

*duy*  
Dan →  
Peter  
Charlie

6280/1  
FAC  
SEP 28 1987

Mr. C. D. Adkins, Manager  
Planning and Research Branch  
North Carolina Division of Highways  
P.O. Box 25201  
Raleigh, North Carolina 27611

RE: ENVIRONMENTAL ASSESSMENT  
FOR WIDENING OF NC HIGHWAY 24  
PROJECT PR-8-4(12), U-2008

Dear Mr. Adkins:

Thank you for the opportunity to review the subject environmental assessments. No comments are provided at this time; however, we would be interested in learning about any issues that have been raised by other agencies in the review process. Please keep us informed.

As noted in the environmental assessment, the long-range plan for Lejeune Boulevard proposes the construction of three additional lanes on Marine Corps property parallel to the existing roadway. That project should be the subject of a more detailed review as project plans unfold.

For additional information on this review, please contact Mr. Bob Alexander, Marine Corps Base Environmental Engineer, (919) 451-3034.

Sincerely,

H. W. ELSTON  
Deputy Assistant Chief of Staff, Facilities  
By direction of the Commanding General

Copy to:  
Mr. Horace Mann, City of Jacksonville

Blind copy to:  
AC/S TRNG & OPS  
PWO  
→ NREAD  
EnvEngr

2

SEP 8 1987

→

11000/5  
NREAD  
14 Sep 87

From: Director, Natural Resources and Environmental Affairs  
Division, Marine Corps Base, Camp Lejeune  
To: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

Subj: ENVIRONMENTAL ASSESSMENT FOR TIMBER HARVESTING; FY-88

Ref: (a) BO 11000.1B  
(b) Mtg btwn LtCol Buckner, TFO and Peter Black, NREAD,  
on 14 Sep 87

Encl: (1) Preliminary Environmental Assessment (PEA) on Compart-  
ment Timber Sales

1. The enclosure has been compiled and is submitted as required by reference (a). During reference (b), an advance copy of the enclosure was provided for review and comment. The subject action, in NREAD opinion, will not result in significant adverse environmental impact. It is recommended that the enclosure be processed in accordance with paragraph 2.a of Appendix A to enclosure (1) of reference (a).

J. I. WOOTEN

*Buckner*

1941

THE UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
WASHINGTON, D. C.

OFFICE OF THE ASSISTANT SECRETARY  
FOR LAND MANAGEMENT  
WASHINGTON, D. C.

MEMORANDUM FOR THE ASSISTANT SECRETARY  
FOR LAND MANAGEMENT  
FROM THE ASSISTANT SECRETARY  
FOR LAND MANAGEMENT

RE: [Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

COMPARTMENT TIMBER SALES FY-88

REQUEST FOR ENVIRONMENTAL IMPACT REVIEW:

1. Action Sponsor: Director, Natural Resources and Environmental Affairs Division, Marine Corps Base, Camp Lejeune, North Carolina.

2. Name, address, phone number of point of contact:

Peter E. Black, Base Forester, Building 1103; Marine Corps Base, Camp Lejeune, North Carolina, telephone 451-2083.

3. Title and brief description of proposed action:

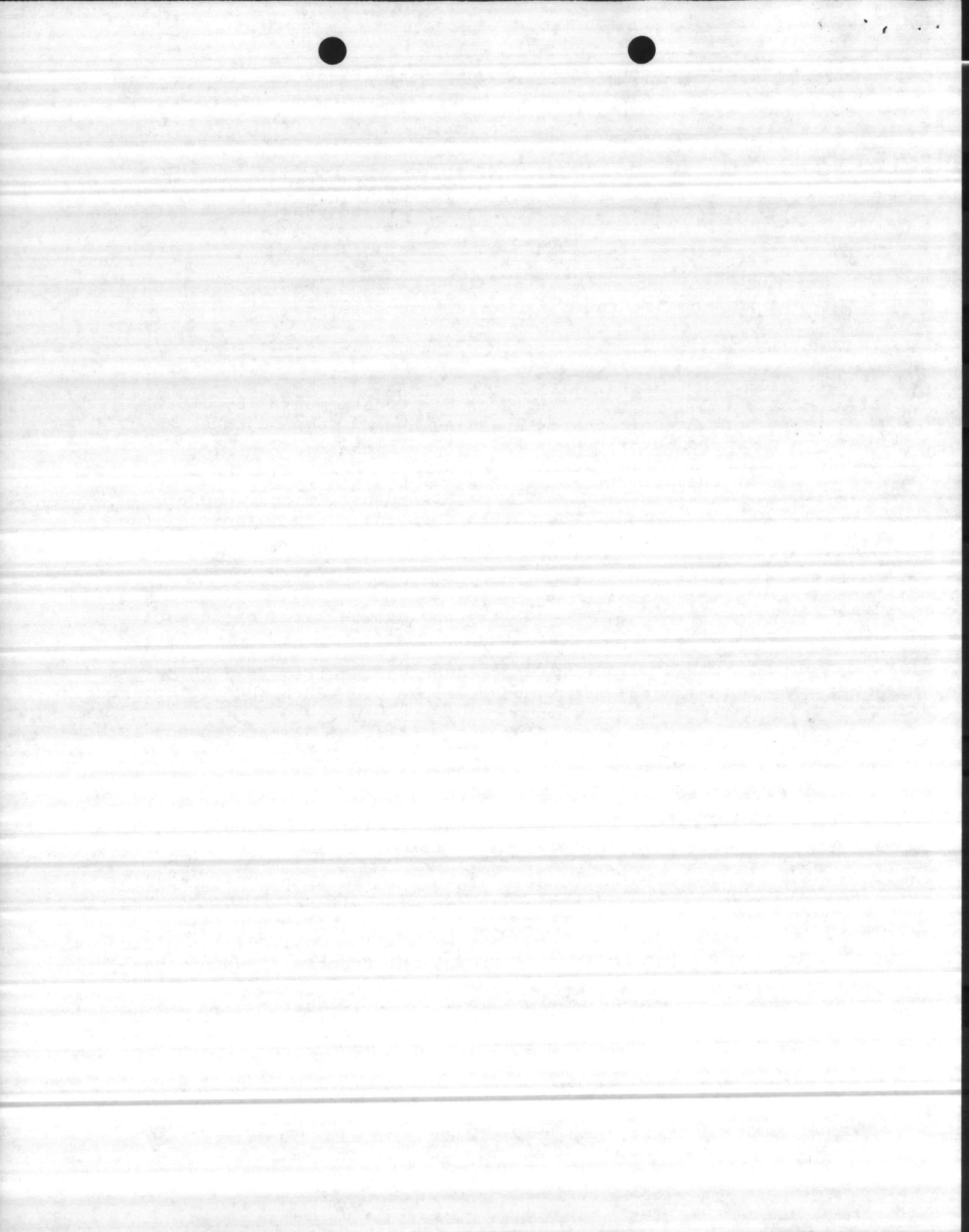
Scheduled compartment sales of merchantable timber and associated silvicultural treatment practices for Compartments 15, 18, 22, 29, 50; and the Golf Course Thinning aboard Camp Lejeune, North Carolina, are shown in Attachment (1).

The proposed timber harvests will be affected through timber sale contracts administered by the Resident Officer in Charge of Construction, Jacksonville, North Carolina. The purpose of the harvests is as follows:

- a. To generate income from the sale of stumpage.
- b. To improve vigor, quality and growth rates of residual timber.
- c. To regenerate selected stands as required to develop and maintain a balanced, even age, multiple use sustained yield forest.
- d. To reduce susceptibility of timber to disease/insect infestations.
- e. To improve wildlife habitat.
- f. To implement federal law dealing with the management of public land.

The proposed harvests will implement the multiple use objectives of the Natural Resources Management Plan for Camp Lejeune. The plan was developed in 1975 in accordance with MCO P11000.8B, MCO P11000.5 and MCO P11000.7. Income produced is utilized for the funding of the DON Forest Management Program. 40% of the net proceeds from the sale of forest products will be returned to local governments to be utilized by the county schools system.

**FY-88  
TIMBER  
SALES**



The timber harvesting methods and associated site preparation treatment practices are summarized as follows:

a. Intermediate Cuts

(1) Crown thinning: In a crown thinning, smaller trees are removed from the lower crown canopy. The crown thinning simulates through harvesting the natural extermination of the smaller, less vigorous trees. No associated site preparation treatment is required.

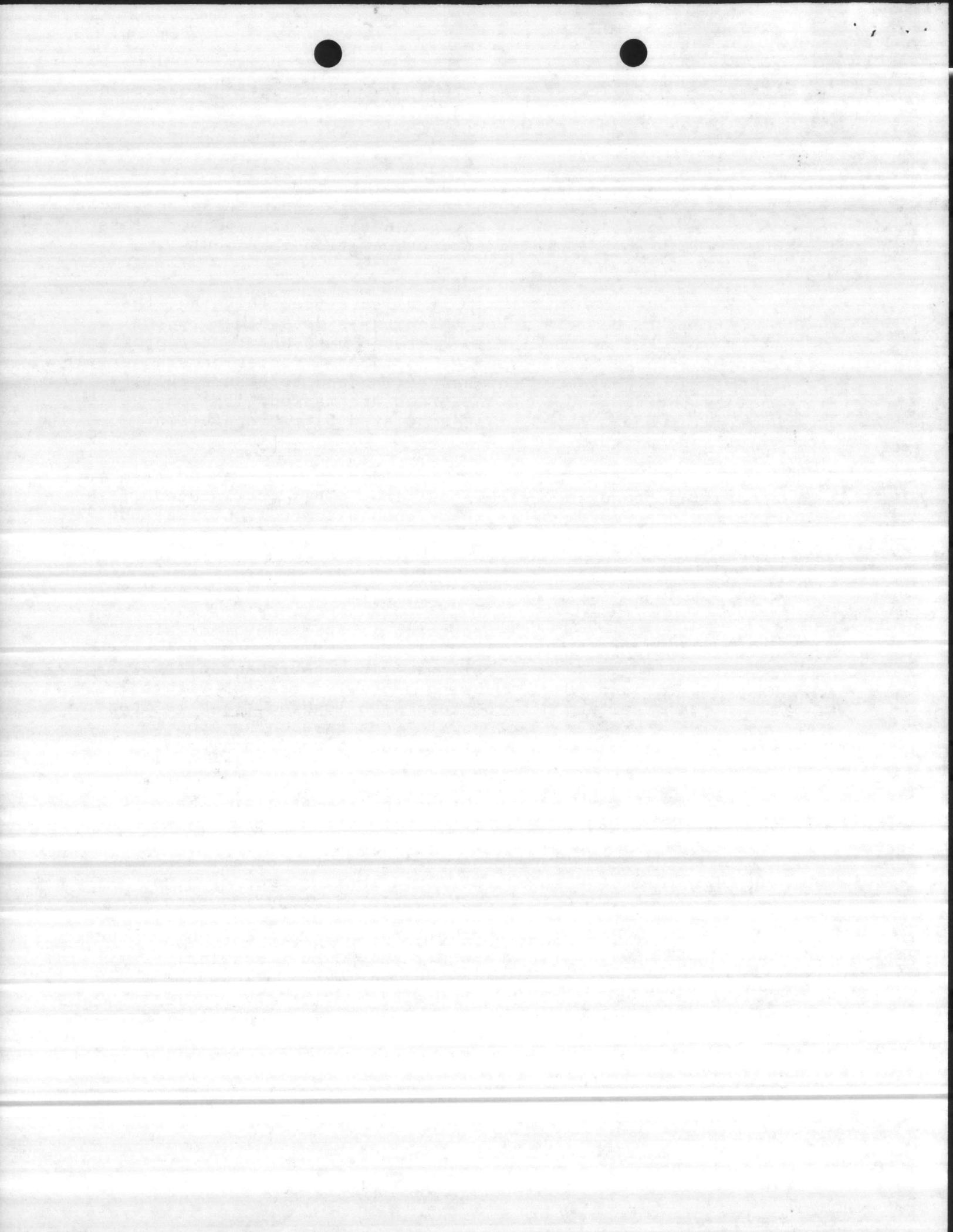
(2) Leave-tree Thinning: In a leave-tree thinning, the number of trees to be left after thinning is determined by the prevailing diameter of the large, better formed and faster growing trees in the stand. Larger, better formed and faster growing trees are marked with blue to prevent harvesting and to ensure full stocking and the remainder of the trees are marked with red, yellow or orange paint and removed. No associated site preparation treatment is required.

(3) Pine Only Removal: The pine trees are removed from a pine/hardwood stand in a single cutting. This cut is used when the remaining hardwood is thick enough to fully utilize the available growing space. No associated site preparation treatment is required.

b. Regeneration Cuts for Pine

(1) Clearcutting: Clearcutting is the removal of all merchantable trees in one cutting. After completion of the harvest cut, site preparation follows. The unmerchantable trees are sheared at ground level by using a crawler tractor with a KG blade. The resulting debris along with logging slash is then piled by using a crawler tractor with root rake. The area is then bedded by using a crawler tractor and a bedding harrow. These operations are not routinely scheduled between 1 April and 1 August because of possible adverse impact upon wildlife populations. Following site preparation, the area will be planted by machine or by hand, between 1 December and 1 April.

(2) Seedtree: A seedtree cut is removal of all merchantable stems in one cutting except for a small number of high quality, evenly distributed trees capable of producing seed to reforest the site. Because pine seed are very light, site preparation is usually required. Site preparation methods routinely used are (1) a drum chopper pulled by a crawler tractor; (2) a drum chopper pulled by a crawler followed by a site preparation burn, or (3), a crawler tractor equipped with a KG blade to shear unmerchantable trees, followed by wind-rowing with a crawler tractor with a root rake. The use of these site preparation techniques is primarily governed by the amount of debris remaining on the site following logging. These operations



are not routinely scheduled between 1 April and 1 August because of possible adverse impact on wildlife populations. After the site has become adequately stocked, the seedtrees will then be removed by conventional logging methods.

(3) Shelterwood: A shelterwood is the removal of mature timber in a series of cuttings which extend over a relatively short period of the rotation. Regeneration is established naturally over a period of years under the shelter of the remaining trees. This is generally utilized for the natural regeneration of longleaf pine. Site preparation consists of using a drum chopper or heavy disc pulled by a crawler tractor, and followed by a site preparation burn when required. Site preparation will not be routinely scheduled between 1 April and 1 August because of possible adverse impact on wildlife populations. After the site has become adequately stocked, the shelterwood seed source will be removed by conventional logging methods.

c. Regeneration Cuts for Hardwood

(1) Clearcutting: Clearcutting is the removal of all merchantable trees in one cutting. Remaining cull of small trees will be killed or cut to release the more valuable intolerant species that will regenerate. Regeneration of hardwoods by clearcutting depends on advance reproduction and sprouts from stumps or root systems from the trees that were removed. Mechanical site preparation is not routinely required.

(2) Shelterwood: A shelterwood is a removal of mature timber in a series of cuttings which extend over a relatively short period of the rotation. Removal of the less valuable tolerant species is the first step which will allow the establishment of seedlings from the intolerant hickory, beech and oak. While the intolerant reproduction is reaching adequate size, the remaining overstory is removed in a series of cuts. Mechanical site preparation is not routinely required.

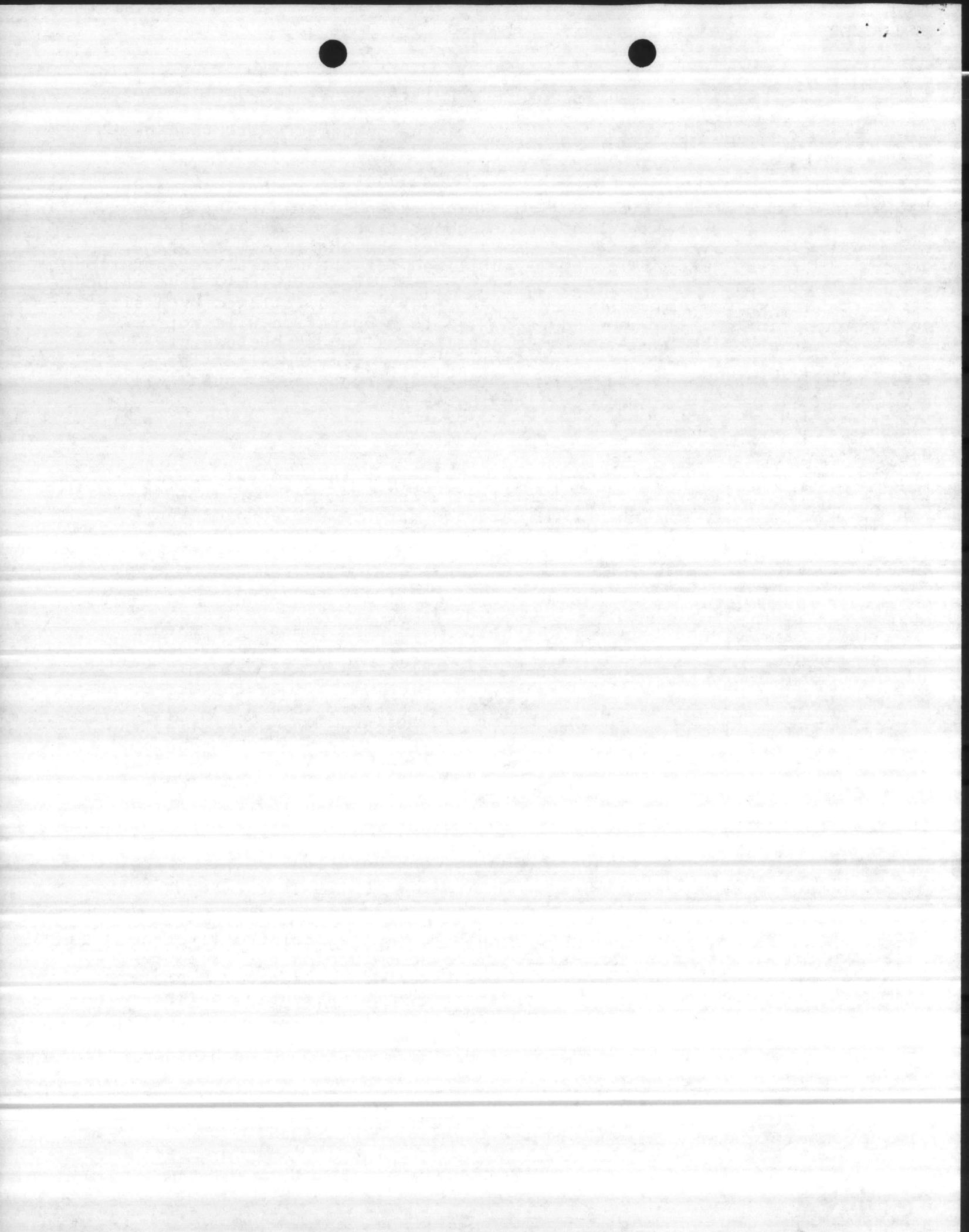
4. Locations: Areas to be harvested are shown individually on attachment (2), including keys showing the type of harvest proposed.

5. Potential Environmental Impact/Consideration

a. Air Quality:

(1) Will there be any open burning associated with the project/action? YES There will be some burning for site preparation after the logging operations have been completed. This activity will be conducted under forest management guidelines and there should be no adverse environmental impact. In areas where it is felt that smoke management could create significant problems, site preparation will be accomplished by mechanical means only.

(2) Will there be any new boilers, incinerators or fuel storage tanks (larger than 1,000 gallons) provided? NO



(3) Will there be any paint booths, solvent vats, degreasers, or other vapor-producing industrial processes involved? NO

(4) Will the project involve the use or disposal of asbestos? NO

(5) Will the project cause dust problems? NO

b. Land Quality:

(1) Will the action require use of significant amounts of earthen fill material? NO

(2) Will there be an increase in level of soil disturbance/damage to the vegetation? YES Soil erosion and runoff will increase temporarily but should not pose any significant problems. Logging decks and skid trails will be seeded after completion of operations.

(3) Will there be one acre or more of land cleared/disturbed? YES

c. Groundwater Quality:

(1) Does the project involve use of herbicides, insecticides or other pesticides in significant amounts? NO

(2) Does the project involve installation/use of septic tanks or other on-site disposal of sanitary waste? NO

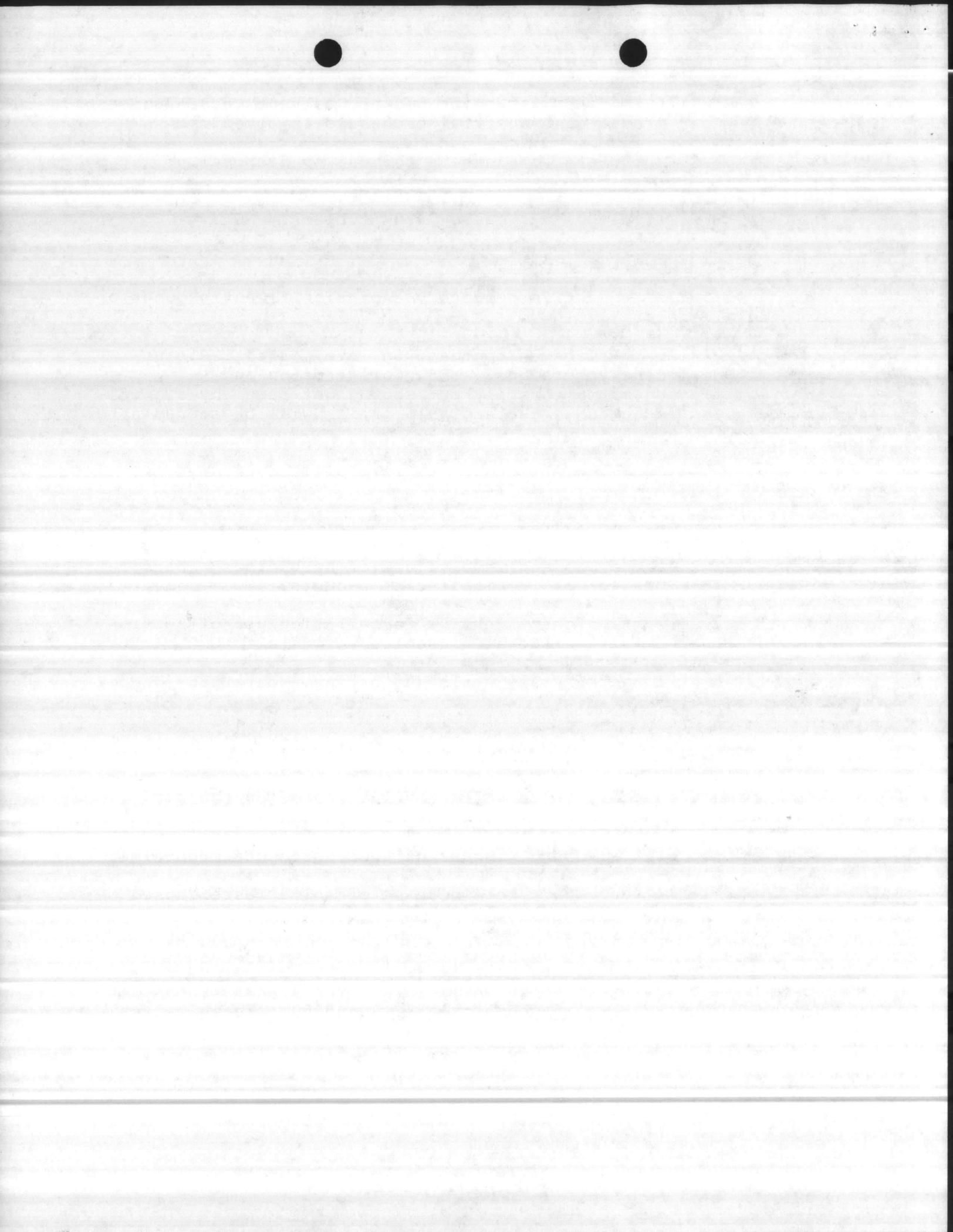
(3) Will there be any wells dug or any excavations deeper than 20 feet? NO

(4) Will any toxic or hazardous material/waste requiring disposal be used or generated by the project? YES

Logging equipment will be refueled and lubricated on the job. Contractor is required by contract to prevent spills, report spills to Base authorities and to remove all waste petroleum products from work site and dispose of these products properly.

(5) Will there be a net increase of solid waste caused by implementing the project/action? NO

(6) Will the project or action be carried out within 200 feet of a drinking water supply well? YES There are several drinking water supply wells in or near stands proposed for logging operations in Compartments 18 and 50. These wells will not be affected by the proposed action and there will not be an adverse impact on the drinking water supply.



d. Surface Water Quality:

(1) Is the project located on or in a water body or adjacent 100 - year flood plain? YES No construction of facilities is proposed; therefore, federal restrictions on flood plain development are not applicable.

(2) Will the project involve construction of drainage ditches/underground drains for purposes of lowering water table? NO

(3) Will all wastewater be connected to sanitary sewer? NO

(4) Will there be an increase in erosion/siltation from soil disturbing activity? YES (See 5b(2) above)

(5) Will petroleum oil and lubricants be routinely stored or used at the site? YES (See 5c(4) above)

(6) Will the project increase rates of surface/storm water run-off? YES (See 5b(2) above)

e. Natural Resources:

(1) Will there be a loss of forestland? NO

(2) Will public access for hunting, boating, fishing, etc. be restricted? NO

(3) Is there a change in land use from what is presently shown in Base Master Plan? NO

(4) Will removal of existing vegetation be required? YES  
Prescribed treatment is consistent with standard forestry and wildlife management practices. Effects on wildlife are generally temporary in nature and will not significantly affect any species. Proposed action is consistent with current management objectives contained in the Base Long Range Natural Resources Management Plan.

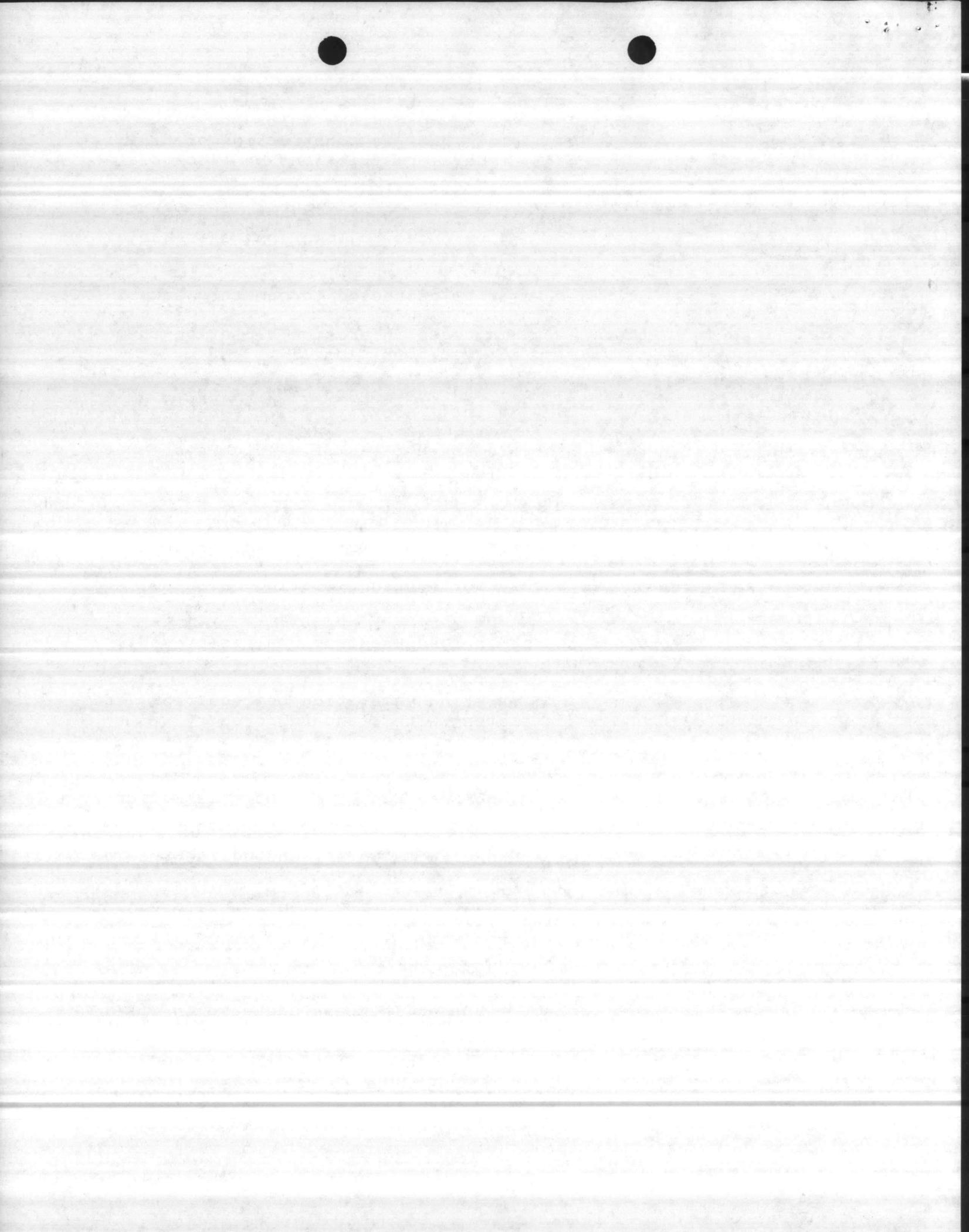
(5) Are there any known effects on any endangered species? NO

(6) Does the project involve the purchase or sale of any real estate? NO

f. Socio-economic Considerations:

(1) Will the project cause an increase/decrease in off-base military population? NO

(2) Will there be any increased demand on a local or state government to provide services? NO

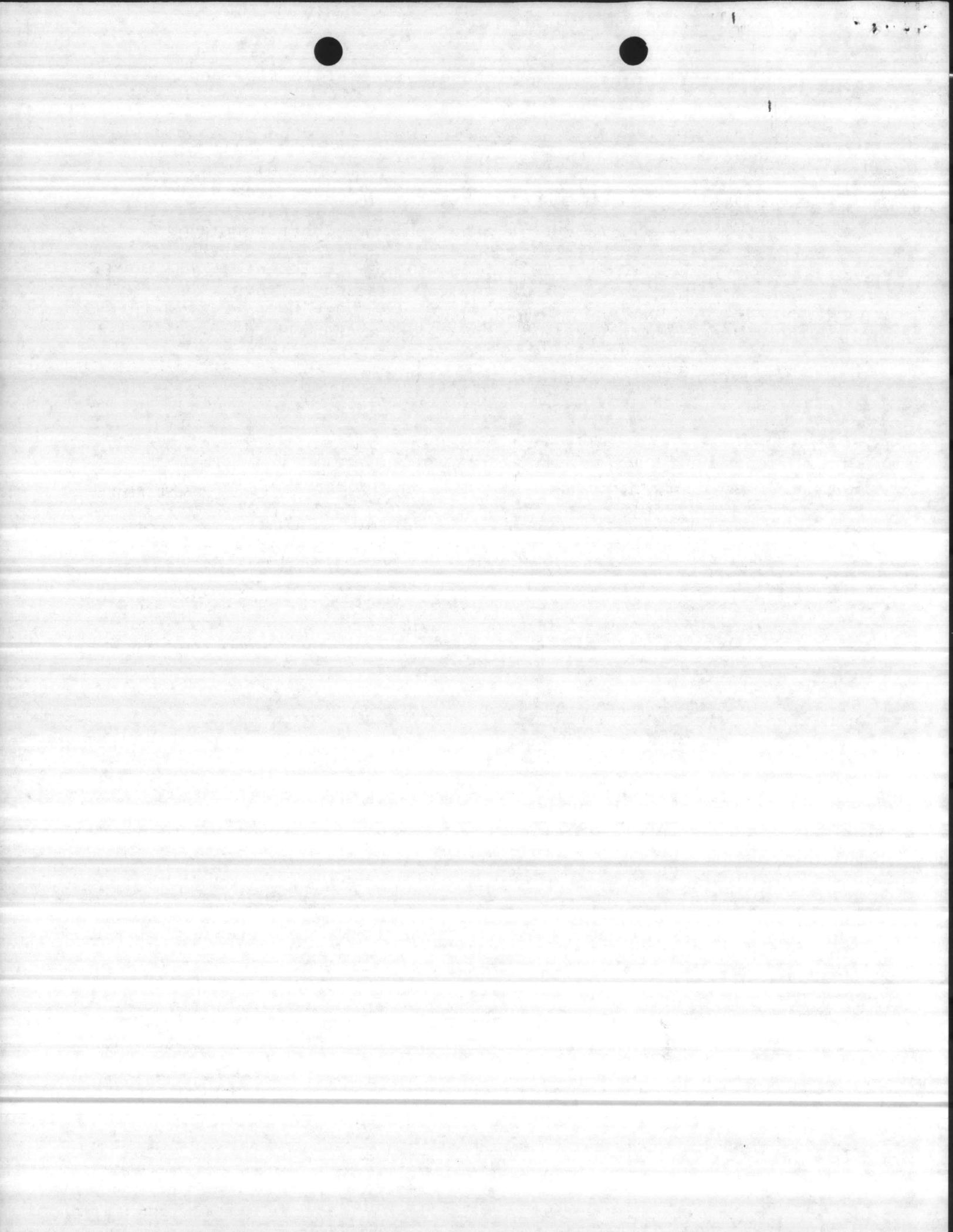


(3) Will there be any changes to traffic flow and patterns on or off-base? NO

(4) Will any noise, traffic, dust, etc. be generated which may affect off-base persons or property? NO

(5) Is there any known controversy associated with the type of project or action proposed? NO Timber harvesting activities in the golf course area could be controversial. Additional contract restrictions aimed at decreasing the aesthetic impact of the harvesting will be implemented. As shown by attachment (3), the harvesting, to be accomplished in FY-88, and prescribed burn, scheduled for FY-89, have been staffed through the Assistant Chief of Staff, Facilities, and the Assistant Chief of Staff, Morale, Welfare and Recreation.

(6) Are there any historical or archaeological sites affected by project/action? NO



11000/5  
NREAD  
10 Sep 87

From: Director, Natural Resources and Environmental Affairs  
Division, Marine Corps Base, Camp Lejeune  
To: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

Subj: ENVIRONMENTAL ASSESSMENT FOR PRESCRIBED BURNING FY-88

Ref: (a) BO 11000.1B  
(b) Mtg btwn LtCol Buckner, Training Facilities Officer,  
and Peter E. Black, NREAD on 8 Sep 87

Encl: (1) Preliminary Environmental Assessment (PEA) on FY-88  
Prescribed Burning Program for Forestry Branch, NREAD

1. The enclosure has been compiled by NREAD in accordance with reference (a). During reference (b), an advanced copy of the enclosure was provided for review and comment. The subject action does not appear to meet criteria for submittal of an environmental assessment to HQMC. The subject action, in NREAD's opinion, will not result in significant adverse environmental impact. Accordingly, it is recommended that the enclosure be processed in accordance with paragraph 2.a of Appendix A to enclosure (1) of reference (a).

J. I. WOOTEN

*plb*  
*B Forester*

10/27/57

10/27/57

Dear Mr. [Name],

I have received your letter of the 23rd regarding the [Topic].

The information you provided is being reviewed by the appropriate [Department].

We will contact you again once a final decision has been reached.

Thank you for your patience and understanding.

Sincerely,  
[Signature]

[Name]  
[Title]

[Address]  
[City, State, Zip]

REQUEST FOR ENVIRONMENTAL IMPACT REVIEW:

1. Action Sponsor: Director, Natural Resources and Environmental Affairs Division, Marine Corps Base, Camp Lejeune, North Carolina.

2. Name, address, phone number of point of contact:  
Peter E. Black, Base Forester, Building 1103, Marine Corps Base, Camp Lejeune, North Carolina, telephone 451-2195.

3. Title and brief description of proposed action:  
Controlled and Prescribed burning program for FY-88 at Marine Corps Base, Camp Lejeune, North Carolina.

Prescribe burn approximately 15,000 acres of forestland for hazardous reduction and wildlife habitat improvement. An additional 11,584 acres of ranges and impact areas, 447 acres of Red-Cockaded Woodpecker habitat, and 952 acres of Quail Management Area are scheduled as controlled burns for hazard reduction, wildlife habitat improvement and vegetative control. The work will be coordinated with the Training Facilities Officer to avoid possible conflicts. Provost Marshal, Base Housing and the Base Fire Department will be notified as required. Initial preparations and fire line plowing will begin in October 1987 with burning being accomplished, as weather and training permit, from 1 December 1987 through 15 March 1988. Information sheets summarizing acreage, purpose of the burn, and environmental/management concerns are included in Attachment No. 1.

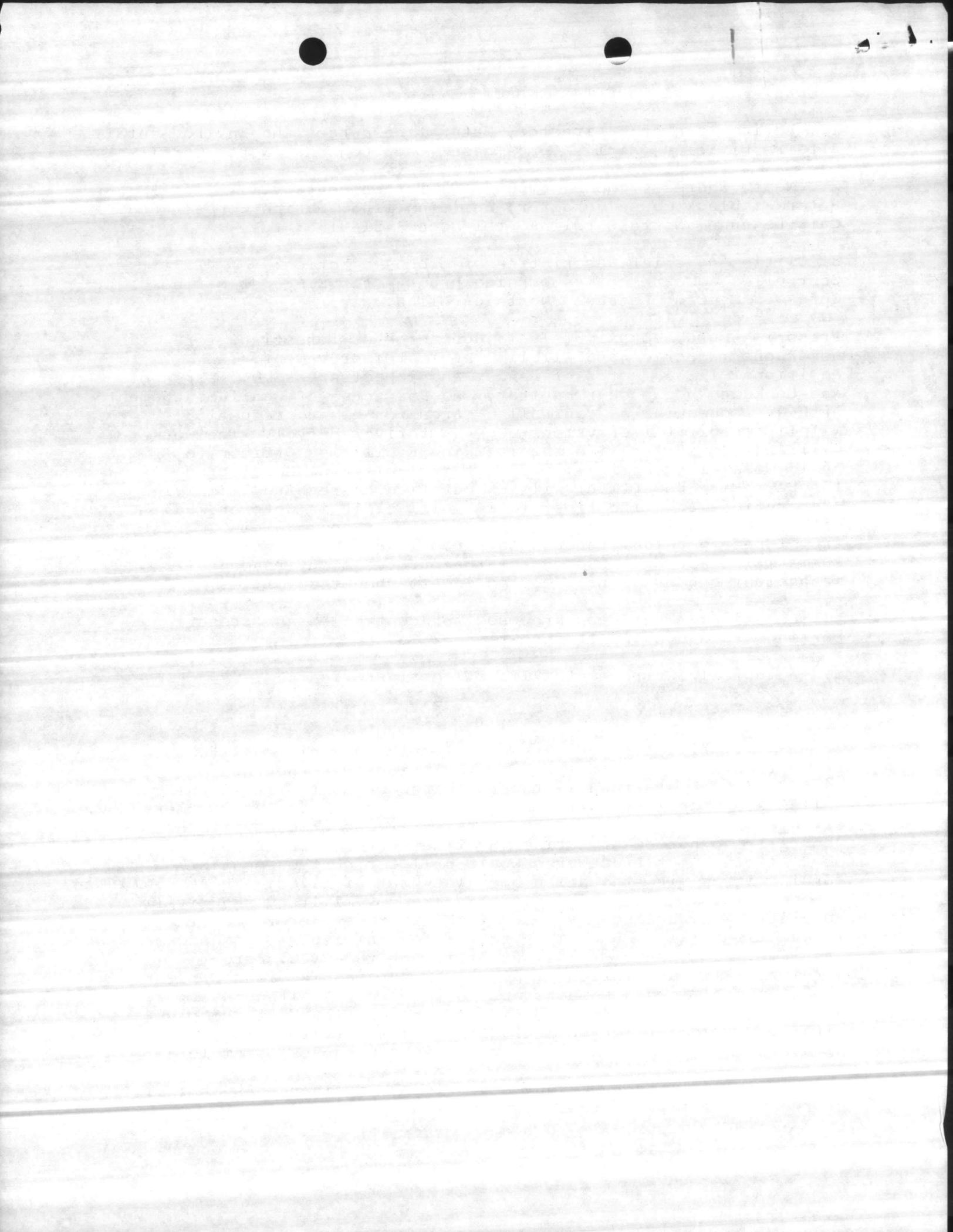
4. Location: The areas proposed for controlled and prescribed burning are shown on Attachment No. 2.

5. Potential Environmental Impact/considerations:

a. Air Quality

(1) Will there be any open burning associated with the project/action? YES. Clean air regulations, as they are presently administered, do not apply to prescribed or controlled burning, unless atmospheric conditions result in an air stagnation emergency. Air stagnation emergencies, because of atmospheric conditions, generally do not occur during the time of year when burning is accomplished, but procedures would call for postponement of burning if an air stagnation emergency materialized. There could be complaints concerning drifting smoke, by military and civilian populations. Burning plans and the latest weather forecast information will be used in attempts to minimize smoke management problems. The Smoke Management Office of the N. C. Forest Service, will be notified on days when burning is planned regarding expected fuel loads and acreages to be burned. Although we are not required to limit the amount of burning planned to comply with N. C. Forest Service guidelines, this office will comply with N. C. Forest Service recommendations whenever possible.

(2) Will there be any new boilers, incinerators or fuel storage tanks (larger than 1,000 gallons) provided? NO.



(3) Will there be any paint booths, solvent vats, degreasers or other vapor-producing industrial processes involved? NO.

(4) Will the project cause dust problems? NO.

b. Land Quality:

(1) Will the action require use of significant amount of earthen fill material? NO.

(2) Will there be an increase in the level of soil disturbance/damage to vegetation? YES. Prescribed burning has very little effect on the physical or chemical properties of the soil. For most flat, sandy soil in the Coastal Plain there is little danger of erosion because the organic layer on the forest floor is not consumed during prescribed burning. Some soil disturbance will occur during the plowing of containment lines but their effect is temporary in nature, and North Carolina Erosion and Sedimentation Regulations are not applicable. Lesser vegetation, grasses, herbs, forbes and smaller woody plants, will be greatly effected. A main reason for prescribed burning is to decrease the number and intensity of wildfires by managing the amount of fuel available to a wildfire. Although the above ground portions of these plants are consumed or killed, new growth occurs from the existing root systems the following spring and are very beneficial to wildlife populations.

(3) Will there be one acre or more of land cleared/disturbed? NO.

c. Groundwater Quality:

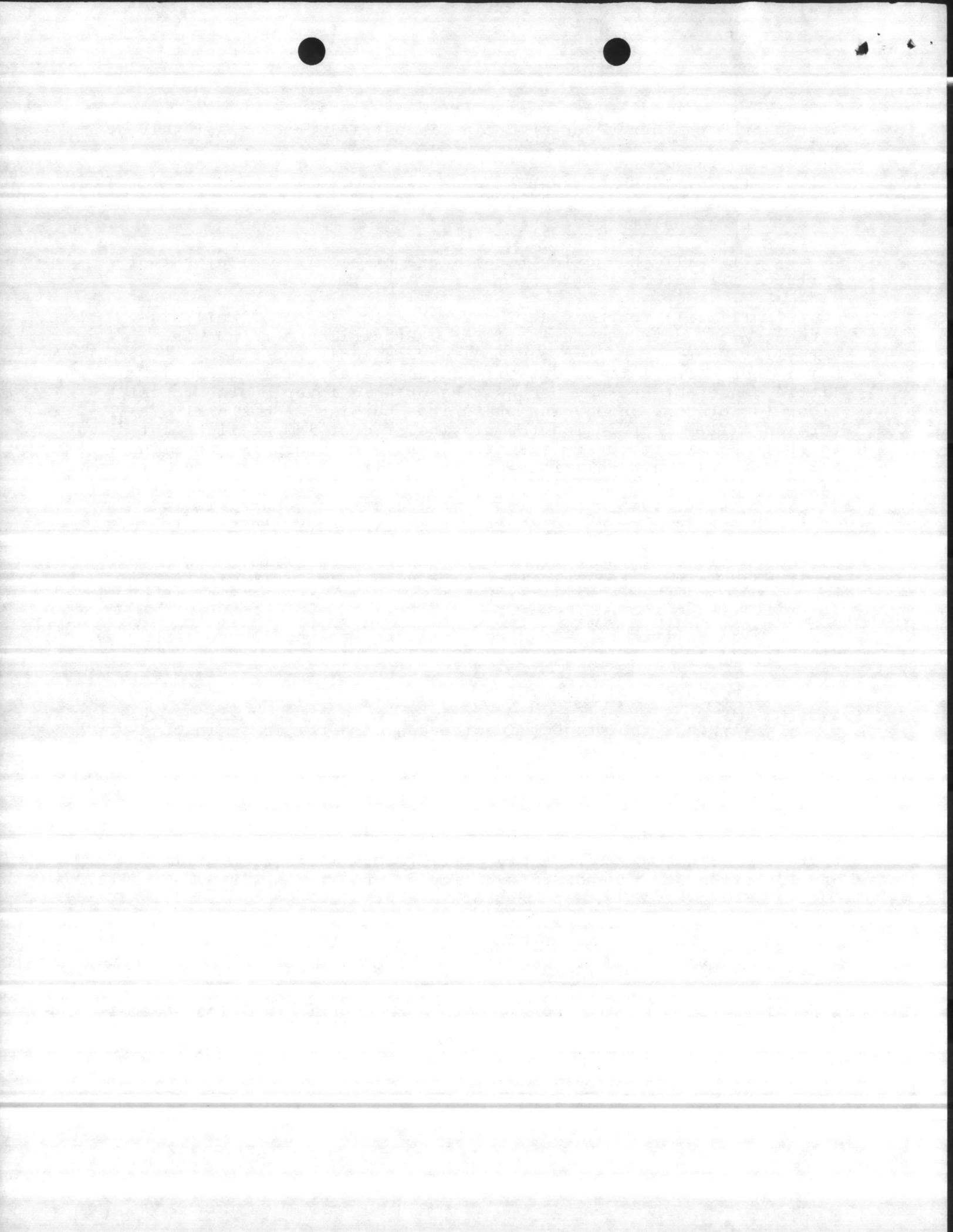
(1) Does the project involve use of herbicides, insecticides, or other pesticides in significant amounts? NO.

(2) Does the project involve installation/use of septic tanks, or any other on-site disposal of sanitary waste? NO.

(3) Will the project or action be carried out within 200 feet of a drinking water supply well? YES. The action will have no effect on groundwater quality or drinking water.

d. Surface Water Quality:

(1) Is the project located on or in a water body or adjacent to 100-year flood plain? YES. It is possible that a portion of the burning will be adjacent to the 100-year flood plain. Generally, the pure pine forest does not occur in the flood plains which are forested with typical bottomland hardwood forests.



There will be a probability of burning in the 100-year flood plain during controlled and prescribed burning but weather conditions during the period of burning (1 December to 15 March) are not conducive to burning the fuel type, which have low combustion and energy release rates, that would be found in the 100-year flood plains.

(2) Will the project involve construction of draining ditches/underground drains for purposes of lowering water table? NO.

(3) Will all wastewater be connected to sanitary sewer? NO.

(4) Will there be an increase in erosion/siltation from soil disturbing activity? YES. [See subparagraph b.(2)].

(5) Will petroleum oil and lubricants be routinely stored or used at the site? YES. Approximately 30 gallons of burning fuel will be used daily to ignite the areas to be burned. The burning fuel will be transported to the areas daily.

(6) Will the project increase rates of surface/storm water run-off? YES. There is the possibility of increased run-off of rainfall. When surface run-off increases following burning, it may carry suspended solids, dissolved inorganic nutrients and other materials into adjacent streams with a recurring decrease in water quality. This is normally not a problem in the Coastal Plain because burning is generally conducted on less than 25 percent slopes. This is less a problem at Camp Lejeune because of the natural timber and fuel type changes that occur as one gets closer to creeks.

e. Natural Resources:

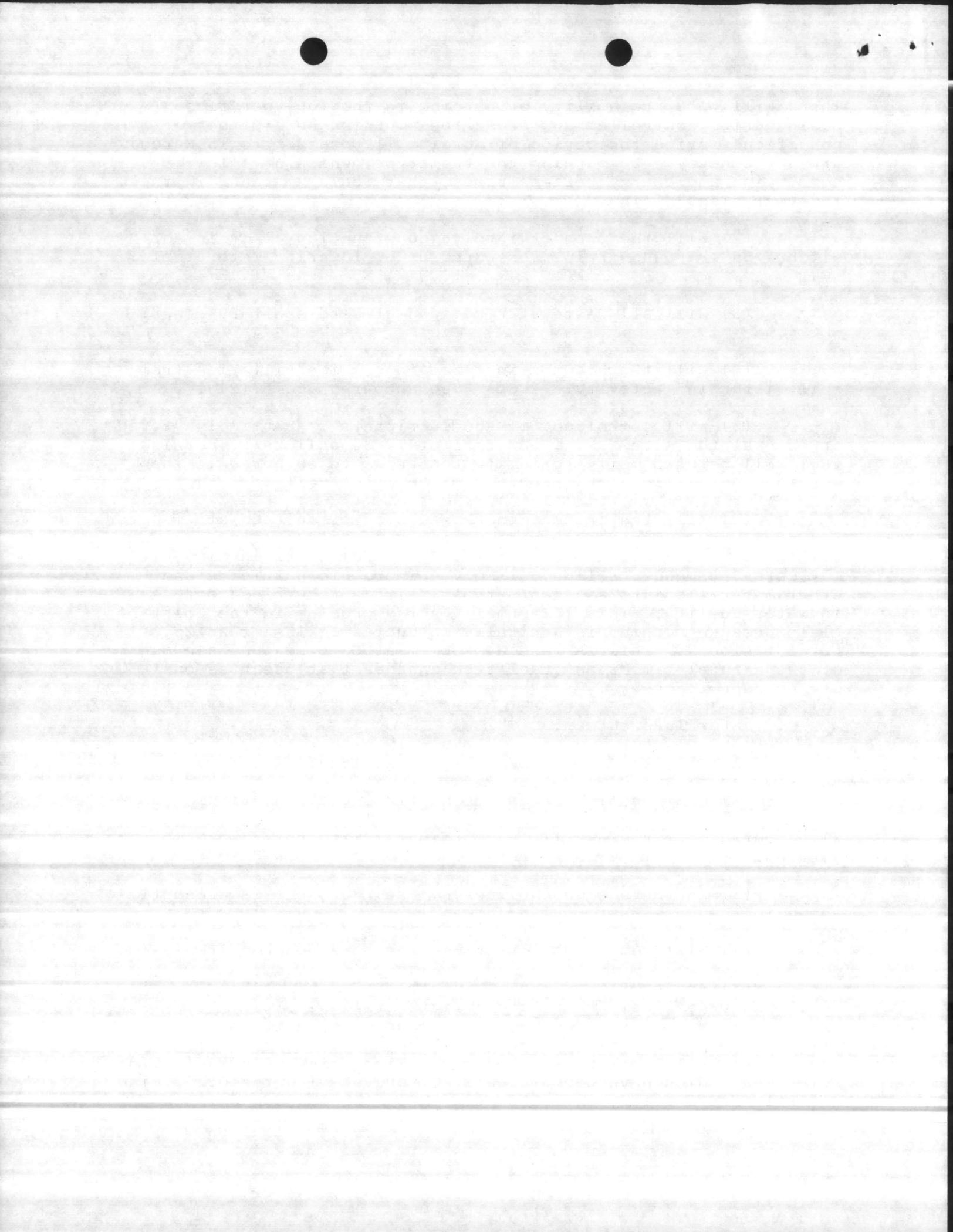
(1) Will there be a loss of forest land? NO.

(2) Will public access for hunting, boating, fishing, etc. be restricted? YES. There is generally some minor conflicts with hunting but these will be coordinated with the Base Game Wardens.

(3) Is there a change in land use from what is presently shown in the Base Master Plan? NO.

(4) Will removal of existing vegetation be required? NO.

(5) Are there any known effects on any endangered species? YES. Woody vegetation and forest litter will be cleared from around the base of the Red-Cockaded Woodpecker cavity trees by Wildlife personnel prior to prescribed or controlled burning. All burning and related work will be accomplished in accordance with guidelines which have been mutually agreed on with the U. S. Fish and Wildlife Service, as documented in the Biological Opinion rendered in 1979.



(6) Does the project involve the purchase or sale of any real estate? NO

f. Socio-Economic Considerations:

(1) Will the project cause an increase/decrease in off-base military population? NO.

(2) Will there be any increased demand on a local or state government to provide services? NO.

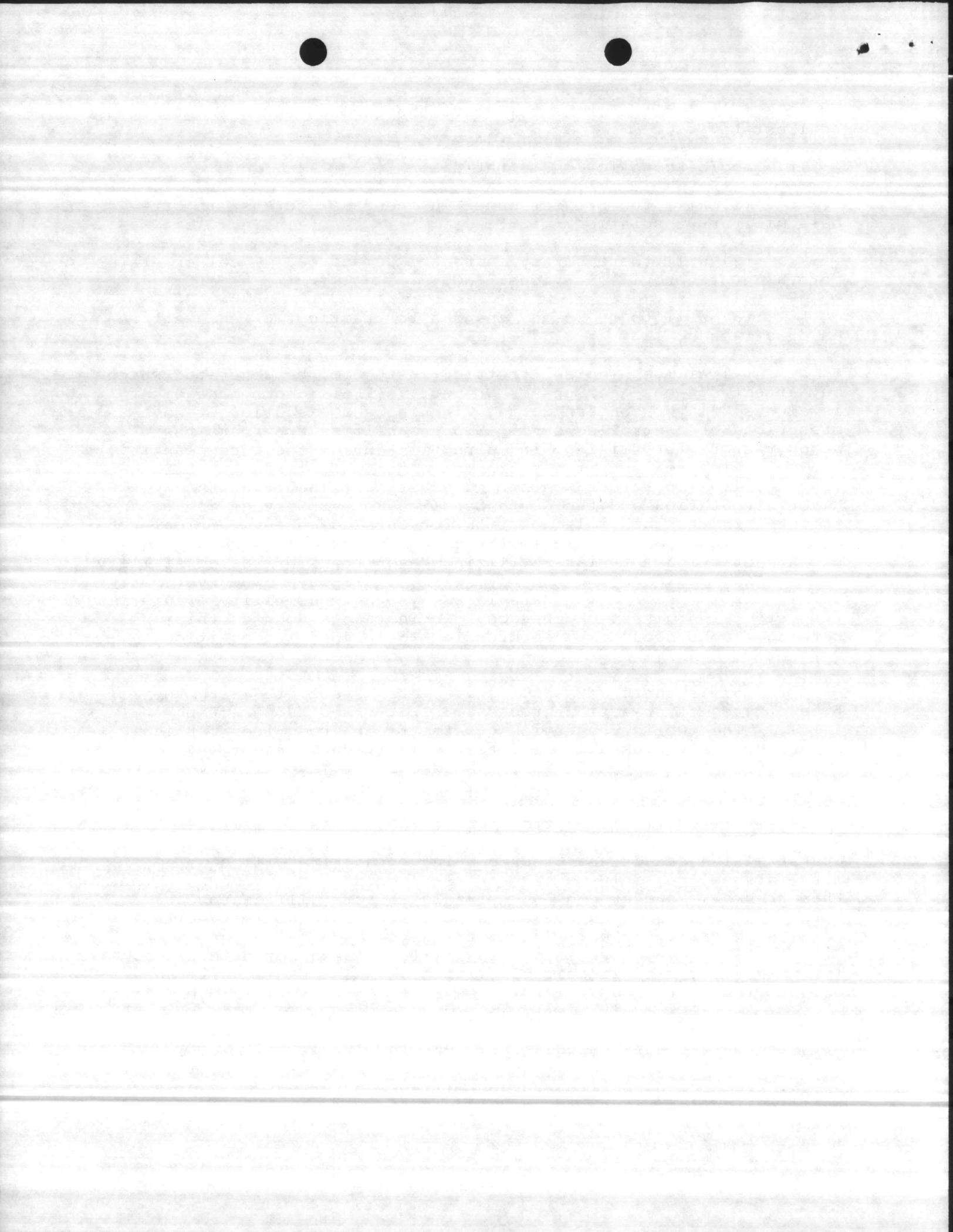
(3) Will there be any changes to traffic flow and patterns on or off-base? NO.

(4) Will any noise, traffic, dust, etc. be generated which may affect off-base persons or property? YES. Smoke management is always a major concern during planning and execution of any prescribed or controlled burn. Smoke sensitive areas are the major factors determining wind direction during the burn planning, and possible problems with smoke management are listed in Attachment No. 1. The latest weather forecasts obtained from the New River Air Station and the North Carolina Forest Service are used to determine the possible location for burning on any particular day to prevent smoke management problems. Prescribed burning signs, notifying motorists utilizing major roads of the possibility of drifting smoke on the roadway, will be displayed whenever burning is in progress. There is always the possibility of unforecasted wind direction changes. In instances such as this, burning may be secured by suppression equipment, if conditions warrant.

(5) Is there any known controversy associated with the type of project or action proposed? YES. [See subparagraph f.(4)]. The public preception of effects of prescribed burning on aesthetics varies according to the individual. What may be considered an improvement in the scenic beauty by one, may be considered undesirable by another.

Generally, the immediate effect on aesthetics is undesirable especially along roads. Due to the increased turbulence and updrafts along roads and other openings, the fire will become more intense, possibly causing needle scorch and bark char on the tree trunks. However, the undesirable effects will disappear during the next growing season in most stands, especially with the low intensity burns. The smutty appearance of the ground will "green up". Scorched needles will drop and not be noticed. The "Globe", closed circuit television and Base radio, will be used to inform the public of the benefits of prescribed burning.

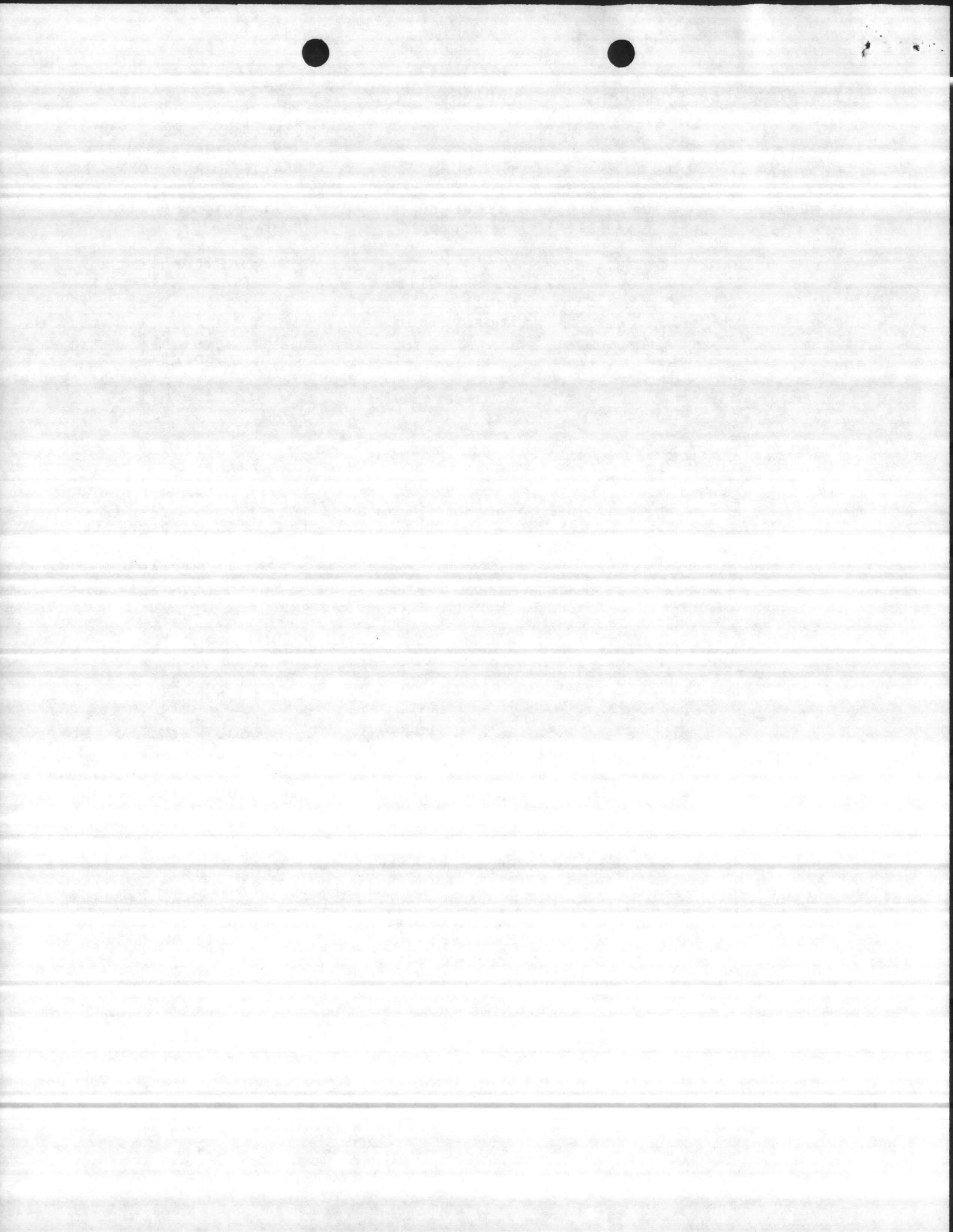
(6) Are there any historical or archaeological sites affected by project/action? YES. Burning itself will not destroy or affect any archaeologically or historically significant areas. The Base Wildlife Manager will be consulted and approve the plowline locations around all subject areas before plowlines are constructed.



TRAINING AREA & COMPARTMENT BURNING

AREA TO BE BURNED	ACRES TO BURN	PURPOSE OF THE BURN	ENVIRONMENTAL AND MANAGEMENT CONSIDERATIONS AND COMMENTS
COMP'T. 6	1,060	1. Hazard Reduction  2. Wildlife Habitat Improvement	1. Smoke sensitive areas  a. External to MCBCL (1) NC-24 (2) Kellumtown/Hubert Area  b. Internal to MCBCL (1) F-2 & 5 Range (2) F-4 Range  2. Coordinate With: a. Training Facilities Officer b. Base Fire Department c. Base Wildlife Manager d. N.C. Forest Service  3. No containment lines to plow
COMP'T. 10	1,478	1. Hazard Reduction  2. Wildlife Habitat Improvement	1. Smoke sensitive areas  a. External to MCBCL (1) None  b. Internal to MCBCL (1) Holcomb Blvd. (2) Brewster Blvd.

Attachment (1)



(3) Stone St.

(4) Lejeune  
High School

(5) Brewster  
Jr. High School

(6) Stone St.  
School

(7) Berkley  
Manor

(8) Watkins  
Village

(9) Paradise  
Point

(10) Naval  
Hospital

(11) Base  
Stables

2. Coordinate With:

a. Base Housing  
Office

b. Base School  
Superintendent

c. Principals  
of effected schools

d. CO of Naval  
Hospital

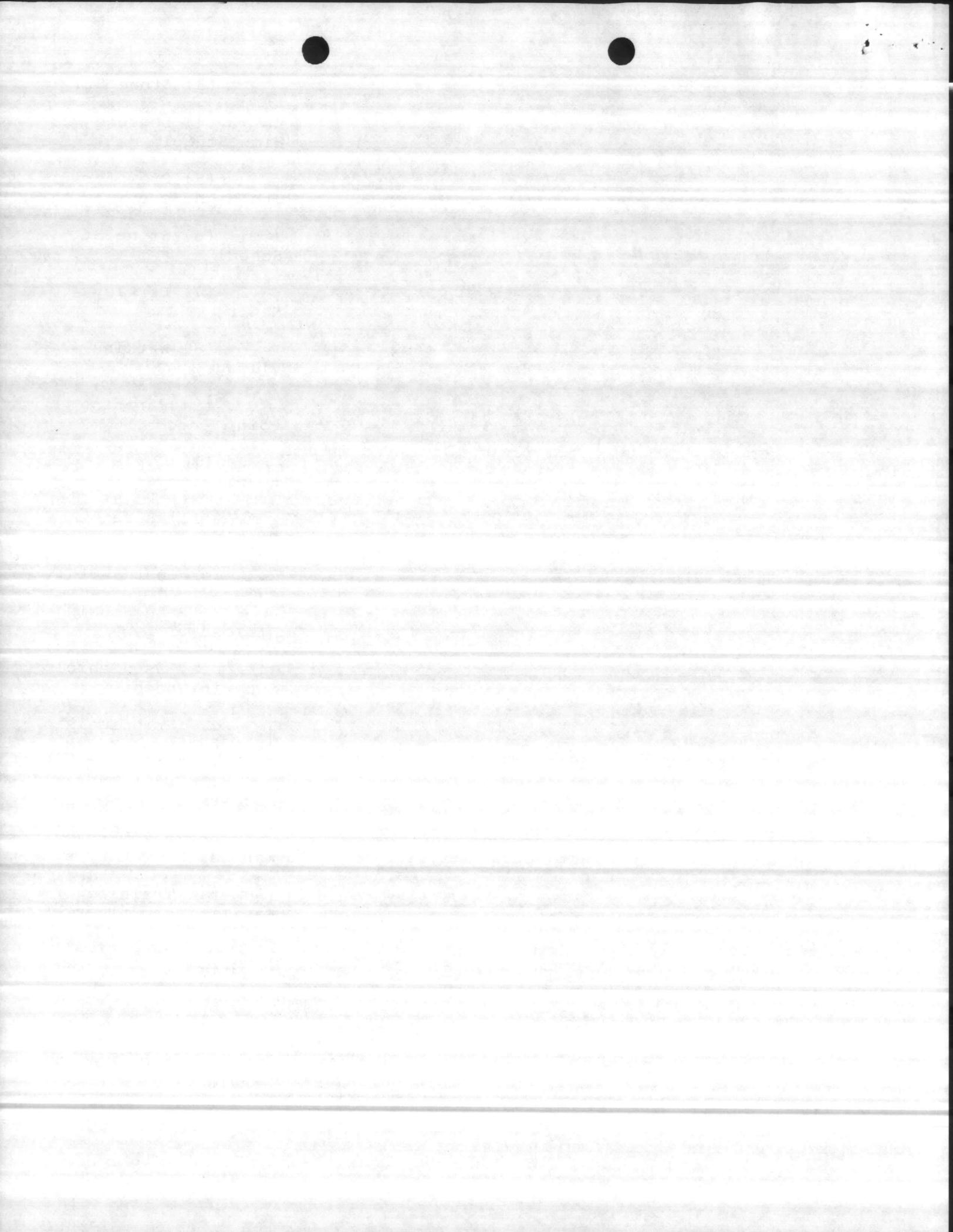
e. Base Provost  
Marshal

f. Training  
Facilities Officer

g. Base Fire  
Department

h. Base Wild-  
life Manager

i. N.C. Forest  
Service



COMP'T. 17 1,854

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

j. Manager of  
Base Stables

3. Plow 18 miles  
of containment lines

4. Low priority  
because of low wild-  
fire occurrence

1. Smoke sensitive  
areas

a. External to  
MCBCL

(1) None

b. Internal to  
MCBCL

(1) Indust-  
rial Area

(2) Hadnot  
Point Area

(3) Paradise  
Point Housing Area

(4) Holcomb  
Blvd

2. Coordinate With:

a. Base Housing  
Office

b. Base Provost  
Marshal

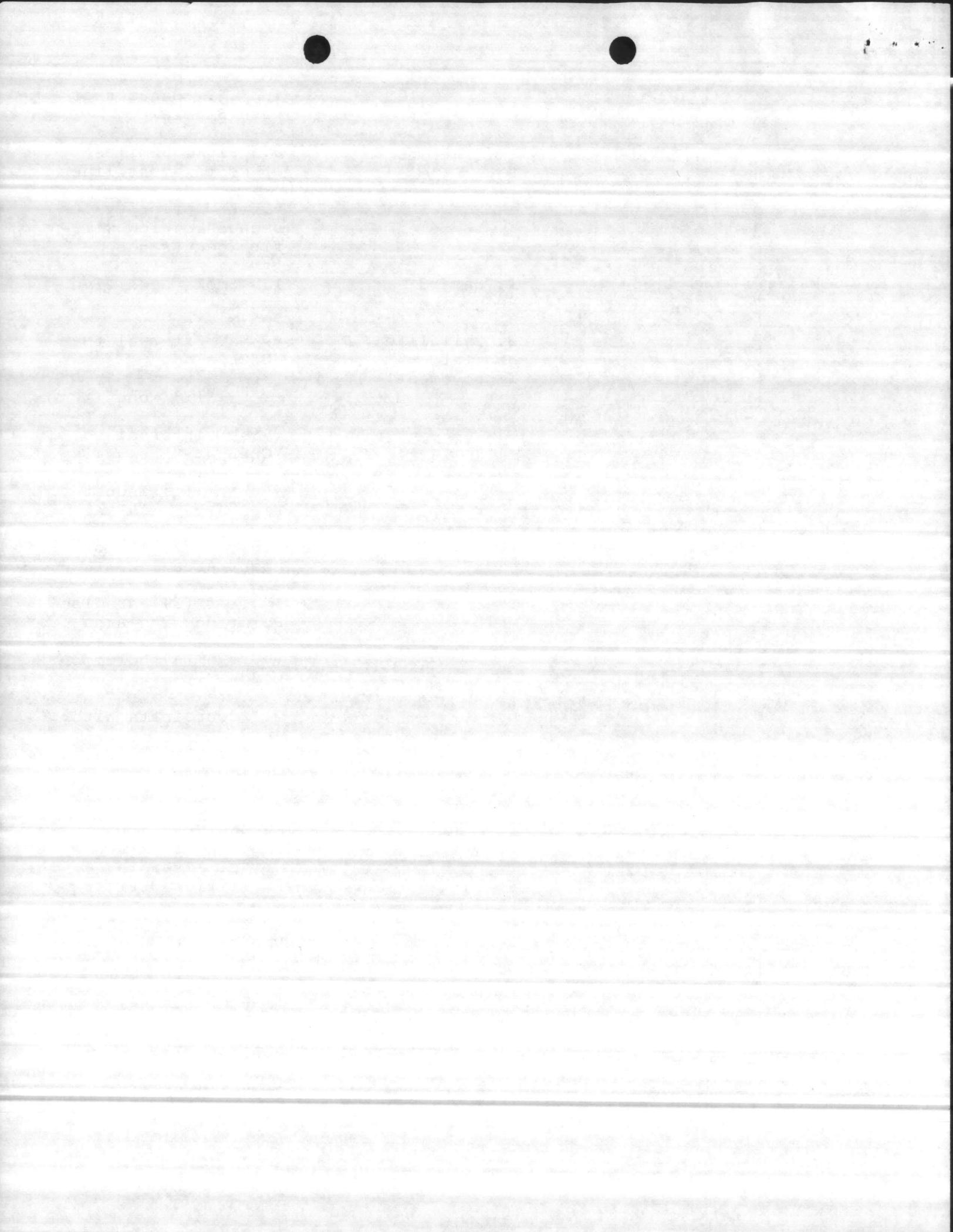
c. Training  
Facilities Officer

d. Base Fire  
Department

e. Base Wild-  
life Manager

f. N.C. Forest  
Service

3. Plow 9 miles  
of containment line



COMP'T. 27 1,479

1. Hazard Reduction

2. Wildlife Habitat Improvement

4. Low priority because of wildfire occurrence

1. Smoke sensitive areas

a. External to MCBCL

(1) US - 17

(2) Verona

b. Internal to MCBCL

(1) Verona Loop Gate

2. Coordinate With:

a. Training Facilities Officer

b. Base Fire Department

c. Base Wildlife Manager

d. N.C. Forest Service

e. Sentry at Verona Loop Gate

3. Plow 1 mile of containment line

COMP'T. 38 1,266

1. Hazard Reduction

2. Wildlife Habitat Improvement

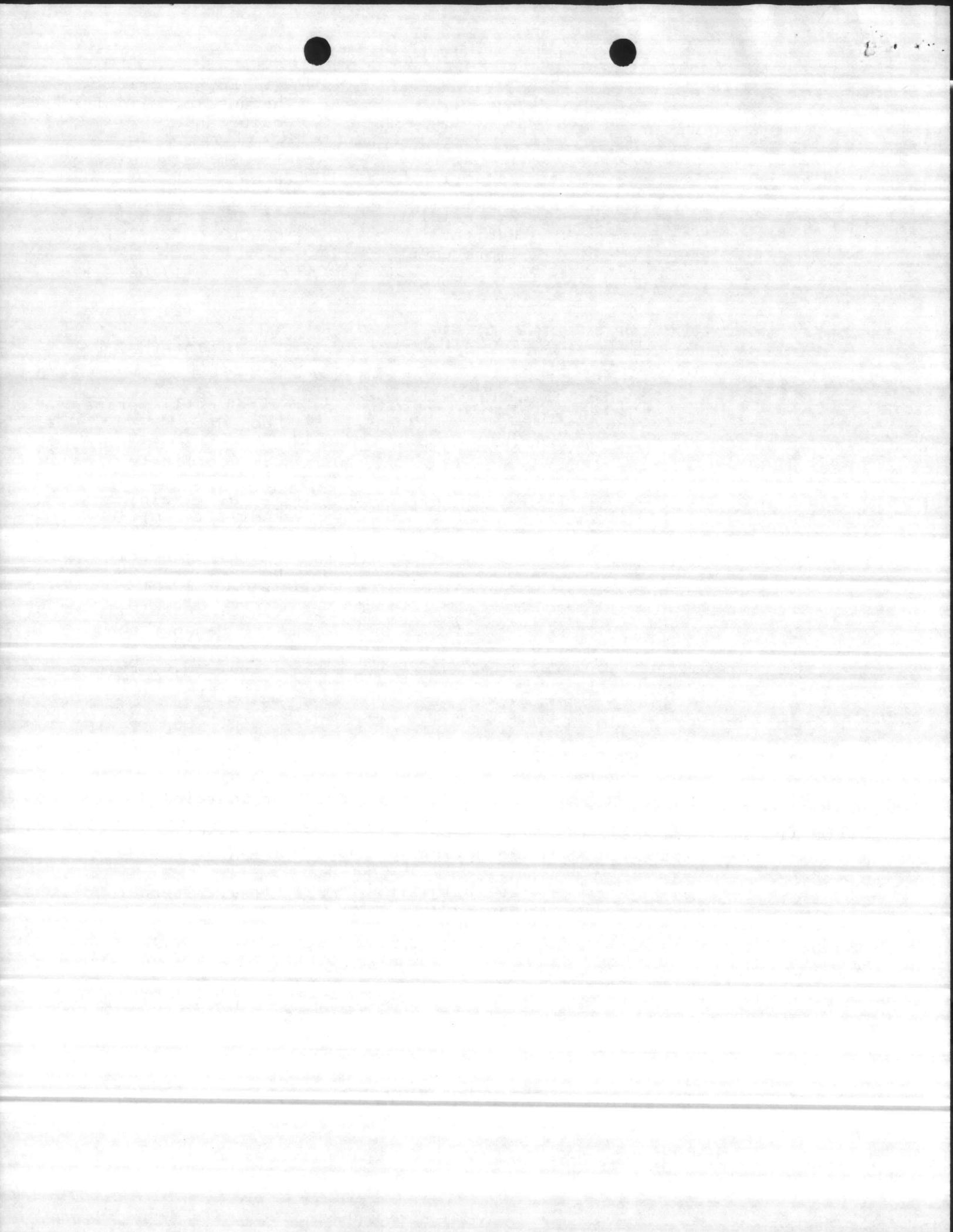
1. Smoke sensitive areas

a. External to MCBCL

(1) None

b. Internal to MCBCL

(1) Verona Loop Road



(2) Mill  
Creek Road

(3) 400  
Ranges of K-2 Impact  
Area

2. Coordinate With:

a. Training  
Facilities Officer

b. Base Fire  
Department

c. Base Wild-  
life Manager

d. N.C. Forest  
Service

3. Plow 3 miles  
of containment line

COMP'T. 42      1,219

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

1. Smoke sensitive  
areas

a. External to  
MCBCL

(1) Sneads  
Ferry Area

b. Internal to  
MCBCL

(1) NC-172

(2) Marines  
Road

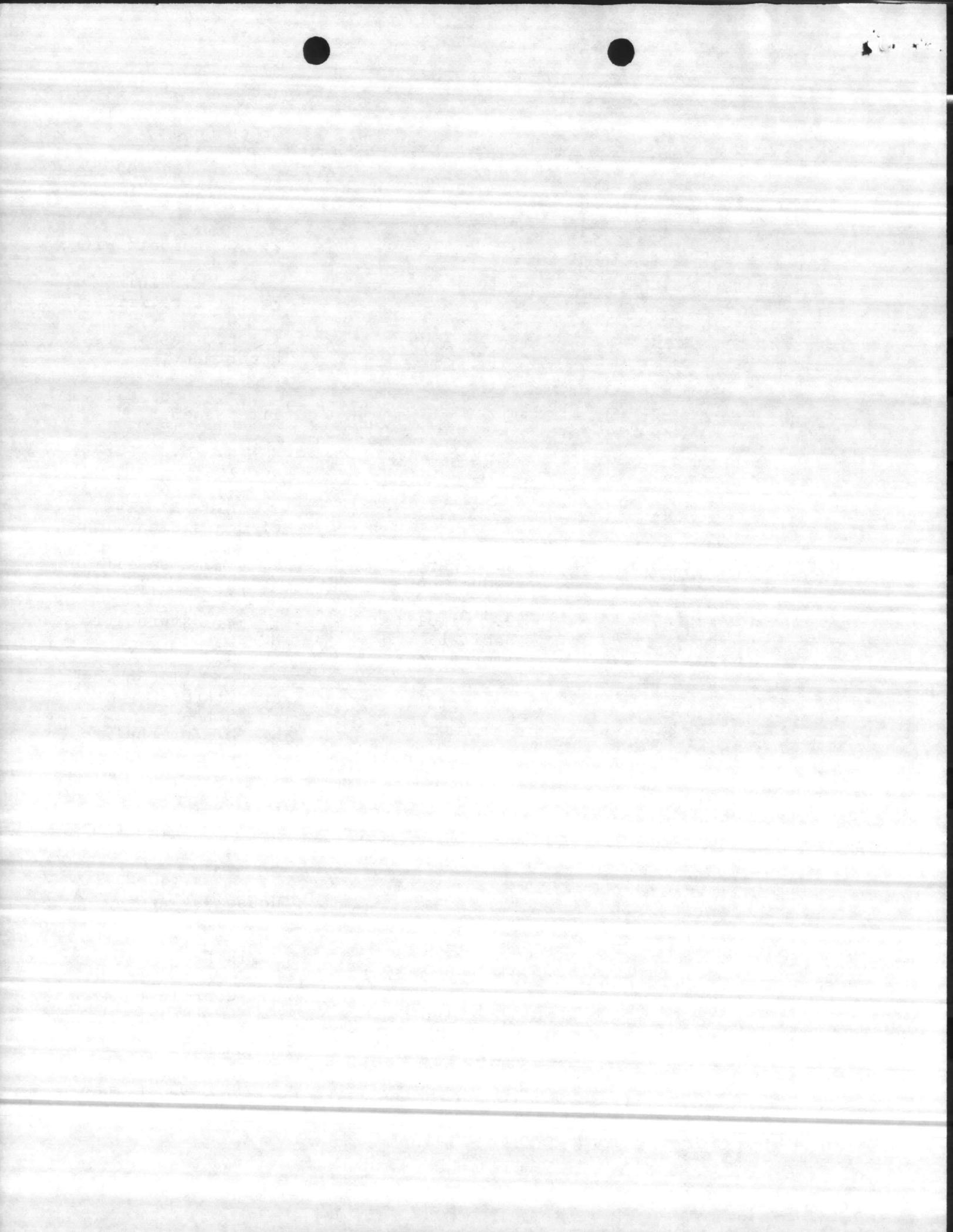
(3) Court-  
house Bay Area

(4) Boat  
Basin Area

2. Coordinate With:

a. CO of Court-  
house Bay

b. CO of Boat  
Basin



c. Training  
Facilities Officer

d. Base Fire  
Department

e. Base Wild-  
life Manager

f. N.C. Forest  
Service

3. Plow 1 mile  
of containment line

COMP'T. 43      1,148

1. Hazard  
Reduction

1. Smoke sensitive  
areas

2. Wildlife  
Habitat  
Improvement

a. External to  
MCBCL

(1) None

b. Internal to  
MCBCL

(1) Marines  
Road

(2) NC-172

(3) Court-  
house Bay Area

2. Coordinate With:

a. Training  
Facilities Officer

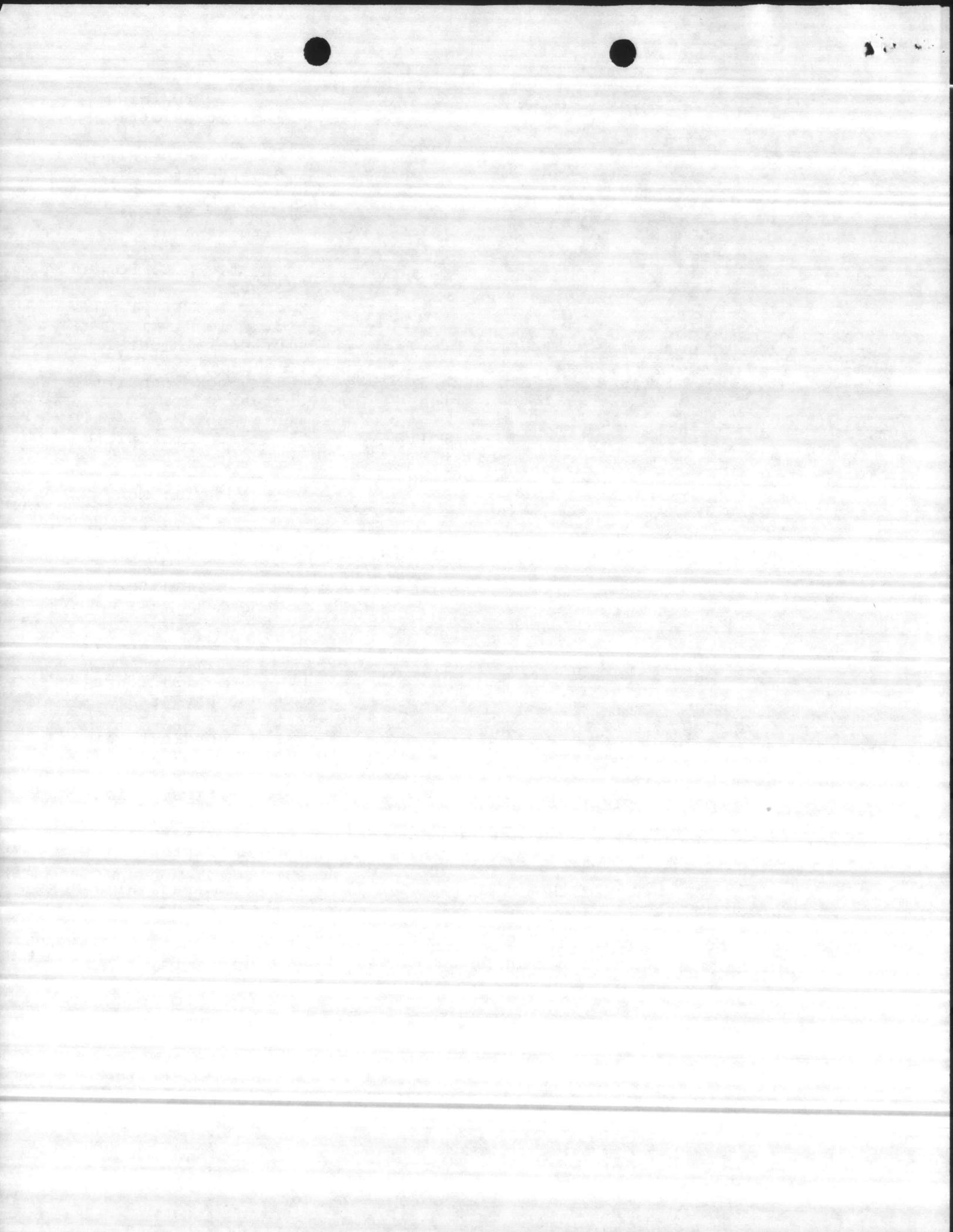
b. Base Fire  
Department

c. Base Wild-  
life Manager

d. N.C. Forest  
Service

e. CO of Court-  
house Bay Area

3. Plow 5 miles of  
containment line



COMP'T. 44

1,148

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

1. Smoke sensitive  
areas

a. External to  
MCBCL

(1) None

b. Internal to  
MCBCL

(1) Marines  
Road

2. Coordinate With:

a. Training  
Facilities Officer

b. Base Fire  
Department

c. Base Wild-  
life Manager

d. N.C. Forest  
Service

3. No containment  
lines required

COMP'T. 49

990

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

1. Smoke sensitive  
areas

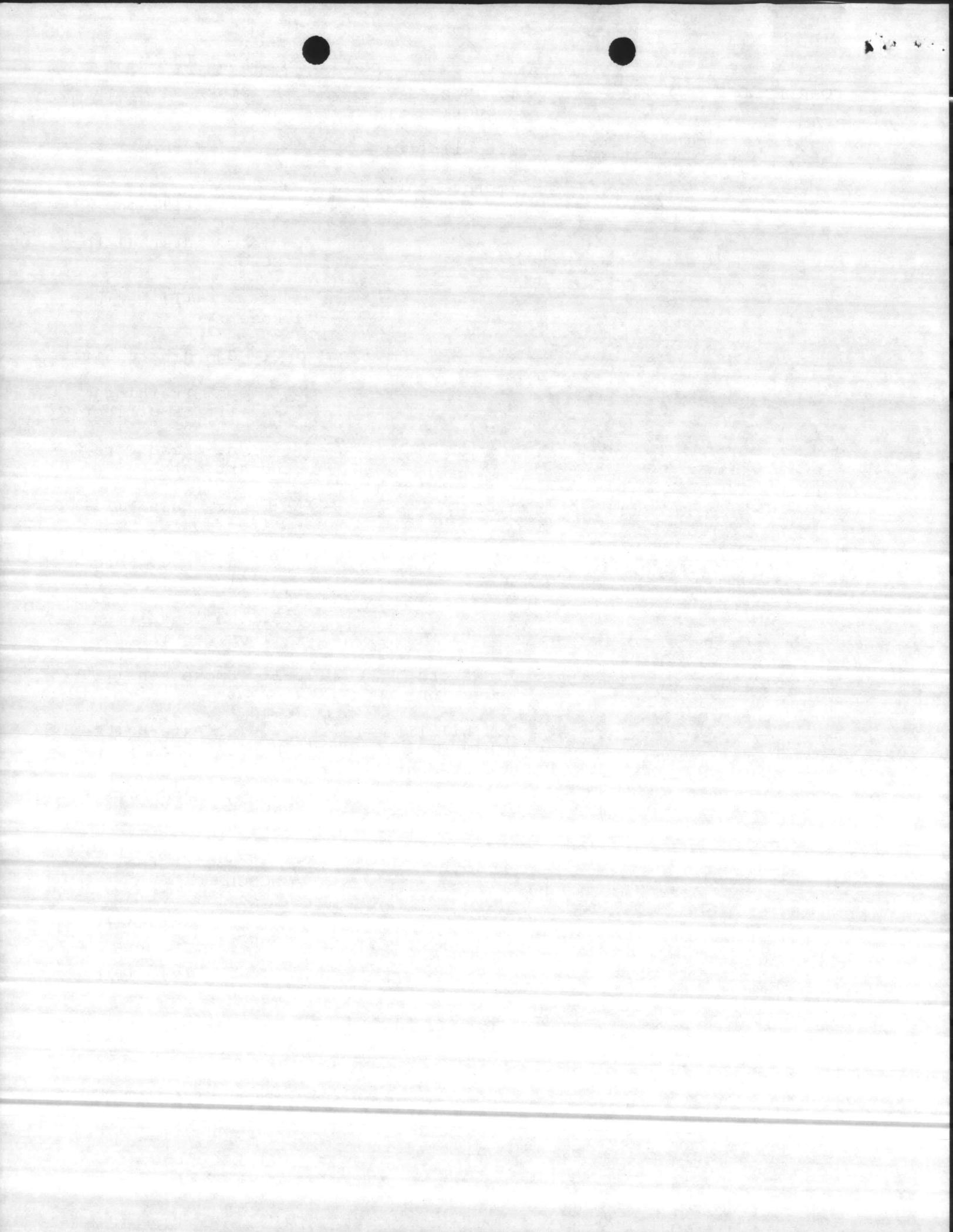
a. External to  
MCBCL

(1) Area  
south of Everett  
Creek

b. Internal to  
MCBCL

(1) Rifle  
Range Road

(2) Rifle  
Range Area



2. Coordinate With:

a. CO Rifle  
Range Area

b. Training  
Facilities Officer

c. Base Fire  
Department

d. Base Wild-  
life Manager

e. N.C. Forest  
Service

3. Plow 4 miles of  
containment line

COMP'T. 51      1,108

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

1. Smoke sensitive  
areas

a. External to  
MCBCL

(1) None

b. Internal to  
MCBCL

(1) Mile  
Hammock Road

(2) NC - 172

2. Coordinate With:

a. Training  
Facilities Officer

b. Base Fire  
Department

c. Base Wild-  
life Manager

d. N.C. Forest  
Service

3. Plow 2 miles of  
containment line



COMP'T. 52

1,340

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

1. Smoke sensitive  
areas

a. External to  
MCBCL

(1) None

b. Internal to  
MCBCL

(1) Mile  
Hammock Road

(2) NC - 172

2. Coordinate With:

a. Training  
Facilities Officer

b. Base Fire  
Department

c. Base Wild-  
life Manager

d. N.C. Forest  
Service

3. Plow 3 miles of  
containment line

COMP'T. 53

1,034

1. Hazard  
Reduction

2. Wildlife  
Habitat  
Improvement

1. Smoke sensitive  
areas

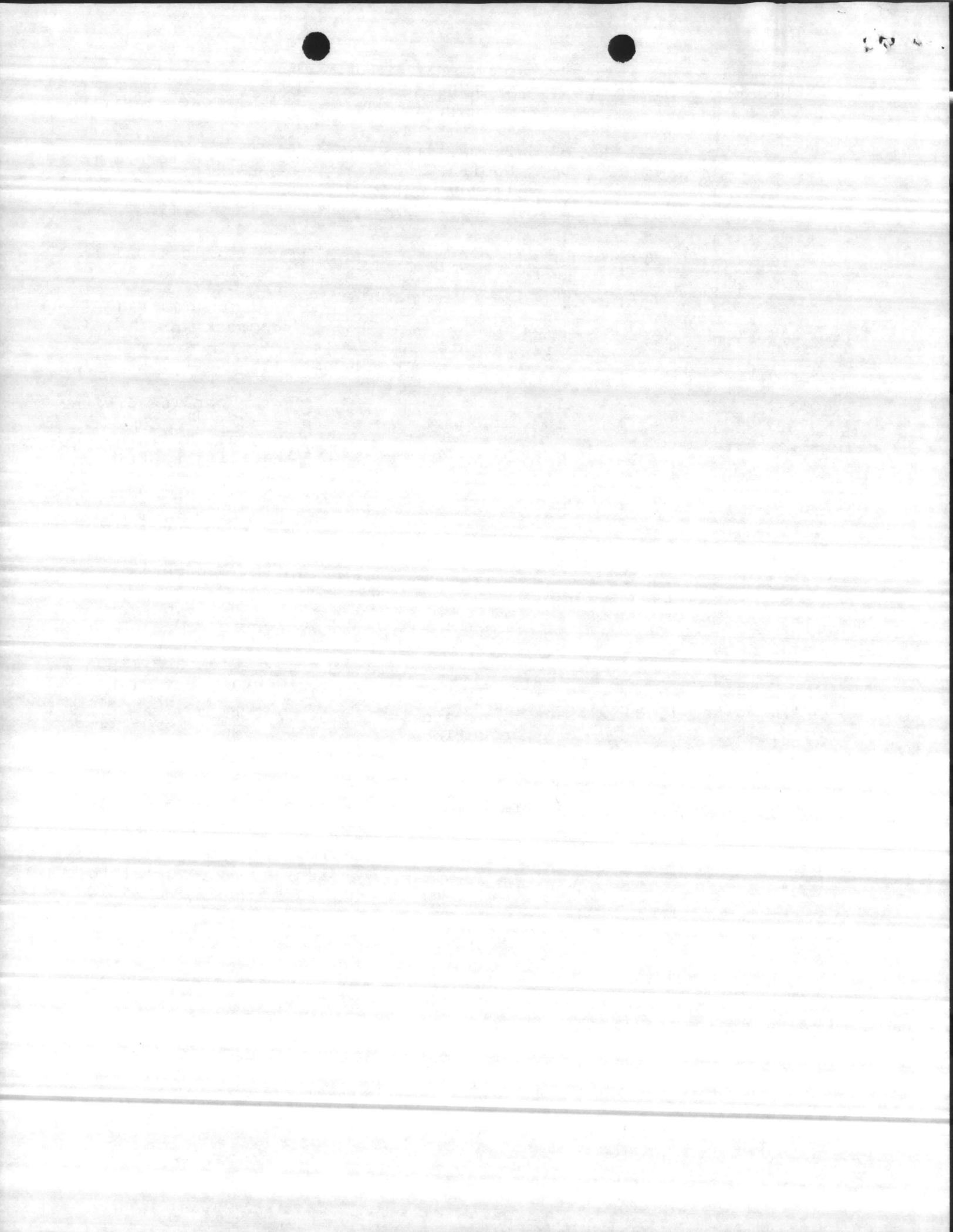
a. External to  
MCBCL

(1) None

b. Internal to  
MCBCL

(1) NC - 172

(2) Onslow  
Beach Road



2. Coordinate With:

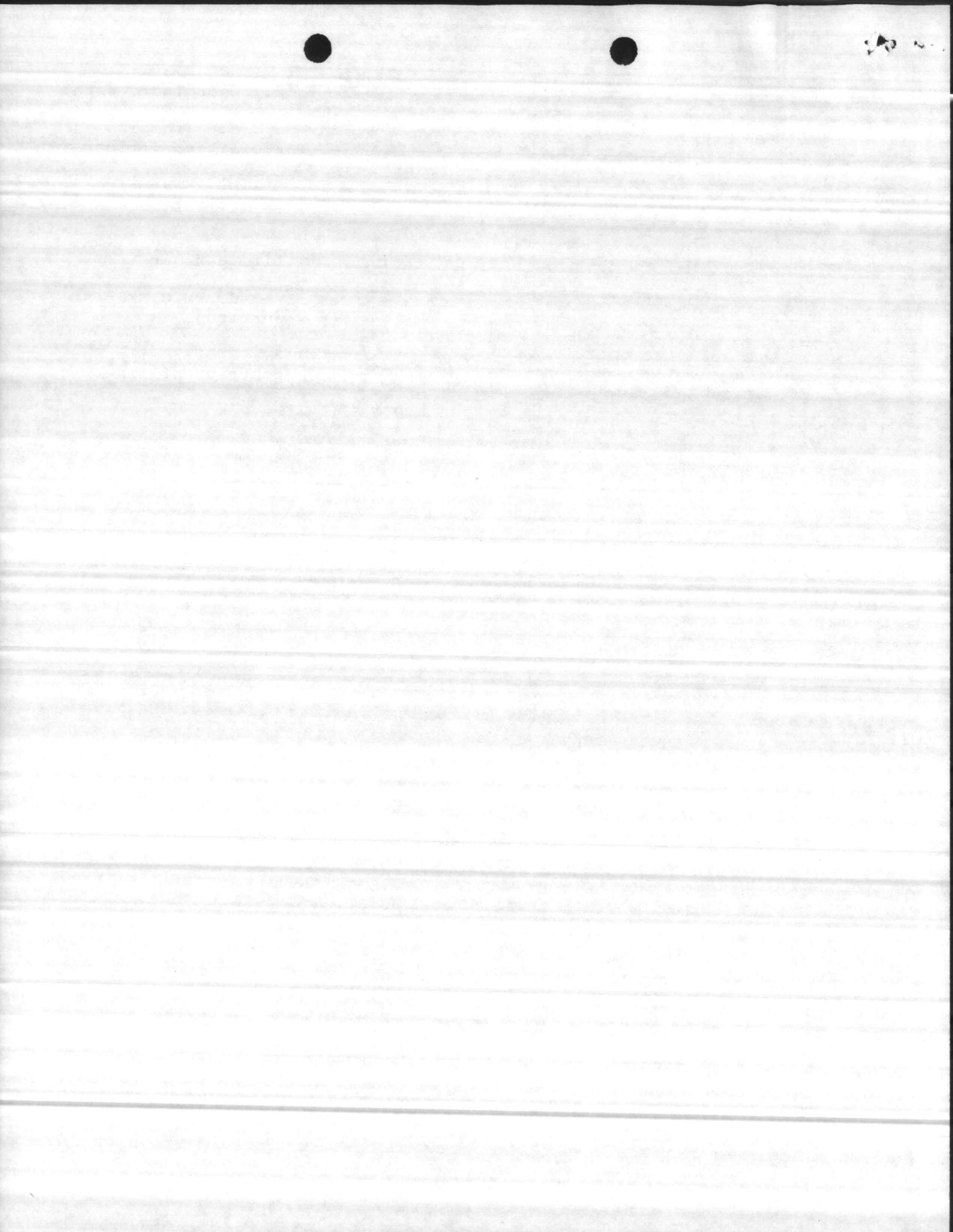
a. Training  
Facilities Officer

b. Base Fire  
Department

c. Base Wild-  
life Manager

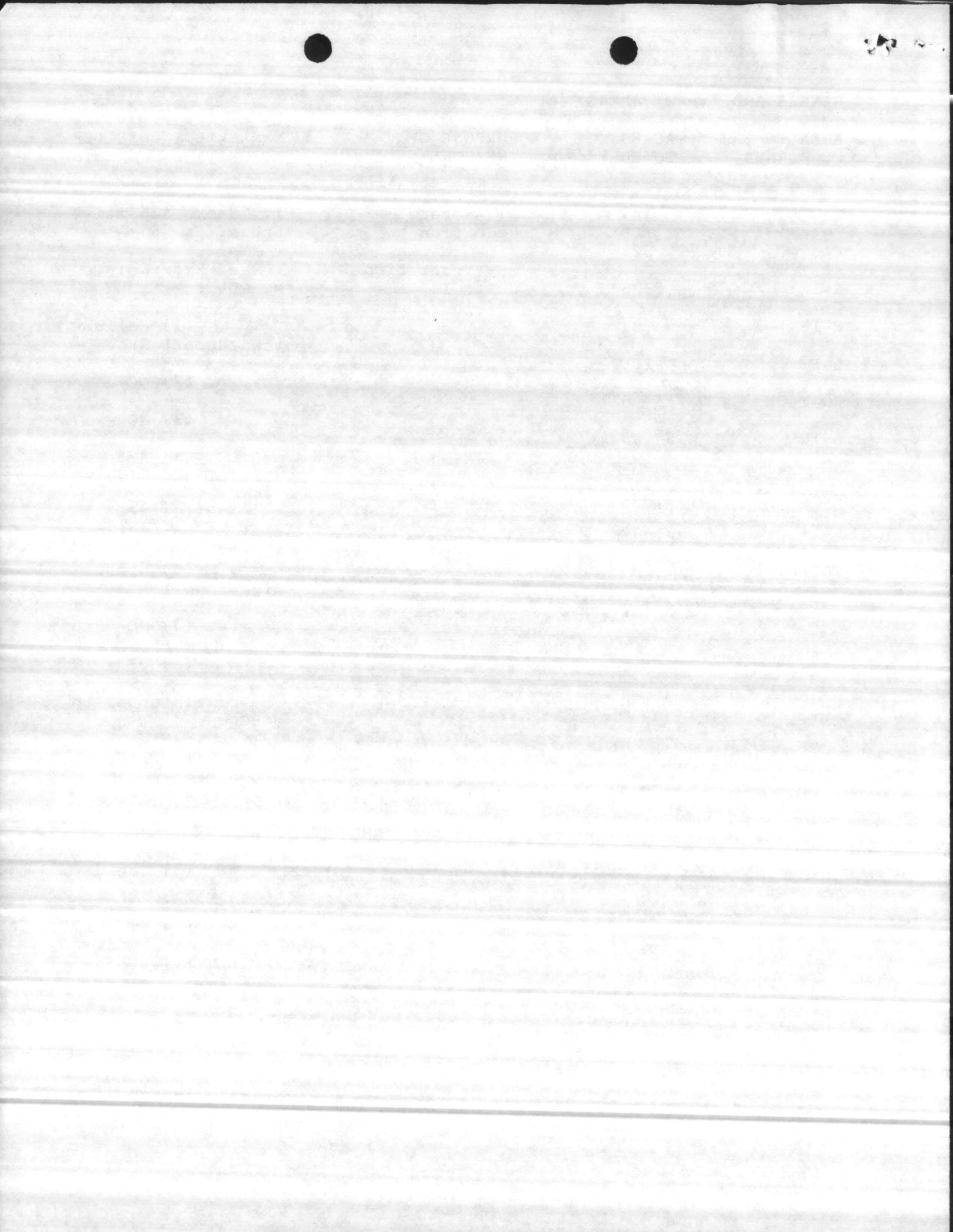
d. N.C. Forest  
Service

3. Plow 3 miles of  
containment line



RANGES AND IMPACT AREAS

AREA TO BE BURNED	ACRES TO BURN	PURPOSE OF THE BURN	MANAGEMENT CONSIDERATIONS AND COMMENTS
F-2 & 5	147	1. Hazard Reduction	1. Smoke sensitive areas:
F-3	326	2. Vegetation Control	a. External to MCBCL
F-12	333		(1) Kellumtown/Hubert Area
F-18	61		(2) NC - 24
L-5	136		(3) NC - 172
BO-14	9		(4) Areas east of NC - 172
G-10	5,779		(5) Areas east of Bear Creek
BT-3	1,321		(6) Dixon High School
K-2	3,472		(7) NC- 210
TOTAL:	11,584		(8) US - 17
			b. Internal to MCBCL
			(1) Piney Green Road
			(2) Lyman Road
			(3) Sneads Ferry Road
			(4) NC - 172
			(5) Verona Loop Road
			(6) Base Landfill
			(7) Ammo Storage Area



RANGES AND IMPACT AREAS

AREA TO BE BURNED	ACRES TO BURN	PURPOSE OF THE BURN	MANAGEMENT CONSIDER- ATIONS AND COMMENTS
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(8) Indus-  
trial Complex

2. Coordinate With:

a. Training  
Facilities Officer

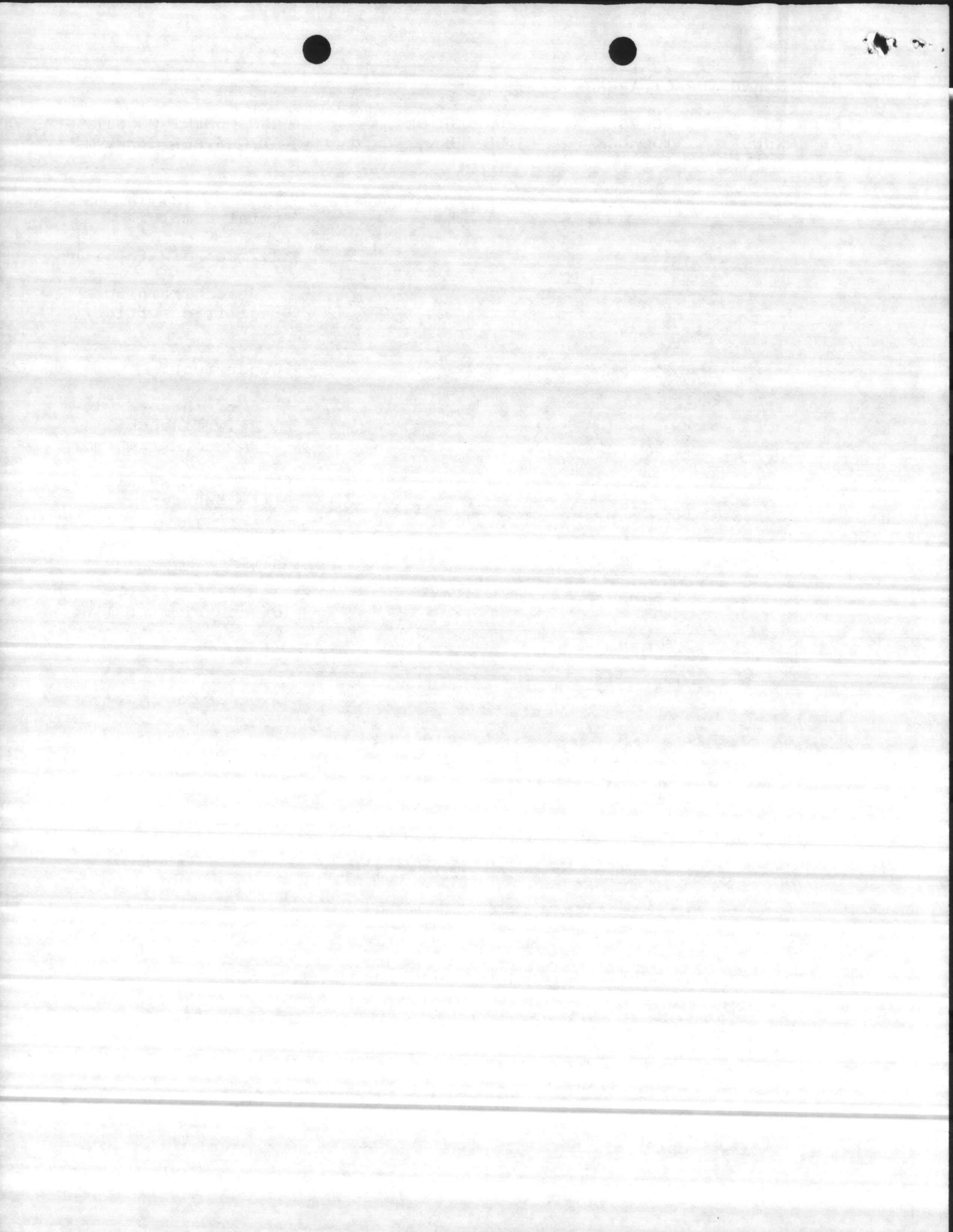
b. Base Fire  
Department

c. Base Explo-  
sive Ordinance  
Disposal Officer

d. Base Wild-  
life Manager

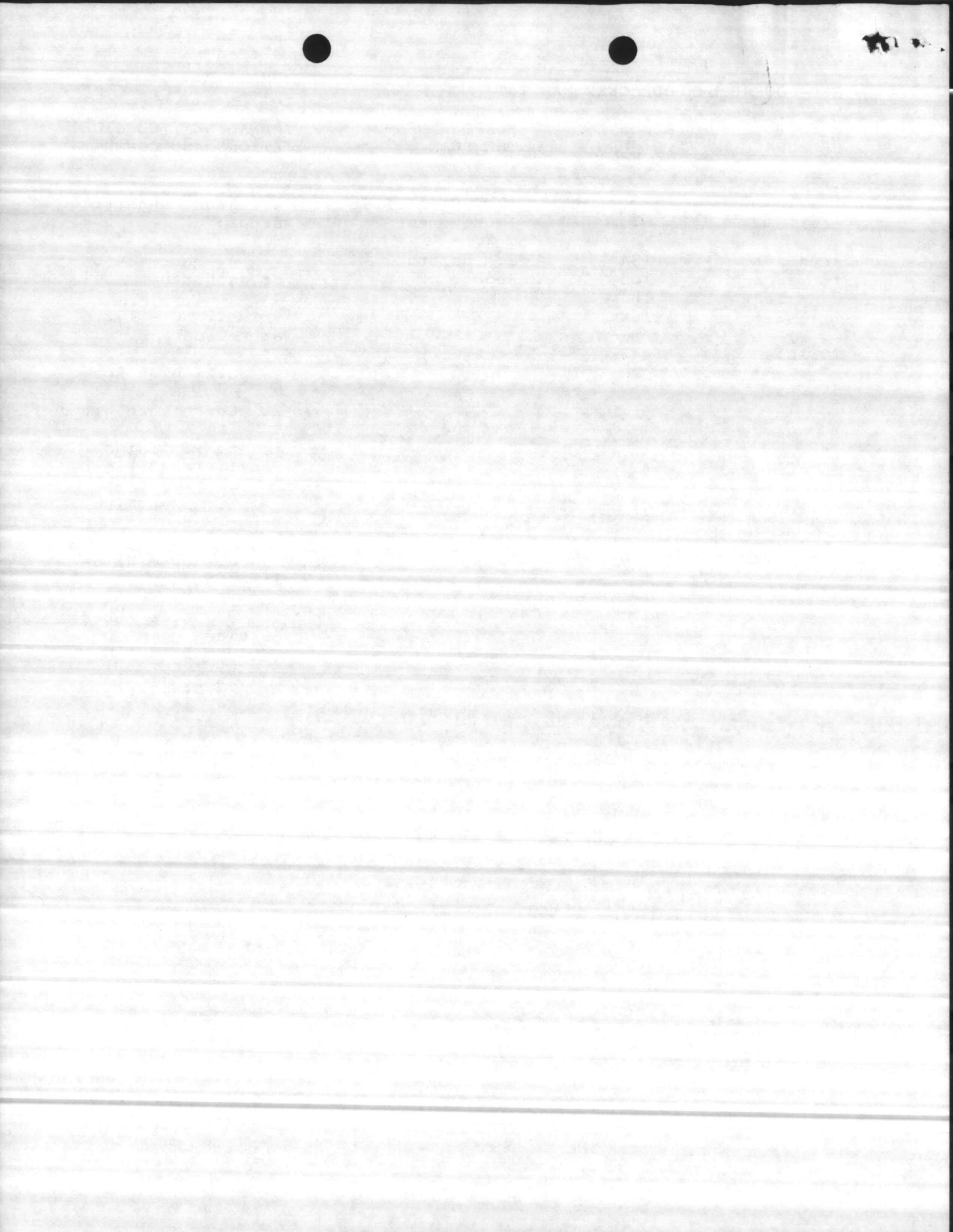
e. N.C. Forest  
Service

3. Plow 12 miles  
of containment lines



RED-COCKADED WOODPECKER HABITAT

AREA TO BE BURNED	ACRES TO BURN	PURPOSE OF THE BURN	MANAGEMENT CONSIDERATIONS AND COMMENTS
		1. RCW habitat Improvement	1. Smoke sensitive areas:
Area 3-1	134	2. Hazard Reduction	a. NC - 24 & areas north
3-2	105		b. NC - 172 & areas east
3-3	104		c. Lyman Road
3-4	104		2. Coordinate With:
TOTAL:	447		a. Training Facilities Officer
			b. Base Fire Department
			c. Base Wildlife Manager
			d. N.C. Forest Service
			3. Plow 9.5 miles of containment line



QUAIL MANAGEMENT AREA

AREA TO BE BURNED	ACRES TO BURN	PURPOSE OF THE BURN	MANAGEMENT CONSIDERATIONS AND COMMENTS
QMA	952	1. Quail habitat Improvement  2. Hazard Reduction	1. Smoke sensitive areas: a. External to MCBCL (1) Areas east of Bear Creek (2) Areas east of NC - 172 b. Internal to MCBCL (1) Lyman Road (2) NC - 172 (3) T.O.P. Gate (4) G-5, 6, and 7 Ranges (5) G-10 Impact area 2. Coordinate With: a. Training Facilities Officer b. Base Fire Department c. Base Wildlife Manager d. N.C. Forest Service 3. No containment lines to plow
TOTAL:	952		



*Adw*  
*File*  
*Peter*  
*Danny*  
*Charles*  
*DOB*  
*COB*

UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

6280  
FAC  
MAY 11 1987

**From:** Assistant Chief of Staff, Facilities  
**To:** Explosive Ordnance Disposal Officer, Marine Corps Base,  
Camp Lejeune  
**Via:** (1) Assistant Chief of Staff, Training and Operations  
(2) Base Range Control Officer  
**Subj:** ENVIRONMENTAL IMPACT OF DEPLOYING NAPALM IN G-10  
**Ref:** (a) Condensed Chemical Dictionary, 10th Edition, Van Nost  
and Reinhold, Inc., 1981  
(b) MCO 6280.7  
(c) AC/S Fac ltr 6280 FAC dtd 5 May 1987

1. As discussed between Captain Way, MCB EOD Officer and Mr. Alexander, MCB Environmental Engineer on 7 May 1987, no significant impacts have occurred or are likely to occur by using napalm in the G-10 Impact area.

2. Per references (a) and (b), solution A contains biodegradable compounds: Fatty Acids and Anti-freeze; Solution B contains corrosive hydroxides which are neutralized during use. Solution B also contains less than 1% pyrogallic acid which is not considered to be a significant contaminant due to the limited use and dispersion in G-10.

3. Environmental concerns which should be monitored by Range Control personnel regarding the use of napalm are:

(a) Forest fire prevention procedures already listed in the Range SOP;

(b) Proper storage and handling of these solutions in accordance with base hazardous materials/waste policies of BO 6240.5, if storage occurs at MCB.

4. Reference (c) is cancelled. Our point of contact is Mr. Alexander, extension 3034.

K. J. KIRIACOPOULOS  
By direction

Copy to:  
NREA  
EnvEngr





# NORTH CAROLINA WILDLIFE FEDERATION

P.O. Box 10626  
RALEIGH, NORTH CAROLINA 27605 - 0626  
(919) 833-1923  
February 26, 1987

Colonel Holland, Director of Operations  
Marine Corps Air Station (MCAS) Cherry Point  
Cherry Point, N.C. 28533-5001

Dear Colonel Holland:

The North Carolina Wildlife Federation, an organization that represents over 33,000 North Carolinians, is adamantly opposed to the establishment of two Military Operation Airspace Areas (MOAs) designated Cherry 1 and Core.

We fear that if these areas are established overflights will drastically reduce or eliminate public useage of these areas on land, water, and in the air. Low-level training flights would have enormous negative impacts on recreational and commercial fisheries, tourist visitations, nesting shore birds, civilian air and radio traffic, and historical structures on Core Banks.

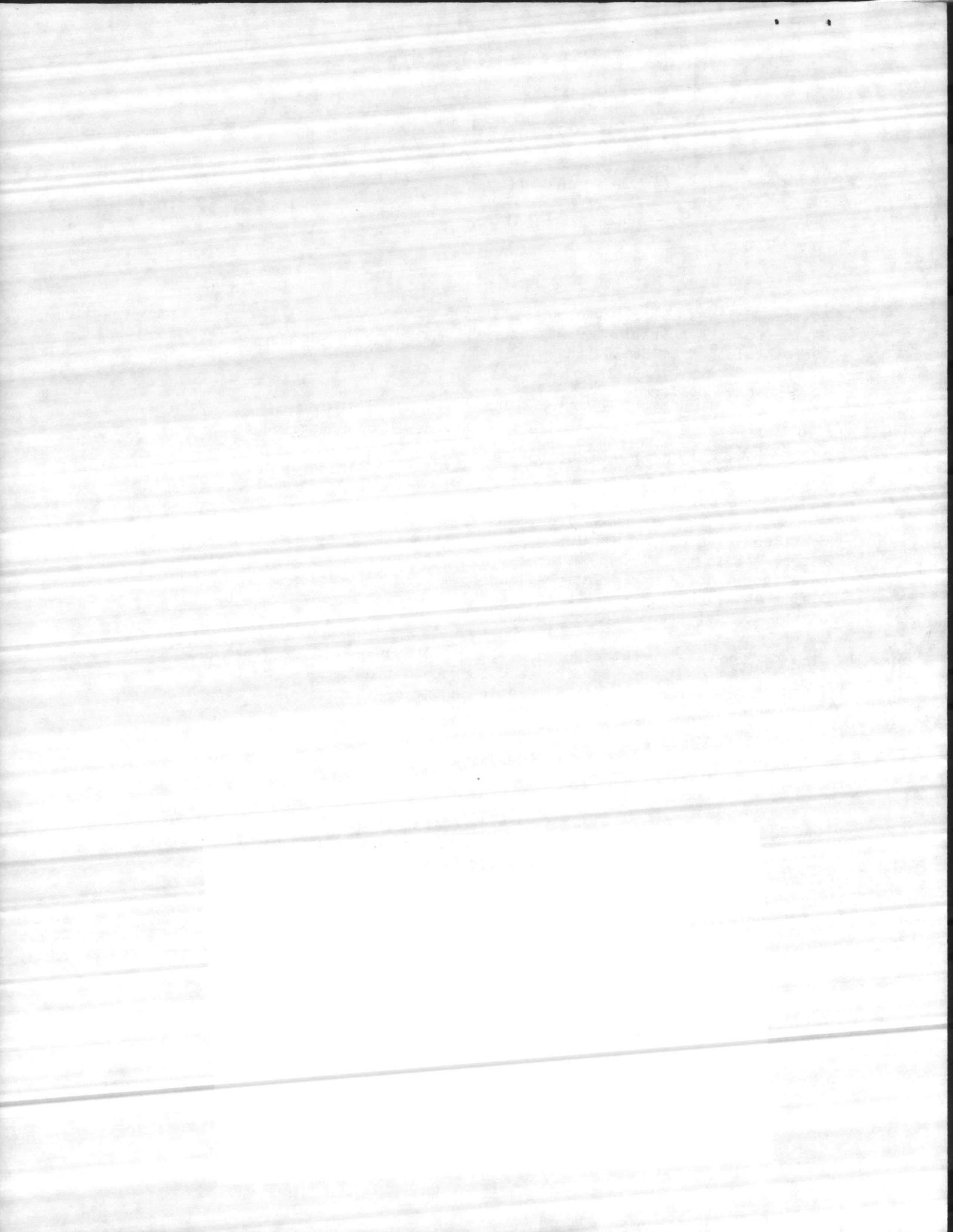
We have reviewed the Corps DEIS and also a response to the DEIS from the National Park Service Cape Lookout National Seashore Office. The North Carolina Wildlife Federation endorses that detailed response.

Sincerely yours,

Charles S. Manooch, III, President  
North Carolina Wildlife Federation

cc: Co  
Se  
Se

~~End Draft~~  
Cherry Point Air Space  
Info.  
PEA  
Julia





# NORTH CAROLINA WILDLIFE FEDERATION

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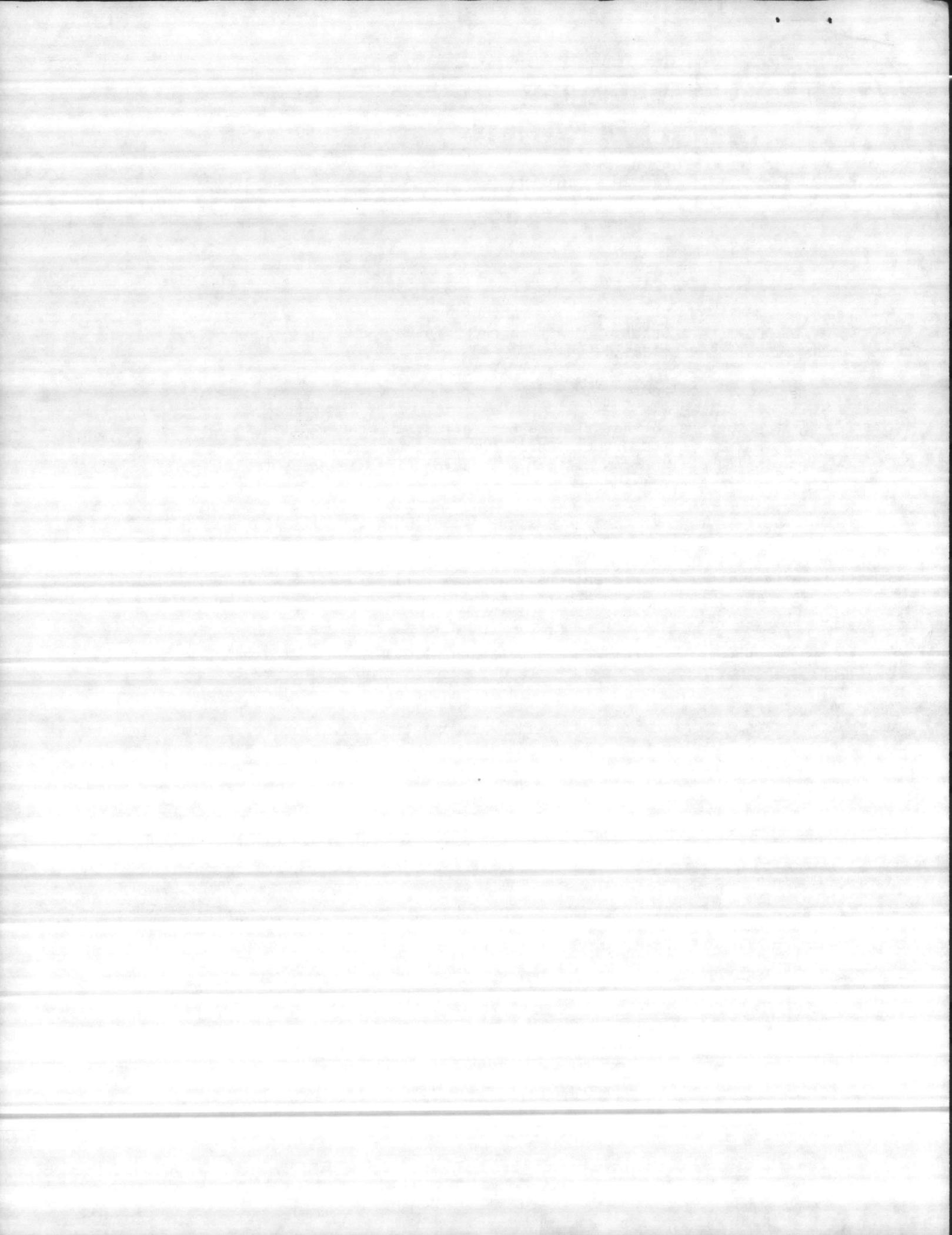
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Sincerely yours,

Charles S. Manooch, III, President  
North Carolina Wildlife Federation  
10 Dogwood Lane, Route 4  
Morehead City, N.C. 28557

cc: Congressman Walter B. Jones  
Senator Terry Sanford  
Senator Jesse A. Helms





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Mattamuskeet National Wildlife Refuge  
Rt. 1 Box N-2  
Swanquarter, North Carolina 27885

Statement Submitted by Refuge Manager of Swan Quarter and Cedar Island NWR at Public Hearing for Establishment of Cherry I and Core Military Operating Areas at Morehead City, North Carolina on 26 February, 1986

As manager of the Cedar Island, Swan Quarter, Pungo and Mattamuskeet National Wildlife Refuges (NWRs), I wish to comment on several aspects of the Draft Environmental Impact Statement for Establishment of Cherry I and Core Military Operating Areas (MOAs).

I. The Cherry I MOA overlaps portions of Swan Quarter NWR and most of that refuge area was included in the National Wilderness Preservation System in 1976. The draft EIS does not acknowledge the existence of the wilderness area nor does it address potential impacts from military aircraft overflights. The EIS does attempt to mitigate for the obvious disturbance to wildlife that would be created by low flying jet aircraft by setting a 3000' minimum elevation for military jets over refuge airspace.

The Wilderness Act defines wilderness as "undeveloped Federal land" where... "the imprint of man's work is substantially unnoticed" and land that "has outstanding opportunities for solitude".... I am concerned the jet traffic, even at an altitude of 3000', may be very difficult not to notice and almost certainly "solitude" will be disrupted by the roar of engines. In spite of this concern I do appreciate this first attempt to mitigate the disturbance of this National Wildlife Refuge and hope that further review will determine the boundaries of the Cherry I MOA can be moved farther into Pamlico Sound away from the wilderness boundaries.

1917

WHEREAS the National Park Service is authorized to acquire and manage public lands and interests therein, and

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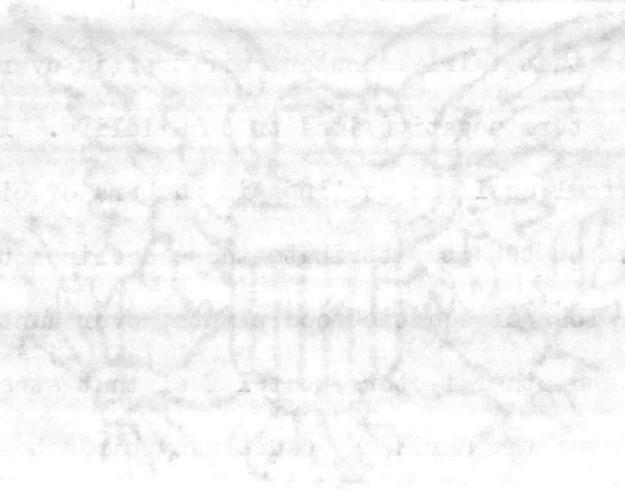
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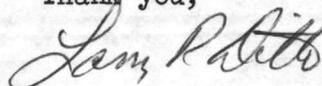
II. There seems to be some concensus in academic circles that wildlife, including many nesting birds such as bald eagles, are normally not bothered by air traffic flying at altitudes as low as 3000'. I personally am concerned that fairly constant air traffic over a nesting area may have some long term negative impacts on wildlife. I also worry about the effects on waterfowl as I see declines in numbers of birds on perennial wintering grounds. We tend to attribute those declines to deterioration of water quality, loss of aquatic food plants, over hunting, or loss of nesting habitat and other factors, but I feel that stress caused by constant air traffic over the marsh may cause many birds to nest or winter elsewhere or not nest at all.

III. Finally, I want to address a serious problem that I face as a manager and wildlife law enforcement officer. The draft EIS addresses air space conflicts between military jets and civilian aircraft in terms that sound like there is very little conflict at all and that with these new MOA's there will be even less conflict. The EIS says the MOA will provide a means by which military aircraft activities and civilian activities are allowed to coexist in airspace with as few constraints as practicable. Actually, it's not very practical at all. Our pilot and special agent is a former military pilot, and yet he finds it very frustrating and sometimes impossible to obtain clearance to fly Cedar Island Refuge to survey waterfowl numbers or perform routine law enforcement surveillance of waterfowl hunters because the airspace is continually occupied by military traffic. When the new Cherry I MOA includes Swan Quarter NWR airspace, we may be further excluded from a vital portion of our job on that National Wildlife Refuge.

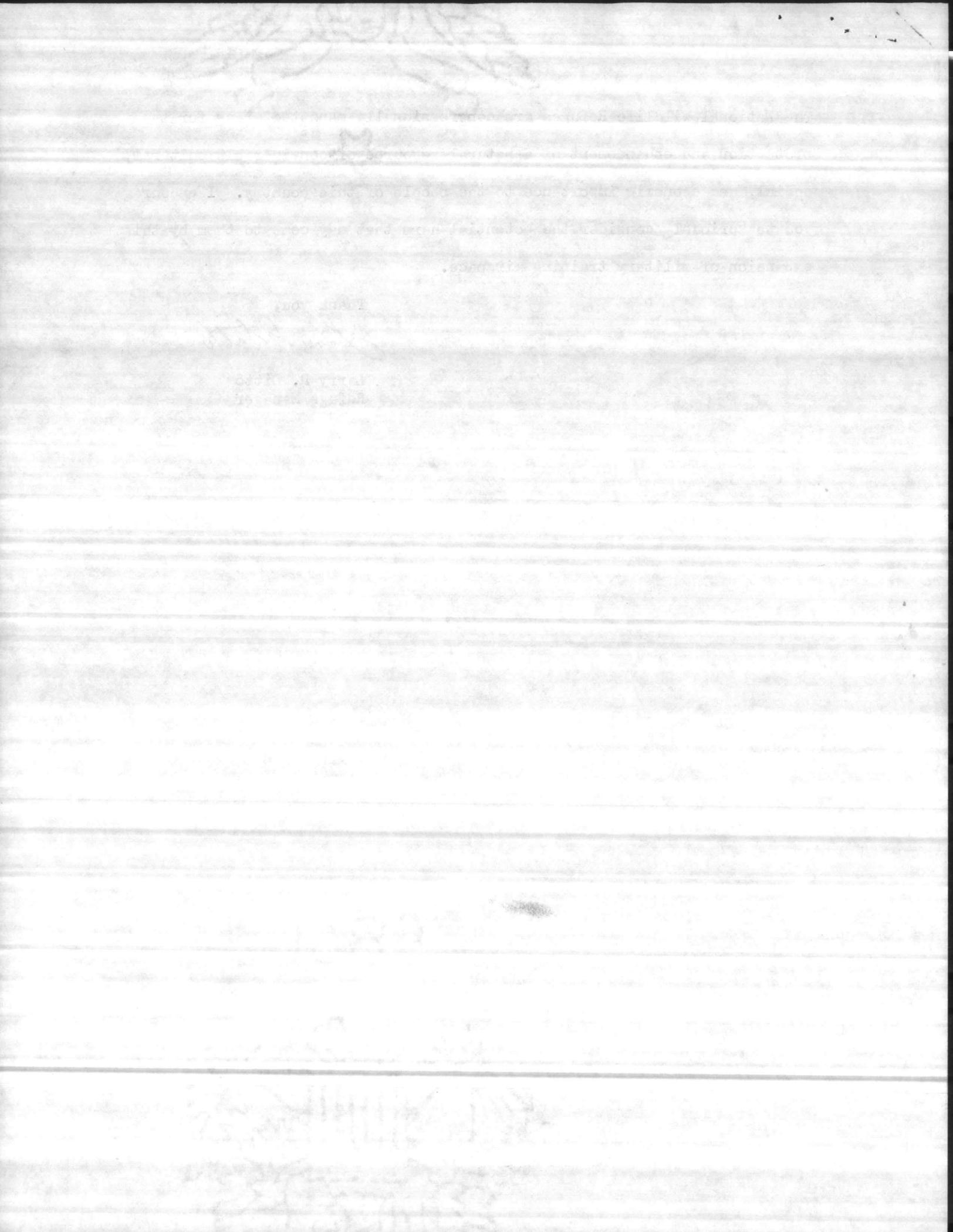


The National Wildlife Refuges are congressionally mandated areas for the protection and enhancement of a natural resource of considerable cultural, social, and economic importance to the people of this country. I encourage you to seriously consider the potential harm that may come to them by this expansion of military training airspace.

Thank you,



Larry R. Ditto  
Refuge Manager



## CHERRY 1 AND CORE MOAs

### PURPOSE AND NEED

The Marine Corps Air Station (MCAS) Cherry Point, located on the Neuse River in eastern North Carolina, has long been established (1942) as the Marine Corp's major east-coast tactical aviation training activity. With its bombing ranges and outlying fields, MCAS Cherry Point has become the world's largest Marine Corps Master Jet Air Station. The mission of MCAS Cherry Point is to provide aviation/training support to the Second Marine Aircraft Wing (MAW). Cherry Point facilities also provide necessary training support (via its bombing ranges, outlying fields and Special Use Airspace) to additional Air Force and Navy squadrons located in the region.

Today, a major aviation skill, which must be acquired through recurrent training, is associated with low-altitude, high-speed, overland air combat maneuvers and ingress (sea-to-land) target interception. It is critical in certain instances that pilots be capable of flying at subsonic speeds exceeding 250 knots and at low altitudes over varying terrain to avoid being detected by radar. Training of this type was initiated in response to the development of highly sophisticated radar systems during the 1970's. Due to the relative newness of these operations, most of the military's Special Use Airspace (SUA) areas within the U.S. are not capable of supporting this type of training. In fact, the MAW stationed at MCAS Cherry Point can only perform limited low-altitude, low-speed (less than 250 knots) operations within the Cherry Point region and must deploy pilots and support personnel to airspace areas in the West (Fallon, Nevada and Yuma, Arizona) on a yearly basis at high costs (nearly \$2 million per year). Cherry Point squadrons are presently

deployed to low-altitude SUAs an average of three times per year with each training session lasting three weeks. This short training time comes as a result of competition among many Department of Defense (DOD) air squadrons for a limited amount of existing suitable airspace. These limitations on existing available airspace do not allow pilots to maintain skills associated with low-level, high-speed flight. Therefore, the establishment of SUA in the form of Military Operating Areas (MOAs) is proposed by MCAS Cherry Point. The purpose of the proposal is to:

- decrease (MAW) days away from Cherry Point and the associated costs and logistical problems associated with deployment
- allow (MAW) pilots as well as Navy and Air Force pilots to maintain critical skills in low-level, high-speed maneuvers and sea to land target interception

Definition of the Proposal:

MCAS Cherry Point is proposing the establishment of two Military Operating (Airspace) Areas (MOAs) designated Cherry 1 and Core. A Military Operating Area (MOA) is a designated volume of airspace having defined vertical and lateral limits and providing an area for performance of nonhazardous military training activities. Such activities include air combat maneuvers (two or more opposing pilots, flying in aircraft without weapons, attempt to gain tactical advantage by position), aircraft acrobatics (execution of precise flight operations which demonstrate the agility of the aircraft), air intercepts (aircraft fly along flight tracks intercepting a predesignated target) and low-altitude tactics (aircraft fly at low-altitude levels to avoid early detection by radar).

A MOA does not prohibit nonparticipating (i.e., civilian) pilots from operating aircraft within its boundaries; rather, it allows first, separation (or segregation) of nonparticipating aircraft that possess Instrument Flight Rule (IFR) navigation equipment and second, identification and avoidance of nonparticipating aircraft that possess Visual Flight Rule (VFR) navigation equipment. Within the limits of the proposed MOAs, identification, segregation and avoidance of these aircraft will be accomplished via Air Traffic Control (ATC) radar containment; radar advisory service will be available to all aircraft within the proposed areas.

The desired result of a MOA, therefore, is to provide a means by which military aircraft training activities and nonparticipating civilian aircraft activities are allowed to coexist in airspace with as few constraints as practicable.

Pilots operating under Visual Flight Rules (VFR) should exercise extreme caution while flying within a MOA when military activity is being conducted. Information regarding activity in MOAs can be obtained from a Flight Service Station (FSS) within 100 miles of the area. Prior to flying through a MOA, pilots may contact the controlling agency for traffic advisories. The MOAs would be depicted on sectional, VFR-terminal and low-altitude en-route charts.

A specific description of the proposal is provided below:

The Cherry 1 MOA is approximately 25 by 30 miles in area and is situated over portions of Beaufort, Craven, Hyde, Pamlico and Washington counties of North Carolina.

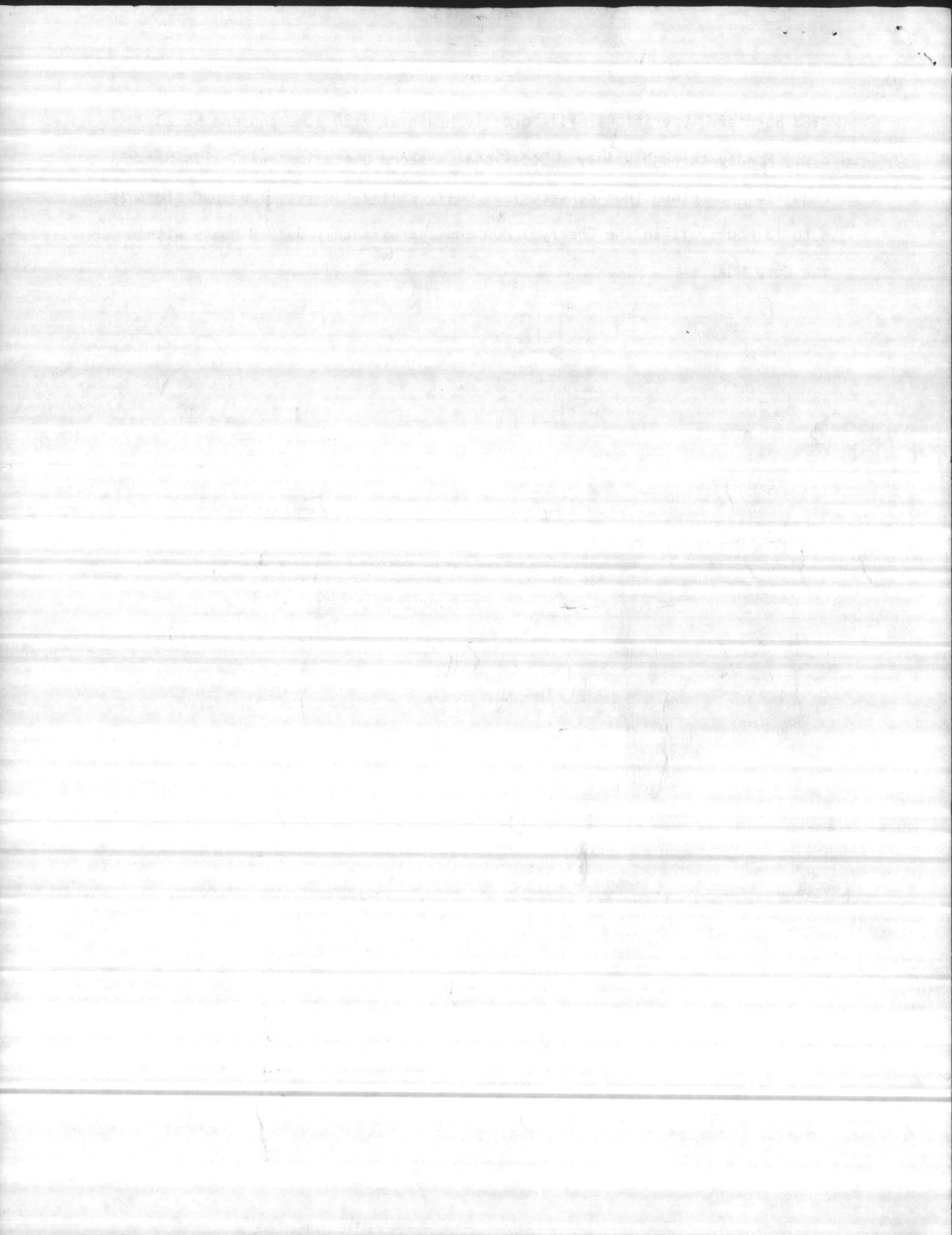
Air operations within the proposed Cherry 1 MOA are associated with low-altitude, high-speed air combat maneuvers and will encompass a series of training activities, including Low Altitude Training (LAT), Air Combat Maneuvering (ACM), Evasive Maneuvering (EVM) and low-altitude interception of existing bombing targets located east of the Cherry 1 MOA within an adjacent existing restricted area, R5306A.

The Core MOA is approximately 4-by-30 miles in area and is situated over a portion of North Carolina's Outer Banks, known as the Cape Lookout National Seashore. The area also extends three miles east over the Atlantic Ocean.

The Core MOA will connect existing Restricted Area R5306A (located inland) with an existing offshore warning area, W-122. Primary aircraft training activities associated with this proposed MOA will be low-altitude ingress (sea-to-land) bombing missions intercepting existing bombing targets located at R5306A.

Certain training operations within the proposed MOAs will require flight at altitudes as low as 100 feet within an 11-mile, east-west corridor of the Core MOA between New Drum and Swash Inlets on the Outer Banks and as low as 500 feet within the Cherry 1 MOA and remaining portions of the Core MOA. The ceiling level for both MOAs will be at 18,000 feet. Speeds will exceed 250 knots, but will remain at subsonic levels. The MOAs will be jointly used by the Marine Corps, Navy and Air Force; however, the primary user will be the Second Marine Aircraft Wing (MAW) located at Marine Corps Air Station (MCAS) Cherry Point, North Carolina. MAW operations will comprise roughly 80 percent of total MOA usage. The primary aircraft type utilizing the MOAs will be the

AV8B Harrier. Operations will normally begin at 7:30 a.m. and end by 10:30 p.m., Monday through Friday. Occasional weekend operations will also be required. Combined (non-consecutive) daily utilization will be approximately 6 to 13 hours within the Cherry 1 MOA and approximately 3 to 9 hours within the Core MOA.



NOT TO BE USED FOR SURFACE OR SUBSURFACE NAVIGATION

Brant Island area

03

PAMLICO SOUND

UP VP

N3

35 05 00  
76 05 00

HYDE CO. CARTERET OCRACOKE ISLAND/30  
Beacon Island CO. Ocracoke Island

76°00'

35°00'

35 00 30.7  
76 01 00

Swan Islands  
Point of Marsh  
Raccoon Island  
Point of Narrows  
Point of Grass  
Newstump Point  
Western Point  
Dowdy Point  
Tump Point  
WEST BAY  
PINEY ISLAND NAVAL RESERVATION

30'

15  
35°00'

PILONTARY ISLANDS

8  
M 0 30' W

03

Ship Point  
Hog Island  
CEDAR ISLAND BAY  
Tower 265 (255) Lola  
Cedar Inlet Point  
Lookout Point  
THOROFARE  
Hall Point  
Spoil areas  
ATLANTIC FIELD NAVAL RESERVATION  
Atlantic  
Sealevel  
Back Creek Canal  
Masontown  
Stacy Cemetery  
Kings Point  
Spoil areas  
Davis

03

34 46 30  
76 25 00

34 46 00  
76 30 00

13  
MOREHEAD  
Pines Fork  
The Black Cat  
HARKERS ISLAND

GREAT SAND HOUND ISLAND

5  
Stakes

34 41 00  
76 25 00

03

SHACKLEFORD BANKS  
Breakers  
Lookout Light  
Cape Lookout  
Coast Guard Station

04

CAPE LOOKOUT

ATLANTIC COAST

