

**ENVIRONMENTAL ASSESSMENT**

**CONSTRUCTION OF A CONSOLIDATED ACADEMIC INSTRUCTION  
FACILITY AND BARRACKS  
CAMP JOHNSON, MARINE CORPS BASE, CAMP LEJEUNE  
Onslow County, North Carolina**

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## SUMMARY

Marine Corps Base (MCB), Camp Lejeune, a military facility that encompasses Camp Lejeune, Marine Corps Air Station (New River), and the Greater Sandy Run Area, proposes to construct the following projects within a 140.3 ac (56.8 ha) study area at Camp Johnson (Montford Point):

- A new consolidated academic instruction facility (phase 1, P-172 and phase 2, P-1033) would be constructed within the Montford Point Camp No. 1 Historic District. Included within this project is the demolition of one existing Enlisted Men's Washroom building (M-109). The one "Built Environment Category 2" (see Appendix A) building to be demolished is located within and contributes to the Montford Point Camp No. 1 Historic District.
- Two multi-story Bachelor Enlisted Quarters (BEQs) and a 3.5 mi (5.6 Km) fitness trail for personnel quartered at Camp Johnson (P-151) would be constructed, which includes the demolition of sixteen buildings/structures. None of the buildings or structures to be demolished are located within or contribute to the Montford Point Camp No. 1 Historic District or both Camp No. 2 and Camp No. 2A Historic Districts.
- Two multi-story Bachelor Enlisted Quarters (BEQs) and a 1 mi (1.6 Km) fitness trail for personnel quartered at Camp Johnson (P-1011) would be constructed, which includes the demolition of nine existing buildings/structures. All nine buildings/structures to be demolished are located outside of and do not contribute to the Montford Point Historic Districts.
- A new simulated warehouse facility in support of training student supply personnel (LE0416R--FY03 Minor Construction R2 project) would be constructed within Montford Point Camp No. 1 Historic District. Included within this project is the demolition of two existing Storehouse Type SH-13 buildings currently used as classrooms. The two "Built Environment Category 3" (see Appendix A) buildings to be demolished are located within and contribute to the Montford Point Camp No. 1 Historic District.

The purpose of the two-phase construction of the new multi-story consolidated academic facility (P-172 and P-1033) is to provide a modern and centralized training facility for the seven existing Marine Corps Combat Service Support Schools (MCCSSS) at Camp Johnson. These schools provide training in Personnel Administration, Supply, Financial Management, Instructional Management, Logistics, Combat Water Survival, and Academic Training. The new 154,884 ft<sup>2</sup> (14,389 m<sup>2</sup>) facility would be a two story building with associated site improvements, utility and telephone connections, driveway connections, and parking.

The purpose of the BEQ projects (P-151 and P-1011) is to provide adequate quarters for enlisted personnel who are currently housed in overcrowded and outdated barracks at Camp Johnson. These new facilities would be in compliance with the Minimum Standards of Adequacy. The four new multi-story BEQs would provide a total of 201,500 ft<sup>2</sup> (18,700 m<sup>2</sup>) or 880 manspaces of adequate housing for personnel assigned at Camp Johnson. Ancillary development includes new parking and driveway connections, modification and extension of existing utilities (gas, water, electricity, CATV, and telephone), construction of a physical fitness greenway trail, and recreational areas (basketball courts, picnic areas, etc.). The new BEQs would develop cohesion, unit integrity, improve *esprit de corps*, reduce overcrowding, and improve the quality of life. The fitness trails are included for personnel morale and health and would be built in accordance with the Greenway Master Plan.

The proposed action would not adversely impact air or water quality, surface or groundwater, threatened or endangered species, flood plains, hazardous waste sites, coastal zone, pine/hardwood forests, or prime farmland soils.

The construction of the consolidated academic instruction facility (phase 1, P-172 and phase 2, P-1033) would adversely affect the Montford Point Camp No. 1 Historic District. This academic instruction facility would be constructed at the outdoor theater site within the Montford Point Camp No. 1 Historic District. The one building (M-109) to be demolished is located within and contributes to the Montford Point Camp No. 1 Historic District. Construction of the simulated warehouse facility (LE0416R) would also adversely affect Montford Point Camp No. 1 Historic District because two buildings (M-112, M-113) to be demolished are located within and contribute to this historic district. Therefore, a total of three buildings out of the 28 buildings to be demolished are located within the Montford Point Camp No. 1 Historic District. A Memorandum of Agreement (MOA) between Camp Lejeune, the North Carolina State Historic Preservation Officer (SHPO), and the Montford Point Marine Association is being prepared to mitigate for adverse effects caused by the demolition of M-109, M-112, and M-113. The Advisory Council on Historic Preservation has been notified of the adverse effect and the MOA would be forwarded to the Council for ratification and acceptance. Public notification of the adverse effect to Montford Point Camp No. 1 would be accomplished by publishing this environmental assessment on the Camp Lejeune Web Page and through public notices in the media.

Camp Johnson (Montford Point) was the site of the first African-Americans to wear the Marine uniform, and all African-American Marines who served in World War II received their training at this complex (Bowers and Simpson, 1998). The Montford Point Historic Districts (MP1, MP2, and MP2A) at Camp Johnson were determined eligible for the National Register of Historic Places by consensus between Marine Corps Base, Camp Lejeune and the North Carolina State Historic Preservation Officer (SHPO). The district's eligibility is based on its association with the African American Marine Training experience. The Montford Point area of Marine Corps Base, Camp Lejeune was established as a segregated African American Marine training cantonment in April 1942. The camp was greatly expanded beginning in 1943, and a number of new buildings were constructed. In

1974, the Corps renamed Montford Point “Camp Johnson” in honor of Sergeant Major (SM) Gilbert H. Johnson and the contributions of African-American Marines in World War II (Bowers and Dixon, 2000a, 2000b). A complete history of Montford Point is contained in the National Register of Historic Places Multiple Property Documentation Form entitled *World War II Construction at Marine Corps Base, Camp Lejeune, 1941-1945, Onslow County, North Carolina*.

Twenty-five of the 28 buildings proposed for demolition are not located within and do not contribute to the Montford Point Historic Districts. Demolition of these buildings would not adversely affect cultural resources.

While 28.6 ac (11.5 ha) of Section 404 jurisdictional wetlands occur within the 140.3 ac (56.8ha) study area, and 1,895 ft<sup>2</sup> (176 m<sup>2</sup>) occur within the north-central portion of the fitness trail, impacts to all Section 404 areas would be avoided.

Project alternatives that were considered but dismissed for the other proposed construction projects were off-base leasing and renovation of existing structures. The no action alternative was considered for each proposed action.

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## APPENDIX A

BUILT ENVIRONMENTAL CATEGORY DEFINITIONS

## APPENDIX B

COASTAL ZONE MANAGEMENT POLICY CATEGORIES

## APPENDIX C

CORRESPONDENCE



## 1.0 PURPOSE AND NEED FOR ACTIONS

### 1.1 INTRODUCTION

This Environmental Assessment (EA) addresses impacts associated with several proposed capital improvement projects at Camp Johnson (Montford Point), MCB, Camp Lejeune, North Carolina (Figures 1 and 2). Within the 140.3 ac (56.8 ha) study area at Camp Johnson, the following projects are proposed:

- A new multi-story 154,884 ft<sup>2</sup> (14,389 m<sup>2</sup>) consolidated academic instruction facility (phase 1, P-172 and phase 2, P-1033) would be constructed within the Montford Point Camp No. 1 Historic District. Ancillary development includes landscaping, exterior site and building lighting, parking, utility and driveway connections. This project also includes the demolition of Building M-109, an enlisted men's washroom (See Table 1-1). This "Built Environment Category 2" building (see Appendix A), is located within and contributes to the Montford Point Camp No. 1 Historic District. Three of the twenty-eight buildings to be demolished are located within and contribute to the Montford Point Camp No.1 Historic District.
- Two multi-story 91,500 ft<sup>2</sup> (8,500 m<sup>2</sup>) Bachelor Enlisted Quarters (BEQs) and a 3.5 mi (5.6 Km) fitness trail (P-151) would be constructed, which includes the demolition of sixteen existing buildings/structures (see Table 1-1). None of the sixteen buildings to be demolished are located within and contribute to the Montford Point Camps No. 1 Historic District. Site development includes new parking and driveway connections, modification and extension of existing utilities (gas, water, electricity, CATV, and telephone), and recreational areas.
- Two multi-story 109,800 ft<sup>2</sup> (10,200 m<sup>2</sup>) BEQs and a 1 mi (1.6 Km) fitness trail (P-1011) for student personnel attending the Marine Corps Combat Service Support Schools (MCCSSS) at Camp Johnson, would be constructed, which includes the demolition of nine existing buildings (see Table 1-1). These nine buildings to be demolished are not located within and do not contribute to the Montford Point Historic Districts.
- A new simulated warehouse facility in support of training student supply personnel (LE0416R--FY03 Minor Construction R2 project) would be constructed within Montford Point Camp No. 1 Historic District. Included within this project, is the demolition of two existing Storehouse Type SH-13 buildings (M-112, M-113) currently used as classrooms (see Table 1-1). The two "Built Environment Category 3" buildings (see Appendix A) to be demolished are located within and contribute to the Montford Point Camp No. 1 Historic District.

All construction within the study areas would include appropriate stormwater runoff control measures and approved soil erosion and sedimentation control plans. All exposed soils would be revegetated post-construction. All construction activities would comply with federal, state, and local regulations.

Table 1-1  
Buildings to be Demolished by Proposed Action

Projects Within the Proposed Action	Demolition of Buildings Without Historic Significance	Demolition of Buildings Within or Contributing to Montford Point Camp No. 1 Historic District	Total
<b>Academic Training Facility (Phase 1, P-172; Phase 2, P-1033)</b>	---	M-109	<b>1</b>
<b>BEQs and Fitness Trail (P-151)</b>	M-314, M-315, M-329, M-419, M-501, M-503, M-506, M-511, M-512, M-513, M-518, M-520, M-621, M-622, SM-340, SM631	---	<b>16</b>
<b>BEQs and Fitness Trail (P-1011)</b>	M-504, M-507, M-514, M-516, M-521, M-522, SM-452, SM-453, SM-454	---	<b>9</b>
<b>Simulated Warehouse Facility (LE0416R, FY03 Project)</b>	---	M-112, M-113	<b>2</b>
<b>Total</b>	<b>25</b>	<b>3</b>	<b>28</b>

## **1.2 PURPOSE AND NEED FOR PROPOSED ACTION**

The proposed action would construct a new academic facility (P-172 and P-1033), 4 new BEQs with two fitness trails (P-151 and P-1011), a warehouse supply facility (LE0416R), and demolish twenty-eight existing 1940's era buildings at Camp Johnson that have previously housed the services to be provided by the new buildings. Currently, MCCSSS occupy thirty-four different 1940's era buildings scattered throughout Camp Johnson. These existing thirty-four academic buildings do not provide ample space and are functionally obsolete. Additionally, personnel attending the MCCSSS are housed in 1940's era barracks, which are antiquated and result in overcrowded conditions. The majority of the twenty-eight structures to be demolished are in violation of fire, Occupational Safety and Health Administration (OSHA), and National Electrical Code (NEC) standards and regulations (Personal Communications, October 4, 2000, Fred W. Estes, Jr., Manager, Facilities Planning Programming Section, Public Works Division, Facilities Department, Marine Corps Base, Camp Lejeune). These buildings would be tested for asbestos containing materials and lead paint, which are likely to be found on buildings of this age. Maintenance costs for these existing 55-year old buildings continue to increase each year. The objectives of the proposed action are to provide the seven existing MCCSSS with a consolidated academic facility, to replace inadequate and overcrowded barracks, and to streamline Camp Lejeune's facility maintenance requirements.

The proposed action increases the productivity and utilization of the Camp Johnson area of Camp Lejeune. The purpose and need for each project within the proposed action are described below.

### **1.2.1 Academic Facility (P-172 and P-1033)**

The purpose of the proposed action is to provide a modern and centralized training facility for the seven existing MCCSSS at Camp Johnson. Currently the seven MCCSSS occupy thirty-four different 1940's era buildings scattered throughout the area. Adequate classroom buildings do not exist at the Camp Johnson or at mainside.

The continued wear and tear of prolonged and overcrowded use would escalate the deterioration of the existing 28 academic buildings. However, the proposed new facility would be an up-to-date and centralized academic training facility, which would be able to efficiently serve MCCSSS personnel and its training mission.

### **1.2.2 BEQs and Fitness Trails (P-151 and P-1011)**

The four new multi-story BEQs would provide a total of 201,500 ft<sup>2</sup> (18,700 m<sup>2</sup>) or 880 manspaces of adequate housing for personnel assigned at the MCCSSS in Camp Johnson.

Due to a current housing deficiency of 1,692 manspaces, permanent party Marines in some cases are being housed without adherence to the Minimum Standards of Adequacy (MSA). Military loading projections for the Camp Johnson area show a housing requirement of 2,690 manspaces. While the condition of some barracks is adequate in terms of loading, they require frequent renovations due to age. Manspace deficiencies and occasional reassignment due to periodic renovations have lead to overcrowded conditions. The result

is an erosion of morale and pride and a failure to create an atmosphere of cohesion among personnel. Morale and cohesion are pivotal aspects of the caliber of response in any military unit.

The proposed construction of four new BEQs would develop cohesion, unit integrity, improve *esprit de corps*, reduce overcrowding in the existing barracks, and improve the quality of life. The new BEQs would meet the MSA and the Commandant's intent of "COHESION". "COHESION" is defined as assigning Marines in the same unit into one location. The continued use of the existing 55-year old barracks and their attendant structures would increase their deterioration and maintenance costs. The demolition of the proposed twenty-five buildings would lower maintenance costs thereby streamlining Camp Lejeune's facility maintenance requirements. The fitness trails would provide an additional recreational area for off-duty personnel and help improve the quality of life and morale.

### **1.2.3 Simulated Warehouse Facility (LE0416R)**

The purpose of the proposed action is to provide a modern and simulated warehouse facility for the conduction of the Supply School's Basic Warehouse Course, as well as providing applied instruction warehouse areas, bay areas, practical application areas, classrooms, office spaces, etc., at Camp Johnson. Currently the Supply School's Basic Warehouse Course is conducted in functionally obsolete and inadequate facilities (M-112, M-113), which are 1940's era buildings. Such an adequate facility does not exist at the Camp Johnson or at mainside.

The continued wear and tear of prolonged and overcrowded use would escalate the deterioration of the existing two buildings. However, the proposed new facility would be an up-to-date and simulated warehouse facility, which would be able to efficiently support training of student supply personnel.

## **1.3 AUTHORIZATIONS REQUIRED FOR PROPOSED ACTION**

Camp Lejeune and its contractors would be in compliance with all federal, state, and local laws and regulations prior to any construction activity within the project area. All of the proposed projects would be consistent with the approved Coastal Management Program of the State of North Carolina (15 CFR 930). Because Onslow County is one of the twenty coastal counties under the jurisdiction of the Division of Coastal Management, a consistency determination from that state agency would be required prior to construction.

Demolition of all twenty-eight buildings associated with these projects would proceed according to Base Order 11350.2D, Refuse Disposal Practices. Prior to any construction, all appropriate local, state, or federal permits would be in order.

The Resident Officer in Charge of Construction for Marine Corps Base, Camp Lejeune ensures that all required permits or certifications for any project would be applied for or obtained prior to initiation of any demolition or construction activity.

## **1.4 ENVIRONMENTAL REVIEW PROCESS**

This EA addresses potential environmental impacts associated with the Proposed Action at Camp Johnson and their ancillary facilities, such as parking, driveway and utility

connections, recreational areas, and fencing. Also included in the proposed improvements is the demolition of the twenty-eight buildings found in Table 1-1. The EA has been prepared in compliance with Section 102 of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), as amended, the Council on Environmental Quality Regulations for Implementing NEPA (40 CFR Parts 1500-1508), and the Marine Corps Order P5090.2A, Environmental Compliance and Protection Manual.

An EA is a concise public document for which a federal agency is responsible. The document briefly provides sufficient evidence and analysis for that agency to determine whether it is necessary to prepare an Environmental Impact Statement or alternatively, a Finding Of No Significant Impact (FONSI). In this case, the United States Marine Corps is the lead agency for the Proposed Action and the EA.

On 10 August 2000, representatives from the U.S. Army Corps of Engineers, Wilmington District, participated in a scoping meeting with representatives from the Environmental Management Division, Facilities Management Division, and Public Works Division. During this meeting, it was determined by Base Facilities, the action sponsor, and MCB, Camp Lejeune environmental experts that the scope of environmental resource categories to be addressed by this EA, would include the physical environment (i.e., geology, topography and soils, water resources, air quality, noise, floodplains, hazardous materials management, and cultural resources) and natural resources (i.e., vegetation, fish and wildlife, endangered and threatened species, and wetlands). Socioeconomic categories addressed in the EA include population, utilities and infrastructure, land use, traffic and transportation.

It was also determined by the action sponsor and MCB, Camp Lejeune environmental experts during this meeting that the following environmental resource categories would have no significant impact by the proposed action: climate, unique natural areas, firing ranges, ammunition storage areas, or their respective surface danger zones. Further analysis of these items were excluded based on the following:

- The proposed action would not cause any change to the climate.
- Camp Johnson contains no known scenic and/or natural areas (MCB, September 1987).
- The proposed action would not impact any firing ranges, ammunition storage areas, or their respective surface danger zones (MCB, March 1987).

## **2.0 ALTERNATIVES, INCLUDING THE PROPOSED ACTION**

This section presents the alternatives and environmental impacts associated with each alternative. The evaluation of environmental impacts is based on information contained in Section 3.0, Affected Environment and Section 4.0, Environmental Consequences.

As required by the NEPA process, an EA must present “reasonable alternatives to the proposed action that would avoid or minimize adverse effects of these actions on the quality of the human environment”. This section describes alternatives considered and gives a detailed description of each project in the proposed action. For each project, the

Marine Corps evaluated several alternatives in order to arrive at the proposed action alternative.

The following alternatives were carefully evaluated for each project:

- Renovation of existing structure(s);
- Lease of off-base facilities in a nearby community; and
- Maintenance of the status-quo, or the no action alternative

These alternatives are addressed in greater detail below. None of the three alternatives listed above would achieve the purpose and need as described in Section 1.2. None of the three alternatives have any known environmental impacts to MCB properties. Environmental impacts to off-base properties have not been assessed in detail, but increased travel distances between work areas, storage areas, and living quarters could be expected to increase air pollution and consume more fuel.

## **2.1 DESCRIPTION OF ALTERNATIVES**

### **2.1.1 Renovation of Existing Structure(s)**

#### **2.1.1.1 Academic Facility (P-172 and P-1033)**

The currently utilized 28 academic buildings date back to the early 1940's and are scattered throughout Camp Johnson. Renovation of these 55-year old structures was determined not to be cost effective, as they are substandard electrically, structurally, and with respect to available space.

#### **2.1.1.2 BEQs and Fitness Trails (P-151 and P-1011)**

The renovation of the existing BEQs at Camp Johnson was determined to be too costly. The existing Camp Johnson BEQs have ganghead facilities (large common-area bathrooms). Renovation of these BEQs, to be in compliance with current BEQ standards regarding bathroom privacy, would require substantial rebuilding. The renovation would not alleviate the current manspace deficiencies at Camp Johnson.

#### **2.1.1.3 Simulated Warehouse Facility (LE0416R)**

The two currently utilized Storehouse Type SH-13 buildings (M-112, M-113) date back to the early 1940's and are in Camp Johnson. Renovation of these 55-60 year old structures was determined not to be cost effective, as they are substandard electrically, structurally, and with respect to available space.

### **2.1.2 Lease Off-base Facilities in Nearby Community**

#### **2.1.2.1 Academic Facility (P-172 and P-1033)**

A centralized 154,884 ft<sup>2</sup> (14,389 m<sup>2</sup>) training facility for the MCCSSS does not exist off base. Leasing smaller training facilities throughout the community would involve long commutes and would be time consuming. This would be counter-productive to efficient training.

### **2.1.2.2 BEQs and Fitness Trails (P-151 and P-1011)**

Availability of housing, high cost, and lowered efficiency eliminated the possibility of housing personnel in a hotel or apartments in the Jacksonville area. Provision of allowances for housing and subsistence (BAH/BAS) for off-base housing was deemed uneconomical and counter-productive to *esprit de corps*. The use of off-base housing would not provide a desirable campus-like educational situation.

### **2.1.2.3 Simulated Warehouse Facility (LE0416R)**

A centralized facility in support of training student supply personnel with applied instruction warehouse areas, bay areas, practical application areas (to include models), classrooms, office spaces, restrooms, site improvements, and utility connections does not exist off base. Leasing smaller training and supply facilities throughout the community would involve increased and long commutes and would be time consuming. This would be counter-productive to efficient training and would hinder beneficial conduction of the Supply School's Basic Warehouse Course.

### **2.1.3 No Action Alternative**

#### **2.1.3.1 Academic Facility (P-172 and P-1033)**

The no action alternative would continue the status quo and not meet the project purpose and need. The no action alternative would not provide a consolidated academic facility to support the MCCSSS mission to conduct formal resident training for Officers and Enlisted Marine Corps personnel. The MCCSSS would continue to be dispersed throughout the Camp Johnson area in functionally obsolete facilities.

Escalating maintenance costs combined with overcrowding conditions would severely jeopardize and restrict operational capabilities. This alternative would also result in degradation of quality of life for the Marines assigned to the Camp Johnson area. The no action alternative would have minimal environmental consequences.

#### **2.1.3.2 BEQs and Fitness Trails (P-151 and P-1011)**

The no action alternative would continue the status quo and not meet the project purpose and need. The no action alternative would require that personnel continue to be crowded into otherwise adequate quarters. The current manspace deficiency and overcrowded conditions at Camp Johnson prevent compliance with the policies and procedures of the BEQ Campaign Plan, which does not allow the Commandant's intent of "COHESION" to be met. "COHESION" is defined as assigning Marines in the same unit into one location. The Marine Corps' goal of meeting the Quality of Life criteria would not be met with the No Action Alternative.

Morale, retention, and *esprit de corps* would be reduced, without the proposed action. Existing BEQ facilities would continue to be heavily used with little or no time available for scheduled or cyclic maintenance. The no action alternative would have minimal environmental consequences.

### **2.1.3.3 Simulated Warehouse Facility (LE0416R)**

The no action alternative would continue the status quo and not meet the project purpose and need. The no action alternative would not provide a simulated warehouse facility to support training student supply personnel. The Supply School's Basic Warehouse Course would continue to be conducted in inadequate and functionally obsolete facilities.

Escalating maintenance costs combined with overcrowding conditions would severely jeopardize and restrict operational capabilities. This alternative would also result in degradation of quality of life for the Marines assigned to the Camp Johnson area. The no action alternative would have minimal environmental consequences.

### **2.1.4 Proposed Action Alternative**

The proposed action for Camp Johnson would improve the overall working and living conditions for all personnel attached to this area of MCB, Camp Lejeune. Elements and features of each proposed action are described in detail below. This alternative meets the need described in Chapter 1 and is the preferred alternative.

#### **2.1.4.1 Academic Facility (P-172 and P-1033)**

The proposed consolidated academic facility (P-172 and P-1033) would be located off the Montford Landing Road in the Montford Point Camp No. 1 Historic District, bordered by Catawba, Neuse, Chowan, and Pamlico roads. This facility consists of a 154,884 ft<sup>2</sup> (14,389 m<sup>2</sup>) multi-story, brick veneer consolidated training facility located in the Camp Johnson area. This modern facility would be designed to accommodate the students and existing personnel assigned to the MCCSSS.

Ancillary development includes parking, sidewalks, utility and telephone connections, driveway connections, landscaping, and exterior site and building lighting. Total impervious surface area associated with the academic facility construction (i.e., building and parking areas) would be approximately 6 ac (2.4 ha).

#### **2.1.4.2 BEQs and Fitness Trails (P-151 and P-1011)**

The four new BEQ buildings are proposed for construction east of Montford Landing and CO Street B roads at Camp Johnson (Figure 2) and consist of:

1. P-151 would consist of two multi-story 91,500 ft<sup>2</sup> (8,500 m<sup>2</sup>) brick veneer structures and a 3.5 mi (5.6 Km) fitness trail. It also includes demolition of sixteen existing buildings/structures (see Table 1-1 and Figure 2).

2. P-1011 would consist of two multi-story 109,800 ft<sup>2</sup> (10,200 m<sup>2</sup>) brick veneer structures and a 1.0 mi (1.6 Km) fitness trail. It also includes demolition of nine existing buildings (see Table 1-1 and Figure 2).

The new BEQs would house a combined total of 880 Marines to meet the minimum standards of adequacy. Associated site improvements include parking, driveway and utility connections, and recreation areas (basketball courts, picnic areas, and a physical fitness

greenway trail). Total impervious surface area associated with the BEQs construction (i.e., building and parking areas) would be approximately 13.6 ac (5.5 ha).

The proposed combined 4.5 mi (7.2 Km) fitness trail would begin and end at the new BEQs (Figure 2). The fitness trail is proposed to be 7 feet (2 meter) wide with an 18 foot (5.5 meter) clearing easement. An additional 5-foot (1.5 meter) wide area on either side of the trail would be cleared of shrubs but not trees. Total impervious surface area associated with the Fitness Trail construction would be about 3.8 ac (1.5 ha).

#### **2.1.4.3 Simulated Warehouse Facility (LE0416R)**

The proposed simulated warehouse facility (LE0416R) would be located north of the Waccamaw Road in the Montford Point Camp No. 1 Historic District. This facility would consist of a pre-engineered structure with metal roofing, a concrete floor slab with spread footings, grading, applied instruction warehouse areas, bay areas, practical application areas, classrooms, office spaces, restrooms, and site improvements. This modern facility would be designed to accommodate the student supply personnel in training and other assigned personnel. Ancillary development includes parking, sidewalks, utility and telephone connections, driveway connections, landscaping, and exterior site and building lighting.

## **2.2 COMPARISON OF ALTERNATIVES**

The proposed action is the only alternative which efficiently and effectively meet the purpose and need of providing a consolidated academic facility and simulated warehouse facility, replacing inadequate and overcrowded barracks, and streamlining Camp Lejeune's facility maintenance requirements in the Camp Johnson area. Table 2-1 provides a summary of environmental impacts for each alternative.

**Table 2-1. Summary of Environmental Impacts**

<b>Resource Impacted</b>	<b>No Action <u>Alternative</u></b>	<b>Proposed Action <u>Alternative</u></b>
Soils	none	23.9 acres (9.6 hectares)
Forested Land	none	19.7 acres (8 hectares)
Cultural Resources	none	3 buildings demolished
Threatened and Endangered Species	none	none
Installation Restoration Sites	none	none

### **3.0 AFFECTED ENVIRONMENT**

This section describes the existing environment that potentially would be affected by implementation of the proposed action and the no action alternative. Background information has been obtained from numerous sources that include studies and communications conducted by Camp Lejeune personnel and contractors, Marine Corps instructions, and federal and state regulations. These sources are cited where appropriate.

#### **3.1 PHYSICAL ENVIRONMENT**

##### **3.1.1 Geology, Topography, and Soils**

Camp Lejeune is located on the Atlantic Coastal Plain physiographic province of North Carolina. The surface geology of Camp Lejeune is part of a seaward thickening wedge of post-Triassic, primarily unconsolidated, siliclastic sediments and carbonate rocks that extends at least to the continental shelf break. These sediments were deposited and reworked during several cycles of coastal emergence and submergence from the Cretaceous period to the present (Horton and Zullo, 1991; LeBlond, 1997).

Elevations on the Camp Lejeune complex range from sea level to 72 feet (22 meter) above mean sea level. Surface relief ranges from marshlands to low, gently rolling hills further inland. Outside of creek and river floodplains of various widths, the terrain is still relatively flat and characterized by xeric sand flats and ridges or mesic to wet interstream flats and shallow depressions.

The elevation of the Camp Johnson study area ranges from sea level (New River and Northeast Creek) to about 23 feet (7.1 meter) above sea level. Most of the study area elevation is between 15 feet (4.6 meter) and 20 feet (6.1 meter) above sea level.

The soil survey for Onslow County indicates that the Baymeade Foreston Stallings soil association is predominant in the Camp Johnson portion of Camp Lejeune (USDA, 1992). Generally, this association of soils is found on nearly level to gently sloping areas, and ranges from somewhat poorly to well drained with loamy subsoil throughout. Four soil map units are mapped in the study area. They are: Baymeade-Urban Complex, 0-6% slopes (BmB), Baymeade fine sand 0-6% slopes (BaB), Wando fine sand 1-6% slopes (WaB), and Craven fine sandy loam (CrC), 4-8% slopes. The affected soil map units have not been classified either as hydric soils or prime farmland by the Natural Resources Conservation Service. See Figure 2.

Most soils within the Camp Johnson study area are disturbed. This area has over a 50-year history of intensive use with many paved surfaces, structures, and maintained grassy areas.

##### **3.1.2 Surface Hydrology**

Surface water drainage in the project vicinity is carried by a dendritic system of small, permanent and intermittent, unnamed streams, with associated floodplains of various widths. These streams flow into Scales Creek, Northeast Creek and/or New River. New

River flows into the Atlantic Ocean via New River Inlet, approximately 15 mi (25 Kms) from the study area.

### **3.1.3 Water Quality**

The North Carolina Department of Environment and Natural Resources (NCDENR) assigns classifications to the waters of the state based on the existing and expected “best usage” for which the waters must be protected. Northeast Creek is classified as SC HQW NSW from the NC Highway 24 bridge to the downstream side of the mouth of Scales Creek. Northeast Creek is classified as SC NSW from the downstream side of the mouth of Scales Creek to the New River. New River is classified as SC NSW. Scales Creek is classified as SC HQW NSW. Class SA refers to the best usage for the water, which is shell fishing for market purposes and any other usage specified by the "SB" and "SC" classifications; Class SB refers to the best usage for the water, which is primary recreation and any other usage specified by the SC classification. Class SC best usage is aquatic life propagation and survival, fishing, wildlife, and secondary recreation. HQW are high quality waters, which are rated as excellent based on biological and physical/chemical characteristics through division monitoring or special studies. NSW are nutrient sensitive waters which require limitations on nutrient inputs (NCDEHNR, 1992).

#### **3.1.3.1 Wastewater**

Camp Lejeune is permitted to discharge treated wastewater from its advanced wastewater treatment plant into the New River through a diffuser, under a Section 402 Clean Water Act permit. Section 402 sets up the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of wastewater treatment effluents from point sources into “waters of the US”. The advanced wastewater treatment plant, completed in 1998, is located at French Creek and discharges into the New River, just upstream from the mouth of French Creek. All wastewater from Camp Johnson facilities is piped to and treated at the new treatment plant.

The NC Division of Water Quality is currently working on a three-year data collection study to reclassify portions of the New River. This reclassification effort is a result of the City of Jacksonville and MCB Camp Lejeune improvements in wastewater management (USMC, 2000).

#### **3.1.3.2 Stormwater**

The Water Quality Act of 1987 expanded the NPDES coverage to include regulation of stormwater discharges. The base does not presently have a NPDES stormwater permit, although the application was filed with the NCDENR (NCDEHNR at the time) in 1994. Presently, Camp Lejeune stated that the status of the permit application is that it has been applied for. Camp Lejeune’s Stormwater Pollution Prevention Plan is under revision and to be completed in the near future in order to comply with Phase II requirements under Section 402(p) of the 1987 Clean Water Act Amendments. Further analysis/development of the Plan would occur when NCDENR issues a draft NPDES permit.

New construction on Camp Lejeune must include enough retention to compensate for increased runoff from roads, sidewalks, parking lots, and roofs of the new facilities. This requirement also helps ensure compliance with stormwater quantity and quality criteria

under the North Carolina Coastal Zone Management Program. Disturbance of more than one acre (0.4 ha) by construction activities, requires an erosion and sediment control plan, which must provide stormwater detention sufficient to reduce suspended particulates by 85 percent with a vegetated filter and 90 percent without vegetated filter, prior to discharge from the site [15A NCAC 2H.1003 (b) and NCAC 2H.1008(h)]. Stormwater collection systems with wet detention ponds are not allowed within 0.5 mi (0.8 Km) of Class SA waters. In addition, 15A NCAC 2H.1005(2)(b) prevents the direct discharge into Class SA waters from any activity with a built upon area (impervious or partially impervious) of greater than 25 percent which drains into these surface waters. These activities must utilize a stormwater control system that is an infiltration system with a vegetative filter and be designed in accordance with the code.

Camp Lejeune employs Best Management Practices (BMPs) for both quality and quantity controls for stormwater. These practices include detention/retention ponds where allowed, oil/water separators, check dams, and grassed swales.

### **3.1.4 Floodplains**

Executive Order 11988 sets forth the responsibilities of federal agencies in reducing the risk of flood loss or damage to personal property, minimizing the impact of flood loss, and restoring the natural and beneficial functions of floodplains. This order was issued in furtherance of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

Camp Lejeune has determined the extent of the 100-year floodplain and flood hazard areas on the complex (Figure 3). None of the 140.3 ac (56.8 ha) study area is located within the 100-year floodplain, as mapped by the United States Geological Survey (USGS) for Camp Lejeune (USGS, 1973). The 100-year floodplain boundary within the study area lies at an elevation of about 7 feet (2.1 m) above mean sea level (Personal Communication, 1 December 2000, Mr. Bobby Willis, Hydrologic Engineer, Planning Services Section, US Army Corps of Engineers, Wilmington District).

### **3.1.5 Air Quality**

The US Environmental Protection Agency (USEPA), under the requirements of the 1970 Clean Air Act as amended in 1977, 1987, and 1990, established primary and secondary standards for six air-borne pollutants: carbon monoxide, nitrogen dioxide, ozone, particulate matter, lead, and sulfur dioxide. The primary standards, known as National Ambient Air Quality Standards are intended to protect public health. The secondary standards are intended to protect the public welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of general welfare. For each pollutant, a geographic area can have one of two designations: attainment areas that meet the national standard and nonattainment areas that do not meet the national standard.

The North Carolina ambient air quality standards include all of the national standards, plus a standard for total suspended particulate matter (TSP) and particulate matter with a diameter of 10 microns or less (PM10).

The ambient concentrations of pollutants in Onslow County are well below national standards for the all six of the air-borne pollutants of concern under the Clean Air Act. Therefore, MCB, Camp Lejeune is in attainment. The project is in compliance with Section 176 (c) of the Clean Air Act, as amended. A conformity determination is not required because Onslow County is designated by the State of North Carolina as an attainment area.

### **3.1.6 Noise**

Noise issues are not a major environmental issue for the most of the mainside of Camp Lejeune because of the size and location of the base, the location of the high noise sources well within the base boundaries, and the noise abatement practices currently in place. The main sources of environmental noise include noise generated by helicopter and limited fixed wing aircraft operations at Marine Corps Air Station, New River and Marine Corps training activities, which include weapons and artillery fire (MCB, March 1987).

### **3.1.7 Cultural Resources**

Camp Johnson (Montford Point) was the site of the first African-Americans to wear the Marine Corps uniform, and all African-American Marines who served in World War II, received their training at this complex (Bowers and Simpson, 1998). The Montford Point Historic Districts (MP1, MP2, and MP2A) at Camp Johnson were determined eligible for the National Register of Historic Places by consensus between Marine Corps Base, Camp Lejeune and the North Carolina State Historic Preservation Officer (SHPO). The district's eligibility is based on its association with the African American Marine Training experience. The Montford Point area of Marine Corps Base, Camp Lejeune was established as a segregated African American Marine training cantonment in April 1942. The camp was greatly expanded beginning in 1943, and a number of new buildings were constructed. In 1974, the Corps renamed Montford Point "Camp Johnson" in honor of Sergeant Major (SM) Gilbert H. Johnson and the contributions of African-American Marines in World War II (Bowers and Dixon, 2000a, 2000b). A complete history of Montford Point is contained in the National Register of Historic Places Multiple Property Documentation Form entitled *World War II Construction at Marine Corps Base, Camp Lejeune, 1941-1945, Onslow County, North Carolina*.

Implementation of the proposed action or alternatives must comply with the National Historic Preservation Act (NHPA) of 1966, as amended. Cultural resources were evaluated for their significance based on criteria listed in the US Department of Interior regulations (36 CFR 60.4) and was accomplished through consultation with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation in accordance with NHPA.

In order to be in compliance with the NHPA, Camp Lejeune has conducted numerous surveys for historic and archaeological resources and has prepared a draft Historic Protection Plan, which provides guidance on management of historic properties on the complex.

According to the “Guidelines for Historic Buildings Management” Final Draft of May 2000, and prepared by Louis Berger & Associates, Inc, the Department of the Navy has established four categories for prioritizing treatment of buildings and structures (see Built Environmental Category Definitions in Appendix A).

By consensus between Marine Corps Base, Camp Lejeune and the North Carolina State Historic Preservation Officer, the Montford Point Camp No. 1 Historic District (Figure 4) as a *whole* is designated as a Category 1 resource worthy of long-term preservation and investment (see Appendix A) (Bowers and Dixon, 2000a and 2000b). The Category 1 rating for this historic district does not apply to individual buildings within the district. One of the twenty-eight buildings (M-109) proposed for demolition once the proposed action projects are completed, has been designated as a Category 2. Two other buildings (M-112, M-113) of the twenty-eight proposed for demolition once the proposed action projects are completed, have been designated as Category 3 resources (See Appendix A) (Bowers and Dixon, 2000a and 2000b).

Additionally, the proposed academic instruction building (phase 1, P-172 and phase 2, P-1033) and its ancillary development would be constructed within the existing outdoor theater site bordered by Pamlico, Catawba, Chowan, and Neuse Roads. Currently the outdoor theater site is a grassy area and does not contain any buildings or structures. However, since the outdoor theater site is located within the Montford Point Camp No. 1 Historic District, the proposed action would affect this historic district (Personal Communication, 30 November 2000, Mr. Richard Lewis, Archaeologist, US Army Corps of Engineers, Wilmington District).

### **3.1.8 Hazardous Materials Management**

Present activities that generate hazardous waste in the study area are all associated with maintenance. The types of waste generated are principally paints and adhesives. Additionally, several buildings to be demolished have tested positive for asbestos containing materials, and lead paint is also likely to be found on buildings of this age. All handling of these materials on Camp Lejeune is performed according to Department of the Navy and Marine Corps procedures to ensure compliance with the Resource Conservation and Recovery Act (RCRA) and other relevant statutes, rules, policies, and instructions.

This subchapter also addresses potential hazardous waste contamination areas being investigated as part of the Department of Defense Installation Restoration Program (IRP). This program was instituted to satisfy the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and RCRA for former and current hazardous waste sites.

#### **3.1.8.1 Hazardous Materials and Waste Management**

The users/generators of hazardous materials and waste generally order hazardous materials through the supply system. Some materials are purchased through outside

vendors. With the implementation of the Hazardous Substance Management System, the amount of hazardous materials purchased would be reduced; therefore, this would result in a decrease in hazardous waste, particularly waste generated by product expiration.

Most generators of hazardous materials and waste have satellite accumulation sites. About 80 percent of the accumulated hazardous waste is brought to the Environmental Management Divisions (EMDs) consolidation site, and then transferred to the storage facility at the Defense Reutilization and Marketing Office (DRMO). The other 20 percent is picked up on site and transferred to the DRMO facility.

### **3.1.8.2 Installation Restoration Program Sites**

There are no known contaminated areas in the study area (Personal Communication, 3 October 2000, Mr. Robert Lowder, Environmental Engineer, Environmental Quality Branch, Environmental Management Division, MCB, Camp Lejeune).

## **3.2 NATURAL RESOURCES**

### **3.2.1 Vegetation**

On 28 June and 3 October 2000, biologists from the US Army Corps of Engineers, Wilmington District, visited the study area at Camp Johnson. The academic instruction facility (P-172 and P-1033) would be constructed at the outdoor theater site within the Montford Point Camp No. 1 Historic District. The outdoor theater site is predominantly a grassy field, which appears to be occupied by non-native turf grasses. There are some scattered wax myrtle (*Myrica cerifera*), red cedar (*Juniperus spp.*), and cherry (*Prunus spp.*) growing along the perimeter of the site. The BEQs (P-151 and P-1011) are located within an area that is currently used for recreational purposes (i.e., ball fields, etc.). This construction site is dominated by non-native turf grasses with some scattered mixed pine (*Pinus palustris* and *Pinus taeda*) and hardwood (*Liquidambar styraciflua* and *Quercus spp.*) trees.

Along the unnamed tributary of Scales Creek (outside of the study area), the canopy trees in the palustrine forested wetlands include loblolly pine, tulip poplar, sweet gum, water oak (*Quercus nigra*), and black gum (*Nyssa sylvatica*). The moderate to dense under story of the forests and palustrine shrub scrub wetland community type contains a diverse species mix dictated by hydrologic regime and landscape position. Common shrubs found in this stratum or community type are titi (*Cyrilla racemiflora*), inkberry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), sweet bay (*Magnolia virginiana*), red bay (*Persea palustris*) and fetterbush (*Lyonia lucida*). Cane (*Arundinaria gigantea*), greenbriar (*Smilax spp.*), and poison ivy (*Toxicodendron radicans*) are also found in these habitats. Where the canopy is open enough, the herb stratum can be variable and may contain fern species such as cinnamon fern (*Osmunda cinnamomea*), royal fern (*O. regalis*), or netted chain fern (*Woodwardia areolata*), as well as numerous sedges (*Carex spp.*) and broomsedges (*Andropogon spp.*).

### 3.2.2 Fish and Wildlife

Wildlife species found within the study area are characteristic of vertebrate fauna of the southeastern coastal plain of North Carolina. A partial listing of wildlife species characteristic of the study area is contained in Table 3-1 (MCB, September 1987).

Table 3-1.  
List of Wildlife Species

Common Name	Scientific Name
Northern cardinal	<i>Cardinalis cardinalis</i>
Southern flying squirrel	<i>Glaucomys volans</i>
Long-tailed weasel	<i>Mustela frenata</i>
Tree frog	<i>Hyla spp.</i>
Carolina wren	<i>Thryothorus ludovicianus</i>
Gray fox <sup>1</sup>	<i>Urocyon cinereoargenteus</i>
Short-tailed shrew	<i>Blarina brevicauda</i>
Southern cricket frog	<i>Acris gryllus</i>
Eastern pipistrelle	<i>Pipistrellus subflavus</i>
Striped skunk	<i>Mephitis mephitis</i>
Southeastern shrew	<i>Sorex longirostris</i>
White-tailed deer <sup>1</sup>	<i>Odocoileus virginianus</i>
Least shrew	<i>Cryptotis parva</i>
White-footed mouse	<i>Peromyscus leucopus</i>
Silver-haired bat	<i>Lasiorycteris noctivagans</i>
Cotton mouse	<i>Peromyscus gossypinus</i>
Eastern mole	<i>Scalopus aquaticus</i>
Raccoon <sup>1</sup>	<i>Procyon lotor</i>
Big brown bat	<i>Eptesicus fuscus</i>
Golden mouse	<i>Ochrotomys nuttalli</i>
Star-nosed mole	<i>Condylura cristata</i>
Opossum	<i>Didelphis virginiana</i>
Gray squirrel <sup>1</sup>	<i>Sciurus carolinensis</i>
Hispid cotton rat	<i>Sigmodon hispidus</i>
Red bat	<i>Lasiurus borealis</i>
Bobwhite quail <sup>1</sup>	<i>Colinus virginianus</i>
Great Blue heron	<i>Ardea herodias</i>
Killdeer	<i>Charadrius vociferous</i>
Great egret <sup>1</sup>	<i>Casmerodius albus</i>
Wild turkey <sup>1</sup>	<i>Meleagris gallopavo</i>

<sup>1</sup>These species are also game resources.

### **3.2.3 Endangered and Threatened Species**

Federally listed endangered species are in danger of extinction throughout all or significant portions of their ranges. Threatened species are likely to become endangered species within the foreseeable future throughout all or significant portions of their ranges. The term “Species of Concern” informally refers to those species that the US Fish and Wildlife Service (USFWS) believe might be in need of concentrated conservation actions. “Species of Concern” receive no legal protection under the Endangered Species Act, and may not necessarily be proposed for listing as a threatened or endangered species. State listings define “Special Concern” as species whose breeding populations are in danger of extirpation in North Carolina but which may or may not be of concern over portions of their range outside North Carolina. Protected species with the potential to occur in the study area are found in Table 3-2. The endangered plant species, rough-leaved loosestrife, golden sedge, and Cooley’s meadowrue, require habitats that do not occur within the project area (Personal Communication, Ms. Karen Ogden, 21 November 2000, by Karen R. Ogden, Wildlife Biologist, Fish and Wildlife Branch, Camp Lejeune). Rough-leaved loosestrife occurs within the ecotones between pine/oak savannahs and pocosins. Cooley’s meadowrue and golden sedge share habitat. Cooley’s meadowrue requires some type of disturbance to maintain its open habitat. Golden sedge prefers the ecotone between pine savannahs and wet hardwood or hardwood/conifer forests.

Ms. Karen Ogden, Environmental Conservation Branch, EMD, conducted field surveys for federally threatened and endangered species in the study area. No known occurrences of the species in Table 3-2 exist in the project area (Personal Communication, Ms. Karen Ogden, 21 November 2000, by Karen R. Ogden, Environmental Conservation Branch, Biologist, Fish and Wildlife Branch, Camp Lejeune).

Table 3-2.  
List of Protected Species with the Potential to Occur in the Study Area

Common Name	Scientific Name	Federal Status	North Carolina Status
Eastern woodrat (Coastal plain Subspecies)	<i>Neotoma floridana floridana</i>	-	Threatened
Red-cockaded woodpecker	<i>Picoides borealis</i>	Endangered	Endangered
Bachmans sparrow	<i>Aimophila aestivalis</i>	Species of Concern	Special Concern
Henslows sparrow	<i>Ammodramus henslowii</i>	Species of Concern	Significantly Rare
Eastern painted bunting	<i>Passerina ciris ciris</i>	Species of Concern	Significantly Rare
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	Threatened
Peregrine falcon	<i>Falco peregrinus</i>	Threatened	Endangered
Black rail	<i>Laterallus jamaicensis</i>	Species of Concern	Significantly Rare
American alligator	<i>Alligator mississippiensis</i>	Threatened	Threatened
Southern hognose snake	<i>Heterodon simus</i>	Species of Concern	Significantly Rare
Mimic glass lizard	<i>Ophisaurus mimicus</i>	Species of Concern	Special Concern
Carolina gopher frog	<i>Rana capito capito</i>	Species of Concern	Special Concern
Croatan crayfish	<i>Procambarus plumimanus</i>	Species of Concern	-
Dismal Swamp green stink bug	<i>Chlorochroa dismalia</i>	Species of Concern	Significantly Rare
Carolina spleenwort	<i>Asplenium heteroresiliens</i>	Species of Concern	Endangered
Tennessee bladder-fern	<i>Cystopteris tennesseensis</i>	-	Endangered-Special Concern
Dwarf bladderwort	<i>Utricularia olivacea</i>	-	Threatened
Venus flytrap	<i>Dionaea muscipula</i>	Species of Concern	Candidate-Special Concern
Chapmans sedge	<i>Carex chapmanii</i>	Species of Concern	-
Savanna cowbane	<i>Oxyypolis ternata</i>	Species of Concern	-
Awnead meadow beauty	<i>Rhexia aristosa</i>	Species of Concern	Threatened
Swamp forest beaksedge	<i>Rhynchospora decurrens</i>	Species of Concern	Candidate
Thornes beaksedge	<i>Rhynchospora thornei</i>	Species of Concern	Endangered
Many-flower grass pink	<i>Calopogon multiflorus</i>	-	Endangered
Pondspice	<i>Litsea aestivalis</i>	Species of Concern	Candidate
Carolina goldenrod	<i>Solidago pulchra</i>	Species of Concern	Endangered
Spring flowering goldenrod	<i>Solidago verna</i>	Species of Concern	Threatened
Carolina asphodel	<i>Tofieldia glabra</i>	Species of Concern	Candidate
Rough-leaved loosestrife	<i>Lysimachia asperulifolia</i>	Endangered	Endangered
Carolina grass-of- parnassus	<i>Parnassia caroliniana</i>	Species of Concern	Endangered
Pineland plantain	<i>Plantago sparsiflora</i>	Species of Concern	Endangered
Yellow fringeless orchid	<i>Plantanthera integra</i>	-	Threatened
Torreys muhley	<i>Muhlenbergia torreyana</i>	-	Endangered
Cooleys meadowrue	<i>Thalictrum cooleyi</i>	Endangered	Endangered
Golden sedge	<i>Carex lutea</i>	Proposed	Endangered

Note: This list was compiled from USFWS County Species List for Onslow County, Heritage Program List of the Rare Plants for North Carolina, and The Natural Heritage Program List of the Rare Animals for North Carolina.

### 3.2.4 Wetlands

Jurisdictional waters of the US including wetlands occur on large portions of Camp Lejeune. Under Section 404 of the Clean Water Act, no discharge of dredged or fill material into wetlands and other "...waters of the US" (intermittent and perennial streams, ponds, etc.) (33 CFR 328) can occur without a Department of the Army permit from the US Army Corps of Engineers (USACE). Executive Order 11990, Protection of Wetlands, directs federal agencies to take action to protect wetlands and mandates review of proposed actions in wetlands through procedures established by NEPA. It is also Department of the Navy policy to avoid impacts to wetlands and to mitigate any unavoidable impacts.

Wetlands are areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands possess hydrophytic vegetation, hydric soils, and wetland hydrology.

On 28 June 2000, an initial field investigation of the project area by Base Facilities, the action sponsor and representatives from the US Army Corps of Engineers, Wilmington District, revealed that the original siting of the BEQs (P-151 and P-1011) contained Section 404 wetlands. This preliminary determination was verified by Geo-Marine, Inc. (Contract Number N62470-91-D-9280), which completed the wetland field investigation within the 140.3 ac (56.8 ha) study area on 26 July 2000. Geo-Marine, Inc. delineated the Section 404 wetlands using the routine on-site determination method as identified in the Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987). On 15 September 2000, Mr. Mickey Sugg, Regulatory Division, US Army Corps of Engineers, Wilmington District, signed the surveyed wetland plat (Personal Communication, 4 October 2000, Mr. Mickey Sugg, Biologist, US Army Corps of Engineers, Wilmington District). As a result of this information, Base Facilities moved the BEQs to their present location, which does not contain Section 404 wetlands.

Most of the jurisdictional areas were delineated by Geo-Marine, Inc. on 26 July 2000. Section 404 jurisdictional areas of the study area are depicted in Figure 5. Approximately 28.6 ac (11.5 ha) of palustrine forested wetlands (PF01) occur within the 140.3 ac (56.8 ha) study area. Approximately 1,895 ft<sup>2</sup> (176 m<sup>2</sup>) of these same wetlands occur at a point along a utility line in the north-central portion of the fitness trail.

Using the 1979 Cowardin et al., Wetland Community Classification, 21 categories of wetlands have been identified in the Camp Johnson area (NAVFACENGCOM, 1999). The categories comprising the majority of these wetland types are palustrine forested and palustrine shrub scrub. These areas are commonly described as bottomland or swamp forest and shrub scrub thickets. Other portions of the study area contain estuarine emergent and estuarine shrub scrub wetland types that are affected by differing amounts of tidal influence, depending upon elevation.

### **3.2.5 Coastal Zone**

Camp Lejeune is located within the coastal zone of North Carolina. North Carolina's Coastal Area Management Act (CAMA) establishes policies and objectives designed to guide the use and development of its coastal zone. Federal agencies are directed by Section 307 (c)(1) of the Coastal Zone Management Act Reauthorization Amendments to ensure that any actions be consistent, to the maximum extent practicable, with the enforceable policies of the North Carolina Coastal Management Plan.

The North Carolina Coastal Area Management Act of 1974 was passed in accordance with the federal Coastal Zone Management Act (CZMA) of 1972. North Carolina's CAMA required local governments in each of the 20 coastal counties in the state to prepare and implement a land use plan and ordinances for its enforcement. Upon approval by the North Carolina Coastal Resources Commission, the plan becomes part of the North Carolina Coastal Management Plan. Coastal zone management policies adopted in each plan must be consistent with established state and federal policies. Specifically, policy statements are required on resource protection; resource production and management; economic and community development; continuing public participation; and storm hazard mitigation, post-disaster recovery, and evacuation plans. Coastal zone management policies for Onslow County and the City of Jacksonville are summarized in Appendix B.

## **3.3 SOCIOECONOMIC CHARACTERISTICS**

### **3.3.1 Land Use**

Camp Lejeune is a military complex located entirely in Onslow County, NC. Bordered on the northeast by the City of Jacksonville, Camp Lejeune is centered in a rapidly growing region. It is approximately 50 mi (80 kms) from New Bern, Morehead City, and Wilmington. Since its purchase in 1940, Camp Lejeune has become the premier center for amphibious warfare training.

The developed areas of the study area are designated multi-use by the Base Master Plan Update (MCB, March 1987) and are depicted in Figure 6. The primary purpose of undeveloped land in the study area is to support military training. The secondary purpose is fish and wildlife management, as well as passive and active recreational activities, which include hiking and hunting (MCB, September 1987). The proposed action is consistent with the Master Plan.

### **3.3.2 Population**

Marine Corps Base, Camp Lejeune and New River Air Station are home to the largest concentration of Marines and Sailors in the world. The current total active-duty population of the complex is 36,398 officers and enlisted personnel. On-base civilian employees contribute an additional 4,816 personnel. While nearly 64,148 dependents of active-duty

personnel reside on the base, approximately 42,000 retirees and dependents reside in the Jacksonville area (MCB, Camp Lejeune, 1998).

### **3.3.3 Traffic and Transportation**

Highway access to the study area is provided by Montford Landing Road, which connects to NC 24 (Lejeune Boulevard). NC 24 (Lejeune Boulevard) connects to the main side MCB, Camp Lejeune.

### **3.3.4 Utilities and Infrastructure**

The existing water supply for Camp Johnson is provided by wells and through the Hadnot Point Water Treatment Plant. Camp Johnson has its own steam heating plant with an aboveground distribution system. Electrical service to the project area is provided by the local commercial utility. Wastewater is piped via the existing forced main to the advanced wastewater treatment plant located at French Creek. Solid waste refuse at Camp Lejeune is collected by a contractor and hauled to a new, recently opened “state-of-the-art” landfill on Piney Green Road.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 ENVIRONMENTAL IMPACT EVALUATION**

The following sections discuss the environmental impacts of the proposed action alternative and no action alternative. Direct and indirect impacts, long- and short-term effects, and irreversible and irretrievable resource commitments are discussed in relation to their significance. Mitigative measures are included where applicable.

### **4.2 PHYSICAL ENVIRONMENT**

#### **4.2.1 Geology, Topography, and Soils**

##### **4.2.1.1 No Action**

The no action alternative would have no effect on geology, topography, and soils.

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

The construction of the proposed action would cause minor impacts on topography at Camp Johnson. Soils over approximately 23.9 ac (9.6 ha) within the 140.3 ac (56.8 ha) study area would be disturbed. Erosion impacts would be temporary and would be minimized by employing applicable soil erosion and sedimentation control techniques (BMPs) at each construction site. Most of the disturbed soils would eventually be covered with impervious surfaces or vegetation, preventing long-term erosion. These minor impacts would be greatest in the areas of the proposed buildings, parking lots, and access roads.

State-approved erosion and sedimentation control plans would be obtained as required for each project disturbing one or more acres of land.

## **4.2.2 Surface Hydrology and Water Quality**

### **4.2.2.1 No Action**

The no action alternative would cause no additional impacts on water resources.

### **4.2.2.2 Proposed Action**

The proposed action has the potential to affect surface water resources by increased runoff, loss of groundwater recharge due to an increase in impervious surface, or degradation due to erosion and sedimentation. The potential for these impacts would be reduced by implementation of appropriate Best Management Practices (BMPs) for erosion, sedimentation, stormwater, etc. during construction of the Proposed Action. Parking and vehicle wash areas would be plumbed to the sanitary sewer, which reduces possible introduction of automobile pollutants in surface runoff. At present, infrastructure associated with all of the projects in the proposed action would require stormwater management using permitted systems in accordance with NCDENR regulations. However, the construction of these proposed facilities and improvements would not adversely affect surface waters. Appropriate BMPs would be used to ensure removal of suspended particulates prior to surface runoff entering adjacent waters, both during construction and during long-term operation of the facilities. In compliance with Base Order 6240.5B (26 April 1999), all fuel and other hazardous materials storage areas would be properly roofed, lined, and bermed, or otherwise isolated from rainfall and stormwater run-off, to prevent contamination of surface or groundwater.

## **4.2.3 Floodplains**

### **4.2.3.1 No Action**

The no action alternative would have no effect on floodplains in the Camp Johnson area.

### **4.2.3.2 Proposed Action**

None of the 140.3 ac (56.8 ha) study area is located within the 100-year floodplain, as mapped by the United States Geological Survey (USGS) for Camp Lejeune (USGS, 1973). The 100-year floodplain boundary within the study area lies at an elevation of about 7 feet (2.1 m) above mean sea level (Personal Communication, 1 December 2000, Mr. Bobby Willis, Hydrologic Engineer, Planning Services Section, US Army Corps of Engineers, Wilmington District). Therefore, the proposed action would not affect the 100-year floodplain.

## **4.2.4 Air Quality**

### **4.2.4.1 No Action**

Under the no action alternative, all operations currently ongoing in Camp Johnson by the MCCSSS would continue at the current levels; therefore, air quality conditions would not change.

### **4.2.4.2 Proposed Action**

The proposed action would have no adverse effect on ambient air quality. Dust emissions during demolition and construction activities would be minor and temporary. Dust prevention measures such as the use of water and good housekeeping practices would be used as necessary to control fugitive dust emissions. Routine sweeping and wetting would be used to suppress dust from soil surfaces, roadways on site, and material stockpiles.

During construction, mobile emissions sources such as construction vehicles, construction equipment, and private automobiles accessing the work area could contribute to air pollution. Standard management practices would minimize these temporary effects. Consequently, construction impacts to air quality would be short term and insignificant.

The proposed facilities themselves, would not adversely affect ambient air quality. The Proposed Action would not locate additional personnel to live in the study area. Therefore, air quality is not to be adversely affected by these changes.

## **4.2.5 Noise**

### **4.2.5.1 No Action**

The no action alternative would result in no change in activities at Camp Johnson, and noise conditions would remain the same.

### **4.2.5.2 Proposed Action**

Equipment and delivery vehicles used during construction and demolition activities would generate noise. Impacts from this noise would vary widely, depending on the construction phase, i.e., demolition, land clearing, excavation, erection of structural steel, etc. Noise levels would be greatest during initial phases of each construction stage or until the building was closed in; these phases would be short in duration. The noise generated would be similar to noise generated by other construction projects in the area. Small temporary increases in noise levels along truck delivery routes would also occur. However, for all phases of demolition and construction, the contractor(s) would minimize noise levels by compliance with the restrictions specified in the Camp Lejeune noise instructions. Noise levels at a given receptor location would depend on the types and numbers of equipment being operated, and the receptor's distance from the activity site. For the most part, receptors would be other Marine Corps facilities in the Camp Johnson area. No adverse impacts from noises are expected from the proposed action.

## **4.2.6 Cultural Resources**

### **4.2.6.1 No Action**

The no action alternative would result in no changes in existing conditions and would have no impacts to known historic or archaeological resources.

### **4.2.6.2 Proposed Action**

The construction of the BEQs and Fitness Trails (P-1011 and P-151) would have no impacts to known cultural resources of an historic or archaeological nature.

The construction of the consolidated academic instruction facility (phase 1, P-172 and phase 2, P-1033) would adversely affect the Montford Point Camp No. 1 Historic District. This academic instruction facility would be constructed at the outdoor theater site within the Montford Point Camp No. 1 Historic District. M-109, one of the twenty-eight buildings to be demolished is located within and contributes to the Montford Point Camp No. 1 Historic District (see Table 1-1). Construction of the simulated warehouse facility LE0416R would also adversely affect Montford Point Camp No. 1 District because M-112 and M-113 are to be demolished and they are located within and contribute to this historic district. Consultation between Marine Corps Base, Camp Lejeune; the Montford Point Marine Association, Inc; and SHPO has been initiated and is ongoing (See Appendix C, Correspondence). Minimization efforts and mitigation measures have been implemented. Further mitigation measures are to include photo documentation of buildings M-109, M-112, and M-113 prior to demolition, placement of a historic marker, and installation of interpretive media within the new facilities (pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations of Compliance with Section 106 codified at 36 CFR Part 800). A Memorandum of Agreement (MOA) between Camp Lejeune, the North Carolina State Historic Preservation Officer (SHPO), and the Montford Point Marine Association is being prepared to mitigate for adverse effects caused by the demolition of M-109, M-112, and M-113. The Advisory Council on Historic Preservation has been notified of the adverse effect and the MOA would be forwarded to the Council for ratification and acceptance. Public notification of the adverse effect to Montford Point Camp No. 1 would be accomplished by publishing this environmental assessment on the Camp Lejeune Web Page and through public notices in the media. Marine Corps Base, Camp Lejeune would carry out recommended actions from the Memorandum of Agreement to mitigate for adverse effects (demolition of M-109, M-112, and M-113) caused by this project before any structures are demolished.

## **4.2.7 Hazardous Materials Management**

### **4.2.7.1 No Action**

Under the no action alternative, the procedures for handling and storing hazardous materials would continue in full compliance with RCRA regulations.

#### **4.2.7.2 Proposed Action**

The construction of the academic training facility (P-172 and P-1033), the BEQs with Fitness Trails (P-151 and P-1011), and the simulated warehouse facility (LE0416R) would not have any adverse impacts to/from any Installation Restoration Site, Underground Storage Tanks Program Site, or Solid Waste Management Unit Site. Buildings to be demolished would be tested for asbestos containing materials and lead paint.

Demolition contracts for buildings would require the contractor to follow the following conditions (Personal Communication, 3 October 2000, Mr. Robert Lowder, Environmental Quality Branch, Environmental Management Division, MCB Camp Lejeune):

1. Soils that may be excavated during demolition of the buildings must be sampled if they are suspected of contamination. Any excavated contaminated soils, which tests above the "below detection level" (BDL) must be containerized and disposed of properly. The Environmental Quality Branch (EQB) shall be notified of these developments.
2. The EQB shall be notified if any monitoring wells are inadvertently damaged. The contractor must ensure that the wells are properly closed in accordance with North Carolina regulations and the appropriate documentation filed with the State. At the direction of EQB, the contractor would construct any replacement wells.
3. Hazardous materials including but not limited to lead, asbestos, PCB's, fluorescent light tubes and capacitors, electrical transformers, and mercury switches encountered during the demolition of buildings would be removed and disposed of in accordance with applicable Federal, State, and local regulations. Disposal of the building debris would take place either at the Base Landfill on Piney Green Road or a previously approved/permitted landfill site.

No adverse impacts from hazardous material are expected from the proposed action.

### **4.3 NATURAL RESOURCES**

#### **4.3.1 Vegetation**

##### **4.3.1.1 No Action**

The no action alternative would have no impacts on forest resources (vegetation). The Environmental Management Division of Camp Lejeune would continue to manage habitat in compliance with the Integrated Natural Resources Management Plan.

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

The proposed action would result in the elimination of some forest resources. These resources are small, discontinuous forested patches. Base Forestry would remove any merchantable timber.

Viewed in the context of Camp Lejeune as a whole, the amount of small, discontinuous forested patches that would be lost as a result of the proposed action is not considered significant.

#### **4.3.2 Fish and Wildlife**

##### **4.3.2.1 No Action**

The no action alternative would have no impacts to fish and wildlife. The Environmental Management Division of Camp Lejeune would continue to manage habitat in compliance with the Integrated Natural Resources Management Plan.

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

Construction of the proposed action at Camp Johnson may eliminate up to 19.7 ac (8.0 ha) of pine and hardwood trees (including some scrubs). The carrying capacity for all wildlife species associated with those habitats would be reduced. However, the loss should be minimized due to the near proximity of large tracts of undeveloped forested areas into which many of the species have the opportunity to relocate. In addition, within the Camp Johnson area the impacted forested areas are small patchy remnants due to the conversion of natural habitat to an urban landscape, which has been ongoing for over 55 years.

The construction of the proposed action would have no direct impacts to fish because BMPs would be strictly followed to prevent the entry of any sedimentation from the activities into surrounding water bodies. Also, to minimize any impact to water quality, proper management of stormwater runoff has been factored into all designs for the proposed action.

#### **4.3.3 Endangered and Threatened Species**

##### **4.3.3.1 No Action**

The no action alternative would have no impacts on endangered and threatened species. The Environmental Management Division of Camp Lejeune would continue to manage habitat in compliance with the Integrated Natural Resources Management Plan.

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

None of the Federally or State-listed endangered or threatened species listed in Table 3-2 are known to occur within the confines of the study area. The proposed action would not affect any endangered or threatened species or State-listed species because they are not present within the project area (Personal Communication, 21 November 2000, Ms. Karen Ogden, Wildlife Biologist, Environmental Conservation Branch, EMD, MCB Camp Lejeune). Additionally, Ms. Ogden indicated that no adverse effects to the goals of the Red-Cockaded

Woodpecker Recovery Plan (USMC, 1999) would result from implementation of the proposed action.

#### **4.3.4 Wetlands**

##### **4.3.4.1 No Action**

The no action alternative would have no impacts on jurisdictional waters (including wetlands).

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

Approximately 28.6 ac (11.5 ha) of palustrine forested wetlands (PF01) occur within the 140.3 ac (56.8 ha) study area. However, all Section 404 jurisdictional areas within the proposed construction project areas would be avoided. No adverse impacts to jurisdictional waters (including wetlands) would result from implementation of the proposed action.

Most of the fitness trail would pass through disturbed uplands. The fitness trail has been designed to avoid wetlands. In its present configuration, a very small section of wetland occurs at a point along a utility line in the north-central portion of the fitness trail. This small, palustrine forested wetland lies within a disturbed utility line corridor and comprises approximately 1,895 ft<sup>2</sup> (176 m<sup>2</sup>) of jurisdictional area. A Section 404 wetland permit would be obtained if required.

#### **4.4 SOCIOECONOMIC CHARACTERISTICS**

##### **4.4.1 Land Use**

###### **4.4.1.1 No Action**

The no action alternative would cause no change in land use patterns. Overcrowded housing and lack of sufficient, efficient work spaces would likely contribute to a degraded quality of life and be counterproductive to *esprit de corps*.

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

While the construction of the proposed action would increase the developed area in Camp Johnson, all of the proposed projects would be compatible with existing training, housing, and recreational uses. Use of these project areas would be consistent with past uses of at least portions of the sites and would not cause a long-term impact on adjacent land uses.

##### **4.4.2 Population**

###### **4.4.2.1 No Action**

The no action alternative would cause no change in population in the Camp Johnson area of Camp Lejeune.

#### **4.4.2.2 Proposed Action**

The proposed action would not increase the population of personnel assigned to the MCCSSS and quartered in Camp Johnson (Personal Communication, 10 August 2000, Mr. William L. Brant, Director, Installation Development Division, Installations and Environment Department, MCB Camp Lejeune).

#### **4.4.3 Traffic and Transportation**

##### **4.4.3.1 No Action**

The no action alternative would cause no change in traffic and transportation patterns in the Camp Johnson area.

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

The proposed action at Camp Johnson is designed to serve all assigned personnel working in Camp Johnson. Traffic on area roads would remain the same or be reduced by the proposed action because personnel would be quartered closer to their assigned work area.

#### **4.4.4 Utilities and Infrastructure**

##### **4.4.4.1 No Action**

The no action alternative would cause no adverse effects to the utilities and infrastructure of Camp Johnson.

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

Construction of the proposed facilities would require connections to the base potable water supply, the wastewater collection and treatment system, the heating system, and the electrical supply lines. The personnel stationed at the new facilities would generate solid and liquid waste and the new impervious surfaces would generate stormwater runoff. Wastewater from all the proposed facilities would be piped via the existing forced main to the new advanced wastewater treatment plant located at French Creek.

No adverse impacts to the utilities and infrastructure of the Camp Johnson area of Camp Lejeune are expected as a result of the proposed action.

#### **4.5 CUMULATIVE IMPACTS**

Cumulative impacts are defined in 40 CFR 1508.7 as “impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.” The NEPA process requires that these connected,

similar action impacts be analyzed. Camp Johnson is currently being assessed in the Capital Improvement Program to determine the best utilization of assets while preserving the historical significance of the area. The geographic area in which cumulative impact analysis was considered is located in the Camp Johnson area and shown in Figure 1.

A past project, the Advanced Wastewater Treatment Facility (P-974), consolidates all wastewater effluent from the Camp Johnson area and other facilities on MCB, Camp Lejeune. The Facility is located on a 20 ac (8.1 ha) site in the French Creek Area.

Other past projects near the study area include the rehabilitation of Building M-128 and the proposed Veterans Memorial Park off Montford Landing Road and NC Highway 24.

Future projects in the vicinity could impact one or all of the demographic or economic characteristics in the Camp Johnson complex. Future projects in the Camp Johnson vicinity may have impacts on certain elements of the environment but would be designed to comply with all existing applicable local, state and/or federal regulations and would minimize impacts where possible. Impacts would be minimized by use of BMPs and other mitigation measures, where appropriate, and would be addressed by appropriate NEPA analysis.

The construction of the consolidated academic training facility (P-172 and P1033) and the simulated warehouse facility (LE0416R) would adversely affect Montford Point Camp No. 1 Historic District. Consultation between Marine Corps Base, Camp Lejeune; the Montford Point Marine Association, Inc; and SHPO has been initiated and is (Appendix C). Minimization efforts and mitigation measures have been implemented. Further mitigation measures are to include photo documentation of buildings M-109, M-112, and M-113 prior to demolition, placement of a historic marker, and installation of interpretive media within the new facilities (pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations of Compliance with Section 106 codified at 36 CFR Part 800). Marine Corps Base, Camp Lejeune is carrying out recommended actions pursuant to Memorandum of Agreement, as required, to mitigate adverse effects (of demolition of M-109, M-112, M-113) before they are demolished.

The proposed action addressed in this EA, in conjunction with past, present, or reasonably foreseeable future projects is not expected to have any significant adverse cumulative impacts. Future Camp Johnson development would be subject to the requirements of and would be evaluated in accordance with the National Environmental Policy Act (NEPA).

#### **4.6 UNAVOIDABLE ADVERSE IMPACTS OF THE PROPOSED ACTION**

Construction of the proposed action at Camp Johnson may eliminate up to 19.7 ac (8.0 ha) of pine and hardwood trees (including some scrubs). The carrying capacity for all wildlife species associated with those habitats would be reduced. However, the loss should be minimized due to the near proximity of large tracts of undeveloped forested areas into which many of the species have the opportunity to relocate. In addition, within the Camp Johnson area the impacted forested areas are small patchy remnants due to the

conversion of natural habitat to an urban landscape, which has been ongoing for over 50 years.

The construction of the consolidated academic instruction facility (phase 1, P-172 and phase 2, P-1033) would adversely affect the Montford Point Camp No. 1 Historic District. This academic instruction facility would be constructed at the outdoor theater site within the Montford Point Camp No. 1 Historic District and one building (M-109) of the twenty-eight buildings to be demolished is located within and contributes to the Montford Point Camp No. 1 Historic District (see Table 1). Construction of the simulated warehouse facility (LE0416R) would also adversely affect Montford Point Camp No. 1 Historic District because two buildings (M-112, M-113) to be demolished are located within and contribute to this historic district. Therefore, a total of three buildings out of the twenty-eight buildings to be demolished are located within and contribute to the Montford Point Camp No. 1 Historic District. As coordinated with the North Carolina State Historic Preservation Officer (SHPO), Marine Corps Base, Camp Lejeune is carrying out recommended actions pursuant to Memorandum of Agreement, as required, to mitigate for adverse effects (concerning demolition of M-109, M-112, and M-113) caused by this project before any structures are demolished.

Minor short-term impacts such as increased dust emissions, noise levels, waste, and traffic that would occur as part of construction activities are unavoidable. Land disturbing operations such as grading and clearing do increase the likelihood of erosion and siltation into nearby streams. These potential impacts would be minimized or avoided by use of BMPs as mentioned in Section 4.2.2.

#### **4.7 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

Short-term uses of the environment are those that occur over a period of less than the life of the proposed action, i.e. construction. Long-term uses include those impacts that would persist for a period of five years or more, or for the life of the proposed action, i.e. operation.

Activities addressed in this EA that would be categorized as short-term include the construction of all proposed facilities and the fitness trail. The operational activities would be repeated on a regular basis, even though many would be of short duration. Some even less frequent activities would continue over the life of the facilities.

From a long-term perspective, the proposed action would provide the seven existing MCCSSS with a consolidated academic facility and a simulated warehouse facility, replace inadequate and overcrowded barracks, and streamline Camp Lejeune's facility maintenance requirements.

The cost or negative impacts of implementing the proposed action are:

- Covering 23.9 acres (9.6 ha) of soils and

- The effect on the Montford Point Camp No. 1 Historic District.

#### **4.8 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

The construction of the proposed new facilities and the demolition of the twenty-eight buildings at Camp Johnson would expend fuel, materials, and labor. Operation of the new facilities would require energy to heat, cool, and light the buildings. The installation of modern equipment and more energy efficient systems in the newly constructed buildings would offset some of the long-term energy costs resulting from the new construction.

#### **5.0 RELATIONSHIP OF THE PROPOSED ACTION TO FEDERAL, STATE, AND LOCAL PLANS, POLICIES, AND CONTROLS**

The implementation of the proposed action would comply with existing federal regulations and with state, regional, and local policies and programs. The federal acts, executive orders, and policies with which the Proposed Action must demonstrate compliance include:

- NEPA
- RCRA
- Clean Water Act
- Clean Air Act
- Endangered Species Act
- National Historic Preservation Act
- Coastal Zone Management Act
- Executive Order 11990, Protection of Wetlands
- Executive Order 11988, Floodplain Management
- Executive Order 12898, Environmental Justice
- Executive Order 13045 Protection of Children from Environmental Health Risks
- Executive Order 11593, Protection and Enhancement of the Cultural Environment
- Executive Order 13175, Indian Tribal Governments
- Executive Order 12372, Coordination with State and Regional Agencies

#### **5.1 NEPA**

NEPA is the National Environmental Policy Act of 1969. This EA has been prepared in accordance with Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Part 1500-1508) and Marine Corps NEPA procedures (MCO P5090.2A). Executive Order 11991 of 24 May 1977, directed the CEQ to issue regulations to Federal Agencies for the implementation of the procedural provisions of NEPA. These are binding for all federal agencies.

#### **5.2 RCRA**

The management of solid and hazardous waste at MCB, Camp Lejeune is conducted in compliance with Subtitles C and D of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Marine Corps' Environmental Compliance and Protection Manual (MCO P5090.2A). Implementation of the proposed action would not impact programs in effect at the complex. All activities at MCB, Camp Lejeune involved with solid and hazardous materials management are in compliance with federal, state, and local requirements.

### **5.3 CLEAN WATER ACT**

The Clean Water Act of 1977 (which amends the Federal Water Pollution Act of 1972) and subsequent amendments were designed to assist in restoring and maintaining the chemical, physical, and biological integrity of the nations waters. The act covers the discharge of pollutants into navigable waters, wastewater treatment management, and protection of relevant fish, shellfish, and wildlife. Congress also passed the Water Quality Act of 1987 to address the excessive levels of toxic pollutants still found in some waters.

Camp Lejeune discharges treated wastewater under an NPDES permit and manages stormwater according to Section 402 of the Clean Water Act. To comply with Phase II requirements, a Stormwater Pollution Prevention Control Plan is under development by the Base.

### **5.4 CLEAN AIR ACT**

The Clean Air Act of 1970 and subsequent amendments specify regulations for control of the nations air quality. Federal and state ambient air standards have been set for each criteria pollutant. The 1990 amendments require federal facility compliance with all applicable substantive and administrative requirements for air pollution control. The proposed action would not cause violations of any of the air quality criteria. A conformity analysis is not required because MCB, Camp Lejeune is located in Onslow County, an attainment area.

### **5.5 ENDANGERED SPECIES ACT**

The Endangered Species Act of 1973 and subsequent amendments provide for the conservation of threatened and endangered species of animals and plants, as well as the habitats that support them. No threatened or endangered species are known to occur within the sites designated for construction or demolition; therefore, the proposed action would have no known long- or short-term effects on threatened or endangered species.

### **5.6 NATIONAL HISTORIC PRESERVATION ACT**

The National Historic Preservation Act (NHPA) was passed in 1966 to protect, enhance, and preserve any property that possesses significant architectural, archaeological, historical, or cultural characteristics. Executive Order 11593 of 1974 further defined the obligations of federal agencies in this regard.

Section 106 of this act requires the head of any federal agency with jurisdiction over a federally financed action, prior to the expenditure, to take into account the effect of the action on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places.

## **5.7 COASTAL ZONE MANAGEMENT ACT**

Federal agencies are directed by Section 307(c)(1) of the Coastal Zone Management Act Reauthorization Amendment to ensure that their actions be consistent with state coastal zone management policies and programs to the maximum extent practicable (See Appendix B). Camp Lejeune is located within one of the 20 coastal counties of North Carolina. The North Carolina Coastal Area Management Regulations contain policies and objectives designed to guide the use and development of its coastal zone. Compliance to the extent possible with relevant state and federal regulatory programs constitutes consistency with these polices.

The proposed action in this EA would require a consistency determination from the North Carolina Division of Coastal Management.

## **5.8 EXECUTIVE ORDERS**

### **5.8.1 Executive Order 11990 (Protection of Wetlands)**

This order of 24 May 1977, directs federal agencies to take action to protect wetlands on their property and mandates review of proposed action on wetlands through procedures established by NEPA. The impact of the proposed projects on wetlands is reviewed within this EA. The proposed action has been designed to avoid impacts to wetlands.

### **5.8.2 Executive Order 11988 (Floodplain Management)**

This order sets forth the responsibilities of federal agencies in reducing the risk of flood loss or damage to personal property, minimizing the impact of flood loss, and restoring the natural and beneficial functions of flood plains. The order was issued in furtherance of the National Flood Insurance Act of 1968 and the Flood Disaster Protections Act of 1973. The Proposed Action would not impact the 100-year floodplain.

### **5.8.3 Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations)**

Order 12898 was signed in 1994, and directs all federal departments and agencies to incorporate environmental justice considerations in achieving their mission. Each federal department and agency is to accomplish this by the conduction of 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, nor

subject communities to discrimination under such actions because of their race, color, or national origin.

The proposed action would not impact minority communities or low-income populations because there are no such populations present at MCB, Camp Lejeune. The Department of Housing and Urban Development statutory definition for very low income was used as the test for identifying low-income populations at MCB, Camp Lejeune.

#### **5.8.4 Executive Order 13045 (Protection of Children from Environmental Health Risks)**

Executive Order 13045 went into effect in 1997. This order mandates Federal agencies to identify and assess environmental health and safety risks that may disproportionately affect children and to ensure that the Federal policies, programs, activities, and standards address these health and safety risks. The proposed action would not impact schools, housing areas, or gathering places of children. Therefore, there would be no known short- or long-term impacts on the health and safety of children.

#### **5.8.5 Executive Order 11593 (Protection and Enhancement of the Cultural Environment)**

Executive Order 11593 was signed 13 May 1971. Refer to Section 5.6 for discussion of cultural resources.

#### **5.8.6 Executive Order 13175 (Indian Tribal Governments)**

Executive Order 13175 was signed 6 November 2000. This order mandates Federal agencies to establish regular and meaningful consultation with tribal officials in the development of Federal policies that have tribal implications to strengthen the United States government-to-government relationships with Indian tribes and to reduce the imposition of unfunded mandates upon Indian tribes. The proposed action would not impact Indian tribes because they are not present at MCB, Camp Lejeune.

### **5.9 OTHER STATE AND LOCAL PLANS AND POLICIES**

The Marine Corps pursues close planning relations with local and regional agencies and planning bodies of adjacent cities, counties, and states for cooperation and resolution of mutual land use issues or environmental problems. In addition, coordination may be made with state and regional planning clearinghouses as established pursuant to Executive Order 12372 of 1982. Information from relevant state, regional, and local agencies was reviewed during preparation of this EA.

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## APPENDIX A

### BUILT ENVIRONMENTAL CATEGORY DEFINITIONS

Guidelines for Historic Buildings Management” Final Draft of May 2000, and prepared by Louis Berger & Associates, Inc, the Department of the Navy has established four categories for prioritizing treatment of buildings and structures.

**Category 1 - *Long-term Preservation.*** Elements of the historic built environment assigned to Category 1 are those that are most worthy of long-term preservation and investment. Category 1 resources are assigned the highest priority for maintenance and repair in accordance with the Secretary of the Interior’s Standards, and for continuing or adaptive use in carrying out the installation’s or activity’s mission.

**Category 2 - *Consideration for Long-term Preservation.*** Category 2 buildings and structures possess sufficient significance, continuing or adaptive use potential, or other value to merit consideration for long-term preservation. Category 2 buildings and structures should be preserved over the long run if doing so does not seriously impede the installation’s or activity’s mission or cost an unduly amount of funds.

**Category 3 – *Consideration in Planning and Decision Making.*** Category 3 buildings and structures possess sufficient significance or continuing or adaptive use potential to merit consideration in planning and decision making. However, they are accorded lower priority because their integrity has been comprised, preservation would be require investment disproportionate to their significance, or they constitute only minor aspects of a larger entity, and their removal would not materially comprise the significance of the entity of which they are a part.

**Category 4 – *Other Aspects of Built Environment.*** Category 4 is assigned to buildings and structures (1) that are determined not eligible for listings in the National Register; (2) are significant for reasons relating to events less than 45 years in the past, unless of exceptional importance; (3) are determined to be noncontributing elements within a property listed in or eligible for listing in the National Register; or (4) are World War II temporary buildings subject to the terms of a DoD Programmatic Agreement for World War II temporary buildings. A Category 4 building or structure need not be maintained for historic preservation purposes; however, replacement or “exterior” alteration of a Category 4 building or structure that is located within a National Register historic district or adjacent to a historic district or individually significant building may require review to ensure that such replacement or exterior alteration does not diminish the significance or character of the historic district or individual building.

**APPENDIX B**

**COASTAL ZONE MANAGEMENT POLICY CATEGORIES  
ON SLOW COUNTY**

**LAND USE/COASTAL ZONE MANAGEMENT POLICY CATEGORIES**

<b>Resource Protection Polices</b>	<b>Applicability to Project</b>
Soils: Septic tank use Wetlands protection	Not applicable Consistent
Flood Hazard Area: Coordinate development in floodplain with NCDCM, FEMA, COE	Consistent
Groundwater/Protection of Potable Water Supplies: Support stormwater runoff regulations Coordinate activities involving USTs installed/abandoned Coordinate ground water protection with adjacent counties	Consistent Not applicable Not applicable
Manmade Hazards: Coordinate UST regulations with state Expansion of Albert Ellis Airport per Master Plan No bulk storage of hazardous materials in urban areas No toxic waste dump sites in county or on military property No disposal of toxic wastes in county	Not applicable Not applicable Not applicable Not applicable Not applicable
Stormwater Runoff: Support state storm water runoff regulations Support control of agricultural runoff Support control of forestry runoff Design projects to limit possible stormwater runoff to estuarine waters	Consistent Not applicable Not applicable Consistent
Cultural/Historic Resources: Protect significant architectural/archaeological/cultural resources	Consistent (through expected Memorandum of Agreement with SHPO)
Industrial Impacts on Fragile Areas	Not applicable
Package Treatment Plant Use	Not applicable
Marina and Floating Home Development	Not applicable
Mooring Fields	Not applicable
Off-Road Vehicles - No restrictions	Not applicable
Development of Sound and Estuarine Islands	Not applicable

<b>Resource Protection Polices</b>	<b>Applicability to Project</b>
Bulkhead Construction	Not applicable
Sea Level Rise	Not applicable
Maritime Forests: Encourage acquisition of high quality tracts for conservation Development of residential nature	Not applicable Not applicable
Estuarine System: Develop water dependent uses along Estuarine Shoreline AEC	Not applicable
Protection of Outstanding Water Resources at Stump Sound and Bear Island	Not applicable
Water quality Management in White Oak and Cape Fear Basins	Not applicable
<b>Resource Production Polices</b>	
Community Attitude Toward Resource Management and Production	Not applicable
Recreation Resources: Support access to waterfront/shoreline Apply for grant funds Priority to repairing/replacing damaged/destroyed shoreline access facilities Support year-round recreation program Allow golf courses if meet buffer requirements and other regulations	Not applicable Not applicable Not applicable Not applicable Not applicable
Peat or Phosphate Mining	Not applicable
<b>Economic and Community Development Polices</b>	
Community Attitude	Not applicable
Water Supply: Support extension of central water service to areas not classed as rural Support enforcement of potable water supplies Support grant funding to construct/expand public/private water systems Support construction of adequately sized water systems	Not applicable Not applicable Not applicable Not applicable
Sewer System: Provide water systems to county residents and study expansion Secure grant funding Support Acreated@ wetlands for treating waste effluent	Not applicable Not applicable Not applicable
Solid Waste: Support operations of new county landfill	Not applicable

<b>Resource Protection Polices</b>	<b>Applicability to Project</b>
Support education on recycling and waste reduction Support siting of recycling centers in all areas except conservation Support clean community projects	Not applicable Not applicable Not applicable
<b>Energy Facility Siting and Development:</b> Review any applications for electric-generating plants Support preparation of an EIS for new energy-related facilities	Not applicable Not applicable
<b>Community Facilities</b>	Not applicable
<b>Redevelopment of Developed Areas</b>	Consistent
<b>Land Use Regulation/Urban Growth Patterns:</b> Encourage urban development near existing urban areas Permit residential development to meet market needs Enforce existing regulations	Not applicable Not applicable Not applicable
<b>Estuarine Access</b>	Not applicable
<b>Types and Locations of Desired Industry</b>	Not applicable
<b>Commitment to State and Federal Programs</b>	Not applicable
<b>Assistance to Channel Maintenance</b>	Not applicable
<b>Assistance in Interstate Waterways</b>	Not applicable

<b>Resource Protection Polices</b>	<b>Applicability to Project</b>
Transportation: Identifies specific roadway improvements Identifies specific improvements to Albert Ellis Airport	Consistent Not applicable
Land Use Trends: Development of "404" wetlands Expansion of central water and sewer areas Increasing traffic on US 17 and NC 24 Continued support of economic and industrial development Development of a new solid waste disposal facility Support the US MCAS New River and Albert Ellis Airport Intergovernmental cooperation Expansion of county-wide recreational opportunities Reduction of the counties substandard dwelling units Low elevation and sea level rise Regulation of non-point sources of water pollution Control of development in fragile areas Regulation of corporate farms and increased agricultural runoff	Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Consistent Not applicable Not applicable
<b>Continuing Public Participation Policies</b>	
Storm Hazard Mitigation	Consistent

**APPENDIX C**  
**CORRESPONDENCE**

