

United States
Department of
Agriculture

Soil
Conservation
Service

Rm 535, Federal Bldg.
310 New Bern Ave.
Raleigh, NC 27601

August 14, 1987

Julian I. Wooten, Director
Natural Resources and Environmental Affairs Division
United States Marine Corps
Camp Lejeune, NC 28542-5001

Dear Julian,

Enclosed is a draft of the executive summary's text. Please review and return it to me by August 24, 1987.

I realize this quick response puts added pressure on your time, but the year is drawing to a close and we need to get this into the printers. I hope you will find the material satisfactory. I have tried not to alter the meaning of the draft you returned earlier to me.

I will be hard to reach the week of August 17 - 21. If you need to contact me try this number (919) 667-7108, it is our area office in Wilkesboro.

Sincerely,

Andrew R. Smith

Andrew R. Smith
Public Affairs Specialist

Enclosures

CC: David Combs

*Julian -
on 17 Aug 87
Danny, Charles &
Peter were provided
w/ a copy for
review as per Danny
and to be ready
for discussion w/ you
on Monday. Danny*

United States
Department of
Agriculture

Soil
Conservation
Service

Regional Office
1111 North 1st Avenue
Washington, D.C. 20540

August 14, 1967

Mr. J. B. ...
National Resources and Environmental Affairs Division
United States Forest Service
Washington, D.C. 20540-0000

Dear Sir:

I have been advised that you are currently in the process of reviewing the application for a permit to construct a dam on the ...

I will be happy to provide you with any information you may need. If you need any further information, please contact me at the above address.

Sincerely,

Arthur H. ...
District Engineer

J. David ...
District Engineer

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Camp Lejeune, NC 28542-5001

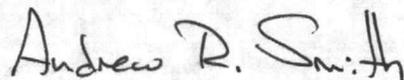
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Sincerely,



Andrew R. Smith
Public Affairs Specialist

Enclosures

CC: David Combs

United States Department of Agriculture
Conservation Division
Washington, D.C. 20250

August 14, 1957

Julian I. Wood, Director
Bureau of Wildlife Management
United States Fish and Wildlife Service
Washington, D.C. 20250

I am pleased to hear that you are planning to visit the
Bureau of Wildlife Management in Washington, D.C. during
your trip to the United States. I would be glad to
arrange for you to visit the Bureau and to meet with
the staff members who are interested in your work.

I will be happy to arrange for you to visit the Bureau
of Wildlife Management in Washington, D.C. during your
trip to the United States.

Sincerely,
David L. Combs

David L. Combs
Director

David L. Combs
Director

DRAFT TEXT FOR EXECUTIVE SUMMARY

Mission

Established in 1941 and named in honor of Lieutenant General John A. Lejeune, Camp Lejeune is the home of the II Marine Amphibious Force; 2nd Marine Division, FMF; 2nd Force Service Support Group (Rein), FMF; 6th Marine Amphibious Brigade, FMF; COMCABEAST, Marine Corps Air Station, New River; Naval Hospital; and Naval Dental Clinic.

Camp Lejeune's mission is to provide housing, training facilities, and logistic and administrative support for the assigned units. Even though amphibious tactics are emphasized, the Base prepares and maintains Marine units for almost all facets of military operations.

As World War II approached, the Marine Corps began to search for a suitable site on the East Coast for amphibious warfare. In 1939 land was bought in Onslow County, North Carolina. In 1941 construction of the Base began.

Most of the land was privately owned. The woodlands had been denuded of quality timber. There was no fire protection and the wildlife habitat was generally poor.

Part of the Base Commander's responsibility is to ensure that the Base's facilities, including its natural resources, are maintained at the highest standards. This means the protection and conservation of the Base's soil, water, forest and wildlife resources. It also means using these natural resources to their fullest potential for the benefit of the United States and its people.

Since government ownership was finalized in 1941 the Base has implemented a forestry program in 1946, a wildlife management program in 1966, an environmental program in 1972, and recently a multi-use management plan. Environmental conditions for flora, fauna and humans have improved steadily under the Corps direction.

About 90 percent of the land area within Camp Lejeune is being used for military training. However, the nature of military training carried out within the complex generally does not require the exclusive use of the land area. The secondary use of natural resources management has been practiced and promoted. This balance between military priorities and natural resources management is consistent with national policies and regulations applicable to federal land management.

The Natural Resources and Environmental Affairs Division (NREAD) has the primary responsibility for helping the Base Commander carry out his natural resource responsibility.

DRAFT TEXT FOR EXECUTIVE SUMMARY

Mission

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Resources

Camp Lejeune consists of approximately 85,000 acres. About 73 percent of the area is covered by forests.

The Base is typical of the Coastal Plain with an elevation of sea level to 70 feet above. The topography ranges from flat, savannah-like to gently rolling. Deep wooded forests characterize the better upland sites while most of the watercourses are headed by inaccessible swamps and pocosins.

The principal watershed drainage areas are New River, Northeast Creek, Southwest Creek, Wallace Creek, French Creek, Bear Creek, Freeman Creek, and Duck Creek.

There are 25 different soil series ranging from sandy loams to fine sand and muck. The dominant series is sandy loam. Some of the soil is low in organic matter and fertility, but most produce abundant crops of timber, forage and mast for wildlife.

Vegetation on the unimproved areas of the Base is typical of the southeastern Coastal Plain. Pure pine stands, consisting of loblolly and longleaf pine are found on the drier upland soils. Pure pond pine stands are found on the hydric (wet) soils. Pine-hardwood and pure hardwood stands are found in the streamside zone and on the more productive soils. Bottomland hardwood types are found on the floodplains of the major creeks.

The Base has an abundant population of native game and non-game wildlife species. There are also several endangered and threatened species. Wildlife serves as a natural barometer to the quality of the general environment of Camp Lejeune.

Forest Management

Camp Lejeune has 72,000 acres of forest land. It is the dominant land use and the Base's primary natural resource. Nearly 60,000 acres of the forest land are considered to have commercial value. Another 11,500 acres are included in impact areas and surface danger zones that keep the timber from being harvested. The remaining acreage is considered to have no commercial value.

The Director of NREAD is responsible for managing this land in accordance with public law, Defense Department (DOD) directives and Marine Corps orders. Camp Lejeune's Forestry Program meets these requirements through the principles of multiple use, sustained yield, and even-aged management. The objective is to provide an even flow of forest related benefits such as a quality training area, timber, wildlife habitat, outdoor recreation, and aesthetics.

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More than 16,000 cords of pine wood and 6,000 cords of hardwood are allowed to be harvested under the Camp's Forestry Program. Proceeds from the sale of forest products are used to fund the annual operational expenses of the forest management program. As required by law, 40 percent of the net proceeds is annually returned to the Onslow County School System. Any remaining proceeds are used to fund forest management programs at other Marine Corps and Navy installations.

For record keeping purposes, the Camp is divided into 55 compartments. Each compartment contains approximately 1,050 acres. These are further subdivided into contiguous stands of similar timber type and age. Silvicultural treatments are applied on a stand by stand basis. Five to six compartments are analyzed for needed management annually.

In 1983, a multi-resource inventory was conducted in cooperation with the US Forest Service. It provides basic details for determining required silvicultural treatment and general instructions for implementing them.

Typical forest management projects carried out by the NREAD staff include:

Timber Sales

Timber sales are monitored to ensure contractual compliance.

Prescribed Burning

Prescribed burning helps reduce wildfire hazards, improve wildlife habitat, and controls undesirable species. Camp Lejeune's forestland is normally burned on a five year cycle. Ranges, impact areas, and quail management areas are burned annually -- while the Red-Cockaded Woodpecker habitat areas are burned on a two-or-three year cycle.

Insect and Disease Control

Insect and disease control requires constant monitoring since problems vary greatly from month to month. Early detection and a rapid response are essential for limiting losses.

Timber Stand Improvement

Timber stand improvement maintains the health and productivity of the forest by removing overstocked and unmerchantable trees. This is normally accomplished by mechanical precommercial thinning.

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Reforestation

Reforestation helps sustain the forest benefits by creating a balanced age distribution. About 400 acres of pine and 160 acres of hardwood should be regenerated annually.

Wildfire Control

The incidence of wildfire within Camp Lejeune depends on the severity of the weather and the intensity of military training. Monitoring weather conditions and manning fire towers during periods of high fire danger maintain the Camp's ability to respond quickly when wildfires occur.

Forest Access Road Maintenance

Multiple-use management of the forest resource requires an adequately maintained access road system. Roads are stabilized by planting perennial grasses. The roads also provide wildlife food and cover.

Wildlife Management

Camp Lejeune's wildlife management program provides optimum environmental conditions for all present wildlife, including game, nongame, endangered, and threatened species. It is consistent with the Camp's primary land use -- military training. The program is also in compliance with all Base, state and federal regulations concerning wildlife.

An aggressive game management program on the Base, provides ample hunting, fishing, and trapping opportunities for the sportsman. Approximately 850 white-tailed deer, 30 wild turkeys, and three black bears are harvested annually. In addition, numerous small game species such as bobwhite quail and rabbit are hunted. Twelve fresh water ponds offer the angler excellent fishing for bass, bluegill, and Channel catfish.

A well dispersed system of wildlife openings and food plots has been established at Camp Lejeune. These sites benefit both game and nongame species by enhancing cover and supplementing the natural food supply. Also, the openings provide excellent vantage points for observing wildlife in their natural surroundings.

Protection of endangered and threatened species on Camp Lejeune is done in accordance with the Environmental Policy Act of 1968 and the Endangered Species Act of 1973. Principal endangered and threatened species found here are the Red-Cockaded Woodpecker, American Alligator, Green Sea Turtle, and the Atlantic Loggerhead Sea Turtle. In addition, the Finwhale, Humpback Whale, Right Whale, and Sei Whale use the waters off the coast in their yearly migration routes.

Soil and Water Management

Whenever vegetation is damaged and soil disturbed, a potential for soil erosion and water management problems exists. The movement of troops and heavy equipment can easily create potential erosion situations. Many of the soil types found within the Camp have properties that make them erode easier than other soils. This aspect of the soil only complicates the erosion problem further.

Controlling soil erosion however is not a difficult task if proper management techniques are followed. The NREAD has developed with the help of the USDA Soil Conservation Service a Technical Guide. In the Technical Guide are specific criteria for designing and maintaining erosion control practices.

For the soil and water conservation goals to be achieved it will take the cooperation of a number of officials involved in the development, use, and maintenance of real property. The control and prevention of water pollution and soil erosion is the single most demanding environmental requirement for the Command.

New Initiative

The Multiple-use Natural Resources Management Plan represents no radical changes, but rather, a logical progression built on past success. There are two initiatives which will have beneficial effect on natural resources management at Camp Lejeune.

Land-Use Management System (LUMS)

LUMS is being developed to alleviate deficiencies in current land management and land use planning methodologies. The deployment of new mobile weapons systems has intensified the Base's land use activities. At the same time environmental protection legislation has also increased. These two events occurring simultaneously have greatly increased the need for closer resource management. LUMS will provide it.

Wildlife Habitat Appraisal Guidelines

This guide is a field evaluation procedure designed to measure the quality of the habitat for a particular species of wildlife. It is designed not only to rate the quality of the existing vegetative cover, but also accounts for the effects of forest management practices on the habitat. The guide identifies weak or missing elements as a basis for making improvements. By using this habitat appraisal system, the NREAD can define habitat needs for the featured species and determine if it can be improved through forest and wildlife management techniques.

Soil and Water Management

The soil and water management program is designed to improve the productivity and sustainability of agricultural systems. This involves a range of activities including soil conservation, water conservation, and the use of modern agricultural technologies. The program aims to reduce soil erosion, improve water use efficiency, and increase crop yields. Key components of the program include soil testing, irrigation management, and the adoption of conservation tillage practices. The program also focuses on educating farmers and rural communities about best practices for soil and water management. This is achieved through extension services, training courses, and the distribution of educational materials. The program is implemented in partnership with local government agencies, agricultural extension services, and private sector organizations. This ensures that the program is tailored to the specific needs and conditions of the target communities. The program has been successful in improving soil health and water availability in many areas, leading to increased agricultural productivity and improved livelihoods for farmers. The program is currently being expanded to reach more farmers and communities, and to address emerging challenges such as climate change and soil degradation. The program is a key component of the national agricultural development strategy, and is essential for ensuring the long-term sustainability of the agricultural sector.

Non-Initiative

The non-initiative program is designed to provide support and resources to farmers and rural communities who are unable to access the services provided by the other programs. This includes providing technical assistance, financial support, and access to markets. The program aims to help farmers improve their productivity and income, and to reduce their vulnerability to risk. Key components of the program include providing training and technical assistance to farmers, providing financial support through micro-finance institutions, and providing access to markets through the establishment of farmer cooperatives and marketing associations. The program also focuses on providing information and advice to farmers on best practices for crop production and risk management. This is achieved through extension services, training courses, and the distribution of educational materials. The program is implemented in partnership with local government agencies, micro-finance institutions, and private sector organizations. This ensures that the program is tailored to the specific needs and conditions of the target communities. The program has been successful in providing support and resources to many farmers and rural communities, leading to improved productivity and income. The program is currently being expanded to reach more farmers and communities, and to address emerging challenges such as climate change and market volatility. The program is a key component of the national agricultural development strategy, and is essential for ensuring the long-term sustainability of the agricultural sector.

Conclusions

Camp Lejeune has long been a leader in Department of Defense natural resource management. In fact, this is the fifth Long Range Management Plan that has been written for Camp Lejeune, though the present addition is by far the most complex and comprehensive ever produced.

Camp Lejeune has been the recipient of the Secretary of Defense Conservation Award in 1968, 1973 and 1975. In 1972, 1974, 1975, 1978, and 1980 Camp Lejeune won the Navy/Defense Environmental Protection Award.

Camp Lejeune was among the first Department of Defense installations to seek formal consultation with the US Fish and Wildlife Service to establish guidelines for compliance with the Endangered Species Act. It was also the first installation to develop, in cooperation with the US Forest Service, a multiple-use inventory that is the basis for the Multiple-use Natural Resources Management Plan.

The highlights presented in this document are intended to help interested persons understand how the management of natural resources and other environmental management issues will be addressed at Camp Lejeune.

Conclusions

The results of the present study indicate that the use of the proposed method for the determination of the concentration of the analyte in the sample is highly accurate and precise. The method is simple and easy to perform, and it does not require the use of expensive reagents or equipment. The method is also suitable for the determination of the concentration of the analyte in a wide range of samples. The results of the present study are in good agreement with those obtained by other methods. The method is therefore recommended for the determination of the concentration of the analyte in the sample.

The authors are grateful to the Ministry of Education and Scientific Research, Baghdad, Iraq, for the financial support of this work.

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