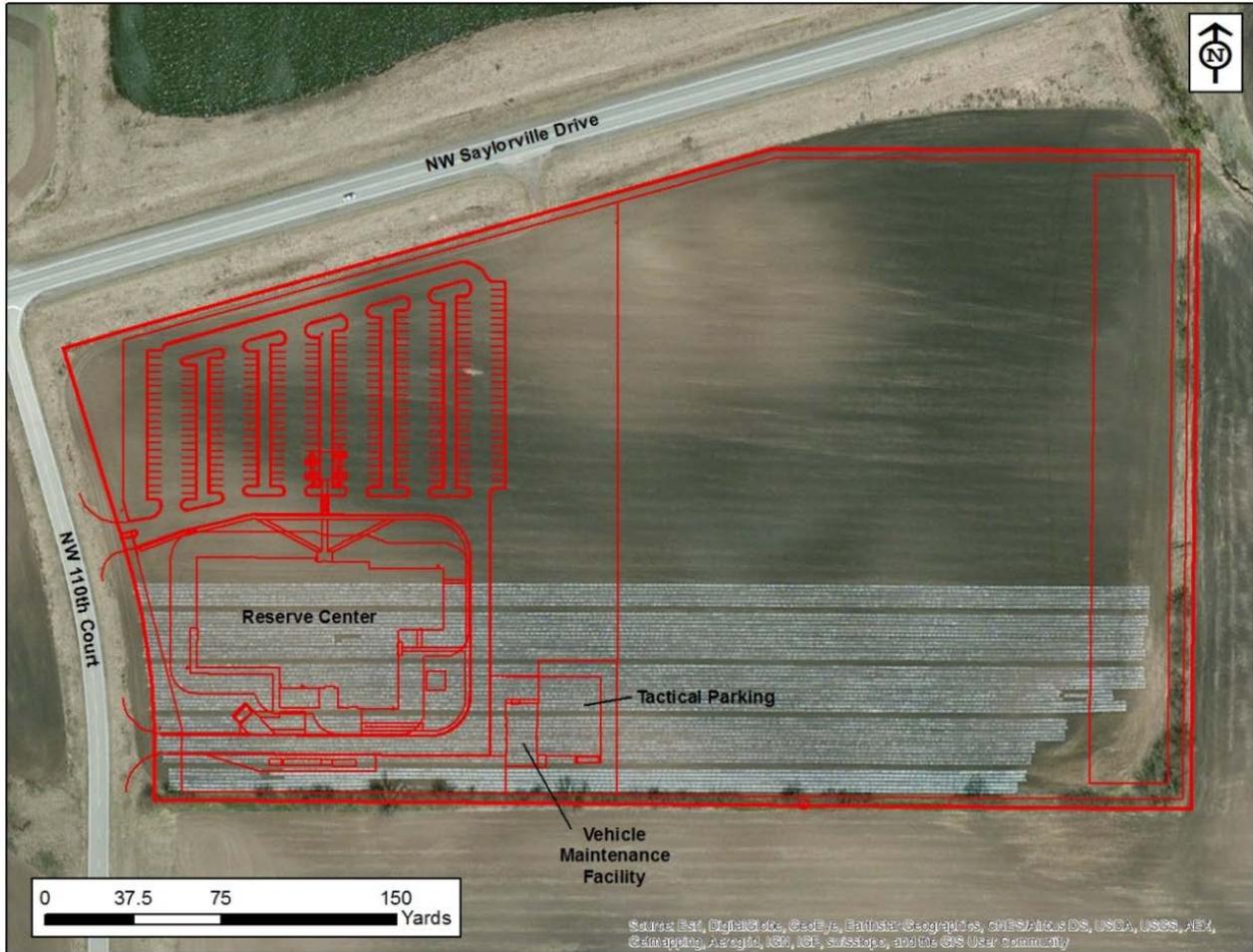
### 2.1 Proposed Action

The MARFORRES is proposing to construct a new Joint Marine-Navy Reserve Center in Polk County, Iowa. In 2015, MARFORRES acquired a 24.42 acre parcel located at the corner of NW Saylorville Drive and NW 110<sup>th</sup> Court in Jefferson Township, Polk County, Iowa. The parcel is located 0.25 miles from the northwest property boundary of Camp Dodge, where the Navy and Marine Corps reserve units train (Figure 2-1).



**Figure 2-1 Project Location**

The proposed facilities include a 46,200-square foot reserve training building, an 800-square foot vehicle wash rack, and associated parking facilities (Figure 2-2). The facilities would be constructed on the western portion of the parcel to make use of the existing roadways along the boundary. The eastern portion of the parcel would be utilized for stormwater management.



**Figure 2-2 Joint Marine-Navy Reserve Center Site Concept Plan**

Site preparations would include site clearing, excavation, filling, and preparation for construction. Paving and site improvements would include grading, parking for approximately 270 vehicles, roadway paving, sidewalks, landscaping, fencing, signage, and storm water drainage. The parcel is undeveloped property that was previously utilized for agricultural crop production. No buildings exist on the property (Figure 2-3).



**Figure 2-3 Property looking east (DoN 2014)**

Approximately 191 Marines and 154 Navy personnel would be relocated to the new reserve center. The Navy Operational Support Center Des Moines is composed of seven active duty and up to 207 Navy reserve personnel. The Marine Corps unit is composed of 10 active duty Marines and 181 Marine Forces Reserve personnel. Two HMMWV (Humvee) vehicles would be the only tactical vehicles stationed at the new reserve center.

Administrative and equipment maintenance activities will take place at the reserve center but are no different than those that occur at the current location, therefore these activities will not be discussed further in this document. Once the new reserve center is constructed and the Navy and Marine Reserve personnel and vehicles have been relocated, the Army would retain ownership of Building 47 and the reserve center's current leased area. The Army would manage the property in accordance with its Integrated Cultural Resource Management Plan for Army Property at Fort Des Moines.

## 2.2 Alternatives to the Proposed Action

The CEQ's *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR 1500-1508, 1986) establish a number of policies for federal agencies, including "using the NEPA process to identify and assess reasonable alternatives to the Proposed Action that would avoid or minimize adverse effects of these actions on the quality of the human environment" (40 CFR 1500.2 (e)).

The new Joint Marine-Navy Reserve Center must be built in the Des Moines area and this location is the only property owned by MARFORRES in that area. No training is included in this document. The site concept was designed specifically for this property and planned development is positioned in a way that minimizes environmental impacts. For these reasons, there are no other alternatives to the Proposed Action beyond the No Action Alternative.

### 2.2.1 No Action Alternative

Under the No Action Alternative, a new Joint Marine-Navy Reserve Center would not be constructed and the Navy and Marine Reserve units would remain in Building 47 at Fort Des Moines, which does not meet current training and operational requirements (see section 1.2).

Under the No Action Alternative, Navy and Marine Reserve units would continue to operate and train in an inadequate facility. The Navy and Marine Reserves units would continue to use workarounds for training, drilling, and maintenance, including borrowing space from the Army, when available, and storing equipment and gear outside due to the limited size of the current facility. The Marine Reserves unit would not be able to accomplish proper maintenance on larger vehicles due to space constraints and lack of a vehicle maintenance facility at the existing reserve center.

The No Action Alternative does not meet the MARFORRES purpose and need. However, the No Action Alternative represents the baseline condition against which potential consequences of the Proposed Action can be compared and is carried forward for analysis in this EA.

### 3 Affected Environment

This chapter describes existing conditions at and around the proposed new Joint Marine-Navy Reserve Center to provide a baseline from which to identify and evaluate potential impacts that could result from implementation of the Proposed Action. The affected environment is described and analyzed according to categories of resources.

The categories of resources addressed in this EA are cultural resources, biological resources, land use, and environmental justice.

Several resource areas have been eliminated from further discussion as it was concluded that these resources areas would not be impacted by the Proposed Action. The resources excluded from the analysis and the reasons for excluding these resources are as follows:

**Air quality.** The CAA and its subsequent amendments established the National Ambient Air Quality Standards (NAAQS) for seven “criteria” pollutants. This area of Iowa is in attainment for all of the regulated air pollutants (EPA 2015a). The Proposed Action would result in short-term, minor impacts on regional air quality during construction activities, primarily from operation of construction equipment. The emissions generated during construction activities would be temporary and minor. Commuter emissions should be unchanged since the current and new reserve centers are in the same airshed. All training utilizing tactical vehicles would continue to occur at Camp Dodge at the current levels except for general maintenance. Therefore it is reasonable to assume that construction of the Joint Marine-Navy Reserve Center would not impact air quality.

**Noise.** Although there would be a temporary increase in the overall noise exposure during construction, once the reserve center is operational, noise exposure would be very similar to that from the current agricultural use on the property. Therefore, construction of the Joint Marine-Navy Reserve Center is not expected to impact the noise environment.

**Soils and topography.** Construction activities associated with the Joint Marine-Navy Reserve Center would result in soil disturbance. All land disturbing activities would occur on the western portion of the property (Figure 2-1), which would avoid the majority of area mapped as hydric soils (Appendix B). Site investigations revealed that the upper 34 centimeters of the soil was indicative of a robust plow zone overlaying a deeper relic plowed transition zone (DoN 2014a). Years of crop agricultural practices at this location and throughout the area, have altered soil horizons and flattened topography. Therefore, no further impacts on soils and topography would be expected. For discussion of prime farmlands, see section 3.3 Land Use.

**Transportation.** Moving the Joint Marine-Navy Reserve Center from inside the city limits of Des Moines to a rural area north of town would reduce traffic in town and reduce the commute of reservists to Camp Dodge for training activities. Transport from the proposed new location to Camp Dodge is approximately one mile and can occur using several routes. The Proposed Action would not result in an increase in the number of personnel reporting to the reserve center. In addition, reservists are expected to only report to this location one weekend per month, so there should be no noticeable increase in traffic.

**Socioeconomics.** Given the relatively small nature of the Proposed Action, the local workforce would not be noticeably impacted by the conversion of farmfield to reserve center. Construction activities associated with the reserve center would be short-term and temporary and may result in a slight, temporary boost to the local economy in the area. Since the Proposed Action would not

measurably affect the local economy or workforce, no impacts on socioeconomic resources are expected. For discussion of environmental justice, see section 3.4.

***Hazardous Materials and Waste.*** A Phase I and II Environmental Site Assessment IAW ASTM 1527 (4/13/2015) was conducted on the parcel prior to MARFORRES acquiring the property (Appendix B). The Phase I identified a 1918 topographic map that depicted a historic railroad spur on the property and that is was within a historic military artillery range. In the early part of the 20<sup>th</sup> century, railroad companies commonly used spent motor oil as a spray for weed control adjacent to the railroad track, so soils were sampled for polychlorinated biphenyls, semi-volatiles/polycyclic aromatic hydrocarbons (PAHs), target analyte list metals, Toxicity Characteristic Leaching Procedure RCRA metals, and asbestos. None of the soils samples exhibited contaminant concentrations above the Iowa Statewide Standards for Contaminants in Soil and Groundwater. Surveys to detect munitions or explosives of concerns (MECs) were undertaken on the property. All excavated items were determined to be Material Documented as Safe (MDAS) and no military material or munitions of any kind were excavated or observed on the soil surface. In addition, soil samples did not indicate the presence of military ordnance or munitions residue. A UXO

Construction activities associated with the Proposed Action would require the use of certain hazardous materials, such as paints, welding gases, solvents, preservatives, and sealants. It is anticipated that the quantity of products containing hazardous materials used during construction would be minimal and their use would be of short duration. The Contractor would be responsible for the management of hazardous materials, including waste products, which would be handled in accordance with Federal and state regulations. Any hazardous materials stored onsite during operation would also be handled in accordance with Federal and state regulations. Therefore, implementation of the Proposed Action is not expected to have an impact from use or management of hazardous materials or wastes.

***Public Health and Safety.*** Construction and operation activities at the new reserve center would not pose a threat to public health and safety. The project site was surveyed for military material or munitions and no military material or munitions of any kind were excavated or observed on the surface. All excavated items were determined to be MDAS and disposed of in accordance with the approved plans. During construction activities, best management practices for construction site safety would be implemented. As an extra safety precaution, an unexploded ordnance team would be onsite during excavation activities below three feet in depth. Therefore, implementation of the Proposed Action is not expected to have an impact on public and occupational health and safety.

## 3.1 Cultural Resources

### 3.1.1 Definition of the Resource

Cultural resources are defined as districts, landscapes, sites, structures, objects, and ethnographic resources, as well as other physical evidence of human activities that are considered important to a culture, subculture, or community of scientific, traditional, religious, or other reasons. Cultural resources include archaeological resources, historical architectural resources, and traditional cultural properties related to precontact (prior to European contact) and post-contact periods. Historic properties, as defined by the National Historic Preservation Act, represent the subset of cultural resources listed in, or eligible for, inclusion in the National Register of Historic Places.

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their actions on cultural resources listed in or eligible for inclusion in the National Register of Historic Places. Consultation with the Iowa State Historic Preservation Office and other stakeholders as required by Section 106 of the National Historic Preservation Act was completed as part of this assessment (see Appendix A for Agency Correspondence).

### 3.1.2 Existing Conditions

A Phase I Cultural Resources Investigation (DoN 2014a) of the parcel was completed in May 2014 (Appendix B). The preliminary assessment of the project area was that it possessed a low probability for containing any archaeological deposits from Prehistoric or Historic occupation. The landform and topographic location of the parcel did not fit any accepted predictive model for prehistoric archaeological site distribution and based upon historic maps dating from 1875 through to the present, there is no indication of any buildings or structures within the study area.

The field investigation did not identify any Native American or Pre-1900 European American archaeological deposits or artifacts. The bed of a circa 1918 railroad spur was identified, matching the location on the 1918 U.S. Geological Service 15-foot Camp Dodge Topographic Quadrangle. Also, a period culvert/cistern was recorded along the railroad bed. The culvert/cistern was recorded as an historic feature associated with the railroad spur and was issued site number 13PK1004 and entered into the State of Iowa's archaeological site database. Based upon the results of this survey, no further cultural resource investigations were recommended.

## 3.2 Biological Resources

### 3.2.1 Definition of the Resource

Biological resources refer to the plants and animal species that occur at this location and the habitat conditions that are important to their survival. Individual species in this area can receive protection through the Endangered Species Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act.

**The Endangered Species Act** of 1973 (16 U.S.C. § 1531 et seq.) establishes protection over and conservation of threatened and endangered species and the ecosystems upon which they depend. An endangered species is a species in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the near future throughout all or in a significant portion of its range. In Iowa, U.S. Fish and Wildlife Service (USFWS) administers the ESA and is responsible for the listing of species (designating a species as either threatened or endangered). The ESA allows the designation of geographic areas as critical habitat for threatened or endangered species. Section 7(a)(2) requires each federal agency to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. When a federal agency's action may affect a listed species, that agency is required to consult with USFWS (50 C.F.R. 402.14[a]).

**The Migratory Bird Treaty Act** of 1918 (16 U.S.C. § 703 et seq.) and the Migratory Bird Conservation Act (16 U.S.C. §§ 715–715d, 715e, 715f–715r) of 18 February 1929, are the primary laws in the United States established to conserve migratory birds. The MBTA prohibits the taking, killing, or possessing of migratory birds or the parts, nests, or eggs of such birds,

unless authorized by the U.S. Fish and Wildlife Service (USFWS). Take is defined as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, would, kill, trap, capture, or collect” (50 CFR 10.12). Migratory bird hunting regulations, established by the USFWS, allow the taking, during designated seasons, of ducks, geese, doves, rail, woodcock, and some other species (IANG 2013). The 2003 National Defense Authorization Act results in the Armed Forces being exempt from the incidental take prohibitions of the MBTA during military readiness activities (50 CFR 21.3). Congress defined military readiness activities as all training and operations of the Armed Forces that relate to combat and the adequate and realistic testing of military equipment, vehicles, weapons, and sensors for proper operation and suitability for combat use. Since the construction of the reserve center is not a military readiness activity, takes of migratory birds are prohibited during construction.

Similar to the MBTA, the **Bald and Golden Eagle Protection Act** (16 U.S.C. § 668-668d) protects two species of eagle from taking without a permit issued by the Secretary of the Interior (U.S. Fish & Wildlife Service 2012). Taking includes molesting or disturbing the birds as well as their parts, nests, or eggs. The act provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof. The purpose of the Bald and Golden Eagle Protection Act is to prevent abuse to eagles, interference with its substantial lifestyle, including shelter, breeding, feeding, or nest abandonment.

### 3.2.2 Existing Conditions

#### 3.2.2.1 Protected Species

All protected species provided by USFWS Information for Planning and Conservation (IPaC) Trust Resource Report for this property are included in Table 3.1 along with the species’ protection status, preferred habitat and potential for occurrence based on presence of habitat. This property is in active agricultural cultivation. The habitat onsite includes plowed agricultural field surrounding by herbaceous field-edge, and a “single-tree” border along the property line (Figure 2-2).

#### Mammals

Two mammals are listed by USFWS for this area; the Indiana bat (*Myotis sodalists*) listed as Endangered and the Northern long-eared bat (*Myotis septentrionalis*) listed as Threatened.

Both bats winter in caves or mines and prefer forested habitat containing standing dead or dying trees that have peeling bark for summer roosting. Both bats breed before hibernation in the fall and migrate to their summer habitat after emerging from caves in the spring. Pregnant females will roost in large maternity colonies, have only one pup each, and stay with that colony throughout the summer. Foraging on insects occurs mostly at dusk in forests and forest edges. Indiana bat prefers stream corridors with well-developed forest. Bats will return to the same caves and trees each year, if the habitat remains suitable. Threats historically include disturbance of cave and forest habitat, but most immediate threat is white-nose syndrome, a disease associated with a white fungus often found growing on the muzzle of hibernating bats (USFWS 2014 and 2015c). The disease causes the bats to use up fat stores during hibernation, awaken early and leave the cave in winter conditions when there is no available food (USFWS et al. 2015).

**Table 3-1 Protected Species potentially occurring in the study area (E=Endangered, T=Threatened, BoCC=Bird of Conservation Concern).**

Common Name	Status		Habitat	Potential for Occurrence
	Endangered Species Act	Migratory Bird Treaty Act		
<b>MAMMALS</b>				
Indiana Bat	E	-	Forests containing trees with loose bark	Minimal - habitat does not exist onsite
Northern Long-eared Bat	T	-	Forests containing trees with loose bark	Minimal - habitat does not exist onsite
<b>PLANTS</b>				
Western Prairie Fringed Orchid	T	-	Wet grassland	Minimal - habitat does not exist onsite
<b>BIRDS</b>				
Bald Eagle	-	BoCC	Forest adjacent to large water body	Minimal - habitat does not exist onsite
Bell's Vireo	-	BoCC	Dense scrub	Minimal - habitat does not exist onsite
Black-billed Cuckoo	-	BoCC	Dense forest	Minimal - habitat does not exist onsite
Dickcissel	-	BoCC	Tall grassland	Minimal - habitat does not exist onsite
Henslow's Sparrow	-	BoCC	Tall grassland	Minimal - habitat does not exist onsite
Least Bittern	-	BoCC	Marsh with tall emergent vegetation	Minimal - habitat does not exist onsite
Loggerhead Shrike	-	BoCC	Cropland/hedgerow or grassland with suitable hunting perch	Low
Pie-billed Grebe	-	BoCC	Lakes and ponds	Minimal - habitat does not exist onsite
Prothonotary Warbler	-	BoCC	Wooded swamp	Minimal - habitat does not exist onsite
Red-headed Woodpecker	-	BoCC	Open forest	Minimal - habitat does not exist onsite
Rusty Blackbird	-	BoCC	Wet forest	Minimal - habitat does not exist onsite
Short-eared Owl	-	BoCC	Grassland	Minimal - habitat does not exist onsite
Upland Sandpiper	-	BoCC	Dry grassland	Minimal - habitat does not exist onsite
Wood Thrush	-	BoCC	Hardwood or mixed forest	Minimal - habitat does not exist onsite

The Iowa Department of Natural Resources (IDNR) Iowa Natural Areas reports sightings of the Indiana bat from several of the counties surrounding Polk County, but reports no confirmed siting in Polk County (IDNR 2015). Northern long-eared bats are reported to occur in Polk and the surrounding counties. No critical habitat has been designated for the Indiana bat or Northern long-eared bat (USFWS 2015c). Neither bat has been identified in surveys conducted at Camp Dodge (IANG 2013).

### Plants

The only plant species listed by USFWS for this area is the Western prairie fringed orchid (*Platanthera praeclar*). The Western prairie fringed orchid (Threatened) occurs most often in moist, unplowed, calcareous prairies and sedge meadows but have been found in old fields and roadside ditches (USFWS 2003). Up to 40, nocturnally fragrant, white flowers occur on stalks up to 47 in tall. Pollen is transferred with the assistance of the hawkmoth and proper plant growth depends on a symbiotic relationship with a soil-inhabiting fungus. This plant is known to occur in about 75 sites west of the Mississippi River. Threats to this orchid include habitat loss, primarily through conversion to agriculture, and impacts to the hawkmoth through the use of pesticides. The IDNR Natural Resources Inventory reports the Western prairie fringed orchid throughout Iowa, including Polk County (IDNR 2015). No critical habitat has been designated for the Western prairie fringed orchid (USFWS 2015b). No federally protected plant species have been found in Camp Dodge during vegetation surveys (IANG 2013).

### Birds

There are fourteen birds of conservation concern that may occur in the study area (USFWS 2015b). The suite of birds that occur in the study area will vary according to time of year and available habitats. No federally protected birds have been found in Camp Dodge (IANG 2013).

The IDNR and the Iowa Ornithologists Union-Breeding Bird Atlas II website reports the results of bird surveys conducted throughout Iowa from 2008-2012. The survey reported the closest sitings in Polk County of Bell's vireo, black-billed cuckoo, least bittern, dickcissel, Henslow's sparrow, pied-billed grebe, red-headed woodpecker, and wood thrush from a site 1.5 miles southeast of the property on Camp Dodge. The closest bald eagle nest is reported to be over three miles away. Also reported was the prothonotary warbler (closest siting was seven miles away), upland sandpiper (15 miles), loggerhead shrike (20 miles), and short-eared owl (27 miles) (IDNR and IOU 2015).

As outlined in Table 3.1, all but one of the listed birds prefer forest or grassland habitat that does not exist on the property and will not be discussed further in this document. The disturbance area does contain some marginally suitable habitat for one of the listed bird species; the loggerhead shrike. This bird prefers open grasslands, croplands with hedgerows or other prairie-like habitat with suitable perches. This bird forages for insects, rodents, lizards, and birds; the larger of which get impaled on thorns or barbed wire fences to be eaten later (CU 2015).

#### 3.2.2.2 Habitat and Wildlife

Habitats are any areas that support populations of species, including vital areas that are utilized throughout the life cycle of that species. Habitat types occurring at this site include agricultural field, herbaceous field edge, and "single-tree" border along the property line. This site has been in crop agriculture for over 80 years and contains no forested areas. Agricultural activities

occurring onsite include plowing fields, harvesting crops, and mowing field edges (Figure 3-3). Crops common to this area include corn, soybeans, or hay.

Common upland tree species known to the area include green ash (*Fraxinus pennsylvanica*), black cherry (*Prunus serotina*), Siberian elm (*Ulmus pumila*), slippery elm (*Ulmus rubra*), and eastern cottonwood (*Populus deltoides*) (IANG 2013). The single –tree border (a row of trees and shrubs having the width of a single tree) around the property may include many of these species. Mowed areas immediately adjacent to the field may consist of brome grasses and goldenrods.

Two state-listed endangered plant species have potential habitat on the new reserve center property, cliff conobea (*Leucospora multifida*) and waxleaf meadowrue (*Thalictrum revolutum*). Cliff conobea occur on gravel bars along rivers, moist ground of fields and prairies, rocky depressions in limestone bluffs, mud flats, low woods, and roadsides (Tenaglia 2015, Hilty 2015). This plant is often found in disturbed areas that are partially shaded (Hilty 2015). The waxleaf meadowrue prefers mesic black soil prairies, thickets and woodland borders, savannas, and areas along railroads and roadsides, especially where remnant prairies occur (Hilty 2015). The southern and eastern portion of the property between plowed field and property boundary may contain habitats similar to the roadsides, thickets, and moist field habitats described above. All land disturbing activities would occur in the eastern portion of the property and none of the potential habitats for the state listed plants would be disturbed.

The 2013 Camp Dodge Integrated Natural Resources Management Plan contains an inventory of all species identified by field surveys on Camp Dodge and includes information such as preferred habitat and frequency of occurrence. Species listed below prefer field edge/roadside or scrub habitats that occur on the proposed reserve center site and were listed as common or abundant on Camp Dodge, which is less than one mile away from the project location (IANG 2013).

Common amphibians include American toad (*Bufo americanus*), cricket frog (*Acris crepitans*) western chorus frog (*Pseudacris triseriata*) and common reptiles include northern brown snake (*Storeria dekayi texana*), red-sided garter snake (*Thamnophis sirtalis parietalis*), and prairie ringneck snake (*Diadophis punctatus arnyi*). Common birds in the area include the mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), common yellowthroat (*Geothlypis trichas*), dickcissel (*Spiza Americana*), and red-winged blackbird (*Agelaius phoeniceus*). Abundant mammals include house mouse (*Mus musculus*), deer mouse (*Peromyscus maniculatus*), eastern cottontail (*Sylvilagus floridanus*), and white-tailed deer (*Odocoileus virginianus*) (IANG 2013).

### 3.3 Water Resources

#### 3.3.1 Definition of the Resource

Water resources includes all waters of the U.S., including rivers, streams, and wetlands. Flood hazard zones and stormwater are also discussed in this section.

#### 3.3.2 Existing Conditions

The USFWS National Wetlands Inventory (NWI) mapping indicates that no wetlands occur on or in the vicinity of the property (Appendix B). The nearest wetlands mapped by NWI are to the south and west along Beaver Creek, approximately 3,000 feet south of the property (DON 2014b).

Although hydric soils are mapped on the eastern portion of the property, site investigations did not indicate current or past wetland conditions (DON 2014b). During site investigations, a tile drain was discovered that serves to drain excess water from the field.

An un-named stream exists just east of the northeastern corner of the property but no flow was observed during site investigations (DON 2014b).

The National Flood Insurance Program maps do not indicate the presence of any floodplains or flood hazard zones in the vicinity of the proposed reserve center (Appendix B). The entire property is designated Zone X (FEMA 2015) (Appendix B).

## 3.4 Land Use

### 3.4.1 Definition of the Resource

The Food and Agriculture Organization of the United Nations (FAO) defines land use as “characterised by the arrangements, activities and inputs people undertake in a certain land cover type to produce, change or maintain it” (FAO 2015).

The Farmland Protection Policy Act (FPPA) 7 U.S.C. § 4201-4209 is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. Construction for national defense purposes is not subject to FPPA (USDA 2015).

### 3.4.2 Existing Conditions

This parcel has been in agricultural use since the deeded date of 1931 (DON 2015). The surrounding area is primarily agriculture with very few residences. The construction of the reserve center would represent a conversion from agricultural to military land use. The location is 0.25 miles away from the northwestern boundary of Camp Dodge (Figure 2-1).

Soil types on this parcel include Webster clay loam, zero to two percent slopes and Clarion loam, two to six percent slopes, both of which are considered prime farmland soils by Natural Resources Conservation Service (NRCS) (NRCS 2015). The most recent development project in the vicinity was the 2003 completion of Northwest Saylorville Drive – IA 415 (adjacent to the northern property boundary) that resulted in the conversion approximately 26.5 acres (7,700 x 150 ft) from agriculture to transportation land use.

The property is currently zoned Estate Residential along with all surrounding properties except the property immediately across NW 110<sup>th</sup> Ct, which is zoned General Commercial (Polk County 2010)(Appendix B). The county land use plan, Polk 2030-The Polk County Comprehensive Plan, describes this area’s existing land use as “Agriculture” but future land use is planned as “Estate Residential with Conservation Design”, which is intended for very low-density, rural residential development where natural features are maintained to create a connected network of open space (Polk County 2006). Despite the historic presence of Camp Dodge, there is no zoning district nor land use category for military installations. Unincorporated portions of Camp Dodge are zoned “Agricultural”.

## 3.5 Environmental Justice

### 3.5.1 Definition of the Resource

The Environmental Protection Agency defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (EPA 2015b).

Executive Order 12898, (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 1994), directs federal agencies to incorporate environmental justice into their mission and activities. Federal agencies are to accomplish this by conducting programs, policies, and activities that substantially affect human health or the environment in a manner that does not exclude communities from participation in, deny communities the benefits of, or subject communities to discrimination under such actions, because of their race, color, or national origin.

Executive Order 13045, (*Protection of Children from Environmental Health Risks and Safety Risks*, 1997), requires each federal agency to identify and assess environmental health and safety risks to children. “Environmental health and safety risks” are defined as “risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest.”

Data utilized to evaluate environmental justice is reported in Summary File 1 data tables from the 2010 Census which includes information about a community's entire population, including cross-tabulations of age, sex, households, families, relationship to householder, housing units, detailed race and Hispanic or Latino origin groups, and group quarters (U.S. Census 2015). The U.S. Census is required to collect population data every ten years.

### 3.5.2 Existing Conditions

According to 2010 US Census data (reported by EPA mapping tool EJView), this property is located in a Block (smallest geographical unit of the US Census) with only 39 residents (less than 18 persons per square mile) and contains zero minorities. Only 13 percent are under the age of 18. Six percent are below poverty and zero percent are renters. Per capita income is over \$57,000/year and over 50 percent have a college degree (EPA 2015d). Since there are no affected resources used by minority or low income communities, there is no disproportionately high and adverse effect on minority or low-income communities due to Proposed Action and therefore will not be discussed further in this document.

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## 4 Environmental Consequences

Under NEPA, effects to resources are analyzed in terms of significance. CEQ 40 CFR Part 1508, states that “significantly” as used in NEPA, requires considerations of both context and intensity. Context means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Short-term and long-term effects are analyzed with respect to context. Intensity refers to the severity of the impact. Intensity factors include, but are not limited to, the degree to which the proposed action affects public health or safety; unique characteristics of the geographic area such as proximity to cultural resources, park lands, wetlands or ecologically critical areas; the degree to which the action may adversely affect cultural resources and endangered or threatened species or its habit that has been determined to be critical under the ESA; and whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

This chapter does not include discussion of potential environmental impacts on air quality, noise, water resources, soils and topography, transportation, socioeconomics, environmental justice, hazardous materials and waste, and public health and safety as these resource areas have been omitted from further detailed analysis in this EA, as discussed in Chapter 3.

### 4.1 Cultural Resources

#### 4.1.1 Proposed Action

The Phase I Cultural Resources Investigation did not identify any Native American or Pre-1900 European American archaeological deposits or artifacts on the parcel. The field investigation did identify a site 13PK1004, a circa 1918 culvert/cistern associated with the railroad spur that was entered into the State of Iowa’s archaeological site database. This site is located in the extreme southeastern corner of the property, away from the construction area.

In accordance with Section 106 of the National Historic Preservation Act, the U.S. Navy, in consultation with the Iowa State Historic Preservation Office, determined that site 13PK1004 was not eligible for inclusion in the National Register of Historic Places. Based upon the results of the survey, no further cultural resource investigations were recommended at site 13PK1004 or any part of the parcel.

The U.S. Navy consulted or corresponded with the Iowa State Historic Preservation Office, the Iowa State Archaeologist, the Advisory Council on Historic Preservation, the National Park Service, the National Trust for Historic Preservation, the City of Des Moines, the City of Johnston, the County of Polk, and Preservation Iowa on the Proposed Action. In addition, letters were sent to 12 federally recognized tribes regarding their interest in the project location and the Proposed Action. The Advisory Council of Historic Preservation declined to participate in continued consultation by letter dated October 21, 2014. No party expressed concerns with the Proposed Action.

Furthermore, the MARFORRES determined the Proposed Action would result in “No adverse effect” on historic properties. The Iowa State Historic Preservation Office concurred with the U.S. Navy’s no adverse effect determination on March 30, 2015 (see Appendix A for correspondence).

In conclusion, no significant impacts to cultural resources would be expected from implementation of the Proposed Action.

#### 4.1.2 No Action Alternative

Under the No Action Alternative, the Joint Marine-Navy Reserve Center would not be constructed. Existing conditions would remain the same as described in Section 3.1.2. No impacts to cultural resources would be expected from implementation of the No Action Alternative.

## 4.2 Biological Resources

### 4.2.1 Proposed Action

#### 4.2.1.1 Protected Species

A protected species survey was conducted onsite and no protected species were observed (DON 2014b).

#### Mammals

This site has been in crop agriculture for over 80 years and contains no forested areas (Figure 2-3). Since both the Indiana or Northern long-eared bats prefer forested areas that include trees with peeling bark, no impacts are anticipated to these protected bats because no suitable habitat exists on or in the vicinity of this property.

#### Plants

This site has been in crop agriculture for many years and contains no wet grassland areas (Figure 2-3). Since the orchid prefers undisturbed wet grasslands, no impacts are anticipated to the orchid because no suitable habitat exists on or in the vicinity of this property for the western prairie fringe orchid.

#### Birds

All land disturbing activities would occur in former agricultural field which does not contain suitable bird habitat. No trees would be removed as a part of this project. Noise has the potential to disturb birds but noise generated by construction equipment should be temporary and very similar to noise generated by agricultural equipment currently utilized onsite.

As outlined in Table 3.1, all but one of the listed birds prefer habitat that does not exist on the property including forests or grasslands. The construction area does contain some marginally suitable habitat for the loggerhead shrike. Although unlikely, if the shrike was to utilize the single line of trees and shrubs that grow along the property line as a hunting perch or for nesting, these areas are outside of the area of land disturbance and should not be affected by the Proposed Action. Surrounding properties are in agriculture and would continue to provide foraging opportunities to migratory birds.

#### Conclusions

No significant impacts to mammals, plants or bird populations are expected to result from implementation of the Proposed Action. MARFORRES has determined the proposed actions and undertakings will have “No effect” to the Indiana bat, Northern long-eared bat and western prairie fringe orchid. Consultation was initiated on August 4, 2015 via email correspondence

(Appendix A). On August 13, 2015, a discussion occurred with USFWS Rock Island Field Office staff and it was explained that due to limited staffing, USFWS was no longer issuing concurrence for “No effect” determinations and advised MARFORRES to make a note to file (S. Schmucker, pers. comm. 2015).

The analysis presented indicates that the Proposed Action would not result in a “take” of migratory birds as defined by MBTA regulations or eagles as defined in the Bald and Golden Eagle Act.

#### 4.2.1.2 Habitat and Wildlife

Since this property has been actively cultivated for years, the habitat present is highly disturbed and does not represent natural conditions. The row-crop, field edge/roadside, and scrub habitats do not support a high diversity of species and are the predominant habitat types in the surrounding area. The disturbance area for the new reserve center is entirely within the area currently disturbed by agricultural practices. Wildlife may avoid the area during construction activities but would likely return during operations due to an increase in habitat area/diversity. After construction is complete, although there would no longer be field-edge habitat, there would be extensive grassed areas that may allow for some native grasses to become established. The removal of the regular disturbance of plowing and reshaping the land surface may allow for a more natural hydrology to form, which would increase habitat diversity and contribute to an overall increase in habitat quality. All land disturbing activities would occur in the western portion of the property and therefore none of the potential habitats (moist roadside and scrub) for the state listed plants would be disturbed except for roadside for the driveway access. No significant impacts to wildlife or wildlife habitats are anticipated due to the Proposed Action.

#### 4.2.2 No Action Alternative

Under the No Action Alternative, the Joint Marine-Navy Reserve Center would not be constructed. Existing conditions would remain the same as described in Section 3.2.2. No additional impacts to biological resources would be expected from the No Action Alternative.

### 4.3 Water Resources

#### 4.3.1 Proposed Action

No streams or wetlands exist onsite (DON 2014b). To meet the definition of "jurisdictional wetland" under Section 404 of the Clean Water Act, an area must exhibit three traits: (1) hydrophytic vegetation, (2) hydric soil, and (3) wetland hydrology (USACE 1987). Areas that are periodically wet but do not meet all three criteria are not jurisdictional wetlands subject to Section 404 of the Clean Water Act. Since this property has been actively cultivated for years, the hydrology and vegetation components necessary for a jurisdictional wetland are not present, although hydric soil conditions still exist onsite.

All land disturbing activities would occur on the western portion of the property, reserving the eastern half for stormwater management. The Contractor would be responsible for designing and acquiring the appropriate permits for stormwater controls. Stormwater management shall be designed to meet the requirements of the state of Iowa drainage laws and the DOD/Navy LID Policy. The Iowa Storm Water Program requires Construction Stormwater Permit (NPDES) and associated Stormwater Pollution Prevention Plan for construction activities greater than one acre. Storm water design shall incorporate DOD United Facilities Criteria 3-210-10, Low Impact

Development, which includes requirements for bioretention/infiltration basins, surface water wet pond/basin, vegetated swales, and other low impact stormwater management techniques. The concept plan contains approximately 5 acres of new impervious area.

For these reasons, construction of the Joint Marine-Navy Reserve Center is not expected to have an impact on water resources.

#### 4.3.2 No Action Alternative

Under the No Action Alternative, the Joint Marine-Navy Reserve Center would not be constructed. Existing conditions would remain as described in Section 3.3.2. No significant impacts to water resources would be expected from the No Action Alternative.

### 4.4 Land Use

#### 4.4.1 Proposed Action

Although the construction of the new reserve center is not consistent with the existing zoning as Estate Residential, the change in land use represented by the Proposed Action is consistent with the land uses currently present in the surrounding area including military (listed in Polk Land Use Plan as simply “Camp Dodge”), agricultural, estate residential (> 3 acres), rural residential (< 3 acres) (Polk County 2006). This property represents a small fraction of the available residential land in the area.

Although prime farmland soils exist onsite, construction for national defense purposes is not subject to FPPA and the property is surrounded by farmland containing these soils (7 CFR § 658.3(b) [citing USC § 4208(b)]). The two most abundant land uses in this area are agriculture and military. This project would result in the conversion of the land use of this property to one very similar to the existing land use, and therefore does not result in a significant impact on land use.

#### 4.4.2 No Action Alternative

Under the No Action Alternative, the Joint Marine-Navy Reserve Center would not be constructed. Existing conditions would remain as described in Section 3.4.2. No significant impacts to land use would be expected from the No Action Alternative.

## 5 Cumulative Impacts

### 5.1 Introduction

Council of Environmental Quality (CEQ) regulations stipulate that the cumulative effects analysis within an EA should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). Recent CEQ guidance in considering cumulative effects involves defining the scope of the other actions and their interrelationship with the Proposed Action. The scope must consider geographical and temporal overlaps among the Proposed Action and other actions. It must also evaluate the nature of interactions among these actions.

Cumulative effects are most likely to arise when a relationship or synergy exists between the Proposed Action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in proximity to the Proposed Action would be expected to have more potential for a relationship than those more geographically separated.

To identify cumulative effects, three fundamental questions need to be addressed:

- Does a relationship exist such that affected resource areas of the Proposed Action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
- If one or more of the affected resource areas of the Proposed Action and another action could be expected to interact, would the Proposed Action affect or be affected by impacts of the other action?
- If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the Proposed Action is considered alone?

The scope of the cumulative effects analysis involves both the geographic extent of the effects and the timeframe in which the effects could be expected to occur. It is possible that analysis of cumulative impacts may go beyond the scope of the project-specific direct and indirect impacts to include expanded geographic and time boundaries and a focus on broad resource sustainability. This “big picture” approach is becoming increasingly important as growing evidence suggest that the most significant impacts result not from the direct impact of a particular action, but from the combination of individual, often minor, impacts of multiple actions over time. The underlying issue is whether or not a resource can adequately recover from the impact of an action before the environment is exposed to a subsequent action or actions.

### 5.2 Past, Present, and Reasonable Foreseeable Actions

A review of transportation, infrastructure and economic development projects within the region was completed using the 2030 Polk County Land Use Plan and the City of Des Moines and City of Johnston websites (Polk County 2013, City of Johnston 2015a, City of Johnston 2015b, and City of Des Moines 2015). While a number of economic development projects are planned throughout the region, none are planned within five miles of the project location, at the time of this assessment. Two transportation improvement projects and projects at Camp Dodge are planned within five miles of the project location and were considered when analyzing the potential cumulative impacts of the actions.

### 5.2.1 Transportation Improvement Projects

Polk County has a number of transportation projects planned through 2030 (Polk County 2013, City of Johnston 2015a). Two planned projects described in the land use plans are within close proximity of the project location. One project involves the widening of Saylorville Road from a two-lane to a four-lane undivided road and adding an interchange at the intersection with Iowa Highway 141. Four miles south of this road expansion, the second project involves the widening of Iowa Highway 141 from a four-lane to a six-lane divided highway from the I-35/80 interchange north to IA 44. Estimates of construction timeframe were not available at the time of this assessment.

There are no recently completed, under construction or scheduled transportation improvement projects in the vicinity of this project. The closest road construction project that has actually been scheduled to occur is over five miles away in the City of Johnston and will occur in the spring of 2016 (City of Johnston, 2015). The most recent development project in the vicinity was the 2003 completion of Northwest Saylorville Drive – IA 415 (adjacent to the northern property boundary).

### 5.2.2 Camp Dodge Projects

Minor improvement projects are planned to occur at Camp Dodge between the years 2015 and 2020. Construction associated with the renovations of eight buildings is planned along with minor improvement renovations to four buildings (C. Madsen, pers. comm. 2015). Estimates of construction timeframe were not available at the time of this assessment. All projects will occur within the cantonment area which is over three miles from the new reserve center property. The cantonment area is an approximately 400-acre area that has been previously developed. Renovations will not result in a noticeable increase in personnel, traffic or development in the area. No impacts to biological resources or land use are anticipated from these projects.

## 5.3 Potential Cumulative Impacts

The Proposed Action analyzed in this EA would not result in significant impacts to the environment. As discussed in Chapter 4 of this EA, environmental impacts of the Proposed Action may result in less than significant impacts to biological resources and land use. Potential interactions with other past, present, or reasonably foreseeable future actions would generally be those actions that also may have effects on biological resources and land use. No effects to cultural resources, water resources, or environmental justice would occur as a result of the Proposed Action and therefore, were not analyzed for cumulative impacts.

### 5.3.1 Biological Resources

Construction associated with the transportation improvement projects has the potential to impact biological resources. Impacts may include permanent conversion of habitat to a less suitable habitat, permanent stream and wetland impacts, increased stormwater runoff, and temporary avoidance by wildlife due to construction noise, dust, and emissions. These road expansion projects will impact a small area of existing roadside habitat, which is typically of poor quality for plants and wildlife. Wildlife that uses these areas may be forced to move to other areas during construction but sufficient nearby habitat is available. The transportation projects mentioned in the land use plans will not overlap with the Proposed Action in time and the project scheduled for 2016 will not overlap with the Proposed Action in space.

Construction associated with renovation projects planned for Camp Dodge will occur within the cantonment area, which is previously disturbed land that provides minimal habitat quality for most species. These projects are renovation projects with no significant expansion of building footprints. Any species currently utilizing the area will be subjected to short-term and minor noise and emission increases. These increases will be relatively minor compared to the background level in this urbanized area.

The impacts described above from the Proposed Action to biological resources are temporary and minor and the potential impacts from the above listed projects are minor or do not overlap in time or space with the Proposed Action. Therefore, the Proposed Action in conjunction with any past, present, or reasonably foreseeable future actions are not expected to result in significant impacts to biological resources.

### 5.3.2 Land Use

The planned road expansions will not result in a change to land use but may result in increased commercial and residential development in the area. The adjacent property to the west of the project location is zoned as “General Commercial” and was purchased in 2015. There are no Proposed Development Notices on the City of Johnston website regarding this property (City of Johnston 2015b).

The renovation projects occurring at Camp Dodge are over three miles away and will not involve a change to land use. The closest scheduled transportation project is over four miles away and the closest private construction is over five miles away from the site in the City of Johnston (City of Johnston 2015a). There are no other development projects within the area that are currently scheduled. These future projects will not result in a change to land use.

The estimated 26.5-acre land use conversion from agriculture to transportation resulting from Northwest Saylorville Drive combined with the 24.4-acre conversion from agriculture to military from the Proposed Action represents the only land use conversion in a 2+ mile radius over a 13-year or more timeframe. The approximately 50 acres of land use conversion is relatively minor in an area still dominated by agriculture (Figure 2-1).

Implementation of the Proposed Action would result in a conversion from agriculture to military land use. Therefore, the proposed action in conjunction with any past, present, or reasonably foreseeable future actions are not expected to result in significant impacts to land use.

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## **APPENDIX A - AGENCY CORRESPONDENCE**



**DEPARTMENT OF THE NAVY**  
 NAVAL FACILITIES ENGINEERING COMMAND, ATLANTIC  
 6506 HAMPTON BLVD  
 NORFOLK VA 23508-1278

5090 IN REPLY REFER TO:  
 Ser EV54DC/00571

25 NOV 2014

Mr. Doug Jones  
 Review and Compliance Program Manager  
 State Historical Society of Iowa  
 600 East Locust Street  
 Des Moines, Iowa 50319

Dear Mr. Jones:

Naval Facilities Engineering Command, Atlantic (NAVFAC LANT), on behalf of Marine Forces Reserve (MARFORRES), and under Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and implementing regulations at 36 CFR Part 800, considered the effects of the proposed relocation of Marine Corps Reserve Center Des Moines (MCRC Des Moines) on historic properties, and requests your concurrence on the Navy's effect determination. MCRC Des Moines currently resides within a contributing building of the Fort Des Moines National Historic Landmark (NHL). This facility does not meet the mission needs of the reservists, given certain training and security requirements. MCRC Des Moines must relocate within a limited geographic radius from its current location, and the new parcel must meet other size, locational, and environmental criteria.

The undertaking currently under consideration includes vacating the current, historic location of MCRC Des Moines and constructing a new reserve center on an undeveloped parcel north of Des Moines (Steddom parcel). The area of potential effects (APE) includes the leased area and Building 47 (formerly Cavalry Drill Hall) that currently houses MCRC Des Moines, within the Fort Des Moines NHL, and the Steddom parcel. The 24.42-acre Steddom parcel is located in Polk County and the City of Johnston, near the northwest perimeter of Camp Dodge, Iowa.

#### **Identification and Evaluation of Historic Properties**

In prior correspondence, the Navy consulted with the Iowa State Historic Preservation Office (Iowa SHPO) regarding the identification of historic properties. In May 2014, NAVFAC LANT conducted a comprehensive archaeological field reconnaissance of the entire Steddom parcel. The Navy submitted the resulting

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2 5 NOV 2014

report, titled Phase I Cultural Resource Investigation of the Marine Corps Reserve Center Relocation along NW Saylorville Road, Polk County, Johnston, Iowa, to the Iowa SHPO on August 14, 2014. The survey identified no eligible cultural resources within the Steddom parcel and recommended no further cultural resource investigations. In a September 19, 2014 email, the Iowa SHPO agreed with the recommendations of the report, but requested that the final report include a site form for a former railroad related culvert/crossing discovered within the APE. The revised report, with the requested additions, is included with this letter.

#### **Consultation Summary**

In fulfillment of Section 106 of the NHPA, the Navy consulted or corresponded with the Iowa SHPO, the Iowa State Archaeologist, the Advisory Council on Historic Preservation (ACHP), the National Park Service, the National Trust for Historic Preservation, the City of Des Moines (Iowa), the City of Johnston (Iowa), the County of Polk (Iowa), and Preservation Iowa, on the planned MCRC Des Moines undertaking. Additionally, the Navy sent letters to 12 federally recognized tribes regarding their interest in the Steddom parcel and the Navy's undertaking. The ACHP declined to participate in continued consultation by letter dated October 21, 2014. No party expressed concerns with the proposed relocation.

#### **Determination of Effect**

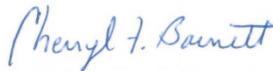
The APE for the proposed undertaking consists of two areas: 1) Building 47 and its environs within the Fort Des Moines NHL (current location of MCRC Des Moines); and, 2) the Steddom parcel (the preferred alternative location for MCRC Des Moines). Section 106 of the NHPA states that the, "Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure the long-term preservation of the property's historic significance," will result in an adverse effect determination for such an undertaking. Once vacated, the Army will retain ownership and management of Building 47 and the MCRC Des Moines leased area. This arrangement keeps the historic property within Federal ownership.

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With continued Federal ownership of the current location and the lack of historic properties at the Steddom parcel, the Navy has determined that the proposed relocation of MCRC Des Moines will have no effect on historic properties. The Navy invites you to concur with this finding within 30 days after your receipt of this letter. The National Environmental Policy Act (NEPA) documentation will include the Section 106 consultation information and your response to this letter.

Thank you for your assistance throughout the Section 106 process for the relocation of MCRC Des Moines. Please contact Chris Hurst at (504) 697-9892 or by e-mail at christopher.a.hurst@usmc.mil with questions or concerns.

Sincerely,



CHERRYL F. BARNETT  
Environmental Business Line Manager  
By direction of the Commander

Enclosure: Archaeology report

Cc (w/ enclosure):  
Iowa State Archaeologist (J. Doershuk)

Cc (w/o enclosure):  
Headquarters, U.S. Marine Corps (S. Frear)  
MARFORRES (C. Hurst)  
NAVFAC Northwest (J. Sullivan)  
NAVFAC Mid-Atlantic (S. Bever)  
Advisory Council on Historic Preservation (K. Kerr)  
National Park Service (R. Franklin-Weekley)  
State Historical Society of Iowa (S. King)  
National Trust for Historic Preservation (J. Sandy)  
Preservation Iowa (G. Betcher)  
City of Des Moines (R. Conner)  
City of Johnston (A. Wolfe)  
County of Polk (B. VandeLune)



DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND, ATLANTIC  
6506 HAMPTON BLVD  
NORFOLK VA 23508-1278

NAVY  
131077090

IN REPLY REFER TO:  
5090  
Ser EV54DC/00085  
11 Mar 15

Mr. Doug Jones  
Review and Compliance Program Manager  
State Historical Society of Iowa  
600 East Locust Street  
Des Moines, Iowa 50319

RECEIVED  
MAR 23 2015  
by SHPO

Dear Mr. Jones:

In a November 2014 letter to your office (Enclosure 1), the Navy requested concurrence on a no effect determination for the proposed relocation of its reserve center at Des Moines, from the Fort Des Moines National Historic Landmark (Building 47) to a newly constructed facility on property in the nearby City of Johnston. In light of information you provided during a phone conversation on 6 March 2015, the Navy, on behalf of Marine Forces Reserve (MARFORRES), has determined that the project will more appropriately have no adverse effect on historic properties. Also, as a point of clarification, while MARFORRES has the lead on this project, the current reserve center is leased from the Army, with both Marine Corps and Navy reserve components as tenants. Likewise, the new facility will house both branches.

Once vacated, the Army will retain ownership of Building 47 and the reserve center's leased area. This arrangement keeps the historic property within Federal ownership, and the Army will manage the property in accordance with its Integrated Cultural Resources Management Plan (ICRMP) for Army property at Fort Des Moines. The Navy identified no historic properties at the proposed new location.

The Navy invites you to concur with the no adverse effect finding within 30 days after receiving this letter. The National Environmental Policy Act (NEPA) documentation will include the Section 106 consultation information and your response to this letter.

Thank you for your assistance throughout the Section 106 process for the relocation of MCRC Des Moines. Please contact Chris Hurst at (504) 697-9892 or christopher.a.hurst@usmc.mil with questions or concerns.

Sincerely,

BYRON C. BRANT  
Environmental Business Line Manager  
By direction of the Commander

Enclosure: 1. November 2014 letter

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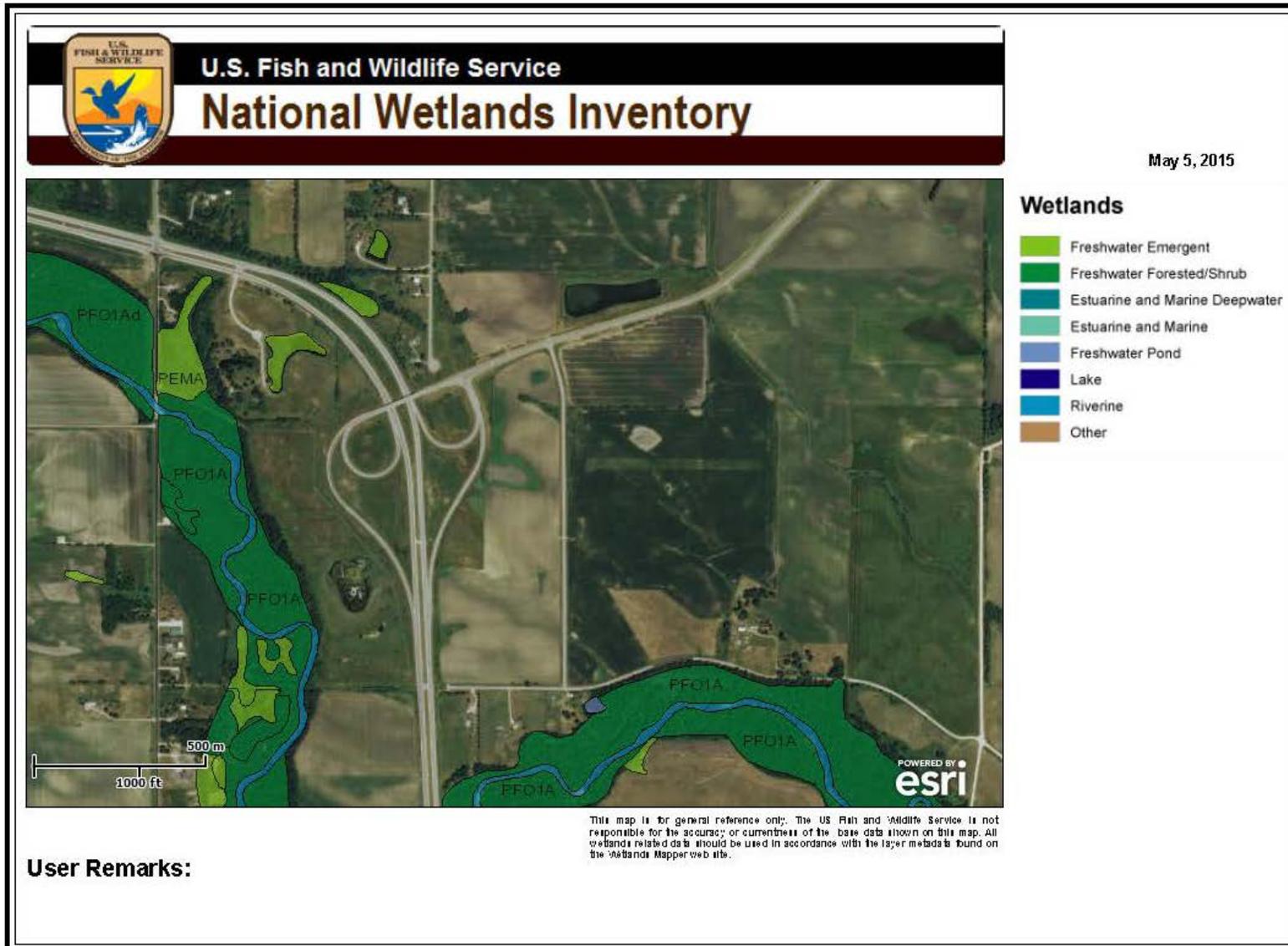
CONCUR  
NAME Douglas W. Jones  
REVIEW & COMPLIANCE PROGRAM MANAGER  
DATE 3/30/2015 SHSI

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Ser EV54DC/00085  
11 Mar 15

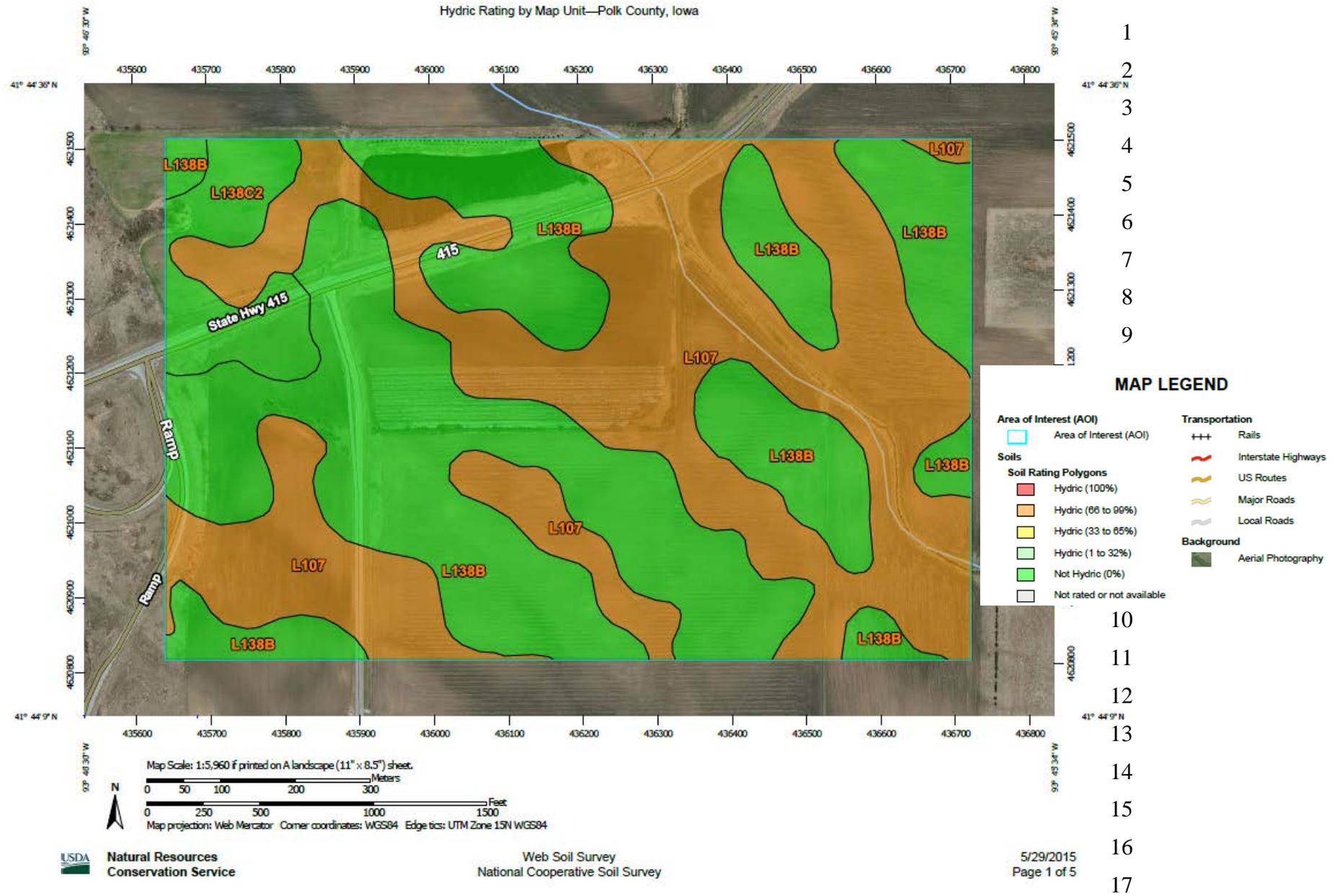
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Headquarters, U.S. Marine Corps (S. Frear)  
U.S. Marine Corps Forces Reserve (C. Hurst)  
Naval Facilities Engineering Command Northwest (J. Sullivan)  
Naval Facilities Engineering Command Mid-Atlantic (S. Bever)  
Advisory Council on Historic Preservation (K. Kerr)  
National Park Service (R. Franklin-Weekly)  
State Historical Society of Iowa (S. King)  
Iowa State Archaeologist (J. Doershuk)  
National Trust for Historic Preservation (J. Sandy)  
Preservation Iowa (G. Betcher)  
City of Des Moines (R. Conner)  
City of Johnston (A. Wolfe)  
County of Polk (B. VandeLune)

## **APPENDIX B – SUPPORTING MAPS**

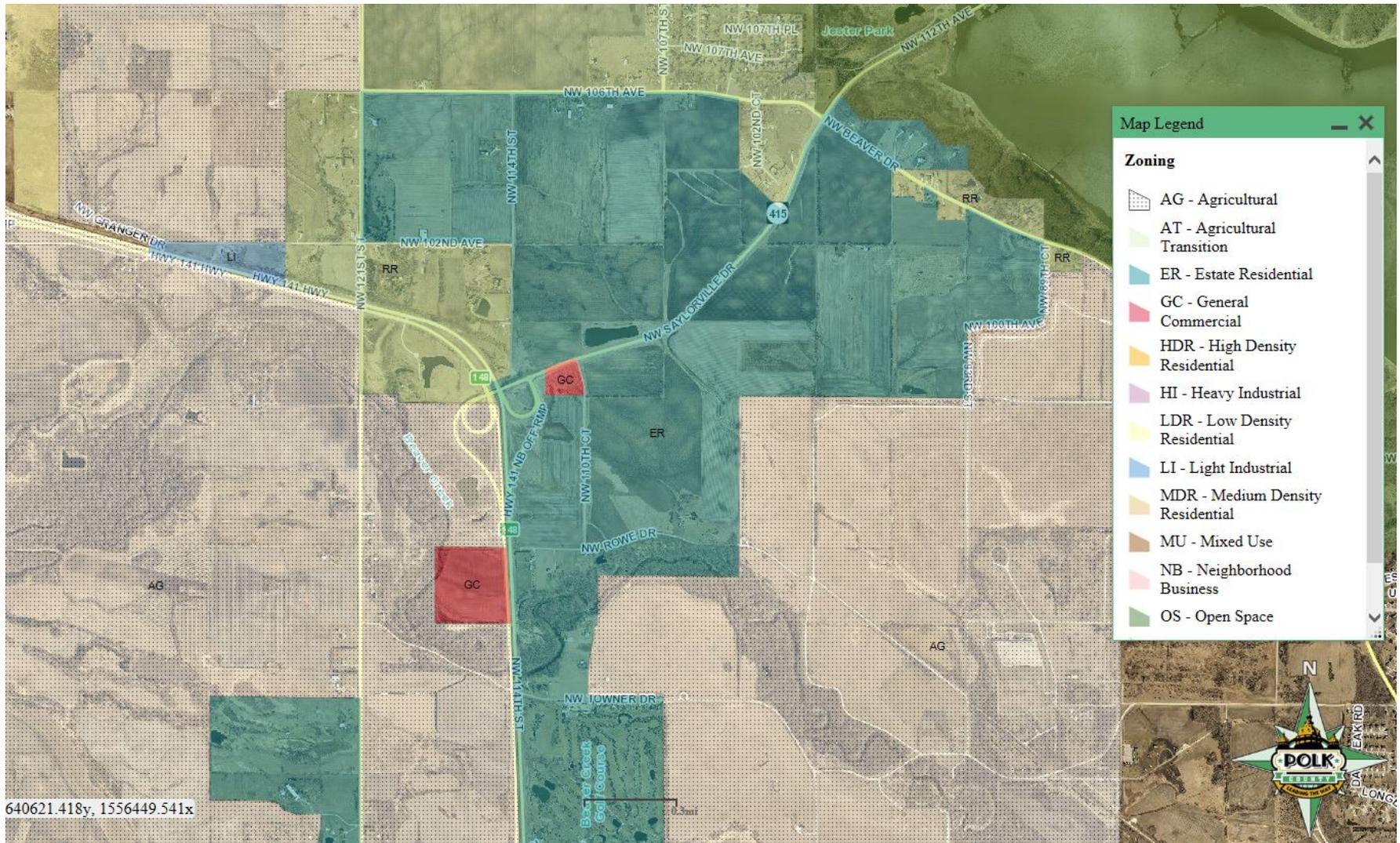
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## **APPENDIX C – SUPPORTING DOCUMENTS**

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