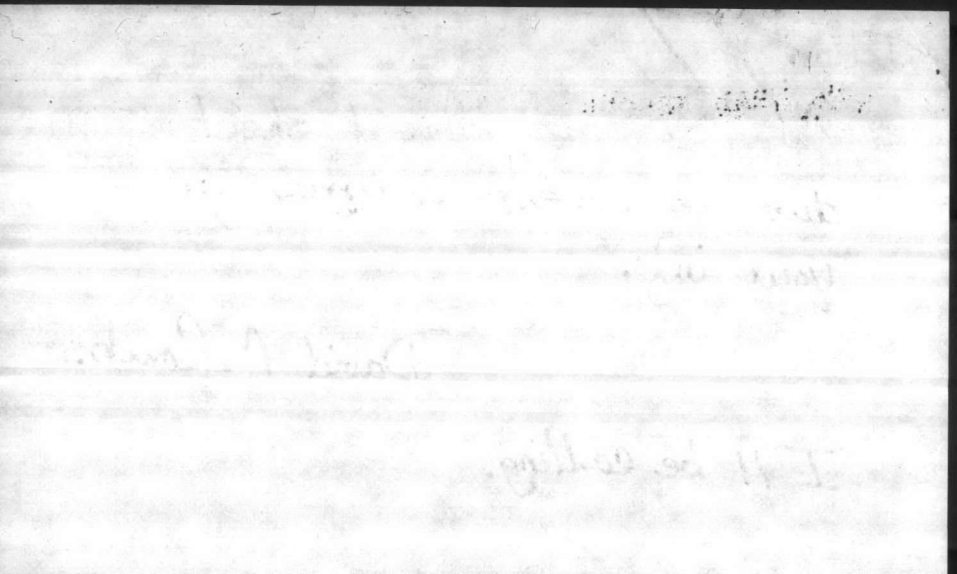


Julian,

Attached are revised sheets
due to recent changes for
your info.

David A. Combs

I'll be calling.



NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS
Marine Corps Base
Camp Lejeune, North Carolina 28542

9 July 87
Date

From: Director
To: Peter ^{ML}
Subj: Charles ^{CDP}

Danny ^{DW}
Nat Res mgmt Plan

See attached changes

Jehin

File

Not Res Mgnt Plan

APPENDIX C. COOPERATIVE AGREEMENTS

1. USDA FOREST SERVICE C-1
2. NORTH CAROLINA FOREST SERVICE C-5
3. ONSLOW SOIL AND WATER CONSERVATION DISTRICT . . C-8
4. DEPARTMENT OF INTERIOR, US FISH AND WILDLIFE
SERVICE AND NORTH CAROLINA WILDLIFE RESOURCES
COMMISSION C-11

1. LANDS BELONGING TO THE UNITED STATES

2. NORTH CAROLINA FOREST SERVICE

3. BUREAU OF LAND MANAGEMENT AND WATER CONSERVATION DISTRICT

4. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT AND WATER CONSERVATION DISTRICT, NORTH CAROLINA FOREST SERVICE AND NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

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SERVICE ^{AND} C-11
- 5. NORTH CAROLINA WILDLIFE RESOURCES COMMISSION . ~~C-15~~

Together →

APPENDIX C - COOPERATIVE AGREEMENTS

1. USDA FOREST SERVICE C-1
2. NORTH CAROLINA FOREST SERVICE C-2
3. ONGLOW SOIL AND WATER CONSERVATION DISTRICT C-3
4. DEPARTMENT OF INTERIOR, US FISH AND WILDLIFE SERVICE C-11
5. NORTH CAROLINA WILDLIFE RESOURCES COMMISSION C-15

APPENDIX F. BIOLOGICAL OPINIONS FOR ENDANGERED AND THREATENED SPECIES AT MARINE CORPS BASE CAMP LEJEUNE

1.	MECHANIZED INFANTRY TRAINING/RED-COCKADED WOODPECKER PROTECTION GUIDELINES (FEBRUARY 1, 1979)	F-1
2.	FOREST MANAGEMENT PROGRAM/RED-COCKADED WOODPECKER PROTECTION GUIDELINES (APRIL 3, 1979)	F-4
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4.	AMMENDED MECHANIZED INFANTRY TRAINING/RED-COCKADED WOODPECKER PROTECTION GUIDELINES (JUNE 12, 1979)	F-12
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8.	GUIDELINES AND PROCEDURES FOR PROTECTING SEA TURTLES AND WHALES IN OFFSHORE WATERS (JUNE 27, 1983)	F-29
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11.	FOREST FIRE SUPPRESSION/ENDANGERED RED-COCKADED WOODPECKER PROTECTION GUIDELINES (JUNE 5, 1985)	F-50
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17	THREATENED SEA TURTLE MANAGEMENT GUIDELINES	
16	WOODPECKER PROTECTION GUIDELINES	
15	FOREST FIRE SUPPRESSION AND MANAGEMENT GUIDELINES	
14	THREATENED SEA TURTLE PROTECTION GUIDELINES	
13	THREATENED GREEN SEA TURTLE PROTECTION GUIDELINES	
12	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	
11	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	
10	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	
9	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	
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3	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	
2	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	
1	AMERICAN LIAISON AND LOGSHEAD, AND GREEN SEA TURTLE PROTECTION GUIDELINES	

APPENDIX F. BIOLOGICAL OPINIONS FOR ENDANGERED AND THREATENED SPECIES *at Marine Corps Base Camp Lejeune*

1. ~~PROPOSED MANAGEMENT ACTIVITIES FOR THE ENDANGERED RED-COCKADED WOODPECKER~~ *Management Guidelines (23 March 1987)* F 1
2. ~~POTENTIAL EFFECTS OF THE SUSPENSION OF NIGHTLY BEACH MONITORING OF SEA TURTLE NESTING ACTIVITIES FROM GNSLOW BEACH NORTH TOWER TO BROWNS INLET ON THREATENED SEA TURTLES~~ *management Guidelines (13 December 1985)*
3. ~~FOREST FIRE SUPPRESSION~~ *Endangered Red Cockaded Woodpecker protection (5 June 1985)*
4. ~~EFFECTS OF PROPOSED RANGE IMPROVEMENTS AT THE K-2 IMPACT AREA ON THE RED-COCKADED WOODPECKER~~ *K-2 impact area ^{improvement} guidelines (6 December 1984)*
5. ~~EFFECTS OF PROPOSED RAILROAD REPAIR PROJECTS ON ENDANGERED AMERICAN ALLIGATOR~~ *Comp Lejeune Railroad construction recommendations (4 December 1984)*
6. ~~EFFECTS OF MILITARY TRAINING ON SEA TURTLES AND WHALES IN OFFSHORE WATERS~~ *(27 June 1983)*
7. ~~EFFECTS OF MARINE CORPS TRAINING ACTIVITIES ON ENDANGERED BROWN PELICAN (now delisted) AND AMERICAN ALLIGATOR, Loggerhead ~~seaturtle~~ and Green Sea turtle~~ *protection Guidelines (10 December 1981) and ^{Threatened} ~~Guidelines~~*
8. ~~EFFECTS OF AMPHIBIOUS TRAINING ON GREEN SEA TURTLE~~ *protection guidelines (23 February 1981)*
9. ~~SOUTHERN PINE BEETLE CONTROL~~ *project / Red Cockaded Woodpecker protection (2 March 1980)*
10. ~~AMMENDED MECHANIZED INFANTRY TRAINING EFFECTS ON RED-COCKADED WOODPECKER~~ *protection Guidelines (June 12, 1979)*
11. ~~EFFECTS OF AMPHIBIOUS TRAINING ON ATLANTIC LOGGERHEAD SEA TURTLE~~ *protection Guidelines (April 19, 1979)*
12. ~~FOREST MANAGEMENT PROGRAM~~ *Red-Cockaded Woodpecker protection (April 3, 1979)*
13. ~~MECHANIZED INFANTRY TRAINING EFFECTS RED-COCKADED WOODPECKER~~ *protection Guidelines (Feb 1, 1979)*

Guidelines & Procedures for protecting

Arrange according to dates

Oldest to newest - They want it that way because of adding new opinions.



5200
NREAD
1 May 1987

Mr. Andy Smith
US Department of Agriculture
Soil Conservation Service
310 New Bern Avenue, Room 535
Raleigh, North Carolina 27601

Dear Sir:

Enclosed you will find a revised copy of the Marine Corps Base,
Camp Lejeune Natural Resources Management Plan Executive
Summary for your consideration.

If I can be of further assistance, please advise at telephone
extensions 451-1690/2083.

Sincerely,

JULIAN I. WOOTEN
Director

Encl:
(1) Executive Summary

10/1/54

Mr. J. Edgar Hoover
Director
Federal Bureau of Investigation
400 ...
Washington, D.C.

Dear Sir:

I am in receipt of your letter of the 10th ...
and in reply to advise you that ...
the Bureau is currently conducting an investigation ...
concerning the activities of ...

Very truly yours,
Special Agent in Charge

Wm. J. ... (D)

I. MISSION

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

The mission of Marine Corps Base, Camp Lejeune, is as follows:

a. Provide housing, training facilities, logistic support and certain administrative support for Fleet Marine Force units and other units as assigned.

b. Conduct specialized schools and other training as directed.

c. Receive and process personnel, as assigned, and conduct individual combat training as directed.

In addition to the above assigned mission, the base is charged with the responsibility to ensure that management provides for the following:

a. Protection and conservation of the watershed and natural landscapes, soil, beneficial forest and timber growth, and fish and wildlife as vital elements of an optimum natural resources program.

b. Utilization and preservation of natural resources in the combination best serving the present and future needs of the United States and its people.

c. Optimum ecological development of land and water and controlled public access to such areas.

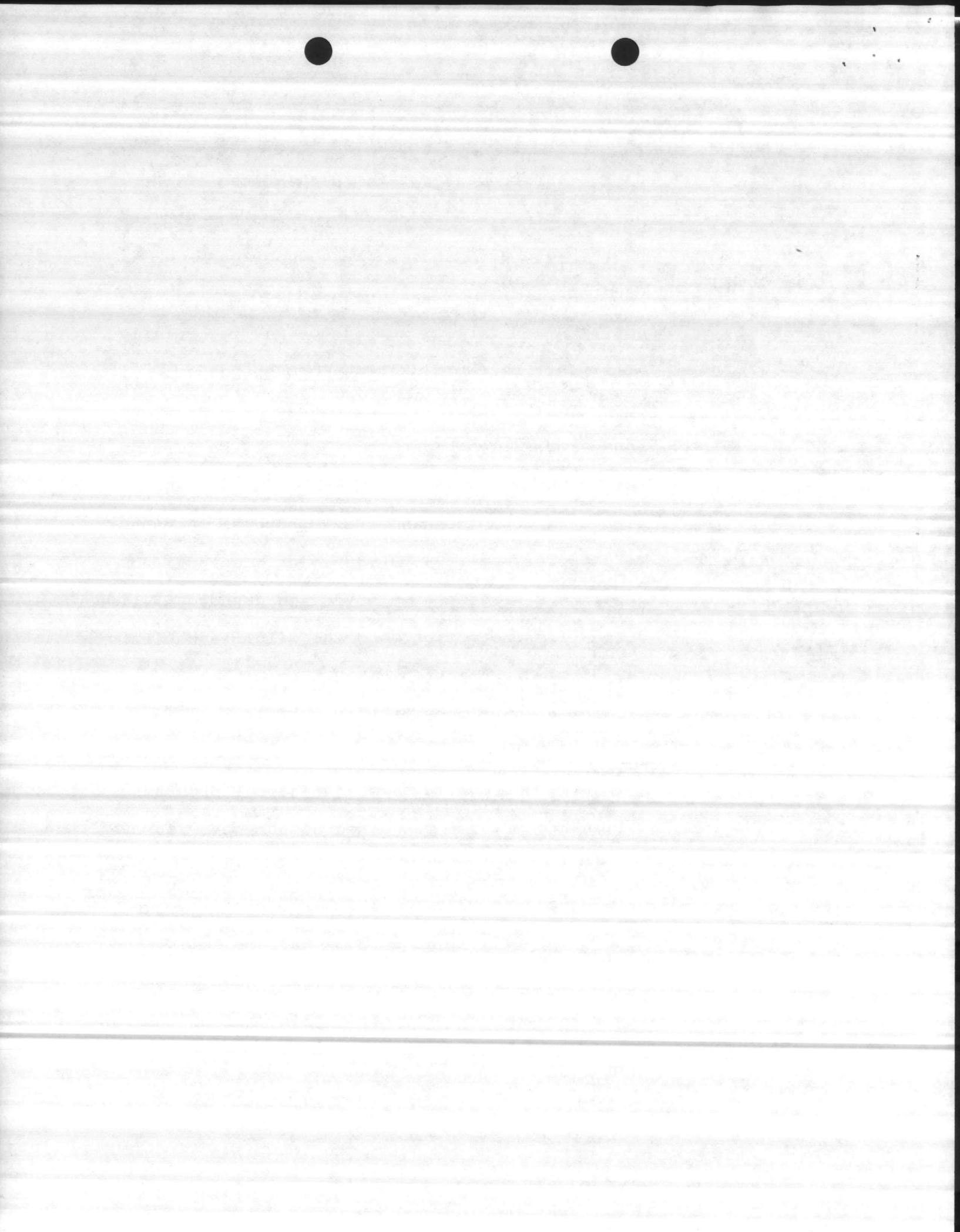


d. Active participation of activity personnel assigned to resource management positions in assessing the impact of activity programs on the natural environment within the confines of the activity and on public and private resources outside the confines of the activity which may be affected by planned actions.

II. History and Geography

When war clouds began to spread over Europe and the Pacific, with World War II imminent, the U. S. Marine Corps began to search for an areas suitable for amphibious warfare training on the East Coast. Land acquisition began in 1939 with the first stage of development beginning early in 1941. Privately owned tracts ranged in size from less than an acre to several thousands of acres. There were approximately 6,000 acres of cleared land with most of the woodland having been cut over and denuded of timber. There was little or no fire protection, and the wildlife habitat generally was poor. Since government ownership was finalized in 1941, with the implementation of the forestry program in 1946, wildlife management program in 1966, environmental program in 1972, and with the implementation of multiple-use management programs, environmental conditions for flora, fauna and humans have improved steadily.

The topography of the base is typical coastal plain ranging in elevation from sea level to 70 feet above. Surface relief ranges from flat, savannah-like to gently rolling. Deep wooded forests characterize the better upland sites while most of the branches and watercourses are headed by inaccessible swamps and pocosins.

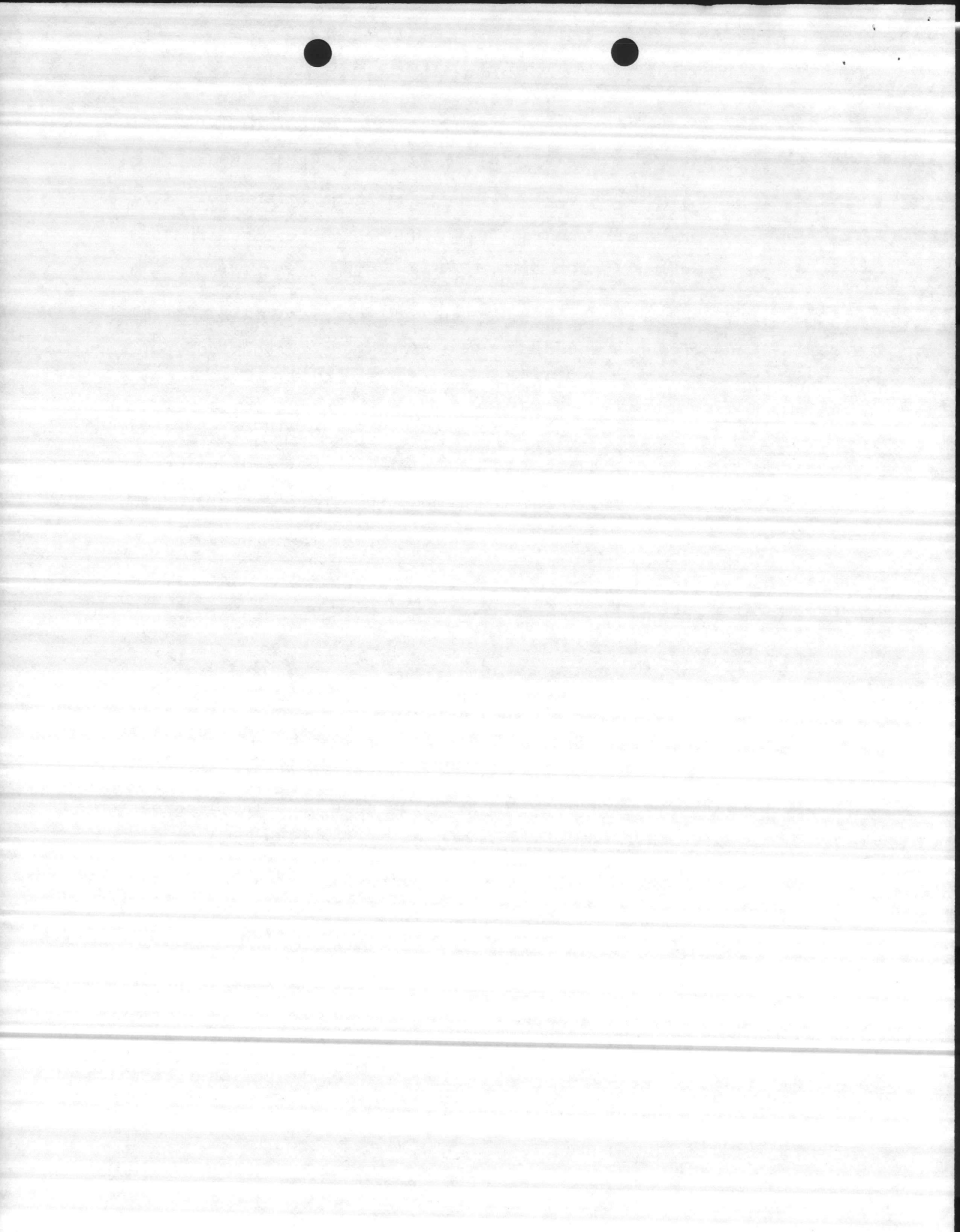


The principle watershed drainage areas are New River, Northeast Creek, Southwest Creek, Wallace Creek, French Creek, Bear Creek, Freeman Creek and Duck Creek. There are 25 different soil series of varying structures ranging from sandy loams to fine sand and muck, but the soil type generally is classified as sandy loam. Some of the soil is low in organic matter and fertility, but most of the land produces abundant crops of timber, forage and mast for wildlife.

Located just below the 35th parallel of latitude, Camp Lejeune has a mild climate. Summers are from mild to hot and humid. Winters are fairly mild with the temperature frequently dropping below freezing. Snow is the exception rather than the rule. Average annual precipitation is 52 inches while the average temperature is 61 degrees. There is a long growing season of approximately 230 days.

III. THE RESOURCE

Camp Lejeune consists of approximately 85,000 acres, with 90% of the land area being utilized for military training by various units, classroom, administrative uses, housing, recreation, maintenance, supply, support, medical and storage areas. The nature of military training carried out within the complex generally does not require the exclusive use of the land area. Historically, the secondary use of natural resources management has been practiced and promoted. The balance between military mission priorities on land use and implementation of multiple-use objectives for natural resources management appears to be consistent with national policies and regulations applicable to federal land management.



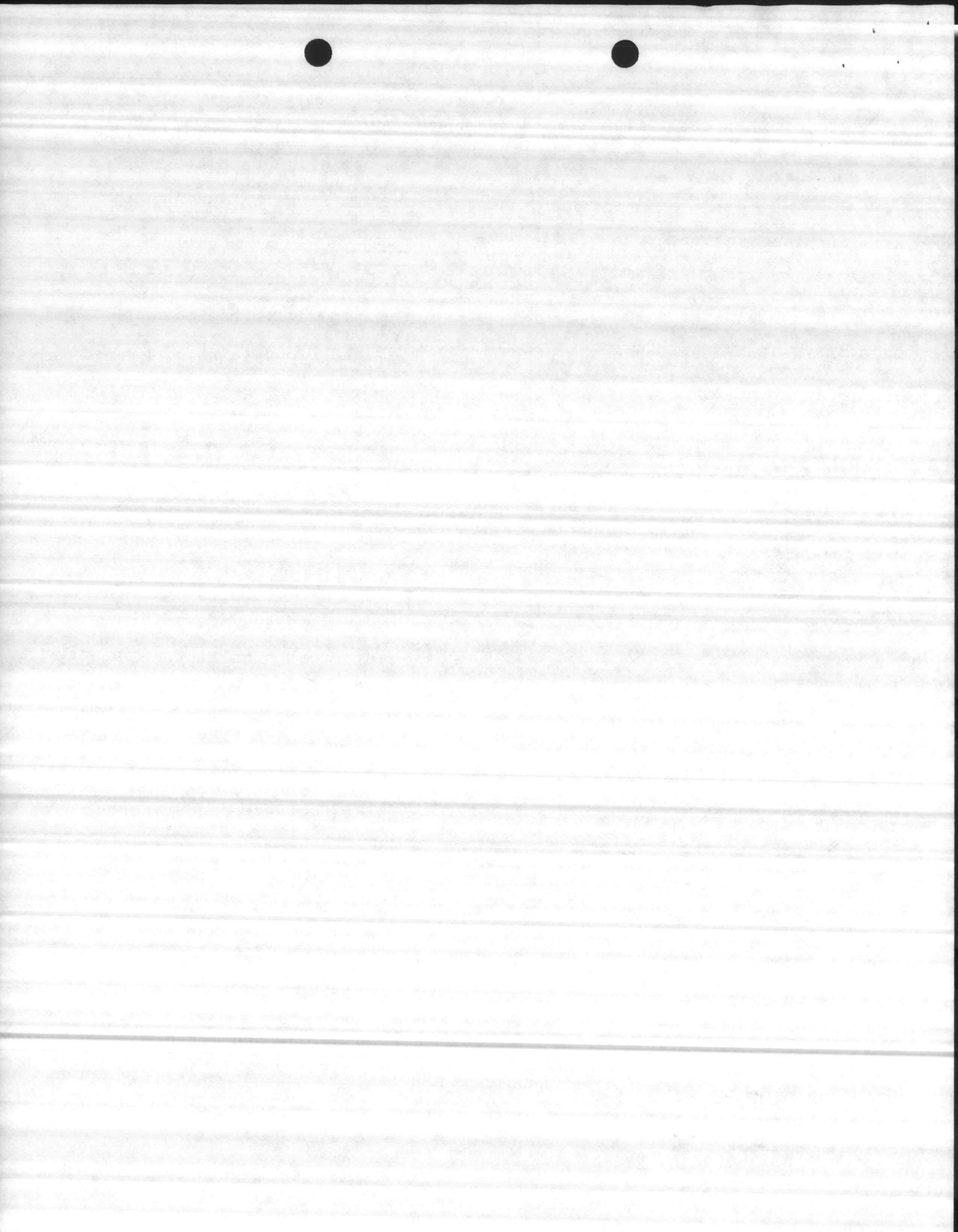
Soils and vegetation on the un-improved areas of the base are typical of the southeastern coastal plain. Pure pine stands, consisting of loblolly and longleaf pine are found on the upland drier soils and pure pond pine stands are found on the wetter soils. Pine hardwood and pure upland hardwood stands are found stream side zone and more productive soil types with bottomland hardwood types found in the stream bottom and floodplains of major creeks.

The Base has an abundant population of native game and non-game wildlife species and also has habitats suitable to support several endangered and threatened species. Many of the wildlife species present serve as natural barometers to the quality of the general environment aboard Camp Lejeune.

Cultural resources are also protected and managed to maintain the uniqueness of the resource and its historical significance.

A. FOREST MANAGEMENT

Camp Lejeune has a forest resource base of 72,000 forested acres. 58,000 acres are considered to be commercial, 11,500 acres are included in impact areas and surface danger zones, with the remainder being considered as non-commercial timberland. The Director of Natural Resources and Environmental Affairs Division is tasked with assuring that this land is managed as required by public law, DOD directives and Marine Corps Orders. The Forestry Program implements applicable regulations under the principles of multiple use, sustained yield, even-aged management with the objective of providing an even flow of forest benefits, such as: quality training areas, timber, wildlife habitat, outdoor recreation and aesthetics, from the forestland.

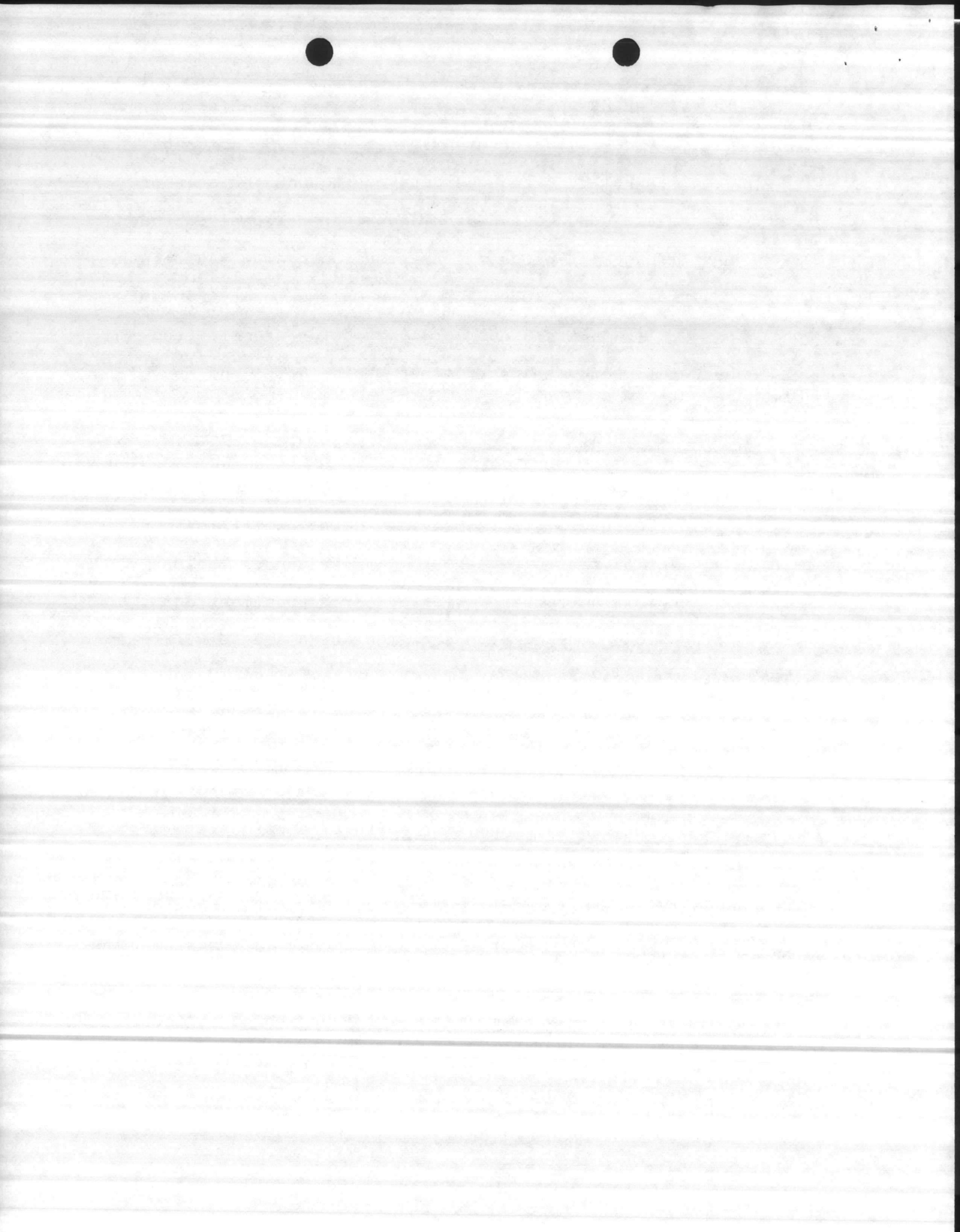


The timber harvesting program at Camp Lejeune allows for an annual harvest of 16,134 cords of pine, and 6,002 cords of mixed hardwood annually. Proceeds derived through the sale of forest products are used to fund the annual operational expenses of the forest management program. As required by law, 40% of the net proceeds are annually returned to the Onslow County Public School System, with the remaining proceeds being used to fund forest management programs aboard other Marine Corps and Navy installations.

A multi-resource inventory conducted in 1983, as a cooperative effort between the U. S. Forest Service and Camp Lejeune Natural Resources staff, provided detailed information regarding the various resources aboard Camp Lejeune. The basic details for determining required silvicultural treatment and general instructions dealing with implementation are set forth in the Natural Resources Management Plan for Camp Lejeune. For record keeping purposes, Camp Lejeune is divided into 55 compartments with approximately 1,050 commercial acres in each compartment. These are further subdivided into contiguous stands of similar timber type and age, and silvicultural treatments are applied on a stand by stand basis. Five to Six compartments are entered annually and analyzed for needed silvicultural treatment.

The annual work projects aimed at achieving forest management goals include:

1. Timber Sales - Timber sales are monitored to insure contractual compliance and to ensure that the prescribed silvicultural treatment are properly applied to the achievement of management goals and financial obligations.

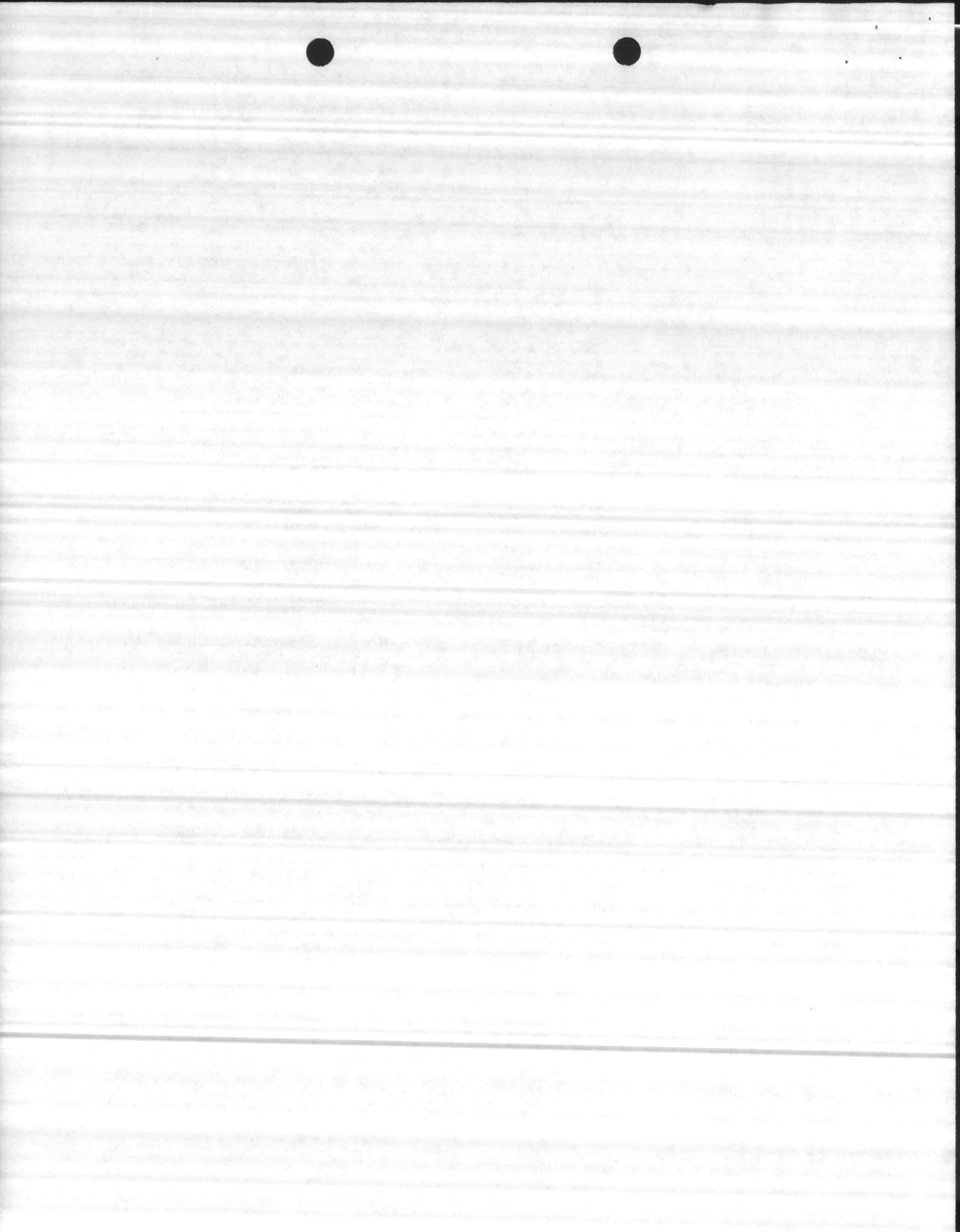


2. Prescribed Burning - Wildfire hazard reduction, wildlife habitat improvement, and control of undesirable species are the primary benefits from prescribed burning. Camp Lejeune's forestland is normally burned on a five year cycle, with ranges, impact areas, and the Quail Management areas burned annually and Red-Cockaded Woodpecker habitat being burned on a two and three year cycle.

3. Insect and Disease Control - Protection of the forest resource from insects and disease requires constant monitoring, since populations vary greatly from month to month. Early detection and rapid control response is essential in limiting the losses of forest resources.

4. Timber Stand Improvement - Maintaining a healthy and productive forest, with the desired species composition and density, is of primary concern. Removal of overstocked unmerchantable stems is normally accomplished by mechanical precommercial thinning.

5. Reforestation - In order to maintain a sustained yield of forest benefits, it is essential to achieve a balanced age class distribution, with stands of all ages being represented in relatively equal acreage scattered throughout the forest. With a rotation age of 80 years for loblolly pine, 100 years for longleaf pine and 120 years for hardwoods, approximately 400 acres of pine and 160 acres of hardwood should be regenerated, annually.



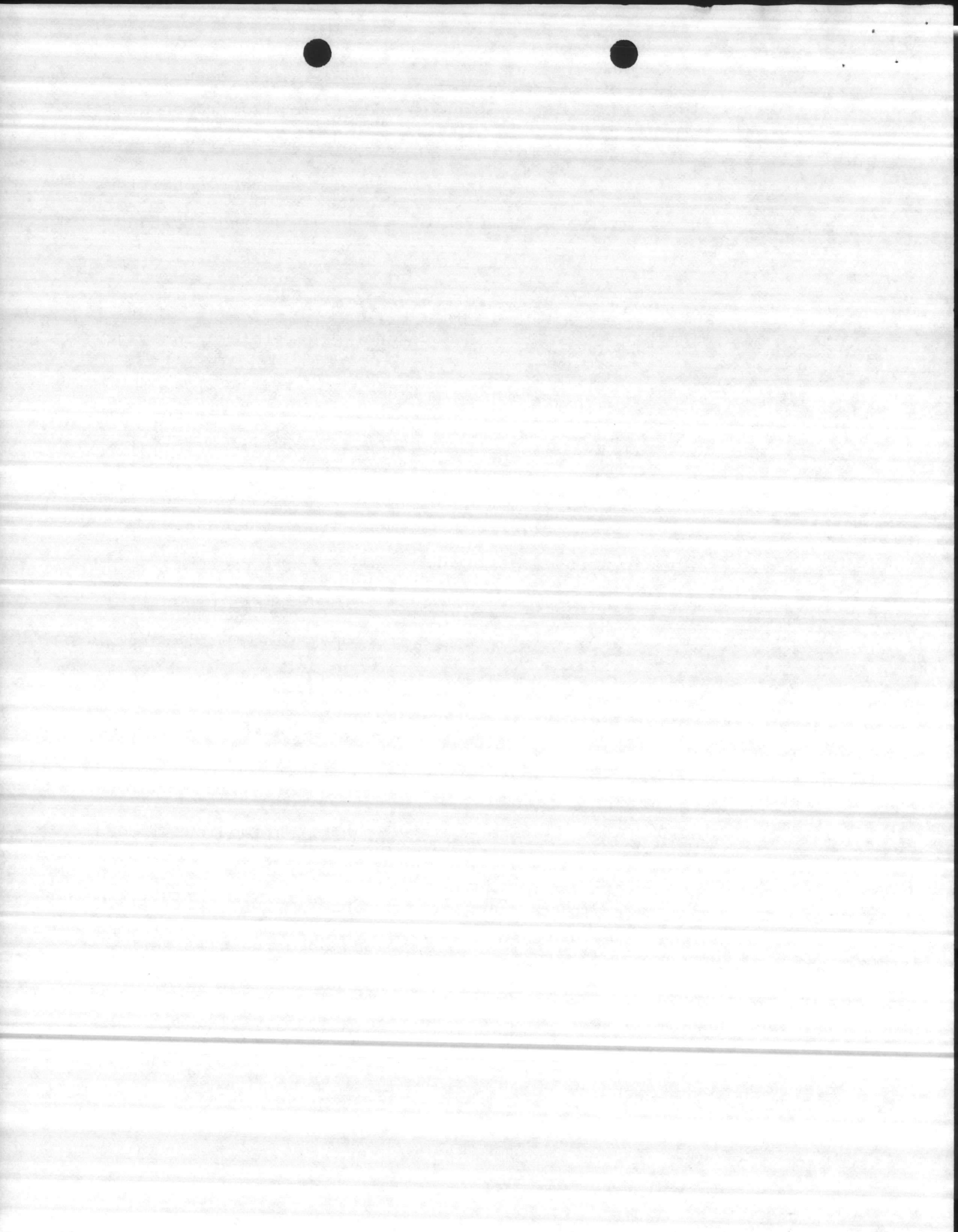
6. Wildfire Control - The incidence of wildfire aboard Camp Lejeune depends upon the severity of weather conditions and the intensity of military training. Monitoring weather conditions and fire danger, coupled with fire tower manning during periods of high fire danger, help to maintain the appropriate level of readiness for rapid response when wildfires do occur.

7. Forest Access Road Maintenance - Multiple-use management of the forest resource requires an adequately maintained road system. Soil stabilization is achieved through planting perennial grasses, which also provides food and cover for wildlife.

B. WILDLIFE MANAGEMENT

Camp Lejeune's wildlife management program is designed to provide optimum environmental conditions for all present wildlife species. The goal of the wildlife management program is to improve the quality of wildlife habitat on Marine Corps Base for game, nongame, endangered and threatened species. The program is designed for consistency with the primary land use of military training and compliance with applicable base, state and federal regulations. An effective relationship between wildlife, forest and environmental management is achieved through harmonious program planning which meets the long range objectives of the program.

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 3 black bear, in addition to numerous small game species, such as bobwhite quail and rabbit, are harvested annually. Twelve fresh water ponds offer the angler excellent fishing for bass, bluegill and Channel catfish.

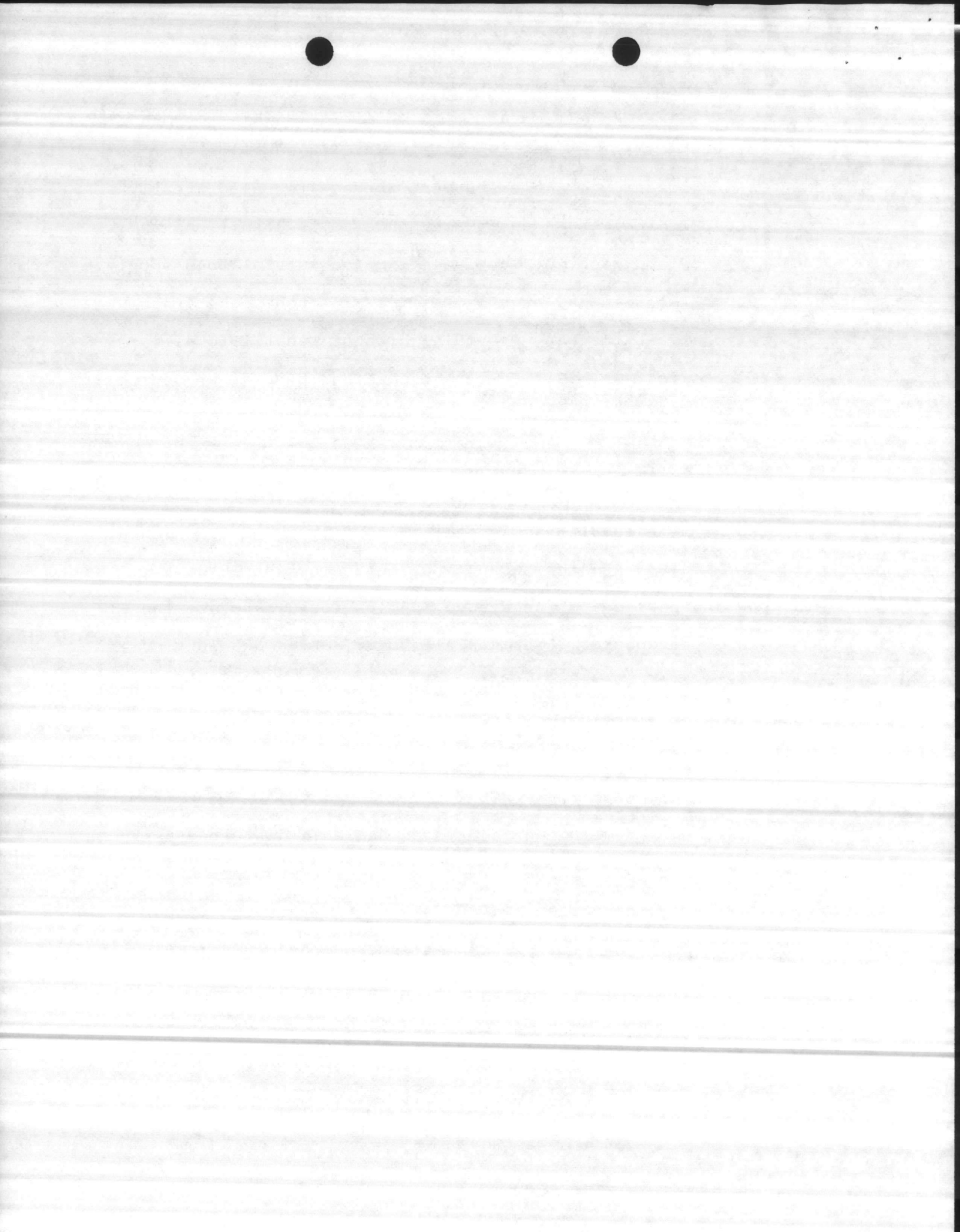


A well dispersed system of wildlife openings and food plots has been established at Camp Lejeune. In addition to being used frequently by game species, these sites also greatly benefit nongame species. Openings enhance cover conditions and provide a woodland edge for supplementing the natural food supply. Insect populations in and around openings are much higher than in forested areas, thereby, providing greater benefit to all wildlife species. In addition, these openings provide a good view for those who just want to observe wildlife from selected vantage points.

Protection of endangered and threatened species on Camp Lejeune is accomplished 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.

C. SOIL AND WATER MANAGEMENT

Whenever vegetation is damaged and soil disturbed a potential for soil erosion and water management problems exist. Soil and water conservation goals are achieved thorough proper applications of management principles by a number of officials involved in the development, use and maintenance of real property. With more than 100 miles of streams and 3,000 acres of marsh and



open tidal water areas, dispersed widely about the base and the highly erodable soils associated with the coastal plain, the control and prevention of water pollution and soil erosion is the single most demanding environmental requirement for the Command.

D. NEW INITIATIVE

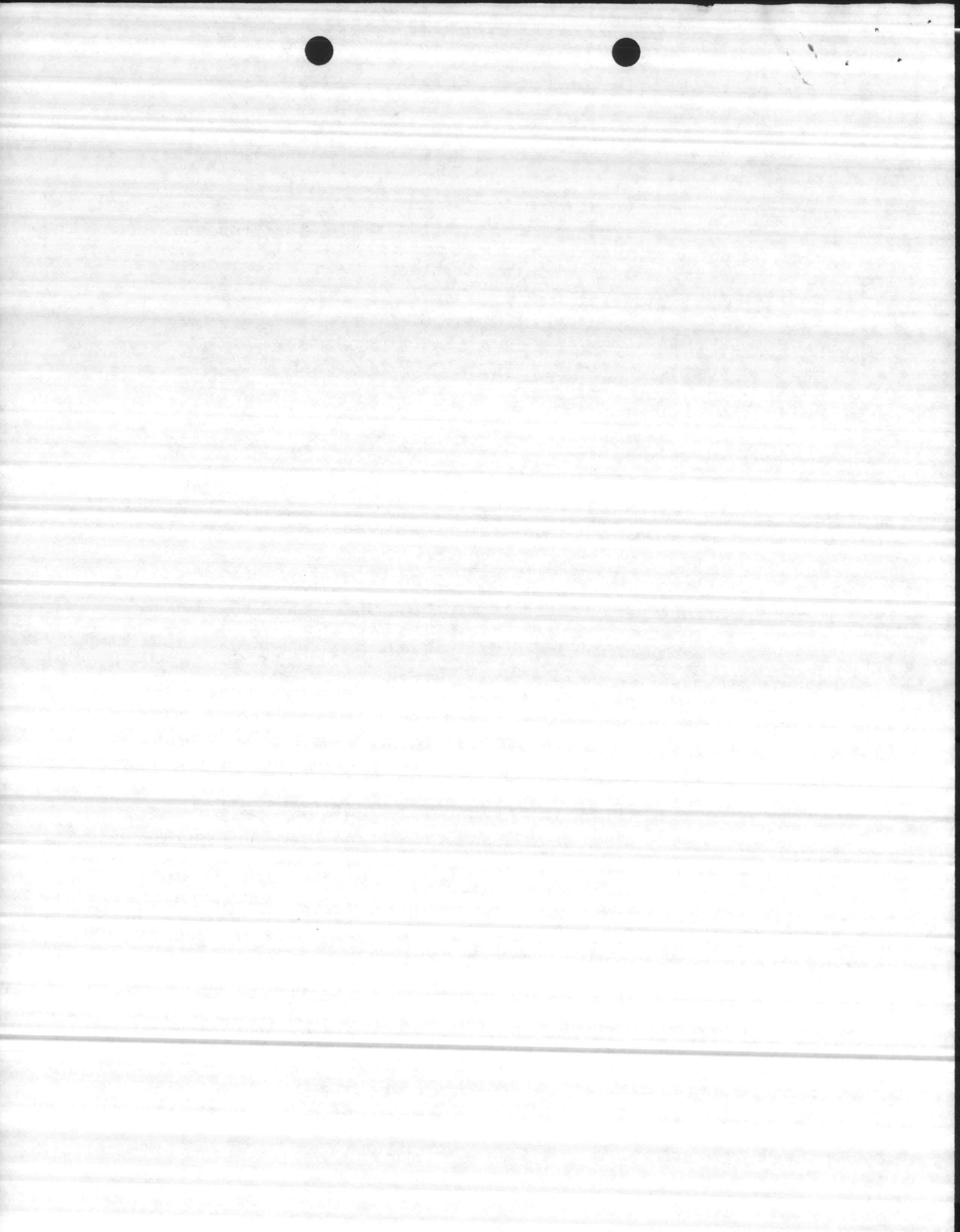
The multiple-use Natural Resources Management Plan proposes no radical changes but rather a logical progression that builds on past success. There are two initiatives which will have beneficial effect on Natural Resources Management aboard Camp Lejeune and the Marine Corps for years to come.

1. Land-Use Management System (LUMS)

LUMS is being developed to alleviate deficiencies in current land management/land use planning methodologies. These deficiencies are caused by increasingly intensive land use activities resulting from deploying new mobile weapons systems for training purposes with increased levels of environmental and natural resources protection and management legislation.

2. 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 in the habitat as a basis for making improvements in the habitat. By using this habitat appraisal



system, we can define habitat needs for the featured species and determine if the habitat can be improved through forestry management techniques.

E. CONCLUSIONS

Camp Lejeune has long been a leader in Department of Defense Natural Resources Management. This is in fact the fifth Long Range Management Plan that has been written for Camp Lejeune, but it 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, and the Secretary of Navy/Defense Environmental Protection Award in 1972, 1974, 1975, 1978 and 1980. Camp Lejeune was among the first Department of Defense installation to seek formal consultation with the U. S. Fish and Wildlife Service to establish guidelines for compliance with the Endangered Species Act and was the first installation to develop, in cooperation with the U. S. Forest Service, a multiple-use inventory used as 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.

