

K-2



UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
RCTL/HBR/ves
11000
30 January 1984

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: Improvement of 40MM Grenade Range K-211; request for

Ref: (a) - MCO 3570.1A

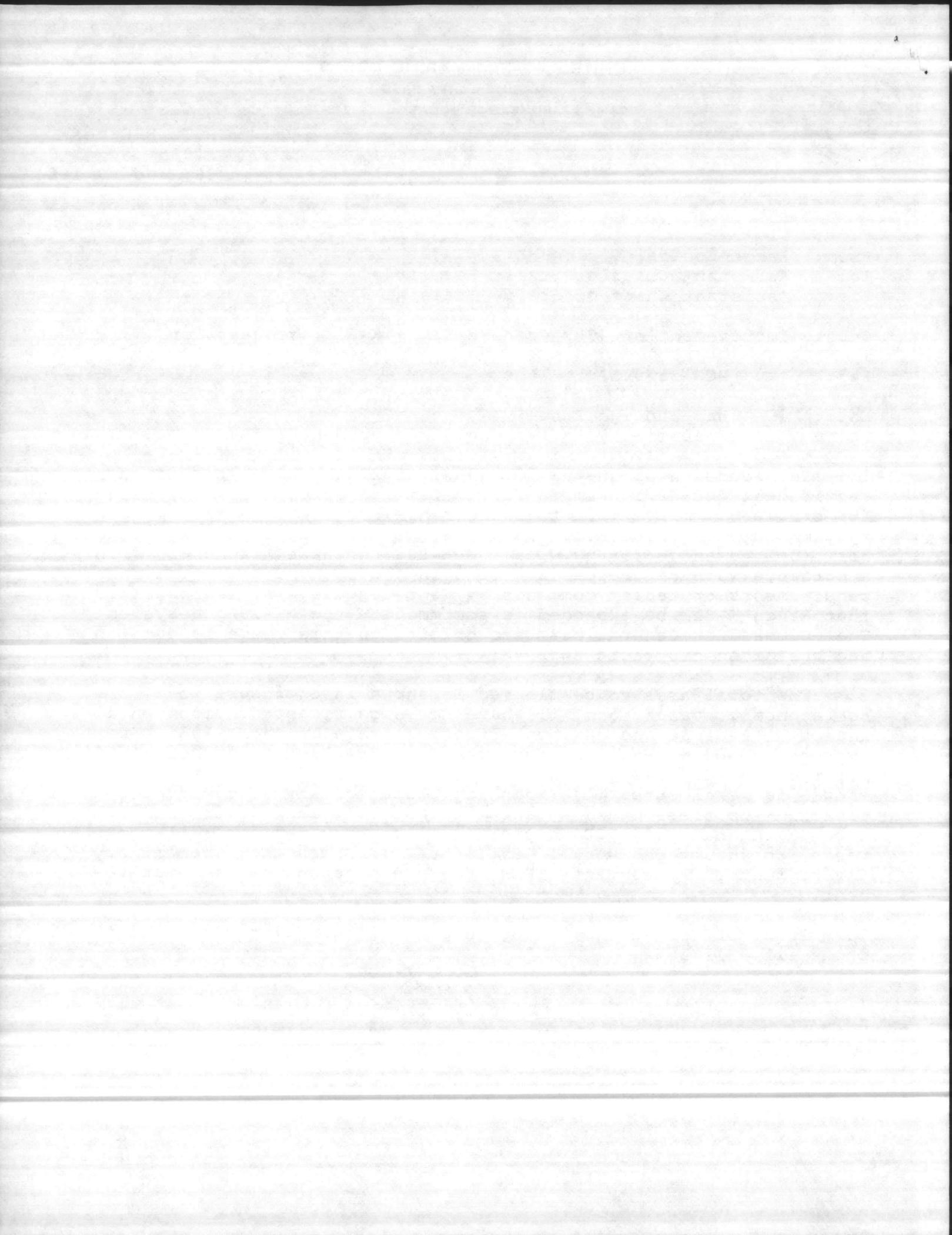
Encl: (1) Map Showing Range
(2) Preliminary Environmental Assessment (PEA)

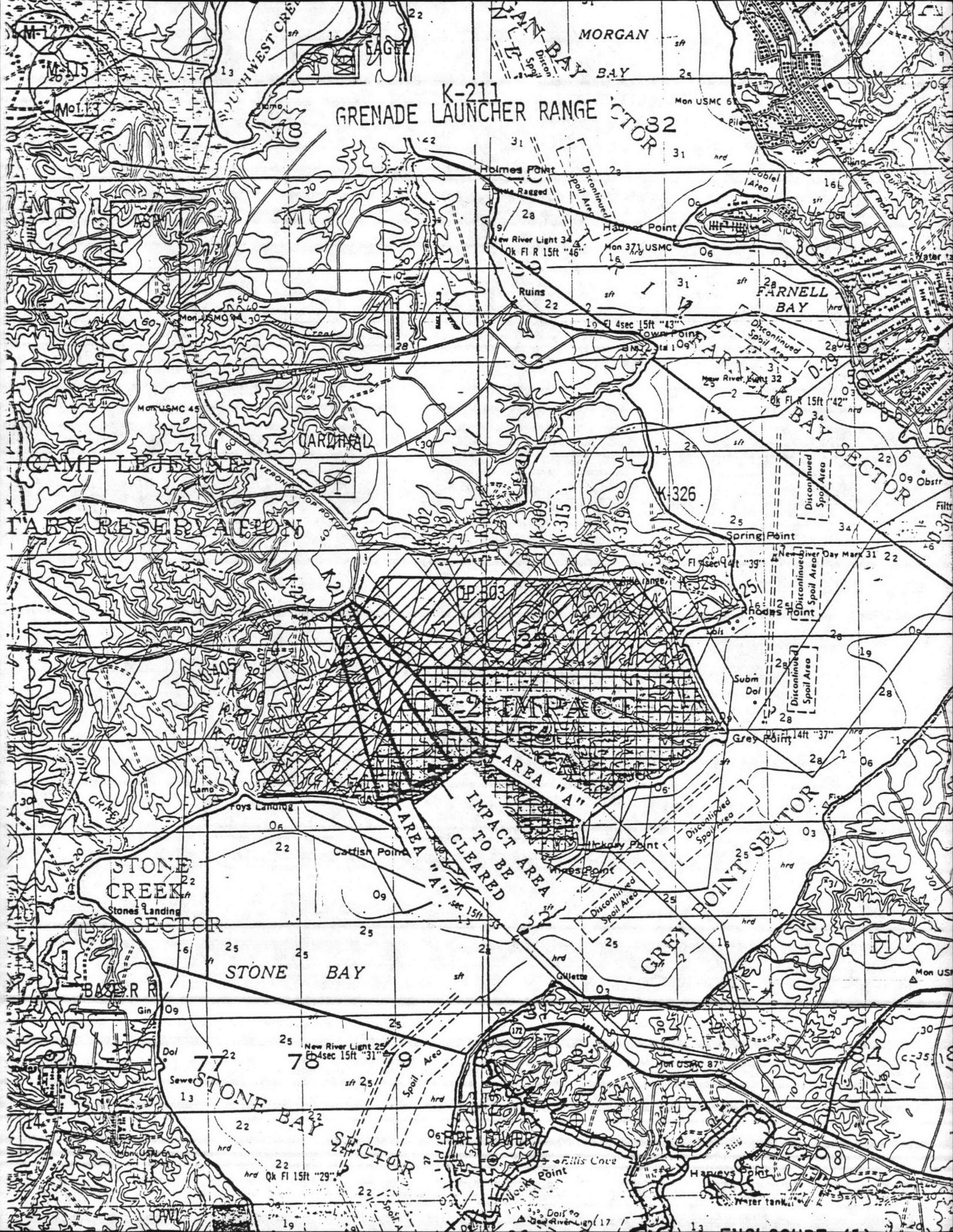
1. Introduction of the MK-19, 40MM gun system has established a requirement for Marine Corps Base, Camp Lejeune, North Carolina to provide a live fire training range for use of this weapon system in the Verona Loop area. Range K-211 is currently used for 40MM grenade firing with the M-203 grenade launcher. In accordance with reference (a), and in order to meet the training requirements of tenant commands at Camp Lejeune, it is requested that Range K-211 be expanded to accommodate the MK-19 gun system. The Commanding General has been briefed on this range expansion and has given his tacit approval.

2. The total area to be cleared is shown in enclosure (1), has no economic value and will have no significant environmental impact. Because the maximum effective range of the M-203, 40MM system is 400 meters, no dud grenades have been found past 500 meters. An EOD sweep of the area to be cleared of vegetation, as shown in enclosure (1), has not located any dud ordnance. Clearing of trees could be accomplished by heavy equipment from Base Maintenance. EOD support will be provided for all down range construction work. Enclosure (2) is the Preliminary Environmental Assessment (PEA) for the proposed range improvement.

3. Point of contact is: MSgt MOSES, Range Maintenance Chief, phone ext 5211/3542.


H. W. FITZ





K-211
GRENADE LAUNCHER RANGE

IMPACT AREA
AREA TO BE CLEARED

AREA "A"

AREA "B"

M-127
M-115
M-113

CAMP LEJENNE
TARY RESERVATION

STONE CREEK
SECTOR

STONE BAY
SECTOR

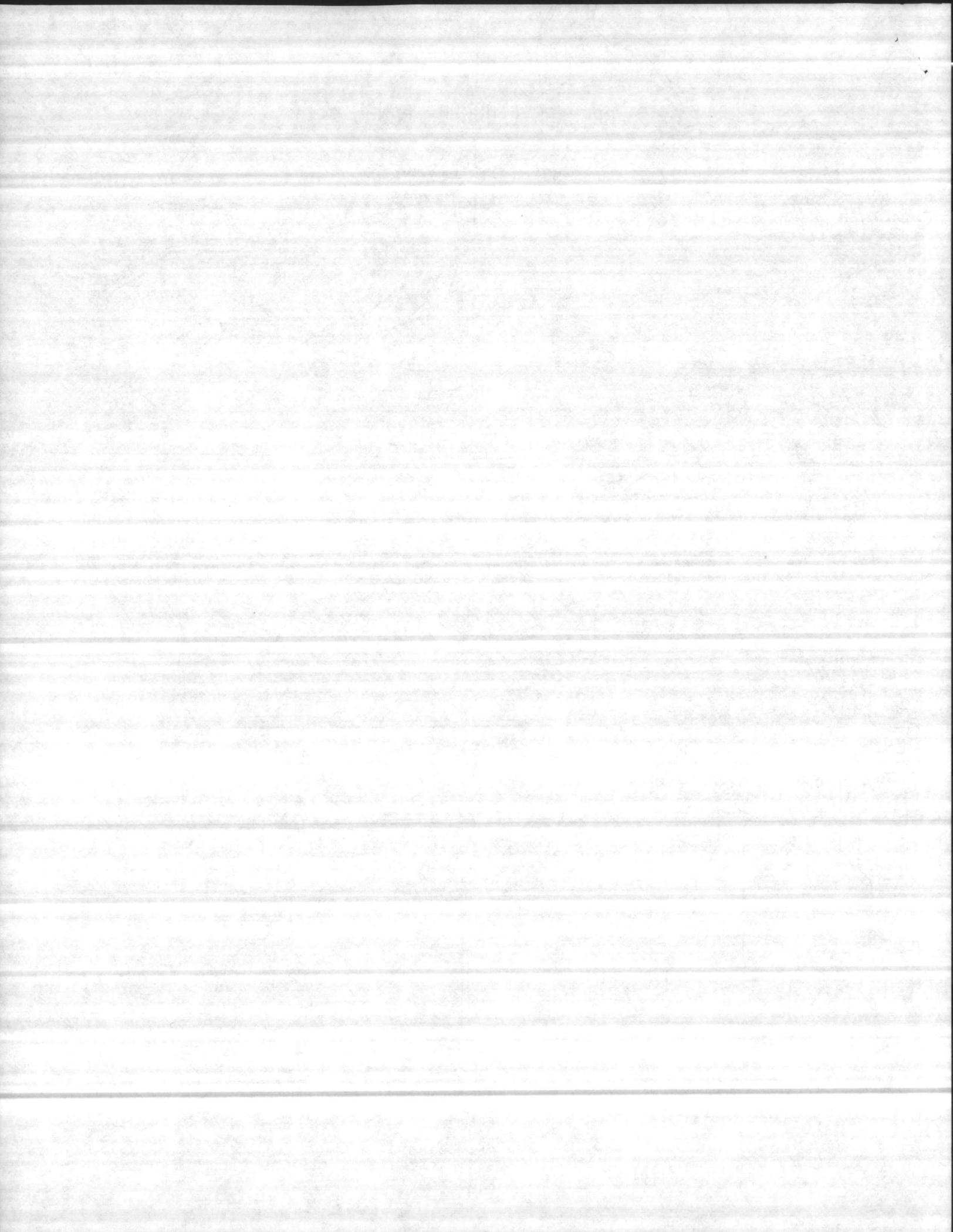
STONE BAY
SECTOR

MORGAN BAY

FARNELL BAY

STONE BAY

STONE BAY



PRELIMINARY ENVIRONMENTAL ASSESSMENT
FOR
K-211 M203/MK-19 40MM GRENADE RANGE

1. Enclosures. Map showing proposed range.

2. Purpose and Need. The purpose of this proposed action is to provide the Marine Corps Base (MCB), Camp Lejeune, North Carolina with a range in the Verona Loop Area to teach grenade launcher firing techniques and to prepare grenadiers for combat situations. It can handle the M-203 grenade launcher, M-79 grenade launcher, MK-19 40MM machine gun, and all types of rifle grenades and launchers.

3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and to facilitate maintenance.

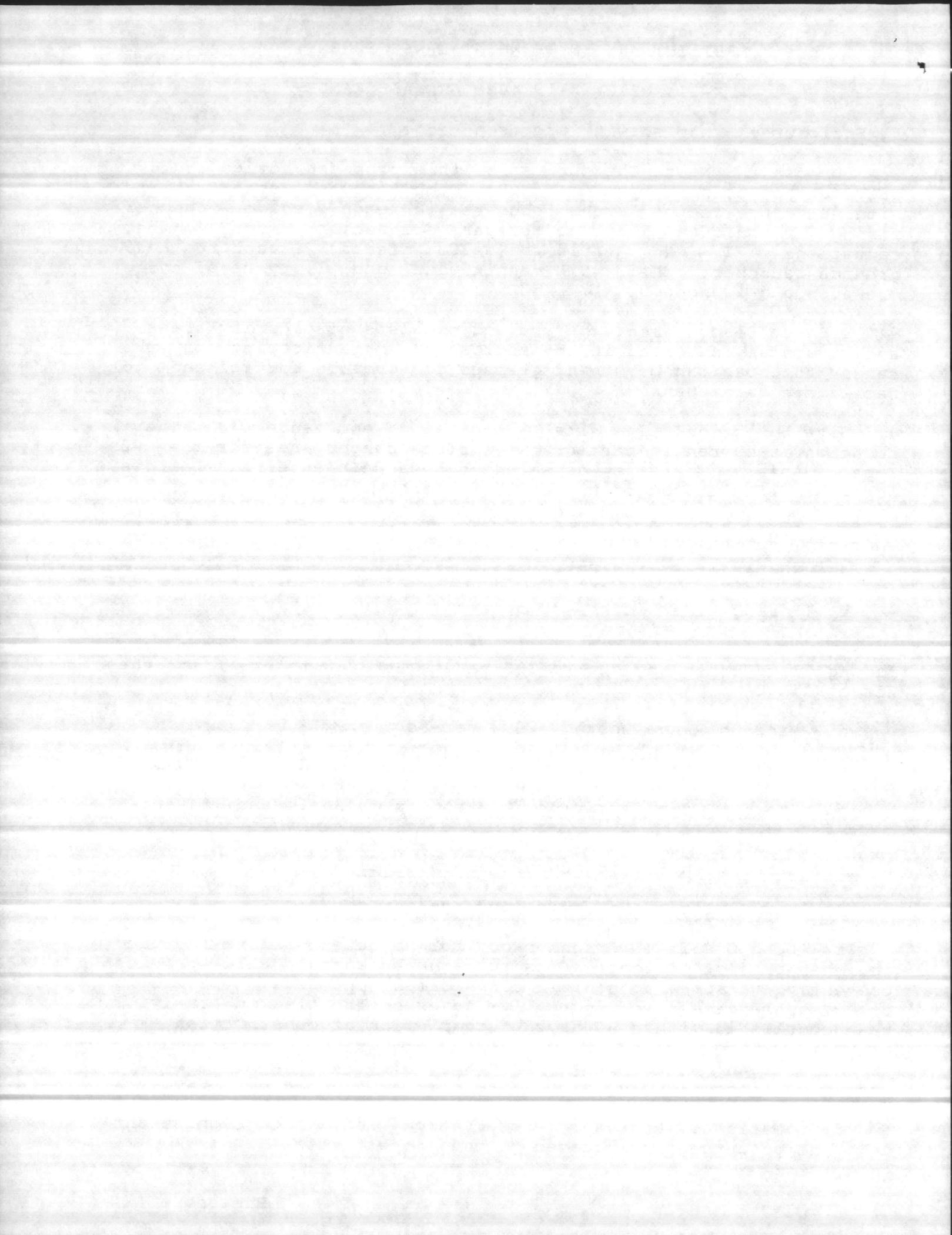
4. Site Selection. The site is located on enclosure (1). The location is currently part of the surface danger area for the K-2 Impact Area. The site was selected because the terrain allows for visibility at ranges up to 2200 meters.

5. Range Characteristics

- a. Number of Firing Positions - 6
- b. Firing Line Width - 30 meters
- c. Target Area Width - 150 meters at 400 meters from the firing line expanding out to 300 meters at 2200 meters from the firing line.
- d. Minimum Range Depth - 2200 meters
- e. Firing Point Configuration - Concrete cinder block wall.
- f. Target configuration - Static personnel and material targets.

6. Compliance with Environmental Requirements

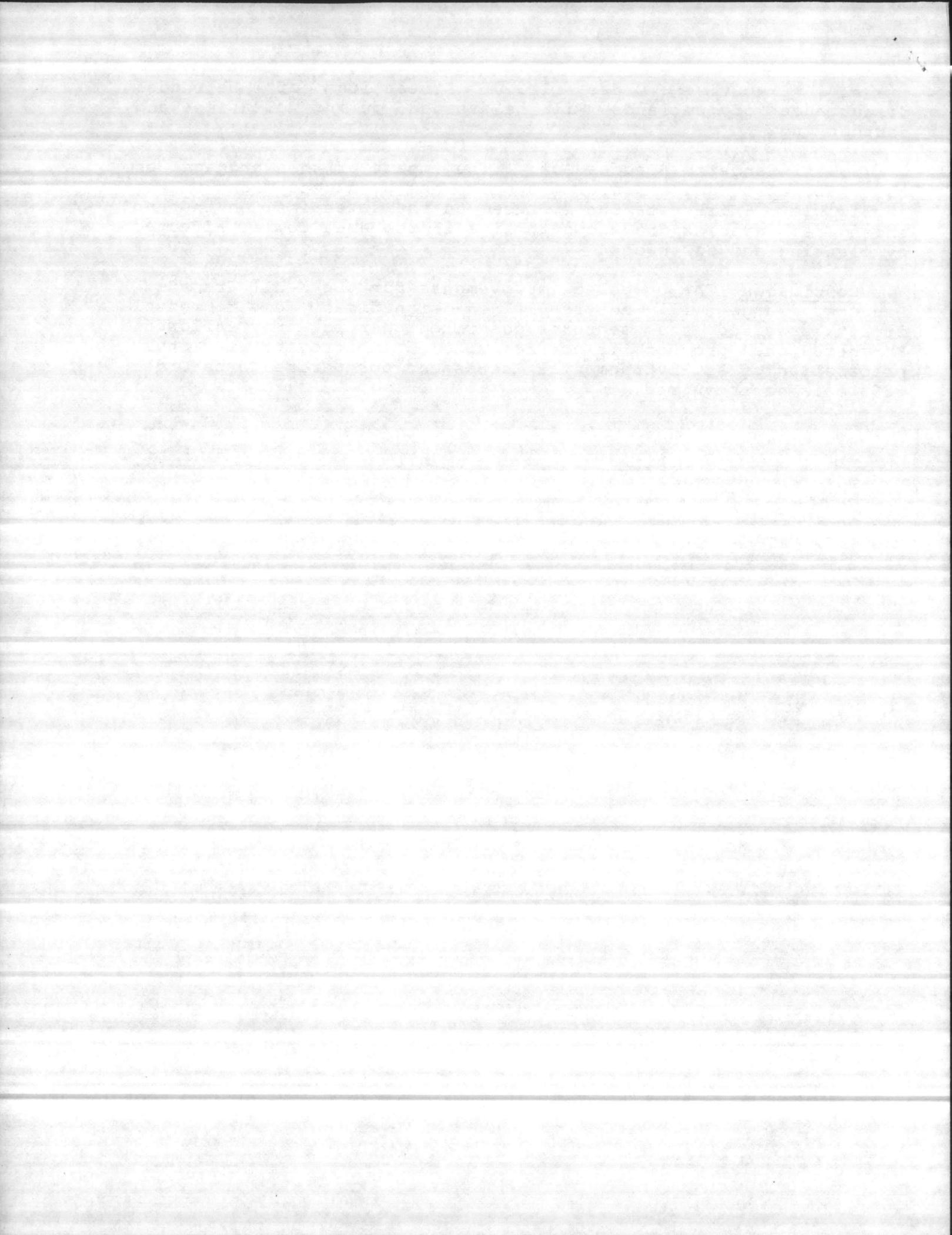
- a. Air Quality: No emissions are anticipated
- b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
- c. Clean Water Act: No discharge of wastes to surface waters will occur during range development or subsequent use.
- d. National Historic Preservation Act: No significant cultural resources are located on the project site.



e. Executive Order 11990 Protection of Wetlands: disturbance of wetlands will be avoided during clearing and earthmoving.

f. Endangered Species Act: The impact of this project on the habitat of any endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by clearing and earthwork.

7. Conclusion. The proposed improvements for the K-211 Grenade Launcher Range will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.





K-211
GRENADE LAUNCHER RANGE

CTOR 82

FARNELL BAY

CAMP LEJEUNE
TARY RESERVATION

CARDINAL

AREA "A"
IMPACT TO BE CLEARED
AREA "A" SEC 15ft

STONE CREEK
SECTOR

STONE BAY

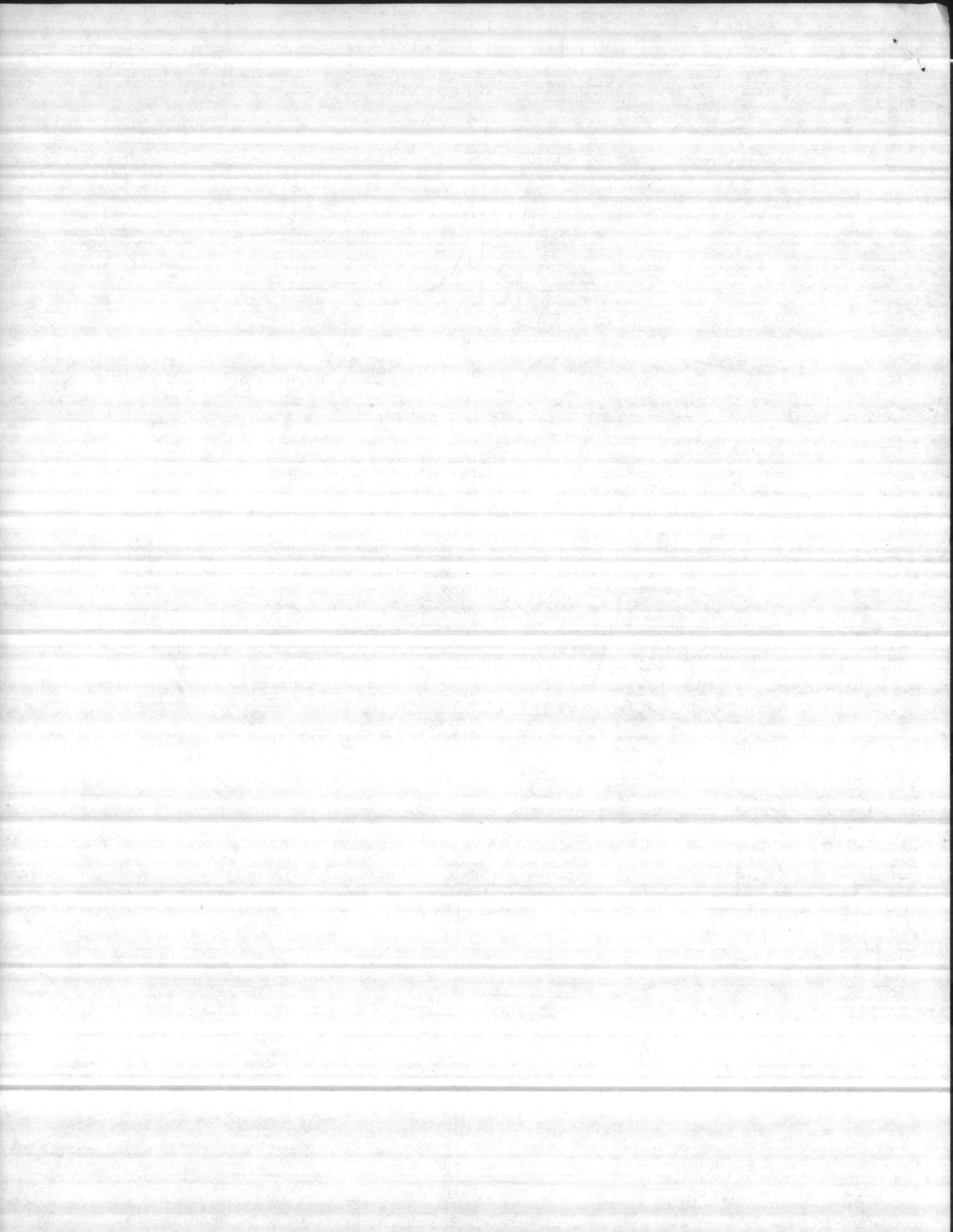
GREY POINT SECTOR

BASE R R

STONE BAY

SECTOR

ENCLOSURE (1)





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
11000
TRNG
11 Jul 1984

FIRST ENDORSEMENT on RCO ltr 11000 over EOD dtd 11 Jul 1984

From: Assistant Chief of Staff, Training, Marine Corps Base,
Camp Lejeune
To: Assistant Chief of Staff, Facilities, Marine Corps Base,
Camp Lejeune, North Carolina 28542
Subj: IMPROVEMENT OF K-2 IMPACT AREA

1. Forwarded concurring in the PEA as written.
2. As a matter of interest, additional EOD technicians from Marine Corps installations in South Carolina, Virginia and California have been requested to assist in the subject clearing operation from 5 September to 31 October 1984.

F. J. CIZERLE
BY direction

Copy to:
RCO
EOD

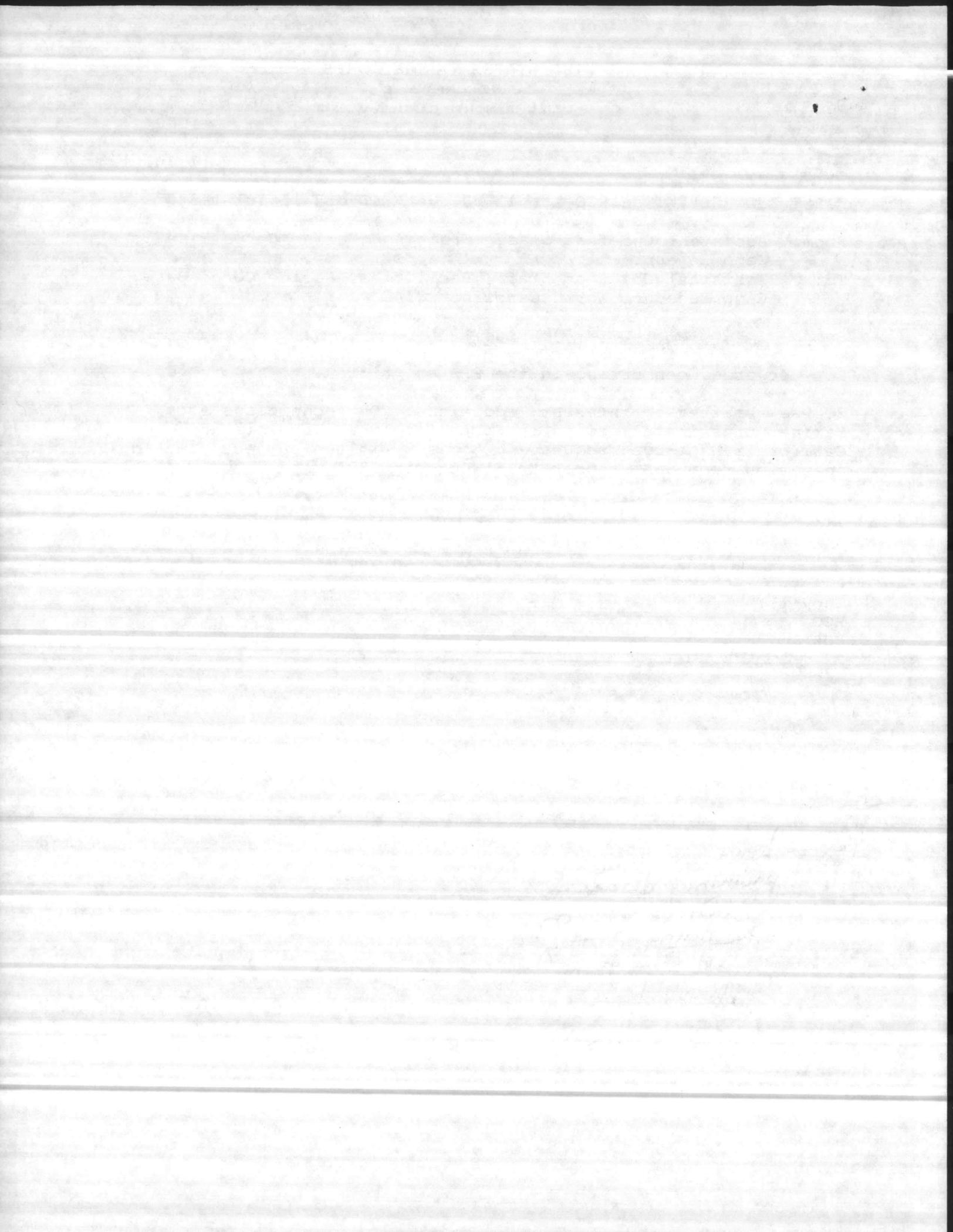
WORKING NOTES:

- Delivered to Col Lilley 11 July.
- He will confirm maint. plan for spt/wrk.
- We will need to notify all of closure of K-2... family soon! ... after EIRB approves project.

Yes - Have we had 6-31 ✓
preliminary discussions
with Div & ITS on 5-3/80 ✓
the timing? They
would seem to be most
affected!

YES SIR - several weeks ago.
YR
Kiz

MS





UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

11000
EOD
11 July 84

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: IMPROVEMENT OF K-2 IMPACT AREA

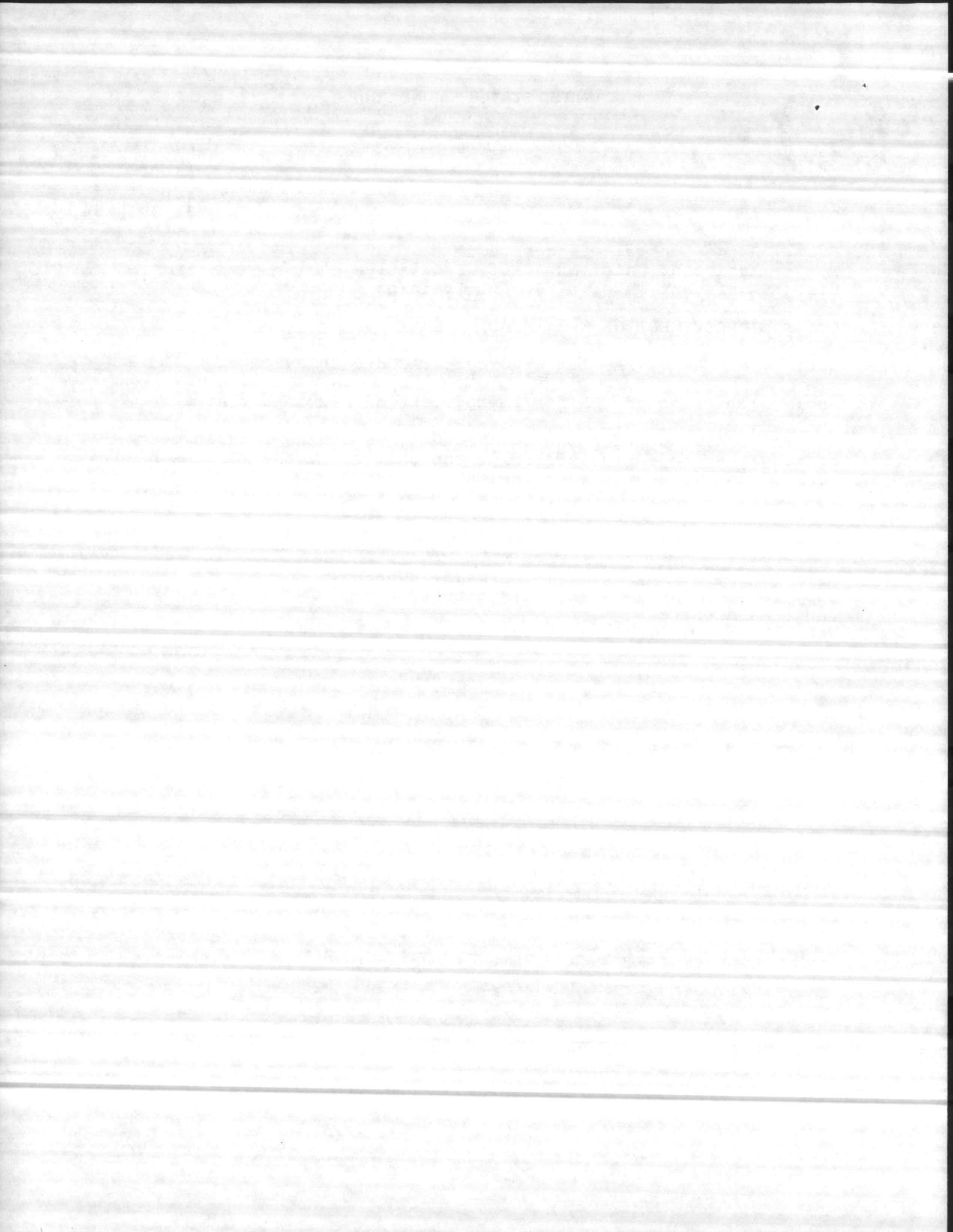
Ref: (a) AC/S, FAC ltr 6280 over FAC dtd 20JUN84

Encl: (1) Amended PEA for Improvement of K-2 Impact Area

1. In accordance with the recommendations of the reference concerning the project described at the enclosure, the PEA has been amended and is submitted herewith.

T. B. Howard
- T. B. HOWARD

Copy to:
Range Maintenance
EOD



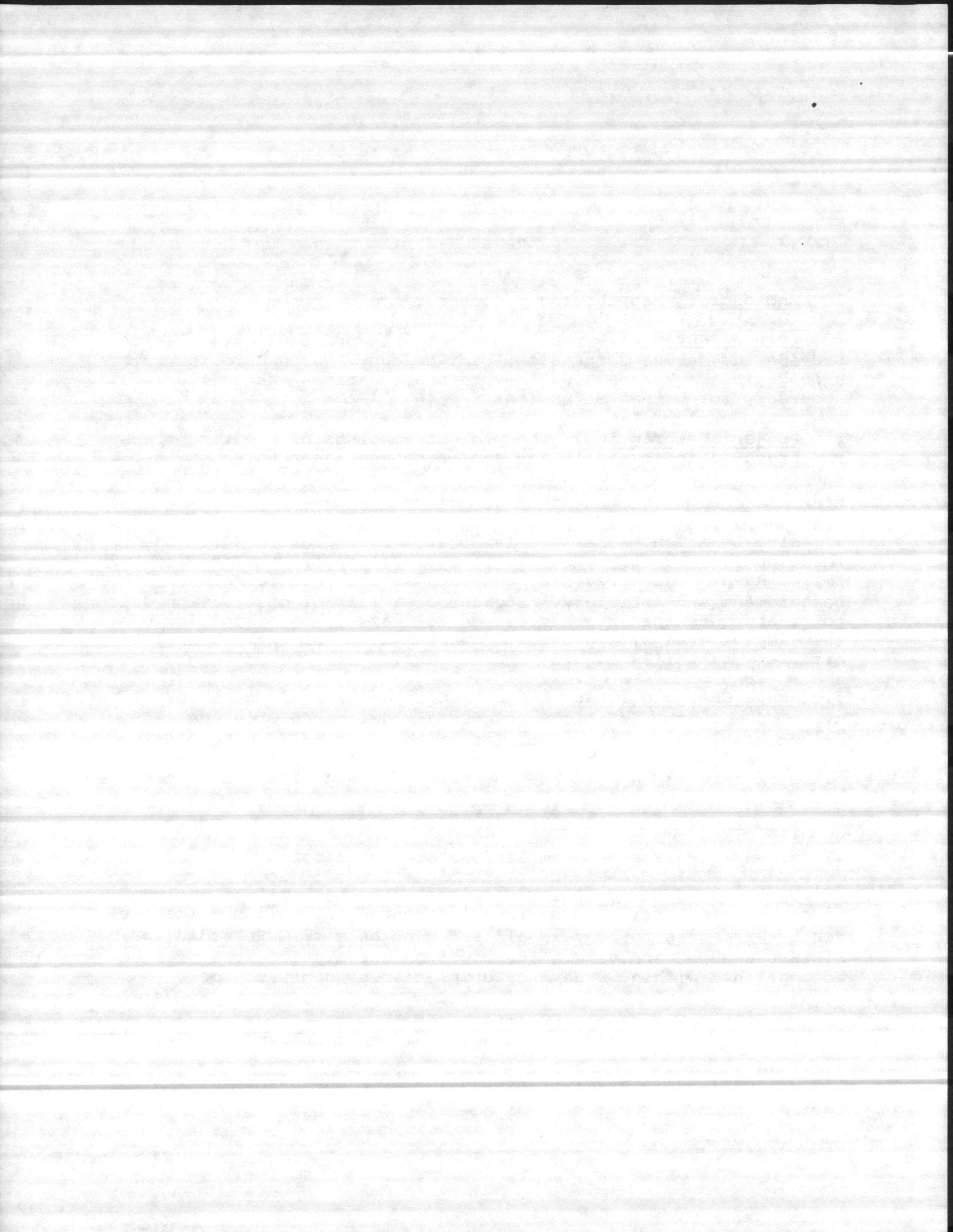
*AMENDED

PRELIMINARY ENVIRONMENTAL ASSESSMENT

FOR

RANGE K-2

1. Enclosure. Map showing proposed range.
2. Purpose and Need. The purpose of this proposed action is to provide the Marine Corps Base, Camp Lejeune, North Carolina with a range in the Verona Loop Area to teach Marines the skills necessary for combat situations.
- *3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and the digging of drainage ditches to facilitate maintenance.
- *4. Site Location. The site is located on enclosure (1). The location is currently part of the surface danger area for the K-2 Impact Area. This area has been used in the past for aerial bombardment and artillery. Because of a lack of observation due to tree growth the area has fallen to disuse. The reopening of this impact area will provide a quantum leap for the training of artillery batteries aboard Camp Lejeune.
- *5. Range Characteristics. A common impact area is used for all types of mortars, artillery rounds, air delivered ordnance, and dragon missiles. Targets consist of those found in a realistic combat environment such as personnel, vehicle, aircraft, and material targets supplemented by surveyed natural terrain features.
6. Compliance with Environmental Requirements.
 - a. Air Quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
 - c. Clean Water Act: No discharge of wastes to surface waters will occur during range development or subsequent use.
 - * d. National Historic Preservation Act: No significant cultural resources are located on the project site. However, in

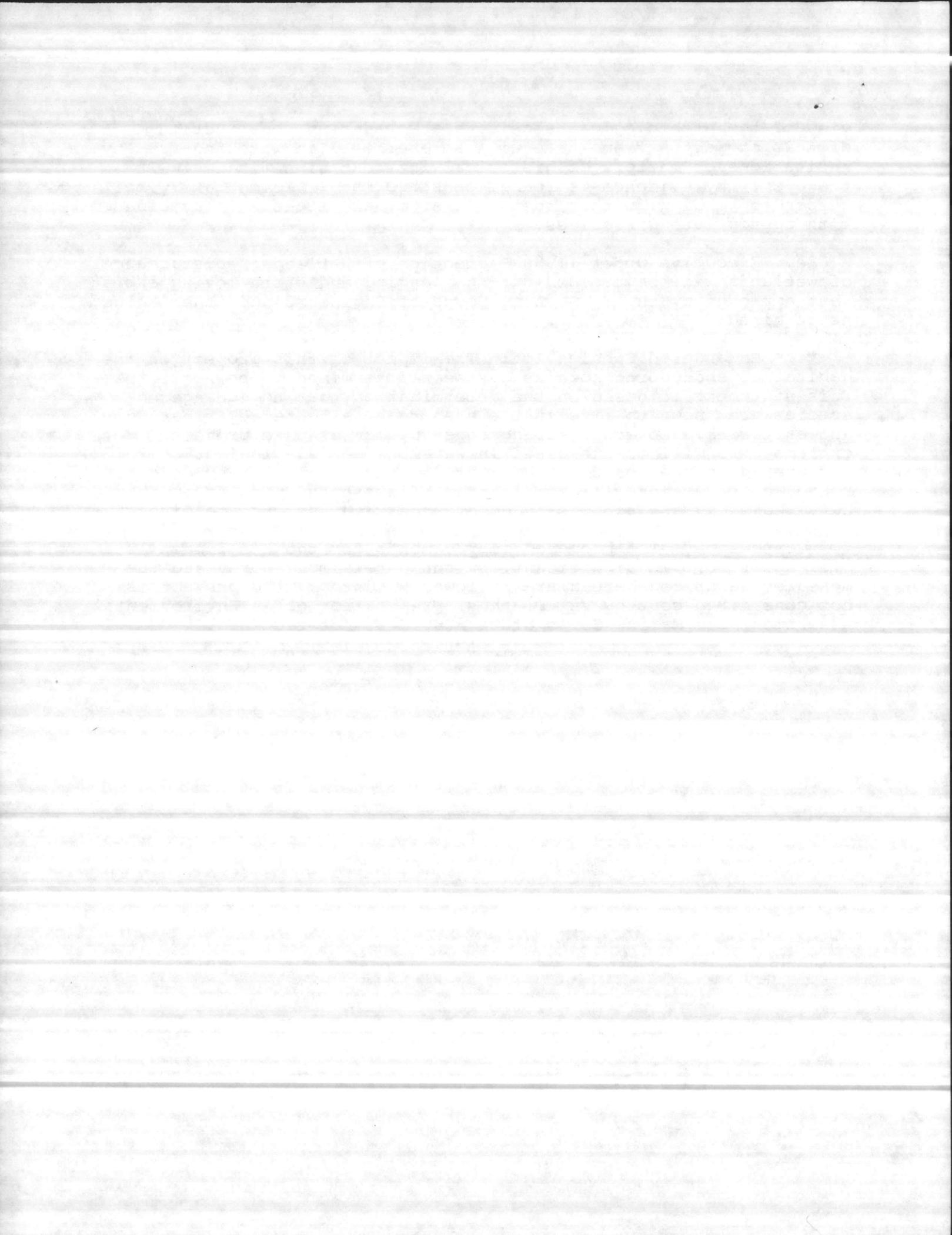


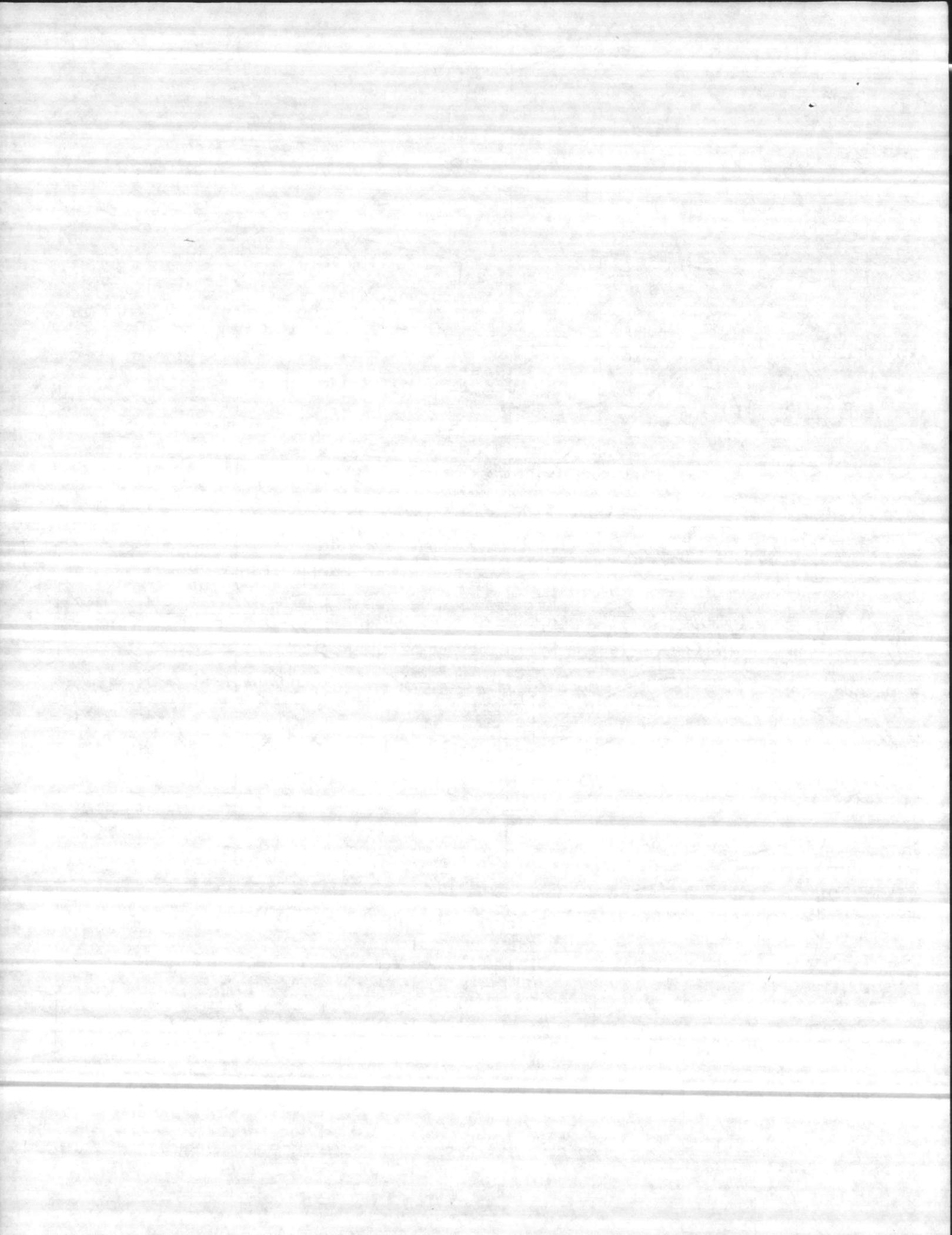
view of the archeological sensitive area, during construction of this project extreme care will be exercised in watching for any indications of matters of historical interest/significance. In the event any evidence is found, construction will immediately be suspended pending further, detailed study and actions in accordance with appropriate directives.

*e. Executive Order 11990 Protection of Wetlands: Disturbance of wetlands will be avoided during clearing and earth moving except that approved by the U. S. Army Corps of Engineers and other agencies as required.

*f. Endangered Species Act: The impact of this project on the habitat of endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by clearing and earthwork. However, during construction of this project extreme care will be exercised in watching for any indications of endangered species or their habitat. In the event any evidence is found, construction will immediately be suspended pending further, detailed study and actions in accordance with appropriate directives.

7. Conclusion, The proposed improvements for the K-2 Impact Area will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.





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

6280
FAC

20 JUN 1984

From: Assistant Chief of Staff, Facilities, Marine Corps Base,
Camp Lejeune
To: Assistant Chief of Staff, Training (Attn: Range Control
Officer)

Subj: IMPROVEMENT OF K-2 IMPACT AREA

Ref: (a) Range Control Officer ltr RCTL/HBR/irh over 11000 dtd
8 Mar 84 *orig PEA*
(b) Range Control Officer ltr RCTL/NFN/vec over 11000 dtd
9 May 84 *AMEND & CLEAR whole AREA*

1. The improvements requested in reference (a) involved limited clearing of trees in areas where erosion control is not a vital issue. Reference (b) requests clearing of a much larger area in which erosion control and impacts on wetlands are the primary concerns.

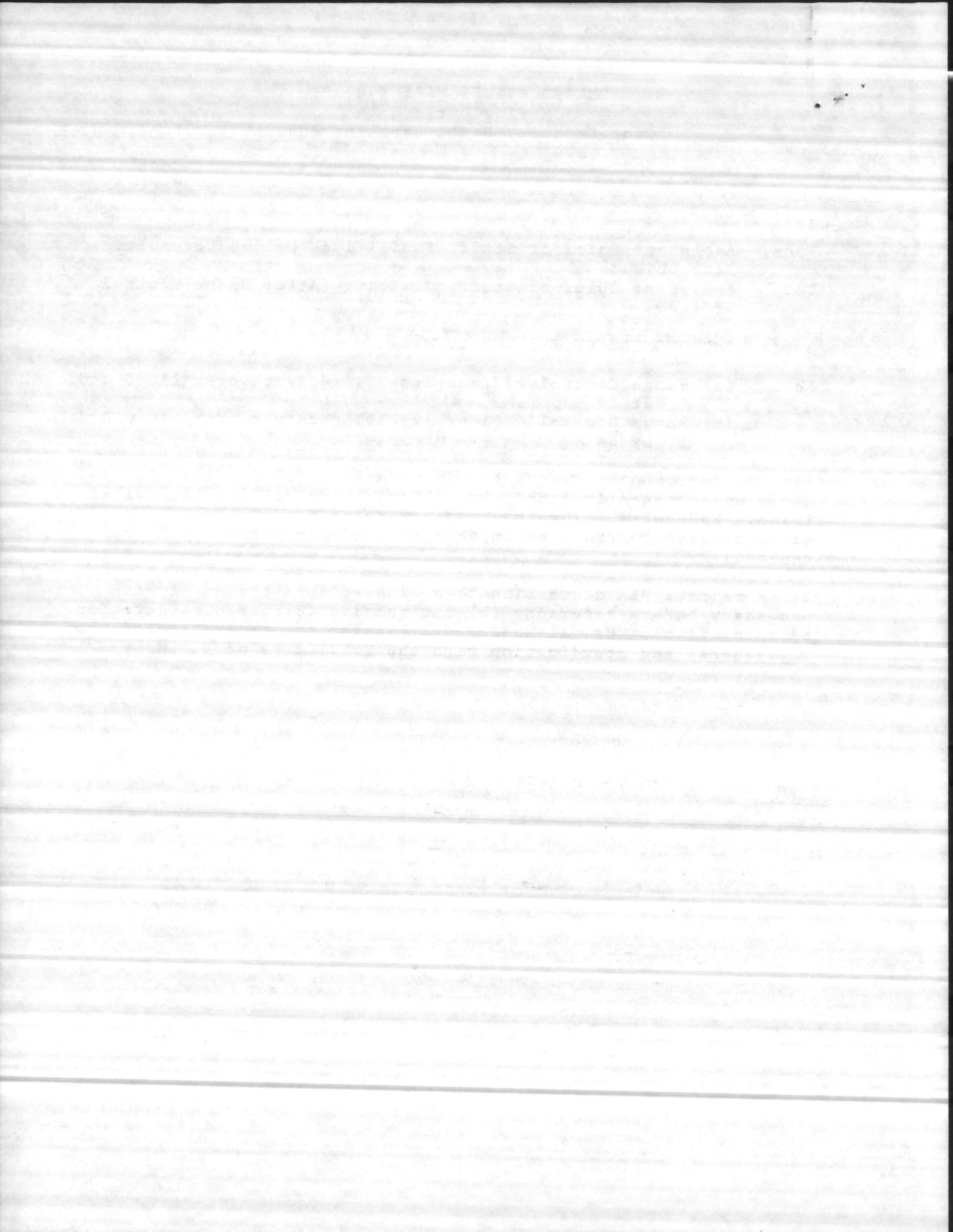
2. A revised PEA addressing these issues more thoroughly is necessary before reference (b) can receive further consideration by this office. Mr. Alexander will assist in preparation of the revised PEA and coordination with the U.S. Corps of Engineers.

B. W. ELSTON
By direction

2217

Copy to:
NREAD

*Redmond, U.S. Corps, & Mr. Alex to
complete said survey in 2/3 weeks.*





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

11000
EOD
26 July 84

From: Explosive Ordnance Disposal Officer
To: Assistant Chief of Staff, Training

Subj: NREAD COMMENTS CONCERNING K-2 IMPROVEMENT PROJECT

Ref: (a) Director NREAD ltr 11000/4 over NREAD dtd 23 JUL 84
(b) Ecologists ltr 11000/5 over NREAD dtd 23 JUL 84
(c) Wildlife Manager ltr 11015/1A over NREAD dtd 23 JUL 84
(d) Forester ltr 11000/2 over NREAD dtd 24 JUL 84
(e) Ecologists ltr 11000/5 over NREAD dtd 23 JUL 84

1. References (a) through (e) have been carefully reviewed. The first request for range improvements in the K-2 Impact Area was submitted on 19 January 1984. Since that time numerous offers for NREAD to inspect or review the K-2 Impact Area have been made. Because it is the policy of NREAD not to go into impact areas, even with EOD escort, they have not taken advantage of these opportunities. Their letters while well written are of little value without on site visits of the areas in questions and constantly refer to "MAY AFFECT SITUATIONS". I believe the Amended PEA submitted on 11 July 84 effectively covers all areas of concern. Based on consultation with the Base Environmental Engineer and SJA office and our prepared presentation to the EIRB; I believe the PEA will be recommended for approval by the Commanding General.

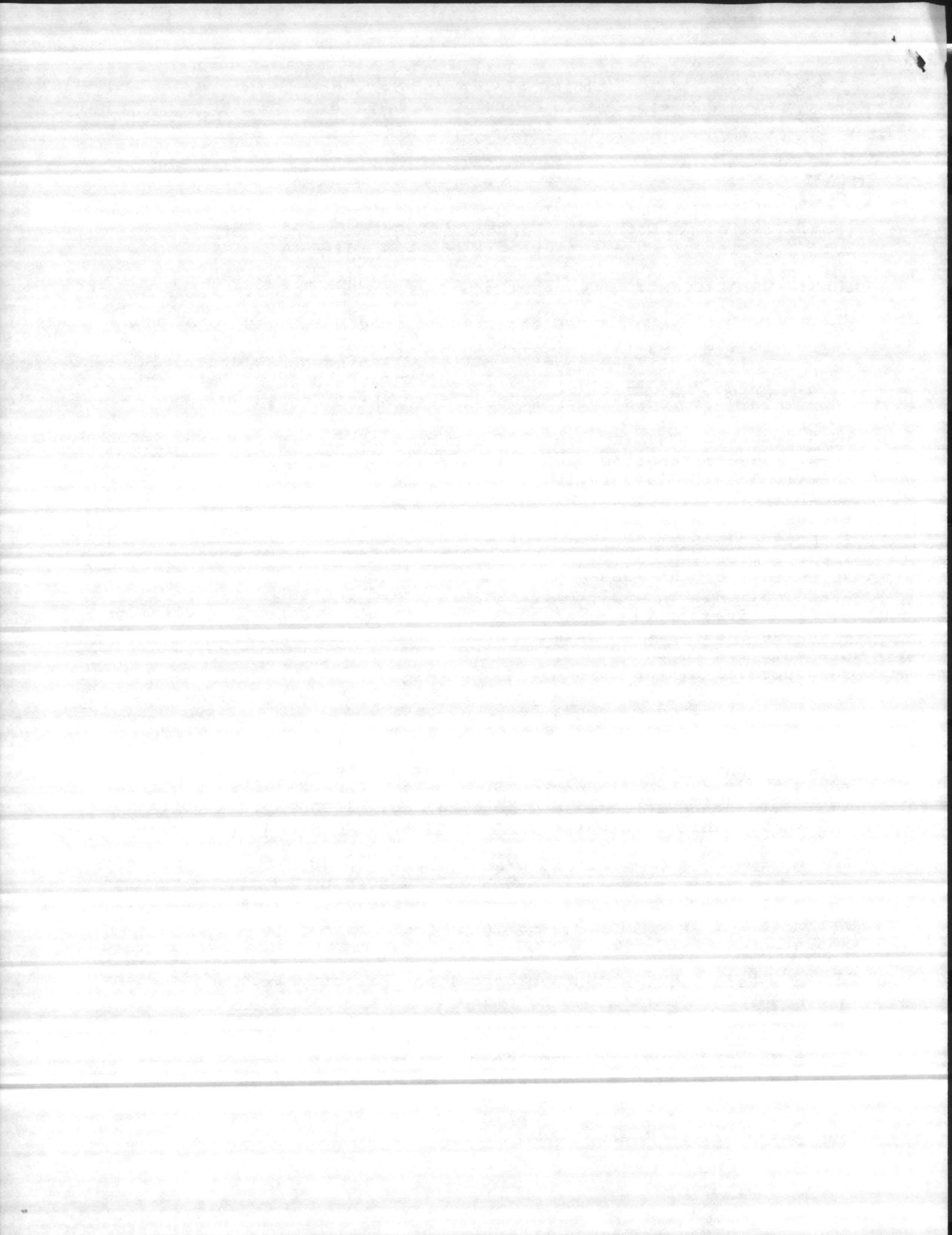
2. The following comments refer to reference (a):

a. Para. 1.a. - The Amended PEA is still correct. There are no known endangered species in the area to be cleared. The newly found Red-Cockaded Woodpecker Site is on Range K-303's right flank and will not be affected by the clearing. The American Alligators and their habitat in Whitehurst Creek will be avoided during clearing.

b. Para. 1.b. - Ditching and clearing operations in the Whitehurst and Mill Creek area have been reviewed by Earnie Jenkins of the U. S. Army Corps of Engineers. Increase fresh water flow is estimated at less than 5 cubic feet per second which is an acceptable amount.

c. Para. 1.c. - Archaeological and Historical considerations are covered in detail in the Amended PEA and are correct.

d. Para. 1.d. - A request for a permit to drain the K-2 wetlands was requested from the U. S. Army Corps of Engineers and has been accomplished. Correspondence is forthcoming from the Corps of Engineers granting permission to conduct the project under a "National Permit". Liaison with the Army Corps of Engineers was addressed in the Amended PEA.



e. Para. 1.e. - There is no requirement to file a Federal Consistency Statement with the North Carolina Office of Coastal Management because there will be no construction within 75' of tidal waters.

f. Para. 1.f. - A Sedimentation Control Plan is not required to be submitted to the State of North Carolina as per SJA opinion of 10 September 1980. However, sedimentation control is addressed in the Amended PEA and good construction practices will be followed.

g. Para. 1.g. - This project is not a major federal action and does not require a EA. It is classified as Routine Range Maintenance and will not change the primary purpose of the Range.

h. Para. 2 - A Sedimentation Control Plan is not required to be submitted to the State of North Carolina as per SJA opinion of 10 September 1980. However, sedimentation control is addressed in the Amended PEA and good construction practices will be followed.

i. Para. 3 and 4 - I am not involved in these two projects.

j. Para. 5 - I don't agree that the SJA and the Environmental Engineer have provided inaccurate information. However, I do agree that there are some conflicts within the NREAD staff and other sections.

3. The following comments refer to reference (b):

a. Para. 1.a. - Previously addressed in this letter para. 2.b.

b. Para. 1.b. - Previously addressed in this letter para. 2.d.

c. Para. 1.c. - Previously addressed in this letter para. 2.a.

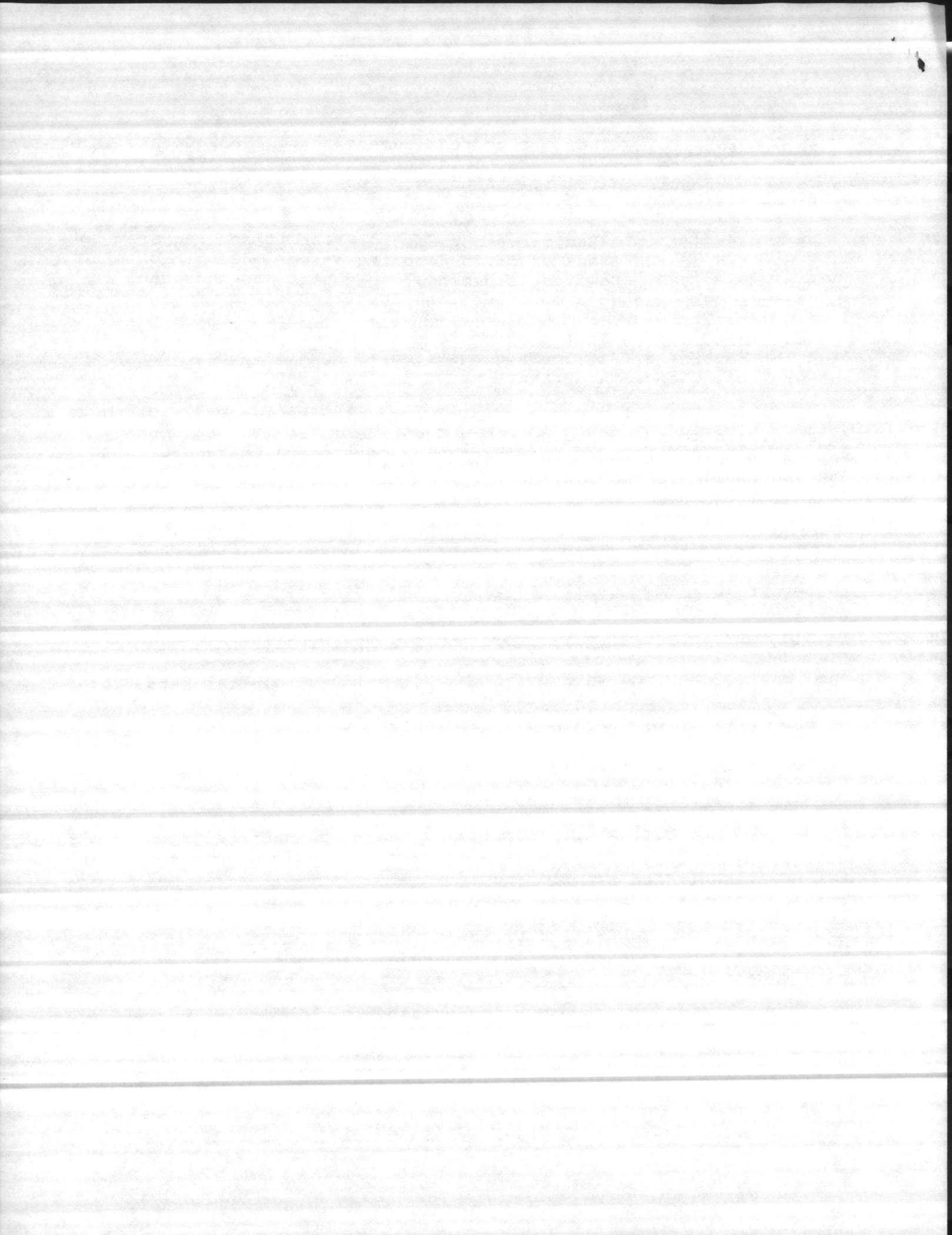
d. Para. 1.d. - The habitat of the American Alligator is addressed in this letter para. 2.a. The *Dionaea Muscipula* (Venus Fly Trap) and *Sarracenia* (Pitcher Plants) are identified as endangered species that MAY BE AFFECTED by the subject project. However, these plants have not been identified as existing in the K-2 Impact Area in any known previous studies. I believe these plants have been misclassified by NREAD as endangered but in fact are protected species. These same plants were identified in the G-10 Improvement Project by NREAD and to date no evidence has been submitted indicating that these plants were damaged.

e. Para. 2.a. - Previously addressed in this letter in para. 2.e.

f. Para. 2.b. - Previously addressed in this letter in para. 2.f.

g. Para. 2.c. - Previously addressed in this letter in para. 2.a.

h. Para. 2.d. - Previously addressed in this letter in para. 2.g.



i. Para. 3 - Previously addressed in this letter in para. 2.g.

j. Para. 4 - I disagree; the K-2 project should be put before the EIRB. NREAD has advisory members on the EIRB and have the opportunity/responsibility to present the EIRB with all available information. It is the responsibility of the EIRB not NREAD to determine whether proposed projects meet all legal and moral requirements before recommending approval to the Commanding General. NREAD is the only agency at Camp Lejeune that is represented by two voting members (AC/S, Facilities and Base Maintenance Officer) on the EIRB. Even if the EIRB approves a project that does not meet with the approval of NREAD there are procedures for writing a Minority Opinion. The final decision rests with the Commanding General.

4. The following comments refer to reference (c):

a. Para. 1 - Previously addressed in this letter para. 2.a.

b. Para. 2 - Previously addressed in this letter para. 2.a.

c. Para. 3 - Previously addressed in this letter para. 2.b., 2.d., and 2.e.

d. Para. 4 - Previously addressed in this letter para. 2.c.

5. The following comments refer to reference (d):

a. I find no faults with the comments provided by the Base Forester. He obviously knows his job and has provided the most accurate information available.

b. It is my opinion that the sale of timber in K-2 is worthwhile. However, because of the short lead time remaining, I believe it will be overcome by events.

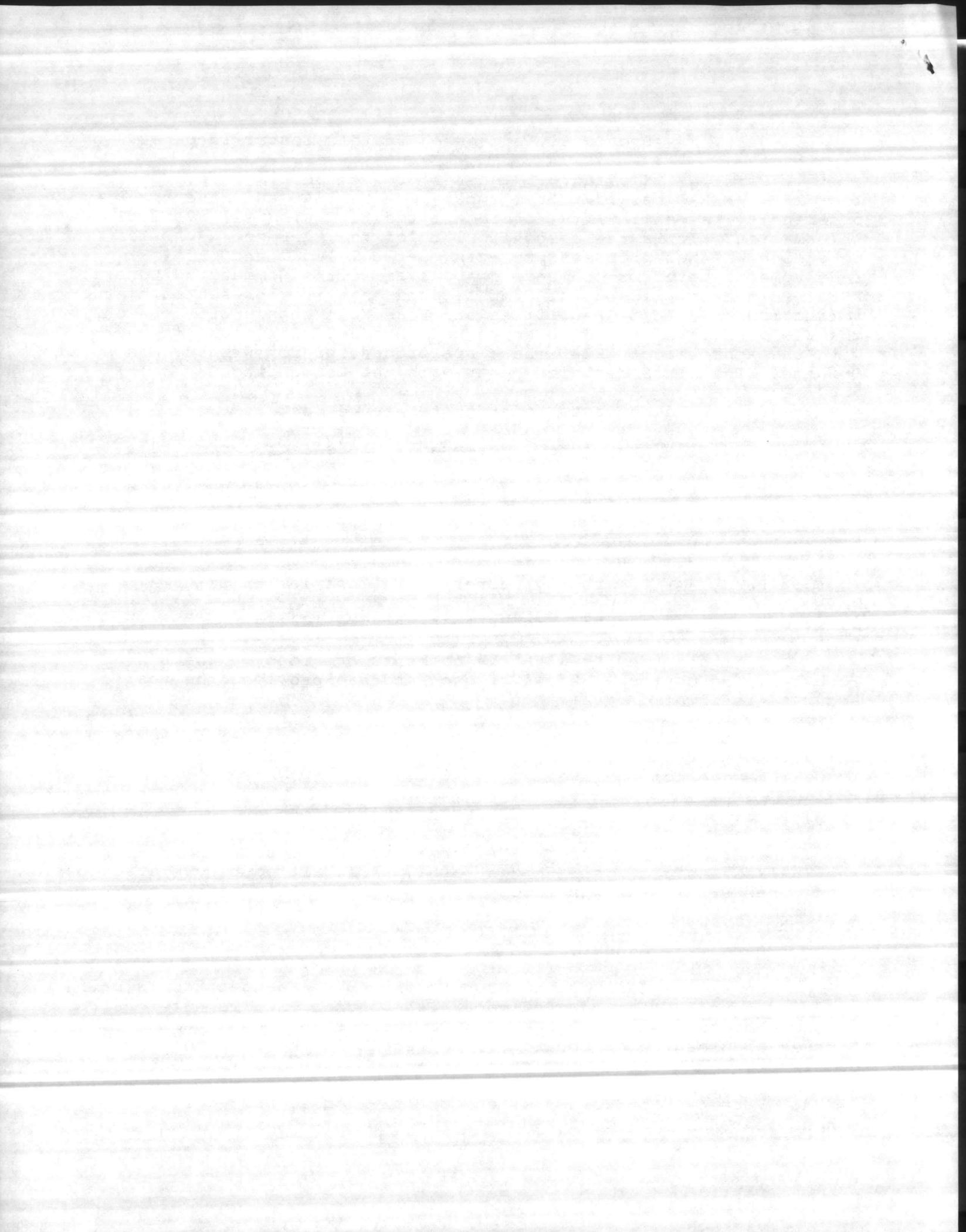
6. The following comments refer to reference (e):

a. Para 1 - The correct PEA format was followed. The PEA for the Tracked Vehicle Trail Rhodes Point was submitted before distribution of the new PEA format was made. All information necessary was included.

b. Para. 2 - Concur.

c. Para. 3 - Engineering support from Base Maintenance is being used for construction. A Sedimentation Control Plan is not required to be submitted to the state as per SJA opinion of 10 September 1980. However, sedimentation control is addressed in the PEA and good construction practices will be followed.

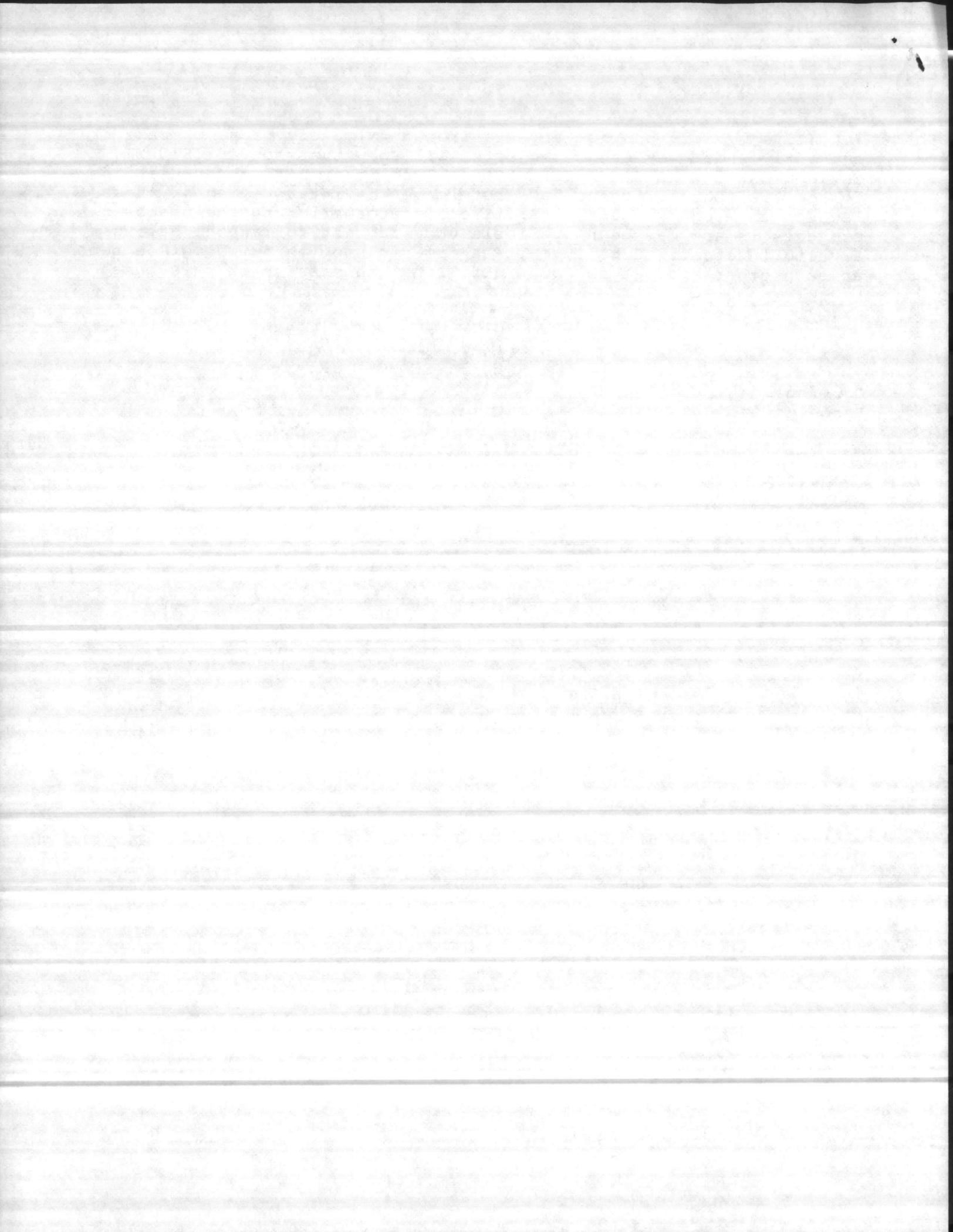
d. Para 4 - No Sedimentation Control Plan is needed for the state. Concur that no EA is required.



7. It is my opinion that any "Environmental Study" done on past or currently under way range projects will show that NO SIGNIFICANT ENVIRONMENTAL DAMAGE HAS BEEN DONE! I believe that we should and do follow the "Letter of the Law" but leave the interpreting of those laws to the legal experts. Additional information on the proposed projects is and has been available upon request for anyone having a valid interest. I believe it is time to stop throwing poison pens at each other and get to work fulfilling the mission of this base.

H. B. Redmond Jr.
H. B. REDMOND JR.

Copy to:
Range Control Officer

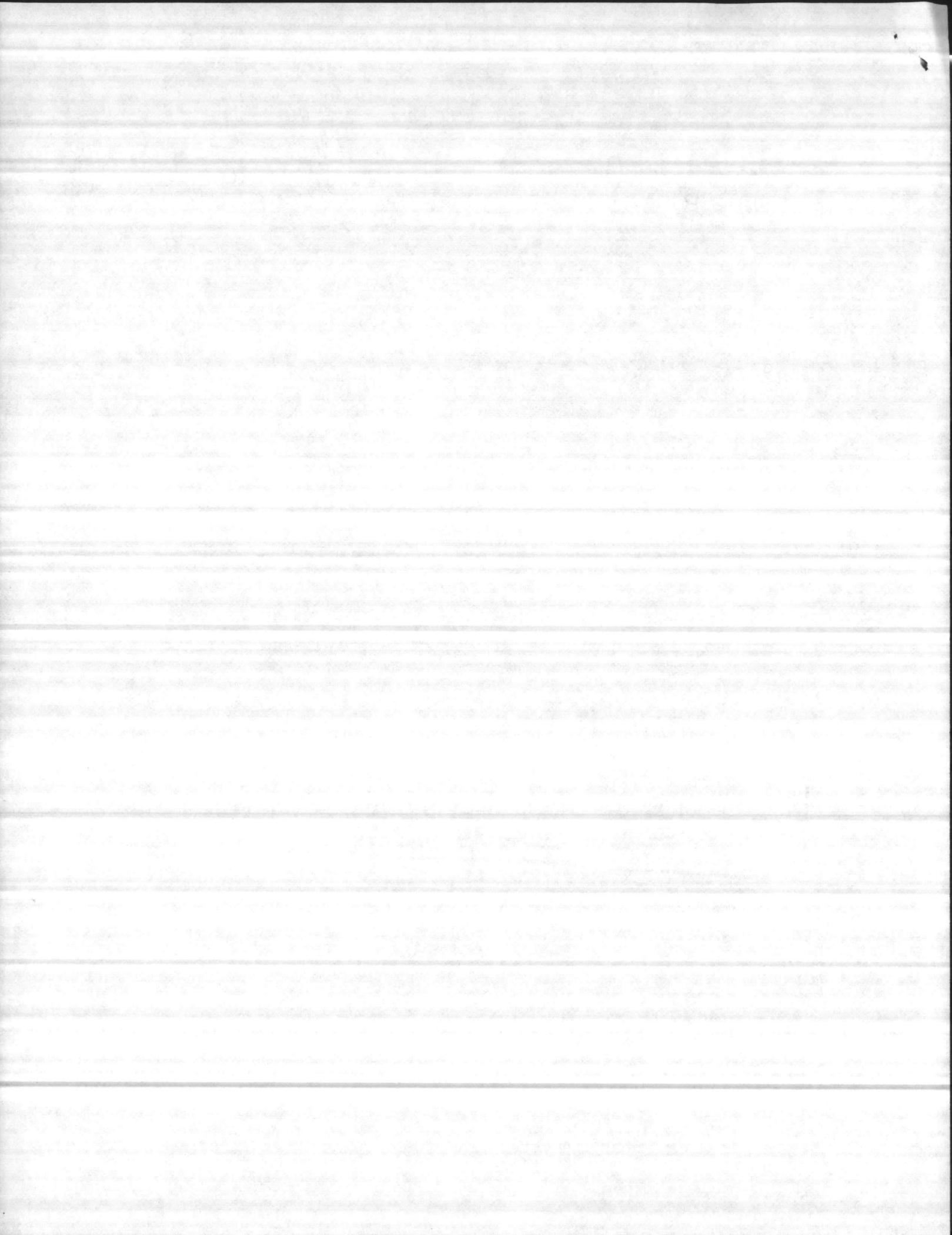


— OLD ROADS

— PROPOSED DITCHING

— PROPOSED CLEARING

K-2 IMPROVEMENT



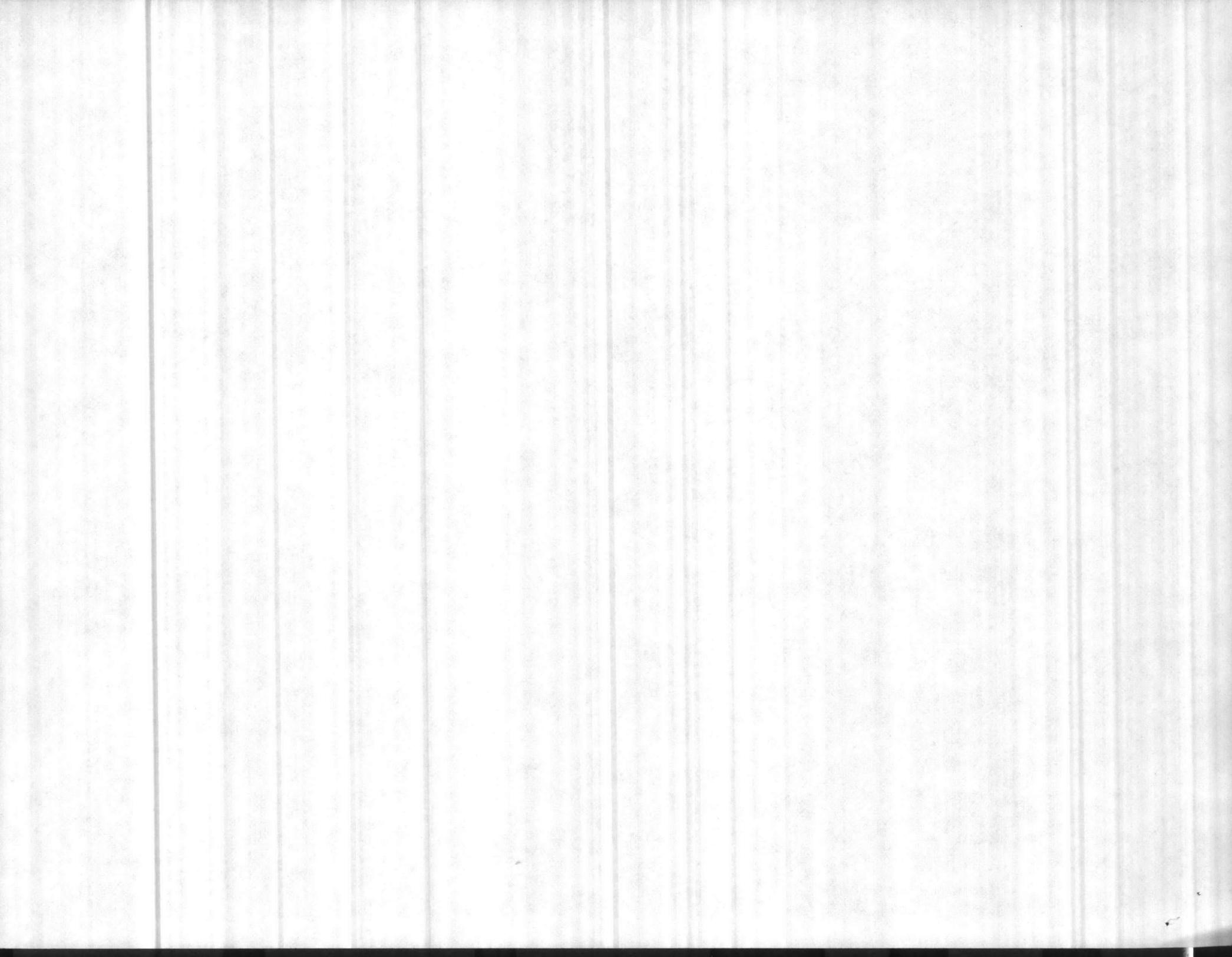
2-15-83

11-1-77

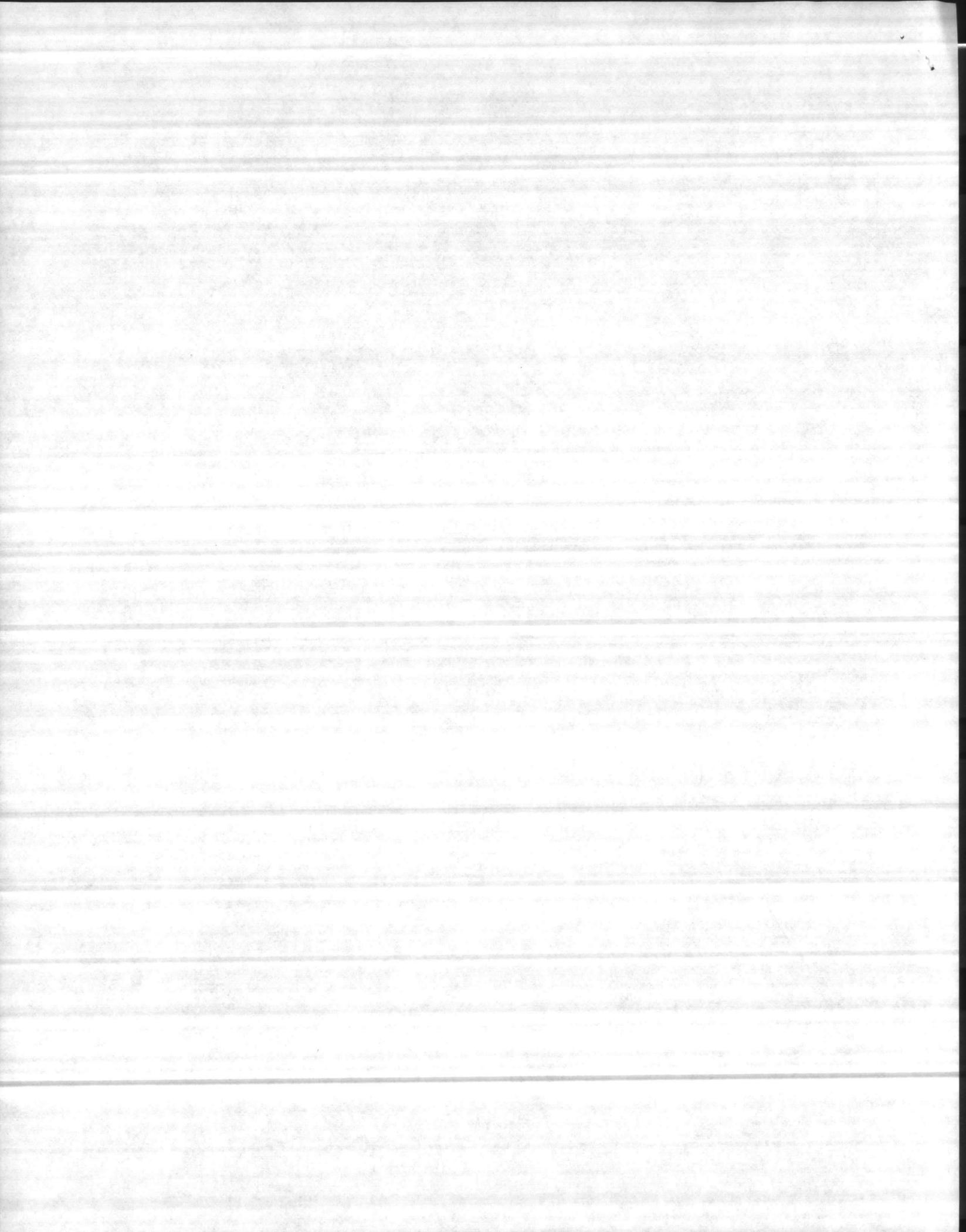
3-15-55

183-56









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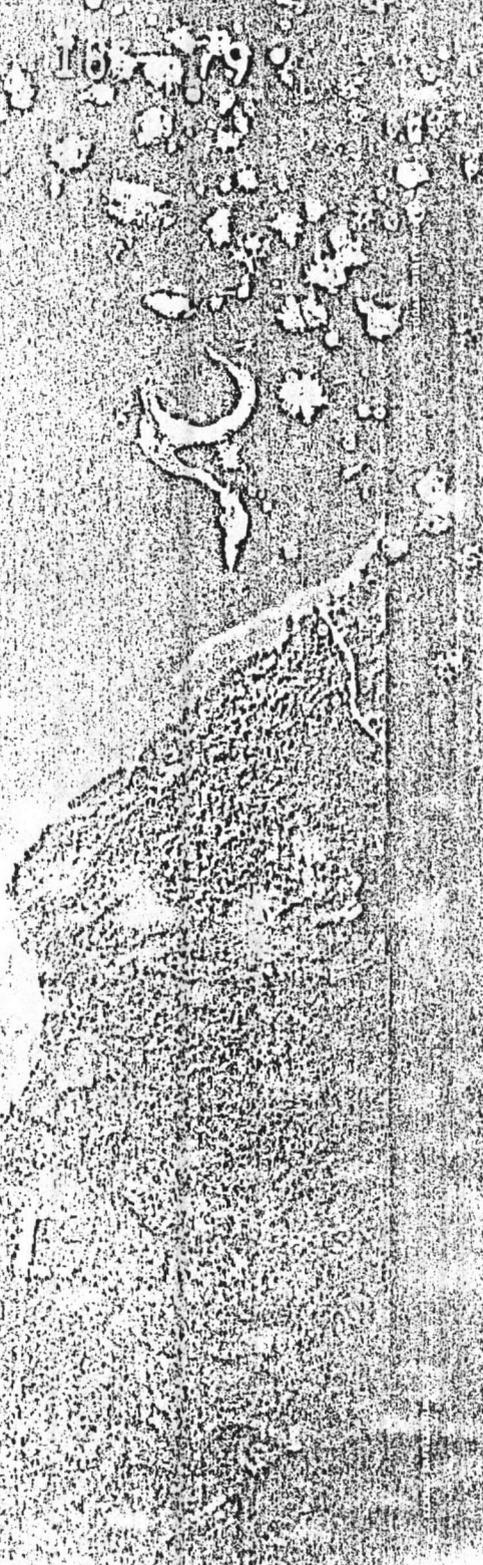
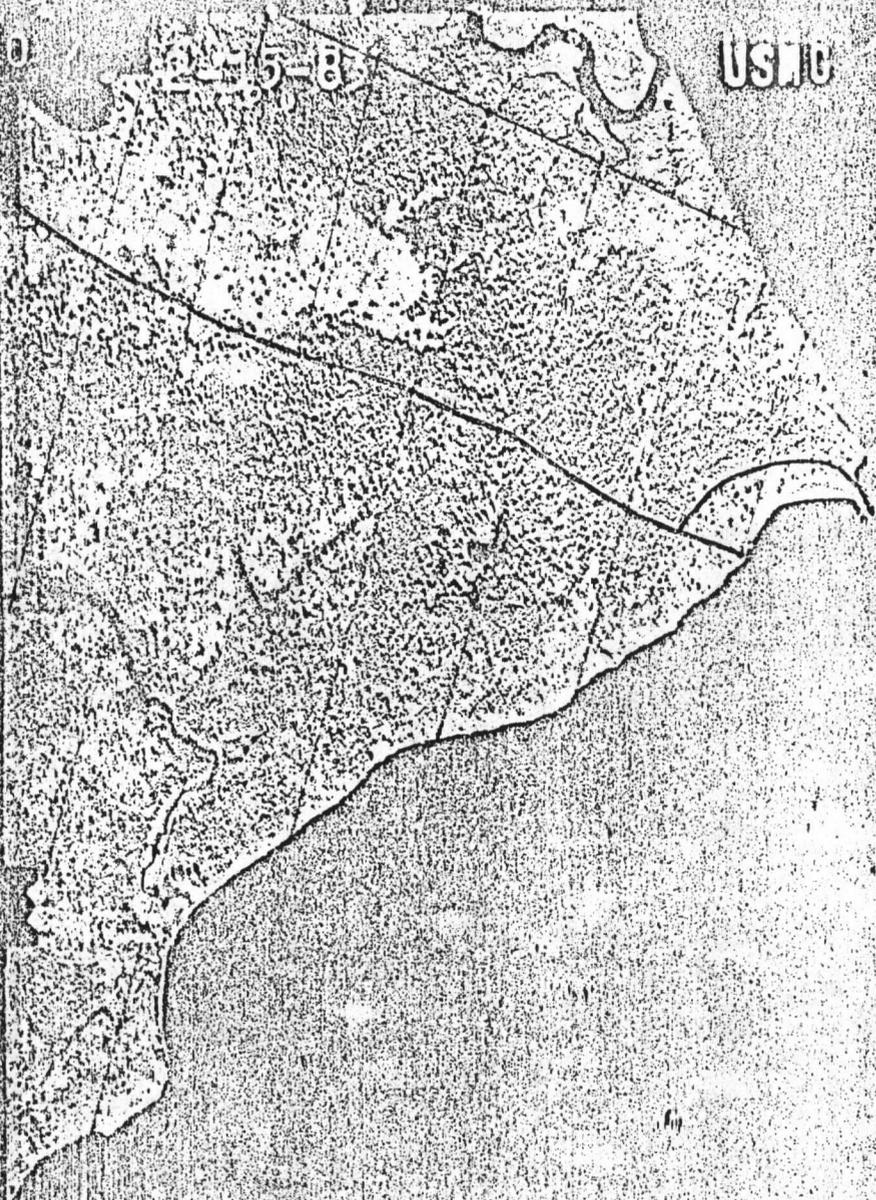
2-15-8

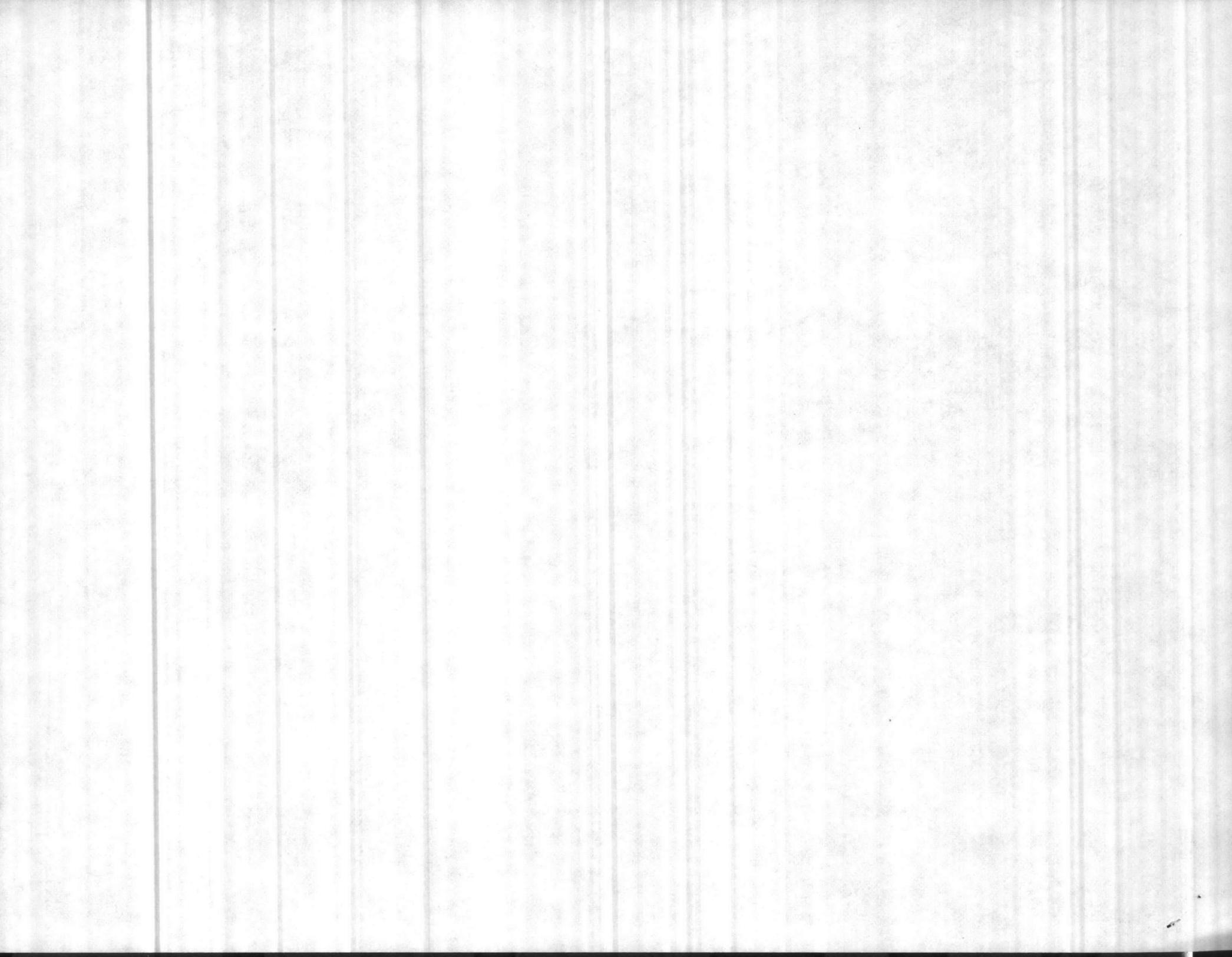
USMC

16

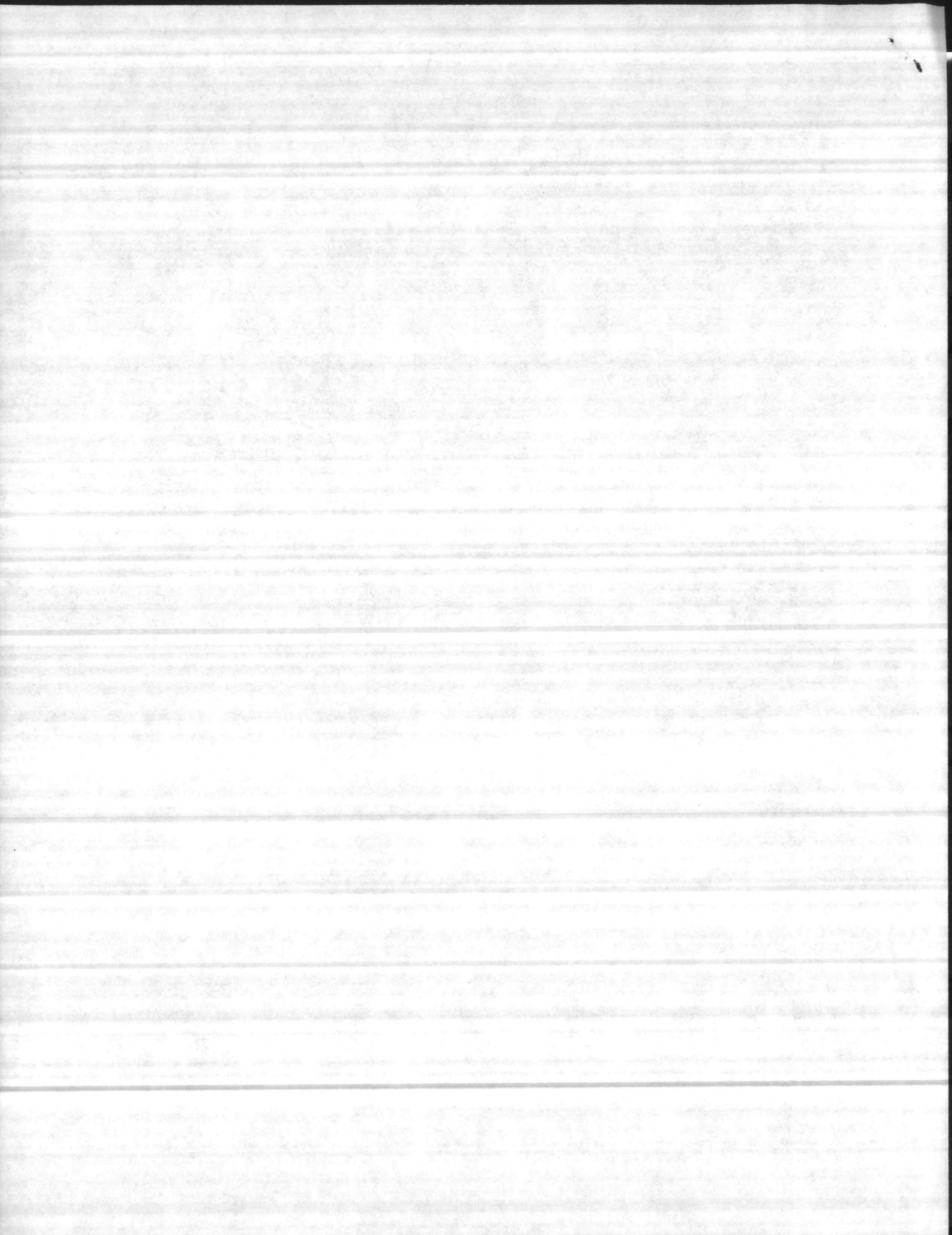
37133

10-79











UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/4
NREAD
23 July 1984

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 Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

Ref: (a) AC/S FAC memo 5420/2 FAC of 18 July 1984

Encl: (1) Comments on Proposed K-2 Impact Area/Drainage and
Clearing
(2) Comments on Tracked Vehicle Trail
(3) Comments on LAV Operations in Hoffman Forest
(4) Comments on LZ Bluebird Repair Project

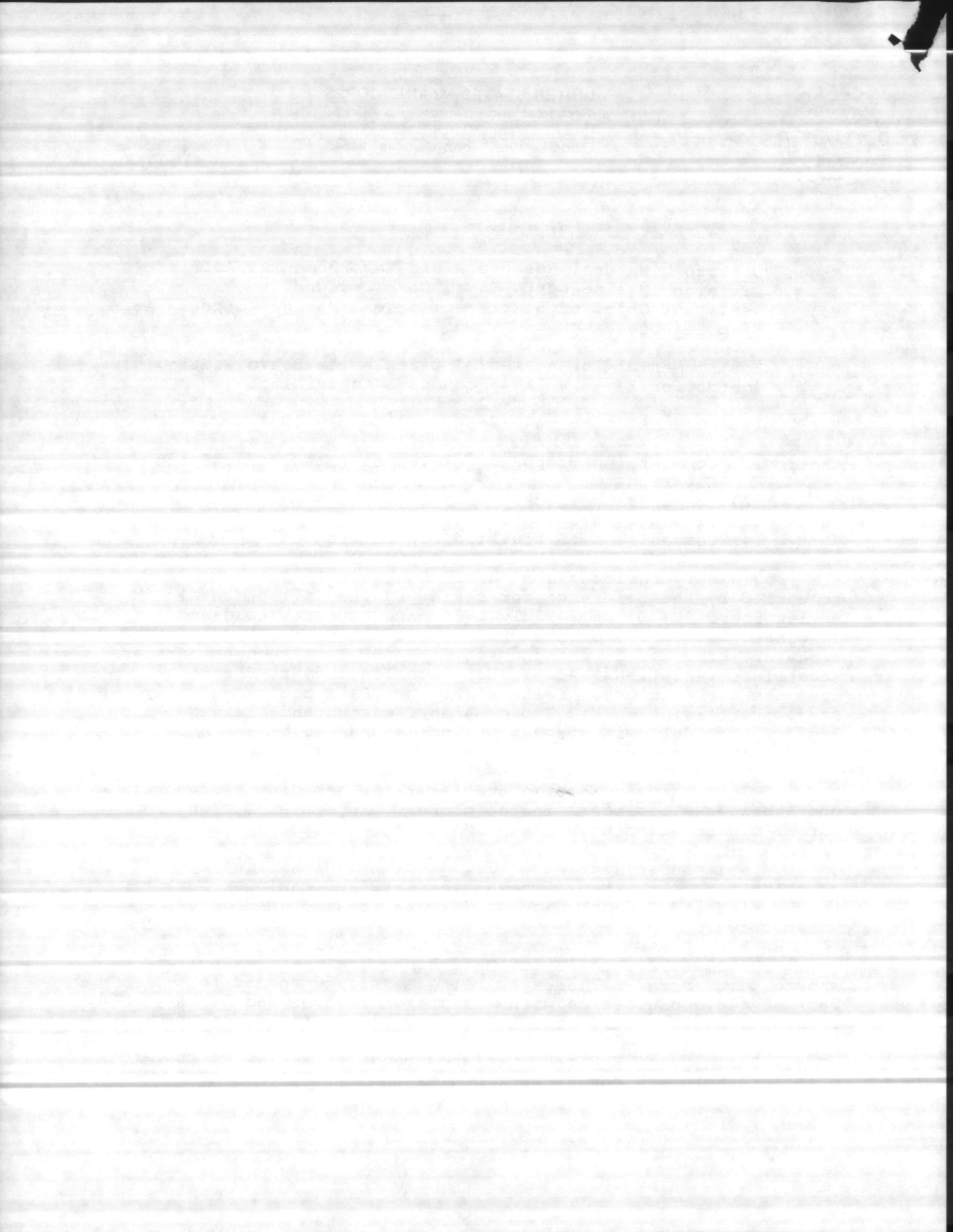
1. Preliminary Environmental Assessments (PEA) furnished and scheduled by the reference for review by the Environmental Impact Review Board (EIRB) on 24 July 1984 have been reviewed and discussed by members of the NREAD staff and comments/recommendations are provided as enclosures (1) - (4). Although there are some minor variations between Mr. Peterson and Mr. Sharpe's comments our conclusion relative to the PEA's are essentially the same. Pertaining to K-2 Impact Area Clearing and Drainage Project, the following issues are not addressed or are not adequately addressed or there are inaccurate statements, i.e.:

a. There are endangered species (Red-Cockaded Woodpeckers and American Alligators) in the proposed project area requiring formal consultation with the US Fish and Wildlife Service.

b. Whitehurst Creek and Mill Creek are classified by state as primary nursery area. These areas will probably be impacted by the clearing and drainage of K-2 due to accelerated fresh-water flow.

c. The Base Archaeological and Historical Survey of 1981 showed part of the K-2 area as being sensitive and it is recommended consultation with the state Archives and History personnel be completed before clearing and drainage work begins.

d. Drainage of K-2 area wetlands requires review by the Army Corps of Engineers before work begins.



Subj: Environmental Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

e. File a Federal Consistency Statement with the NC Office of Coastal Management.

f. Submittal of a sedimentation control plan to the state prior to beginning the work in the K-2.

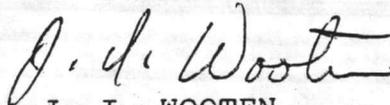
g. In my opinion, outside agencies may consider the K-2 project a major federal action because of impacts on endangered species, wetlands, primary nursery areas and archaeological and historical resources. In my opinion an Environmental Assessment (EA) is required by Headquarters Marine Corps because of both the environmental impact and the potential for controversy.

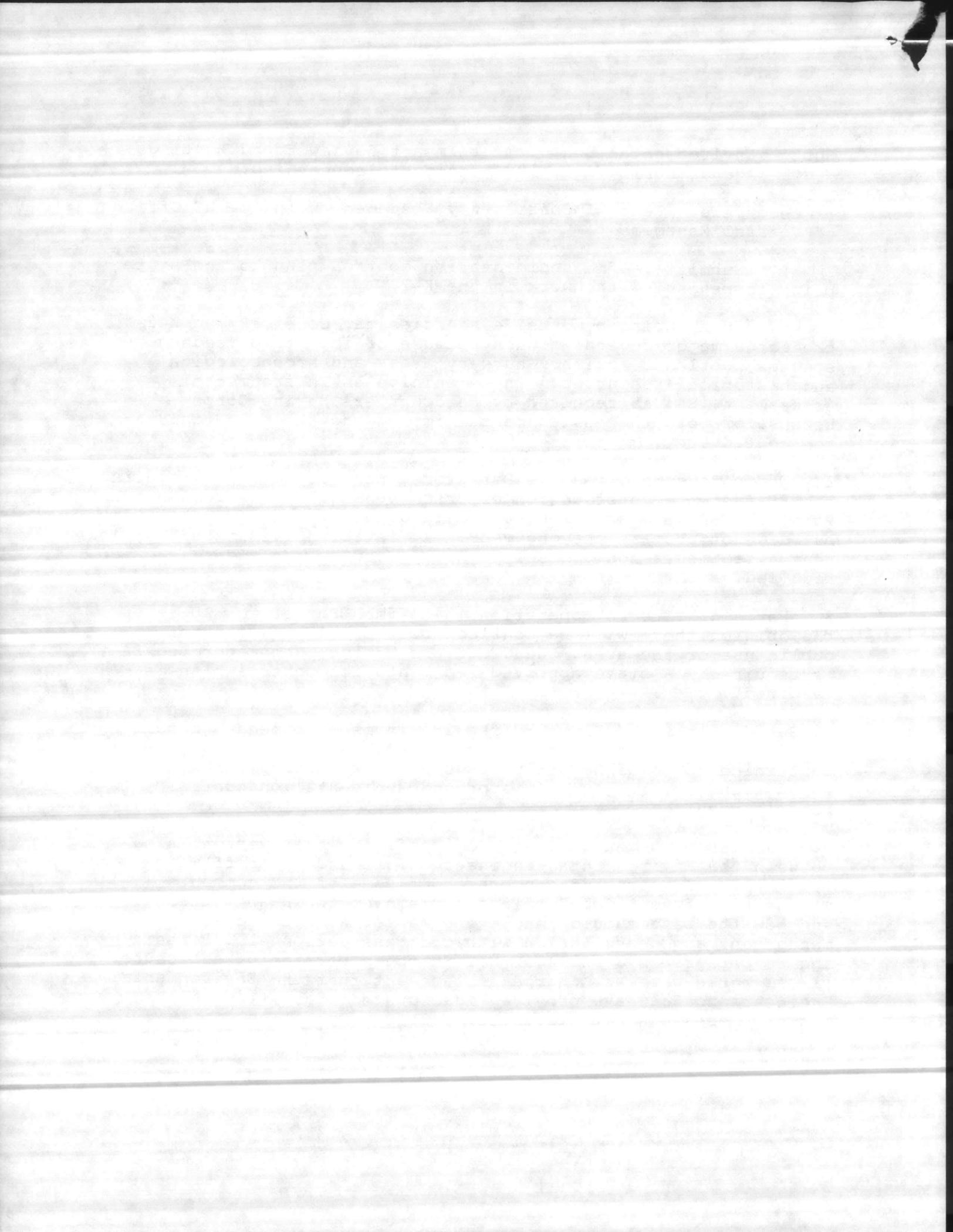
2. The reference gives the Director, NREAD credit for preparing the PEA for the construction of track vehicle trail from Rhodes Point to TLZ Cardinal. NREAD provided information for the PEA but did not prepare the document. It is this Division's position that a sedimentation control plan approved by the state is required.

3. Pertaining to LAV operation in Hoffman Forest, NREAD is of the opinion there will be conflict between LAV and general public use of the area. Headquarters Marine Corps approved EA is required. A state approved sedimentation control plan is required.

4. Pertaining to LZ Bluebird repair, it is recommended base consult with the State Department of Archives and History pertaining to possible artifacts under the matting, as well as adjacent areas. A state approved sedimentation control plan is required.

5. Earlier this year I discussed conflicts that were arising between the Environmental Engineer and me and my staff with you. Also, I expressed concern about some of the comments I was hearing from LtCol Cummings pertaining to NREAD matters and how the base should handle the matter as related to management and consultation with off base personnel. Pertaining to paragraphs 3 and 4 of Mr. Sharpe's portion of enclosure (1), I agree with Mr. Sharpe's statement that the Environmental Engineer and SJA have provided inaccurate information which has the base in a potentially embarrassing position.


J. I. WOOTEN





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:

11000/5
NREAD
23 July 1984

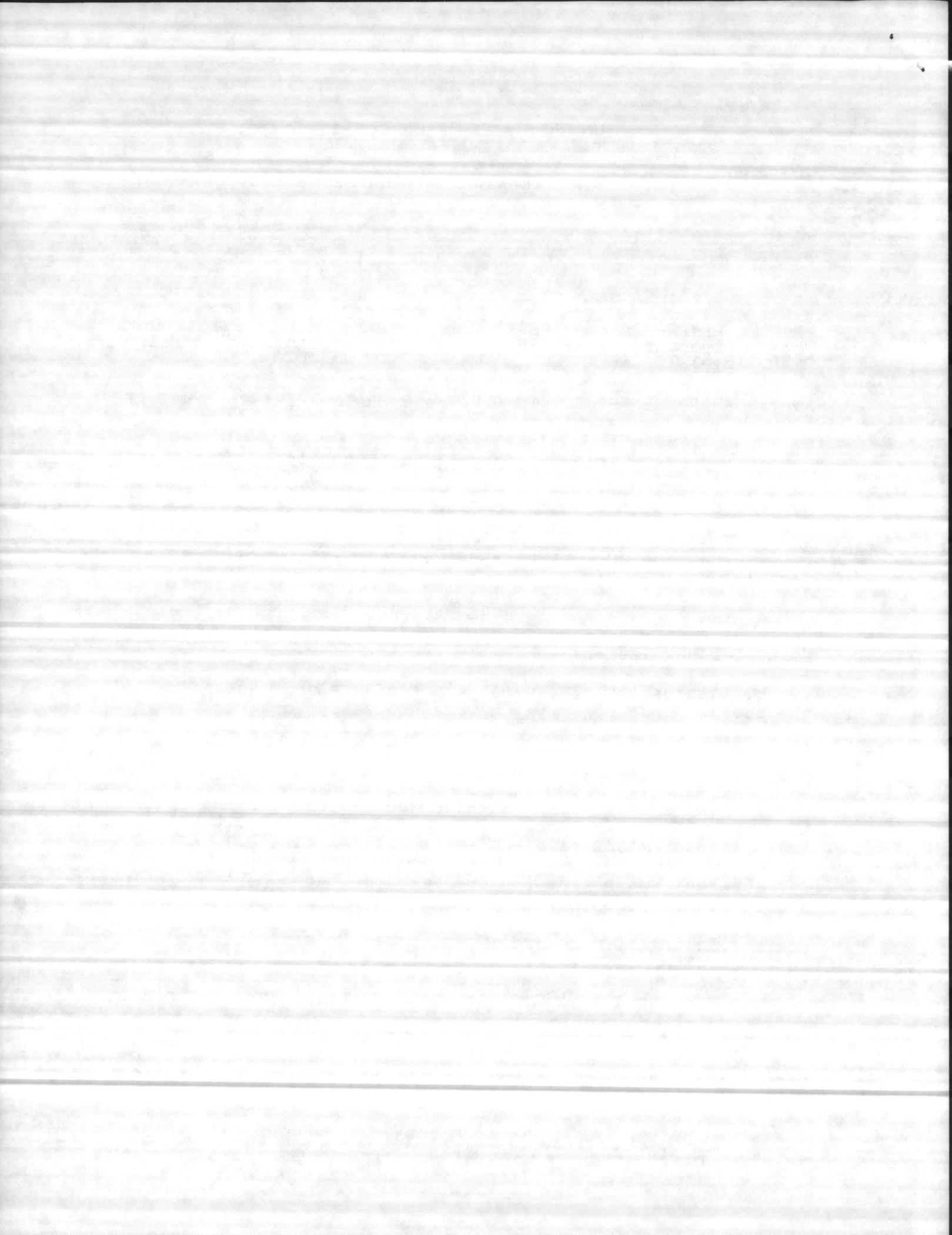
From: Supervisory Ecologist
To: Director, Natural Resources and Environmental Affairs
Division
Subj: PROPOSED PROJECT TO CLEAR AND DRAIN THE K-2-IMPACT AREA
Ref: (a) Executive Order 11990
(b) NCAC Title 15, Chap 4, Sedimentation Control
(c) Endangered Species Act of 1973 as Amended
(d) MCO P11000.8B
(e) Chairman, EIRB ltr 5420/2 FAC of 18 July 1984

1. The subject project has the following significant environmental impact:

- a. Will cause accelerated rates of discharge of freshwater and sediment to primary nursery areas (as identified by State fisheries regulations).
- b. Alteration of several types of wetlands specifically protected by reference (a) by channelization/drainage.
- c. Affects the habitat of the endangered species, *Dendrocopos Borealis* (Red-Cockaded Woodpecker).
- d. May affect the endangered species *Dionaea Muscipula* (Venus Fly Trap); several species of *Sarracenia* (Pitcher Plants), and alligator *mississippiensis* (American Alligator).

2. The subject project requires implementation of the following procedural requirements:

- a. Filing of a Federal Consistency Determination with the North Carolina Office of Coastal Management.
- b. Submittal of a Sedimentation Control Plan required by reference (b).
- c. Consultation with United States Fish and Wildlife Service (USFWS) and North Carolina Wildlife Resources Commission as required by reference (c).
- d. Submittal of an Environmental Assessment (EA) to Headquarters Marine Corps as required by reference (d).

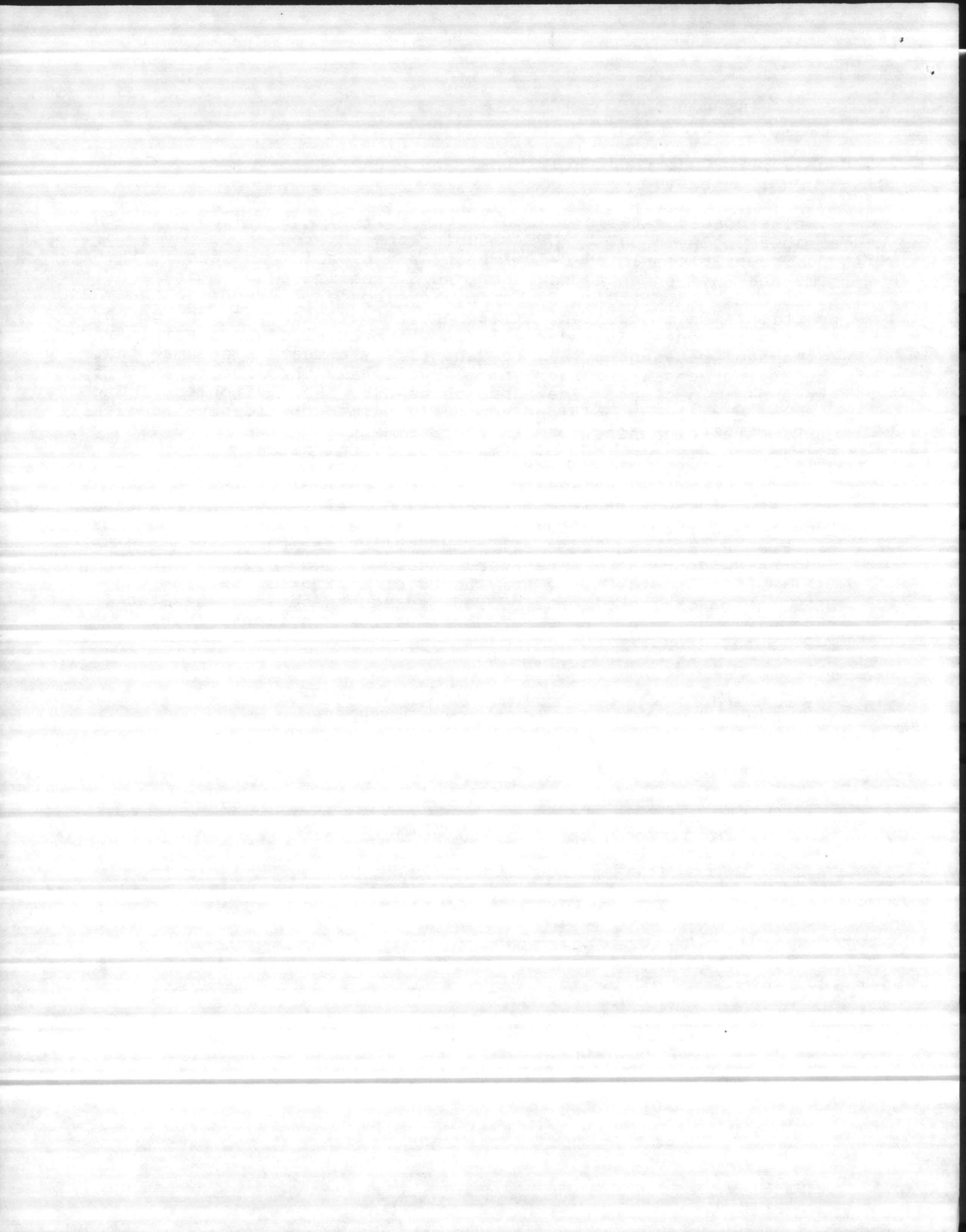


Subj: PROPOSED PROJECT TO CLEAR AND DRAIN THE K-2 IMPACT AREA

3. The considerations listed in the foregoing are almost the same as those pointed out by NREAD during the Environmental review of the recently completed G-10 Impact Area clearing project. At that time the Environmental Engineer, AC/S Facilities and members of the Staff Judge Advocate's (SJA) office cooperated in refuting the NREAD position. In my opinion, inaccurate information was provided by the Environmental Engineer and SJA which resulted in possible violations of references (a), (b) and (c). It must be assumed that the Environmental Engineer and SJA will take the same position on the subject project. The approach used by the Environmental Engineer and SJA has, in my opinion, seriously harmed previously excellent working relationships between the Base and both the USFWS and the Wilmington District, U. S. Army Corps of Engineers.

4. It is recommended that K-2 Impact Clearing and Drainage Project PEA provided by reference (c) not be put before the Environmental Impact Review Board unless the board members are provided thorough background which includes all of NREAD's comments on both the K-2 and the G-10 project. The Board should also be advised that the Wilmington District U. S. Army Corps of Engineers has made the USFWS aware that the areas of Red-Cockaded Woodpecker habitat in the G-10 have been cleared and that habitat is also present in the K-2 Impact Area.

D. D. SHARPE





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:

11015/1A
NREAD
23 July 1984

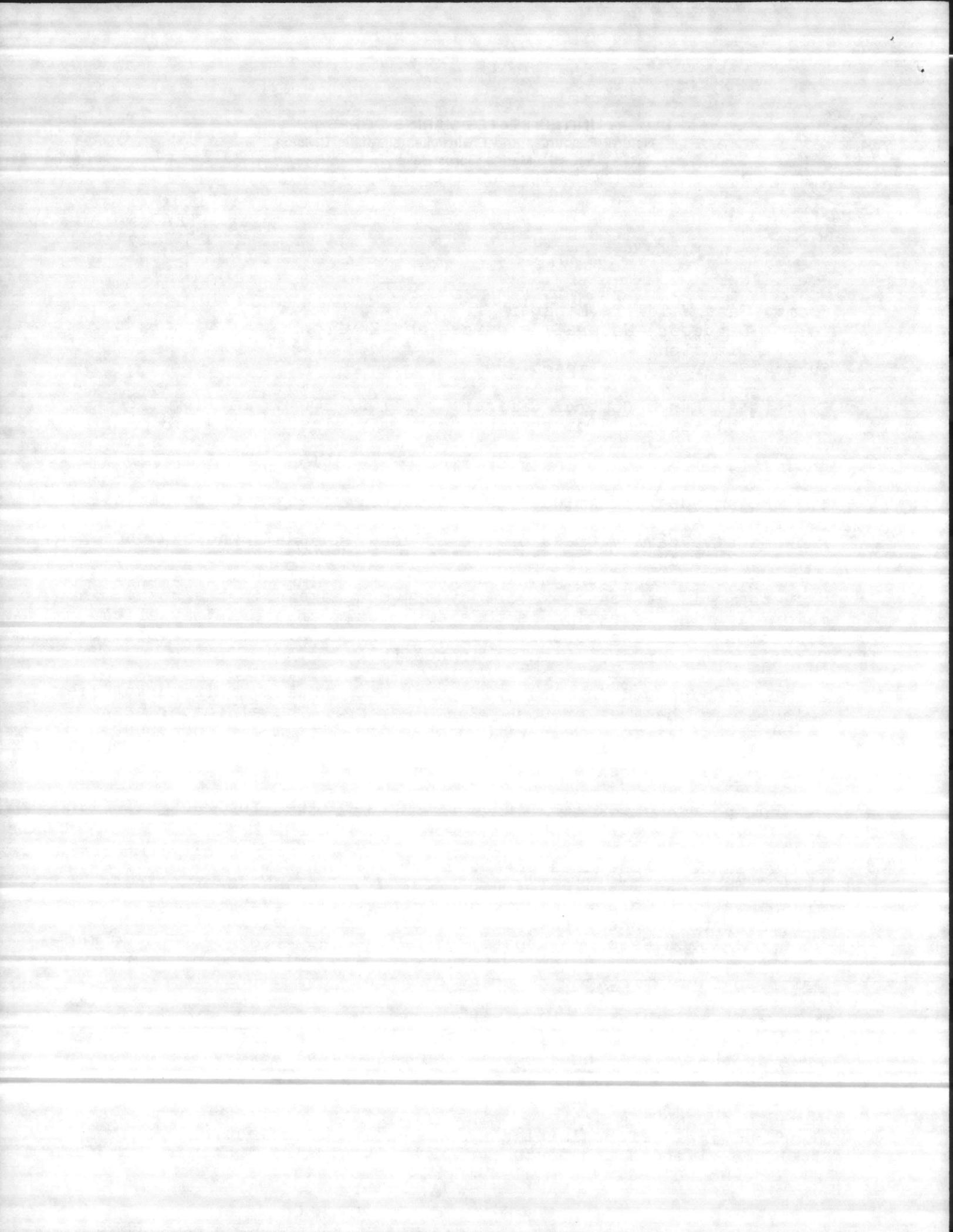
From: Base Wildlife Manager
To: Director, Natural Resources and Environmental Affairs
Division
Subj: Clearing K-2 Impact Area

Ref: (a) Range Control Officer ltr 11000 EOD of 11 July 1984
(b) Section 7 of the Endangered Species Act of 1973

Encl: (1) North Carolina Fisheries' Regulations

1. The amended preliminary environmental assessment contained in reference (a) has been reviewed as requested. Five previously unknown active cavity trees of the endangered Red-Cockaded Woodpecker have been located in the area which is proposed for clearing according to the Environmental Engineer. This apparently indicates that there is at least one colony of woodpeckers in the area. Any major clearing operation in this area would create a "may affect" situation requiring consultation with the U. S. Fish and Wildlife Service in accordance with reference (b).
2. The endangered American Alligator occurs along Whitehurst Creek which is in the area proposed for clearing. The alligator nests above the tidal zone well within the fire-line along the creek. Clearing the area would also create a "may affect" situation relative to the occurrence of alligators thereby requiring consultation.
3. Whitehurst Creek is a protected nursery area for young finfish and crustaceans as defined in the North Carolina Fisheries Regulations for coastal waters as contained in enclosure (1). Draining the wetlands of the area proposed for clearing into Whitehurst Creek and channelization of the creek would change the salinity of the water. This would impact on the productivity of the creek for saltwater fishes and crustaceans. Therefore, it is recommended that the North Carolina Department of Natural Resources and Community Development, Division of Commercial Fisheries, be contacted prior to initiating the clearing project.
4. The shorelines along Whitehurst Creek and New River proper where the proposed clearing is planned is identified as a sensitive area in the 1981 Archaeological and Historical Survey for Camp Lejeune. It is recommended that Dr. Thomas Loftfield, principal investigator for the survey, be contacted for expert advice relative to protecting archaeological and historical resources in the proposed area before initiating the clearing project. Additionally, it is recommended the North Carolina Division of Archives and History also be consulted before clearing is initiated.

C. D. Peterson
C. D. PETERSON



.1402 MAPS AND MARKING

(a) The division of marine fisheries shall prepare detailed maps or charts showing all primary nursery areas. Such maps or charts will be available for inspection at the division of marine fisheries' office, Morehead City.

(b) As a courtesy to the fishing public the division of marine fisheries will mark the downstream boundary of each primary nursery area with signs insofar as may be practicable. No unauthorized removal or relocation of any such marker or sign shall have the effect of changing the classification of any body of water or portion thereof, nor shall any such unauthorized removal or relocation or the absence of any marker or sign affect the applicability of any regulation pertaining to any such body of water or portion thereof.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977.

.1404 VIOLATION TO USE SPECIFIC NETS AND DREDGES

It shall be unlawful to use or attempt to use any trawl net, long haul seine, swipe net, or dredge, for the purpose of taking any marine fishes in any of the primary nursery areas described in 15 NCAC 3B .1405.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977; Amended Eff. January 1, 1983.

.1405 DESCRIPTIVE BOUNDARIES: PRIMARY NURSERY AREAS

Page 92 3B/.1405

- W; running 219° (M) to a point on the west shore 34° 35' 17" N — 77° 23' 34" W;
- (F) Everett Creek, south of a line beginning at a point on the east shore 34° 34' 13" N — 77° 24' 44" W; running 273° (M) to a point on the west shore 34° 34' 12" N — 77° 24' 49" W;
- (G) Stone's Creek, southwest of a line beginning at a point on the southeast shore 34° 36' 36" N — 77° 26' 51" W; running 301° (M) to a point on the northwest shore 34° 36' 37" N — 77° 26' 52" W;
- (H) Muddy Creek, north of a line beginning at a point on the west shore 34° 36' 52" N — 77° 26' 38" W; running 087° (M) to a point on the east shore 34° 36' 52" N — 77° 26' 37" W;
- (I) Mill Creek, north of a line beginning at a point on the west shore 34° 37' 13" N — 77° 25' 44" W; running 109° (M) to a point on the east shore 34° 37' 11" N — 77° 25' 37" W;
- (J) Whitehurst Creek, west and south of a line beginning at a point on the south shore 34° 38' 04" N — 77° 22' 37" W; running 280° (M) to a point on the north shore 34° 38' 04" N — 77° 22' 38" W;
- (K) Town Creek, west of a line beginning at a point on the south shore 34° 39' 36" N — 77° 23' 06" W; running 007° (M) to a point on the north shore 34° 39' 37" N — 77° 23' 06" W;
- (L) Lewis Creek, southwest of a line beginning at a point on the southeast shore 34° 40' 54" N — 77° 24' 30" W; running 301° (M) to a point on the northwest shore 34° 40' 55" N — 77° 24' 32" W;
- (M) Northeast Creek, east of a line beginning at a point on the south shore 34° 43' 23" N — 77° 23' 35" W; running 316° (M) to a point at the mouth of Scale's Creek 34° 43' 46" N — 77° 24' 06" W;
- (N) Southwest Creek, southwest of a line beginning at a point on the east shore 34° 41' 30" N — 77° 25' 20" W; running 328° (M) to a point on the north shore 34° 41' 52" N — 77° 25' 40" W;
- (O) Upper New River, north of a line beginning at a point on Mumford Point 34° 43' 17" N — 77° 25' 00" W; running 271° (M) through beacon #53 to a point on the west shore 34° 43' 14" N — 77° 25' 49" W;
- (4) Chadwick Bay, all waters between a line beginning at a point on Roses Point 34° 32' 12" N — 77° 22' 19" W; running 075° (M) to marker #6 and the IWW.

3B/.1402-1405 Page 1

.1402 NURSERY AREAS DEFINED

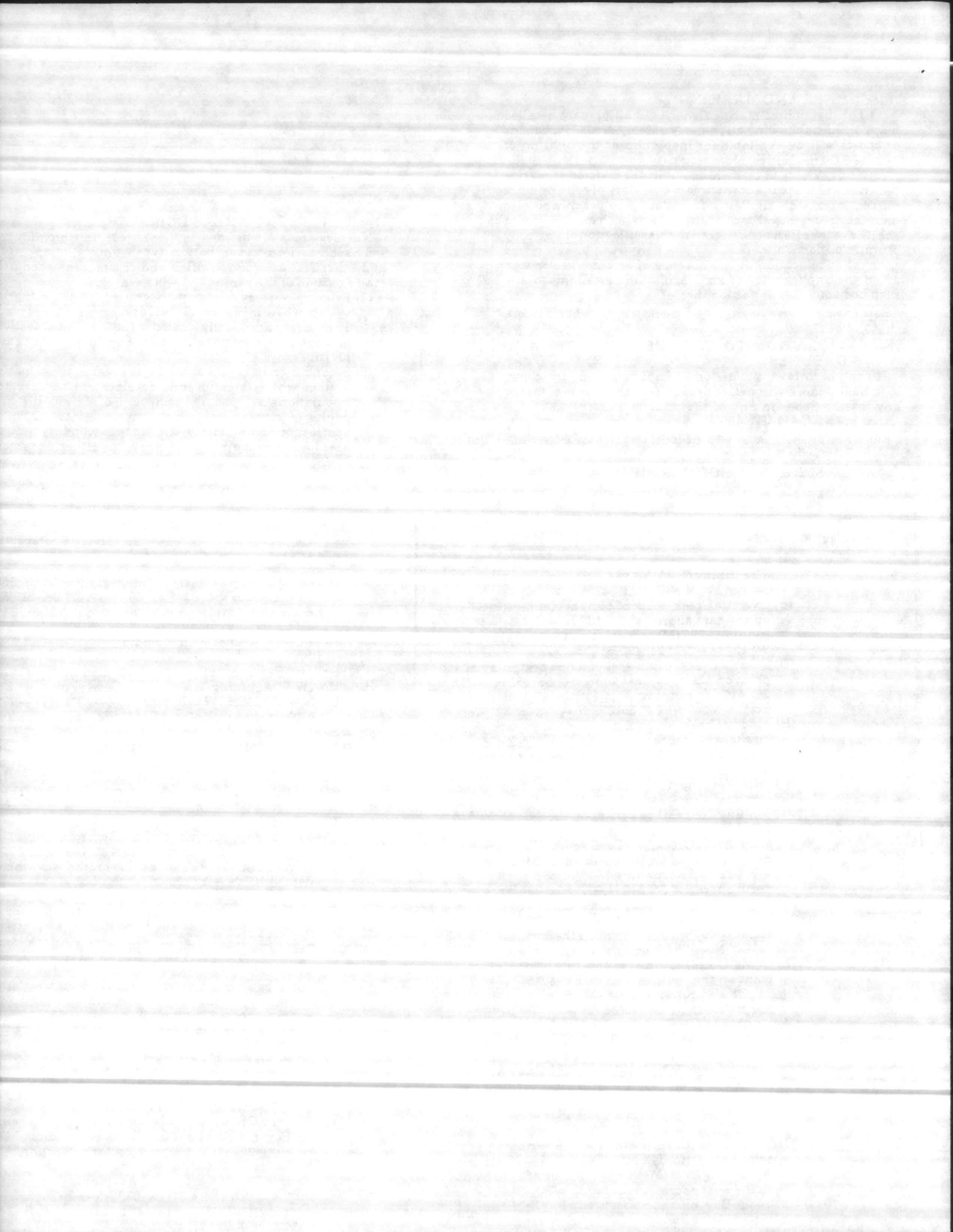
Nursery areas are defined as those areas, in which for reasons such as food, cover, bottom type, salinity, temperature and other factors, young finfish and crustaceans spend the major portion of their initial growing season:

- (1) Primary nursery areas are those areas in the estuarine system where initial post-larval development takes place. These areas are usually located in the uppermost section of a system where populations are uniformly very early juveniles.
- (2) Secondary nursery areas are those areas in the estuarine system where later juvenile development takes place. Populations are usually composed of developing subadults of similar size which have migrated from an upstream primary nursery area to the secondary nursery area located in the middle portion of the estuarine system.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977.

3B/.1405 Page 91

- (C) Unnamed creek, east of a line beginning at a point on the south shore 34° 41' 00" N — 77° 09' 42" W; running 337° (M) to a point on the north shore 34° 41' 08" N — 77° 09' 44" W;
- (7) Bear Creek, west of Willis Landing.
- (m) New River Area
- (1) Salliers Bay area, all waters north and northwest of the IWW beginning at a point on Cedar Point 34° 33' 08" N — 77° 20' 26" W to beacon #58 34° 37' 56" N — 77° 12' 20" W including Howard Bay, Mile Hammock Bay, Salliers Bay, and Freeman Creek;
 - (2) New River Inlet area (including Hellgate Creek and Ward's Channel), all waters south of the IWW from beacon #65 34° 32' 39" N — 77° 19' 03" W to beacon #13 34° 31' 03" N — 77° 22' 18" W, excluding the marked New River Inlet Channel;
 - (3) New River:
 - (A) Trap's Bay, northeast of a line beginning at a point on the east shore 34° 33' 47" N — 77° 20' 27" W running 317° (M) to a point on the west shore 34° 34' 10" N — 77° 20' 57" W;
 - (B) Courthouse Bay:
 - (i) Tributary of Courthouse Bay, southeast of a line beginning at a point on Harvey's Point 34° 34' 59" N — 77° 22' 23" W; running 066° (M) to a point on the east shore 34° 35' 05" N — 77° 22' 11" W;
 - (ii) Tributary of Courthouse Bay, northwest of a line beginning at a point on the west shore 34° 35' 05" N — 77° 22' 40" W; running 057° (M) to a point on the east shore 34° 35' 10" N — 77° 22' 31" W;
 - (iii) Rufus Creek, east of a line beginning at a point on Wilken's Bluff 34° 34' 25" N — 77° 21' 41" W; running 002° (M) to a point on the north shore 34° 34' 34" N — 77° 21' 41" W;
 - (C) Wheeler Creek, south of a line beginning at a point on Poverty Point 34° 34' 06" N — 77° 23' 06" W; running 267° (M) to a point on the west shore 34° 34' 03" N — 77° 23' 23" W;
 - (D) Fannie Creek, west of a line beginning at a point on the south shore 34° 34' 07" N — 77° 23' 33" W; running 333° (M) to a point on the north shore 34° 34' 17" N — 77° 23' 40" W;





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:

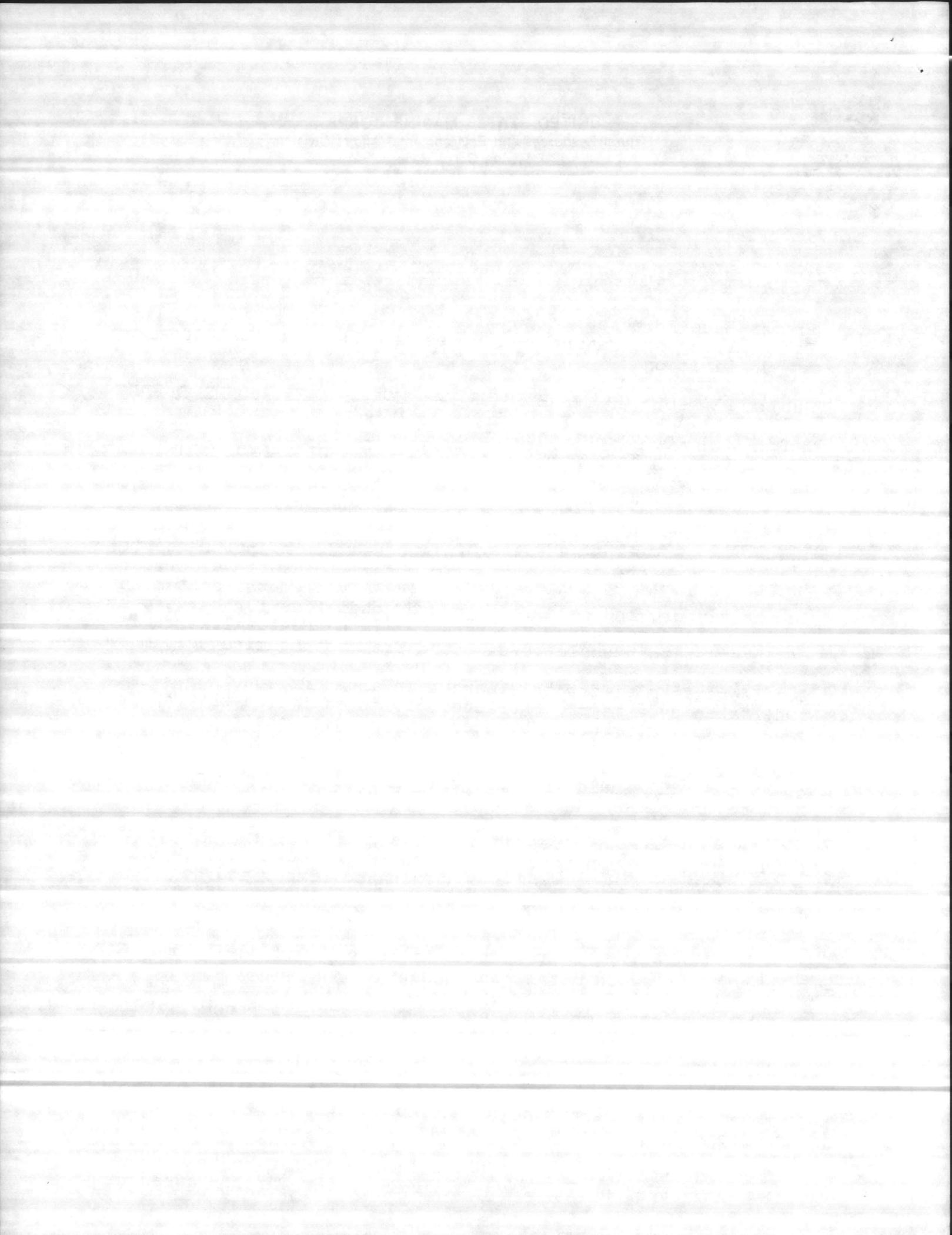
11000/2
NREAD
24 July 1984

From: Base Forester
To: Director, Natural Resources and Environmental Affairs
Division

Subj: PEA FOR IMPROVEMENTS OF K-2 IMPACT AREA; COMMENTS ON

Ref: (a) EODO ltr 11000 EOD of 11 July 1984
(b) Mtg btwn AC/S FAC; DAC/S FAC; ROICC/PWO; TFO; EODO;
EnvEngr; Dir NREAD, and AsstBase Forester on
17 July 1984

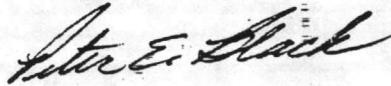
1. The clearing of large acreage in the K-2 Impact Area as addressed in reference (a) and discussed during reference (b) generated significant interest from some local timber procurement personnel. However, the possibility of metal contamination in the timber, and hazardous ground conditions for harvesting equipment and personnel has resulted in a greatly lowered level of interest than would be expected from uncontaminated timber.
2. If maximum effort to clearcut an area of 1,000 acres is undertaken by a major contractor, it is estimated that approximately two months would be needed to harvest the area under the most ideal circumstances. Poor weather, suppressed timber markets, equipment breakdown or accidents at the logging site or at the mill would increase the time required for the completion of the job.
3. Interest by some representatives has been high, while others wanted more information, and others expressed no interest because of the possibility of metal contaminated timber and hazardous ground conditions from unexploded ordnance. Interest is noted as follows:
 - a. Federal Paper Woodlands Division - Official company policy is to avoid metal contaminated timber.
 - b. Squires Timber Company - Procurement personnel indicate that they are interested in the proposed timber salvage provided that primary purchasers will accept the timber.
 - c. Hinson Pulpwood - The company is interested in possible timber salvage operations but is concerned about mill acceptance or quotas interrupting the harvest.
 - d. Georgia Pacific - The initial response to the proposed salvage harvest was guarded; however, after further assessment



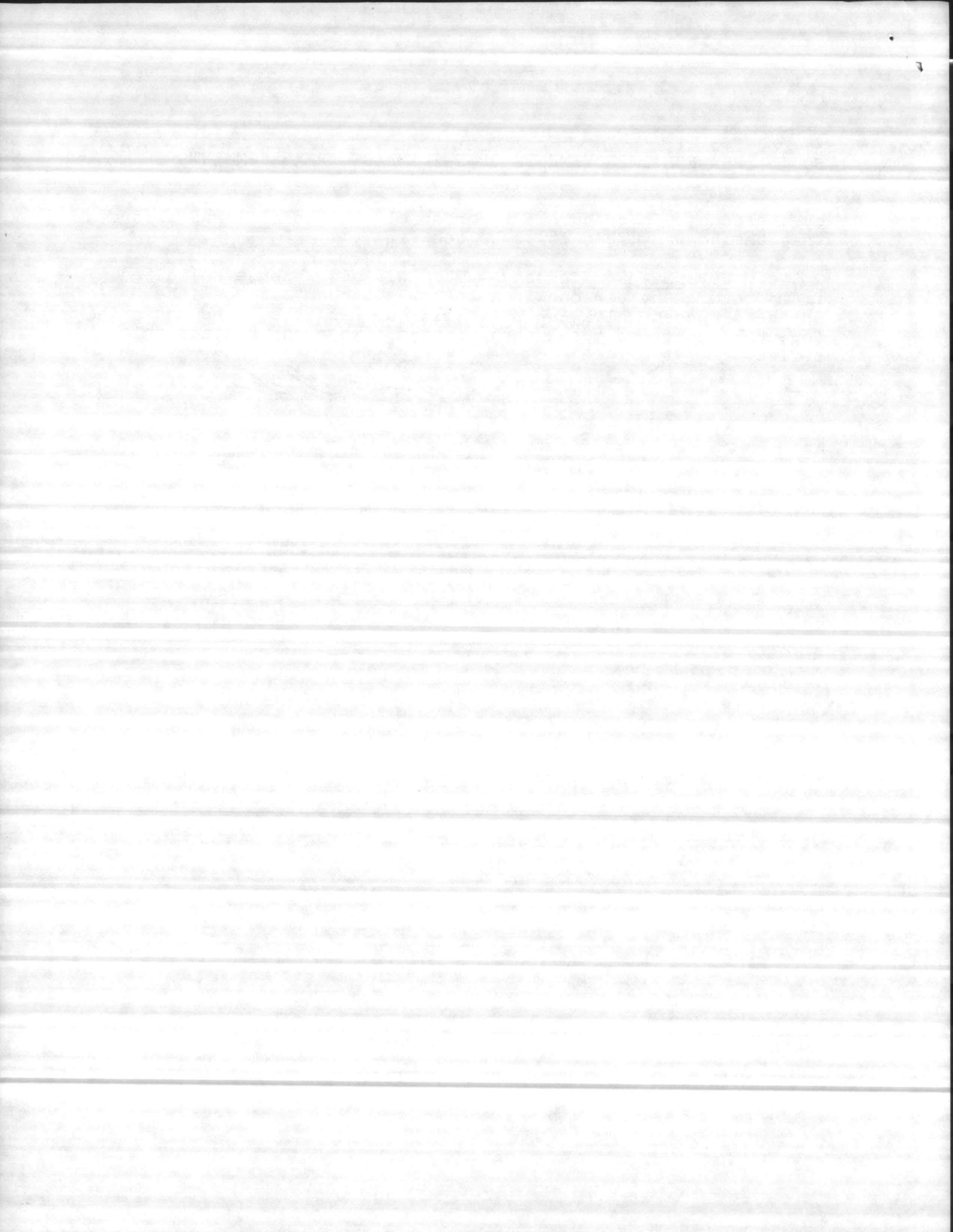
Subj: PEA FOR IMPROVEMENTS OF K-2 IMPACT AREA; COMMENTS ON

by the company's procurement personnel, this office was informed that the company felt it to be too risky.

e. Weyerhaeuser Company - The initial response solicited from procurement personnel is that the company may be interested in the proposed salvage. They will further assess the potential for utilization of metal contaminated timber and contact this office.



P. E. BLACK





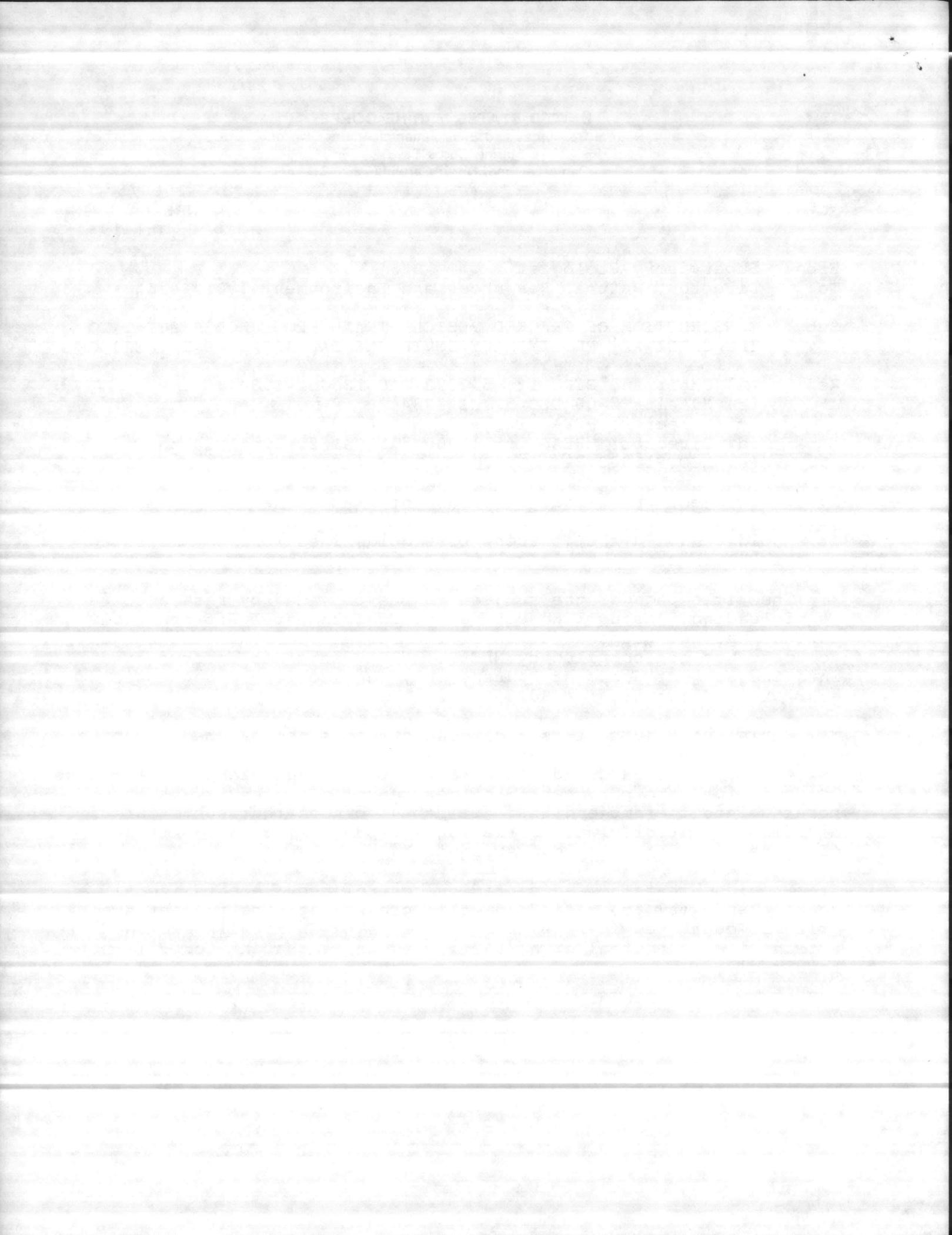
UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/5
NREAD
23 Jul 1984

From: Supervisory Ecologist
To: Director, Natural Resources and Environmental Division
Subj: CONSTRUCTION OF TRACKED VEHICLE TRAIL FROM RHODES POINT TO
TLZ CARDINAL; PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) OF
Ref: (a) Chairman, EIRB ltr 5420/2 FAC 18 Jul 1984
(b) SJA ltr 5800 CLO 5 Jul 1984
(c) Director, NREAD ltr 5200 NREAD 20 Jun 1984
(d) Director, NREAD ltr 11000/5 NREAD 20 Jun 1984
(e) MCO.P11000.3B

1. The subject Preliminary Environmental Assessment (PEA) has been reviewed per your request and the following comments are provided. It should be noted that current base guidelines were not followed in the PEA format.
2. The title page of the subject PEA as provided by reference (a) is misleading. Natural Resources and Environmental Affairs Division (NREAD) has not prepared a PEA of the subject action. The subject document was not compiled by NREAD. NREAD comments incorporated into the subject document address only the section of new trail east of grid coordinates 802362.
3. Engineering support is recommended to design road bed, associated ditches and culverts, and erosion control structures. It should be noted that Staff Judge Advocate (SJA) opinion contained in reference (b) conflict with paragraph 2 of reference (c). Ref (c) is incorporated into the subject PEA. It is my opinion that submittal of a sediment control plan for the subject project to the State as discussed in reference (d) is required.
4. Provided that the sedimentation control requirements identified in reference (c) are satisfied, this project appears to meet the criteria contained in reference (e) for a categorically excluded action (i.e. submittal of an EA to Headquarters Marine Corps is not required).

D. D. Sharpe
D. D. SHARPE



11000
TRNG
11 Jul 1984

FIRST ENDORSEMENT on RCO ltr 11000 over EOD dtd 11 Jul 1984

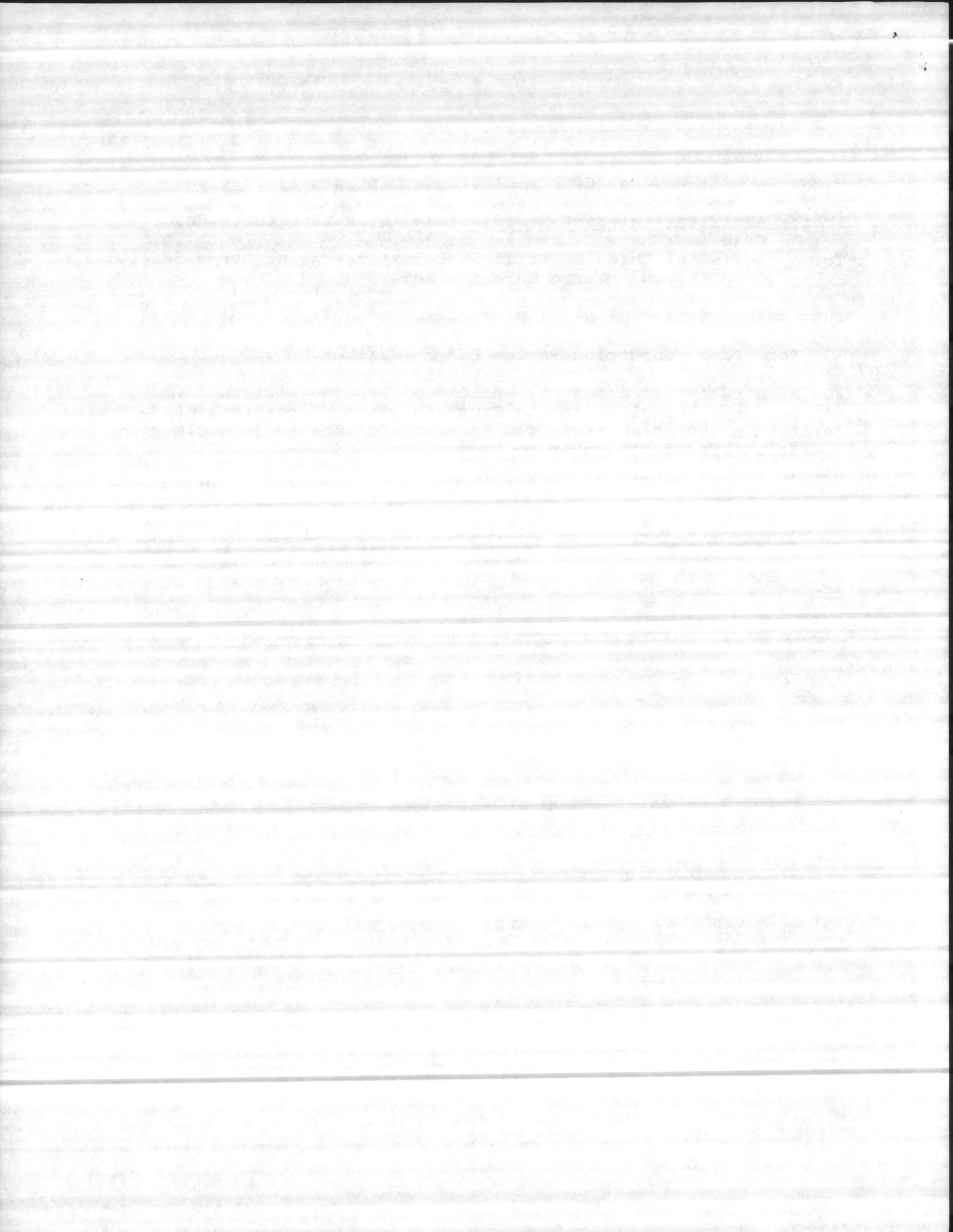
From: Assistant Chief of Staff, Training, Marine Corps Base,
Camp Lejeune
To: Assistant Chief of Staff, Facilities, Marine Corps Base,
Camp Lejeune, North Carolina 28542
Subj: IMPROVEMENT OF K-2 IMPACT AREA

1. Forwarded concurring in the PEA as written.
2. As a matter of interest, additional EOD technicians from Marine Corps installations in South Carolina, Virginia and California have been requested to assist in the subject clearing operation from 5 September to 31 October 1984.

F. J. CIZERLE
By direction

Copy to:
RCO
EOD







UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

11000

EOD

11 July 84

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: IMPROVEMENT OF K-2 IMPACT AREA

Ref: (a) AC/S, FAC ltr 6280 over FAC dtd 20JUN84

Encl: (1) Amended PEA for Improvement of K-2 Impact Area

1. In accordance with the recommendations of the reference concerning the project described at the enclosure, the PEA has been amended and is submitted herewith.

T. B. Howard
T. B. HOWARD

Copy to:
Range Maintenance
EOD

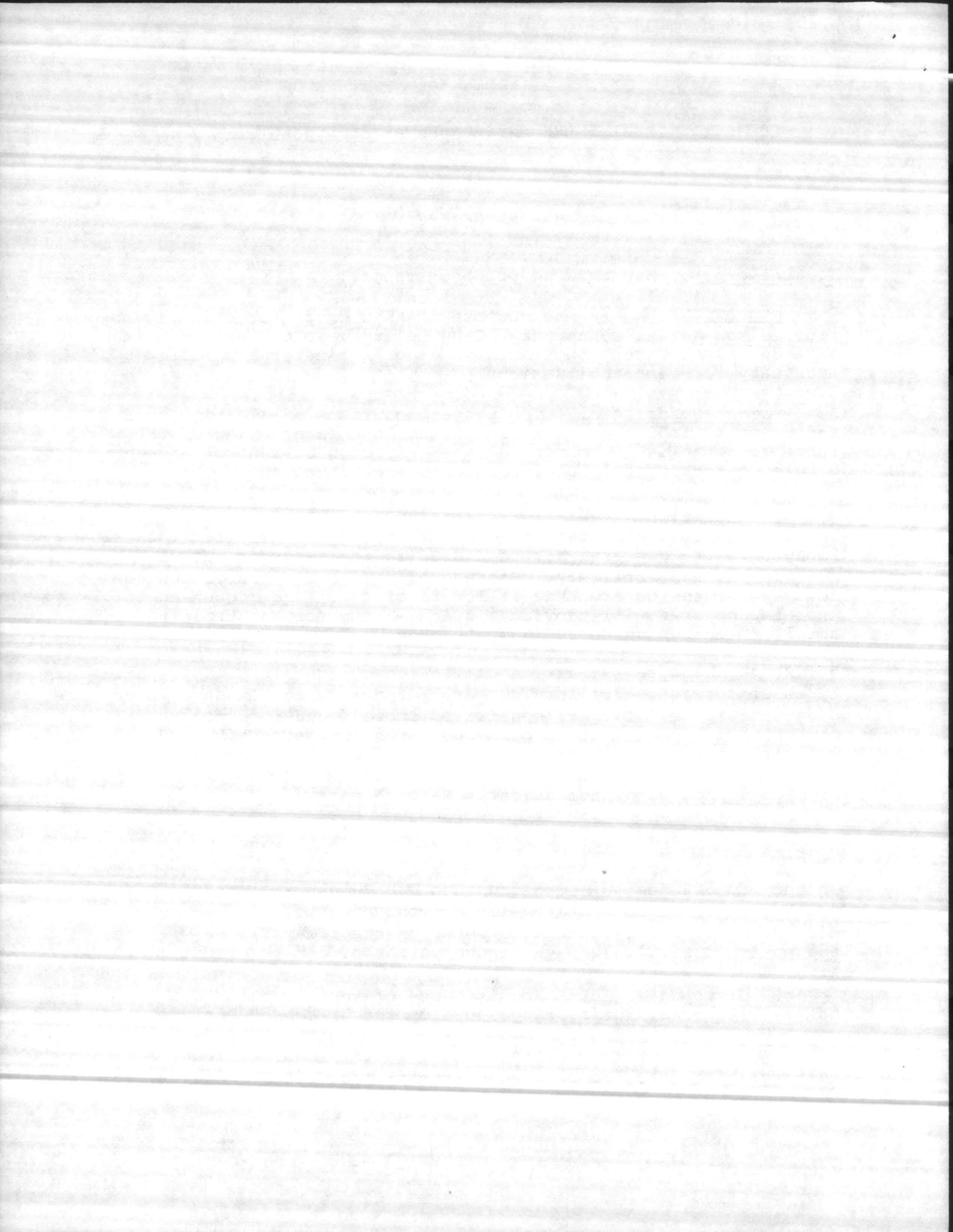
*AMENDED

PRELIMINARY ENVIRONMENTAL ASSESSMENT

FOR

RANGE K-2

1. Enclosure. Map showing proposed range.
2. Purpose and Need. The purpose of this proposed action is to provide the Marine Corps Base, Camp Lejeune, North Carolina with a range in the Verona Loop Area to teach Marines the skills necessary for combat situations.
- *3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and the digging of drainage ditches to facilitate maintenance.
- *4. Site Location. The site is located on enclosure (1). The location is currently part of the surface danger area for the K-2 Impact Area. This area has been used in the past for aerial bombardment and artillery. Because of a lack of observation due to tree growth the area has fallen to disuse. The reopening of this impact area will provide a quantum leap for the training of artillery batteries aboard Camp Lejeune.
- *5. Range Characteristics. A common impact area is used for all types of mortars, artillery rounds, air delivered ordnance, and dragon missiles. Targets consist of those found in a realistic combat environment such as personnel, vehicle, aircraft, and material targets supplemented by surveyed natural terrain features.
6. Compliance with Environmental Requirements.
 - a. Air Quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
 - c. Clean Water Act: No discharge of wastes to surface waters will occur during range development or subsequent use.
 - * d. National Historic Preservation Act: No significant cultural resources are located on the project site. However, in

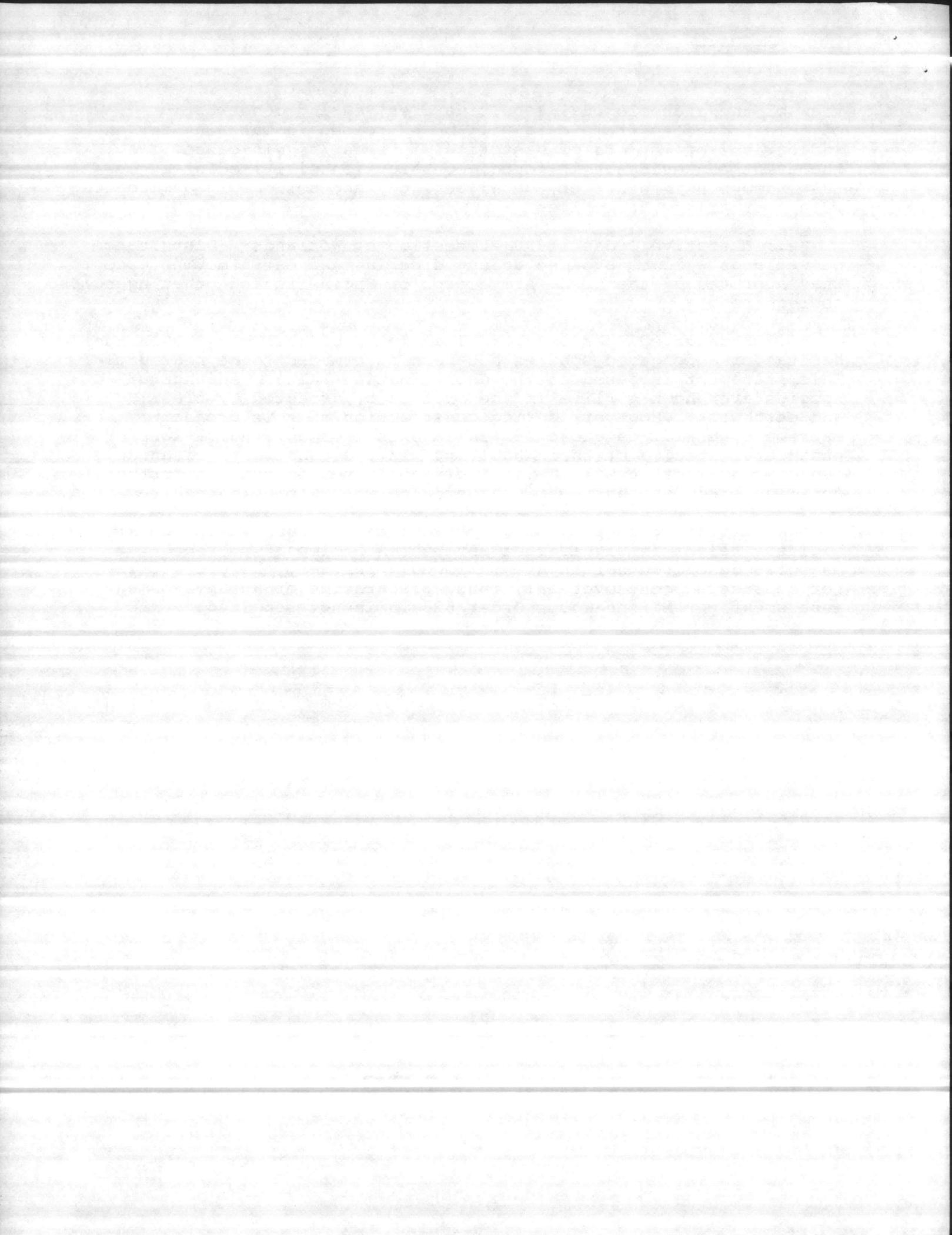


view of the archeological sensitive area, during construction of this project extreme care will be exercised in watching for any indications of matters of historical interest/significance. In the event any evidence is found, construction will immediately be suspended pending further, detailed study and actions in accordance with appropriate directives.

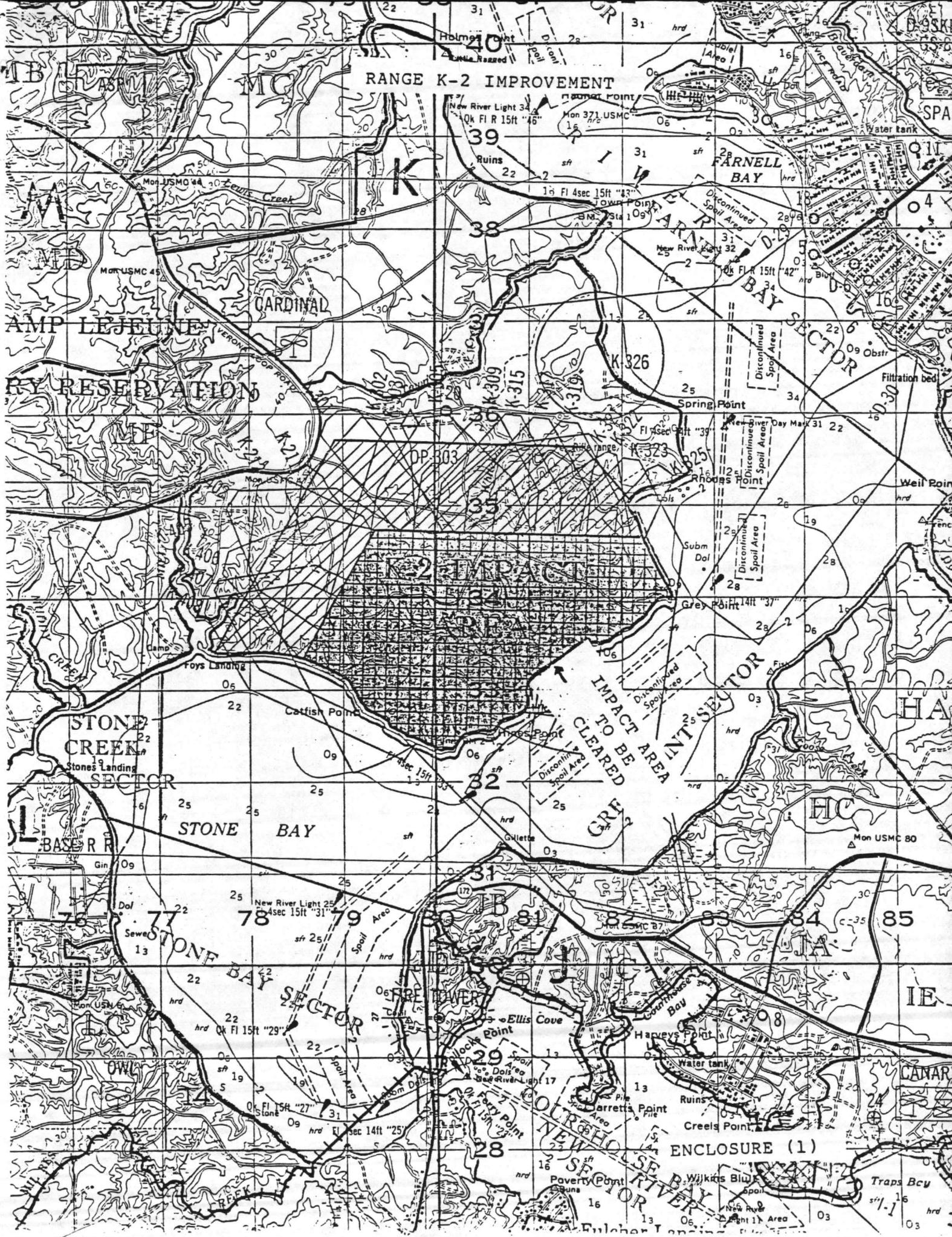
*e. Executive Order 11990 Protection of Wetlands: Disturbance of wetlands will be avoided during clearing and earth moving except that approved by the U. S. Army Corps of Engineers and other agencies as required.

*f. Endangered Species Act: The impact of this project on the habitat of endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by clearing and earthwork. However, during construction of this project extreme care will be exercised in watching for any indications of endangered species or their habitat. In the event any evidence is found, construction will immediately be suspended pending further, detailed study and actions in accordance with appropriate directives.

7. Conclusion. The proposed improvements for the K-2 Impact Area will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.

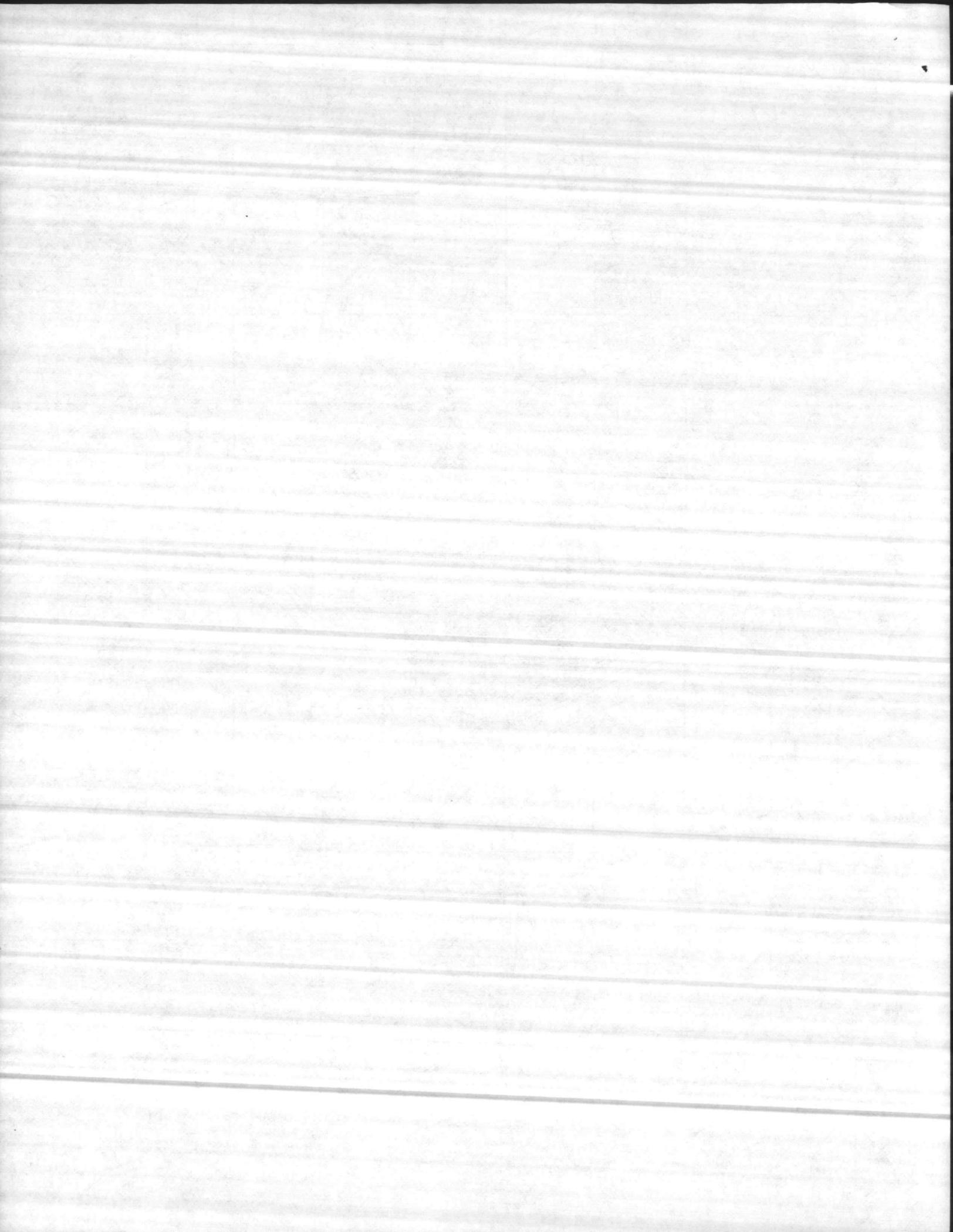


RANGE K-2 IMPROVEMENT



IMPACT AREA
TO BE CLEARED

ENCLOSURE (1)



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

6280
FAC
20 JUN 1984

From: Assistant Chief of Staff, Facilities, Marine Corps Base,
Camp Lejeune
To: Assistant Chief of Staff, Training (Attn: Range Control
Officer)

Subj: IMPROVEMENT OF K-2 IMPACT AREA

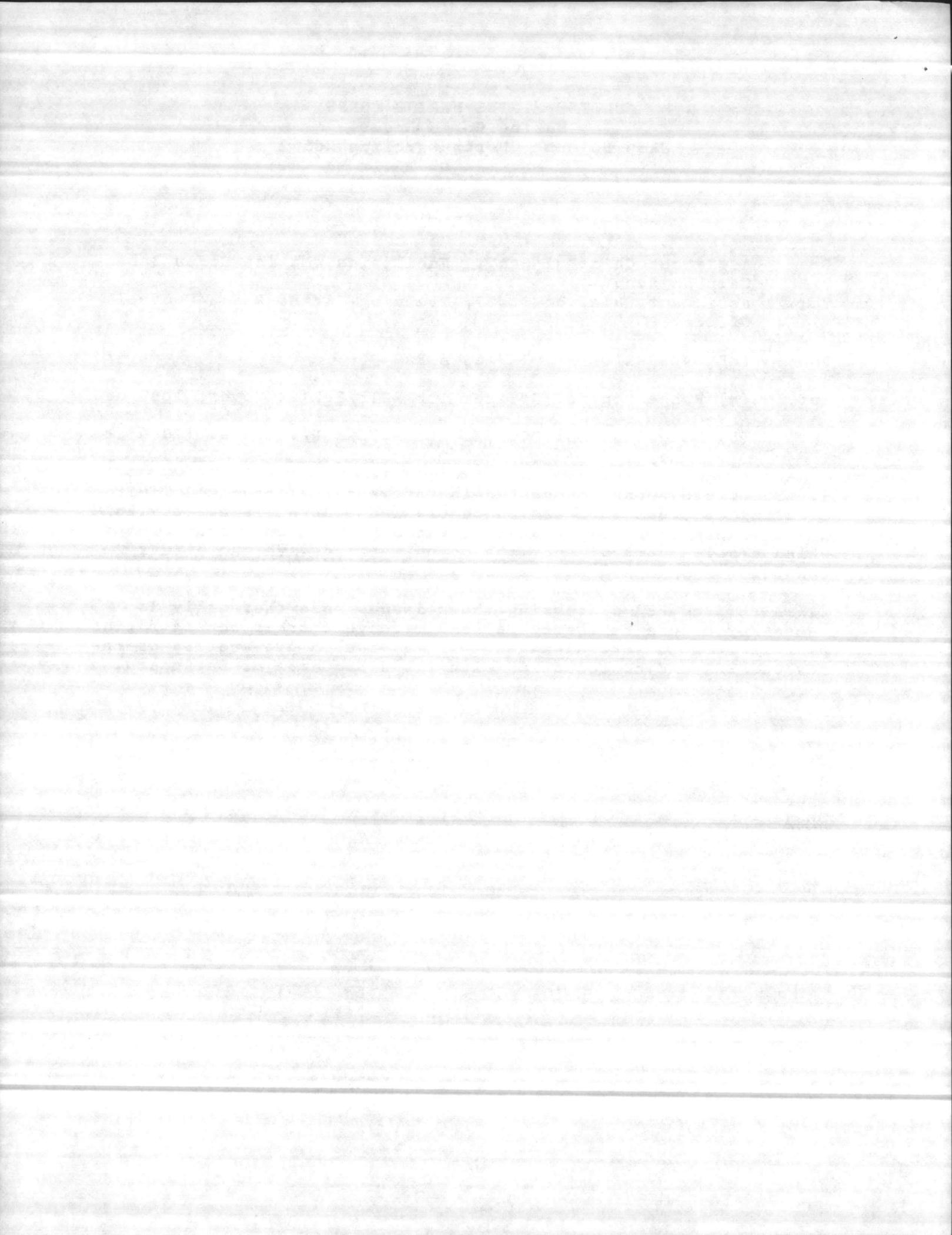
Ref: (a) Range Control Officer ltr RCTL/HBR/irh over 11000 dtd
8 Mar 84
(b) Range Control Officer ltr RCTL/NFN/vec over 11000 dtd
9 May 84

1. The improvements requested in reference (a) involved limited clearing of trees in areas where erosion control is not a vital issue. Reference (b) requests clearing of a much larger area in which erosion control and impacts on wetlands are the primary concerns.

2. A revised PEA addressing these issues more thoroughly is necessary before reference (b) can receive further consideration by this office. Mr. Alexander will assist in preparation of the revised PEA and coordination with the U.S. Corps of Engineers.

B. W. ELSTON
By direction

Copy to:
NREAD





UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

RCTL/NFN/vec
11000
9 May 1984

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

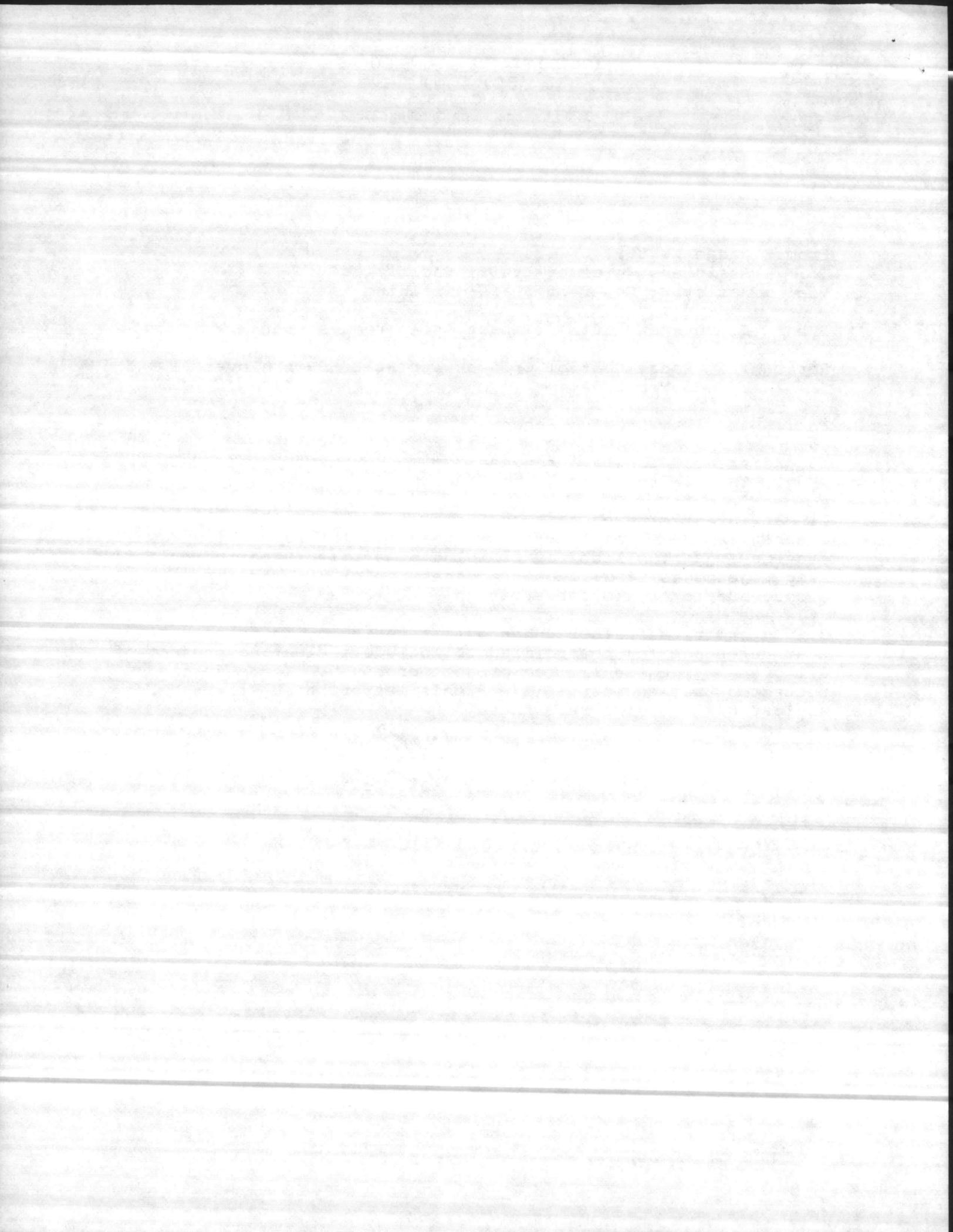
Subj: Improvement of K-2 Impact Area; request for

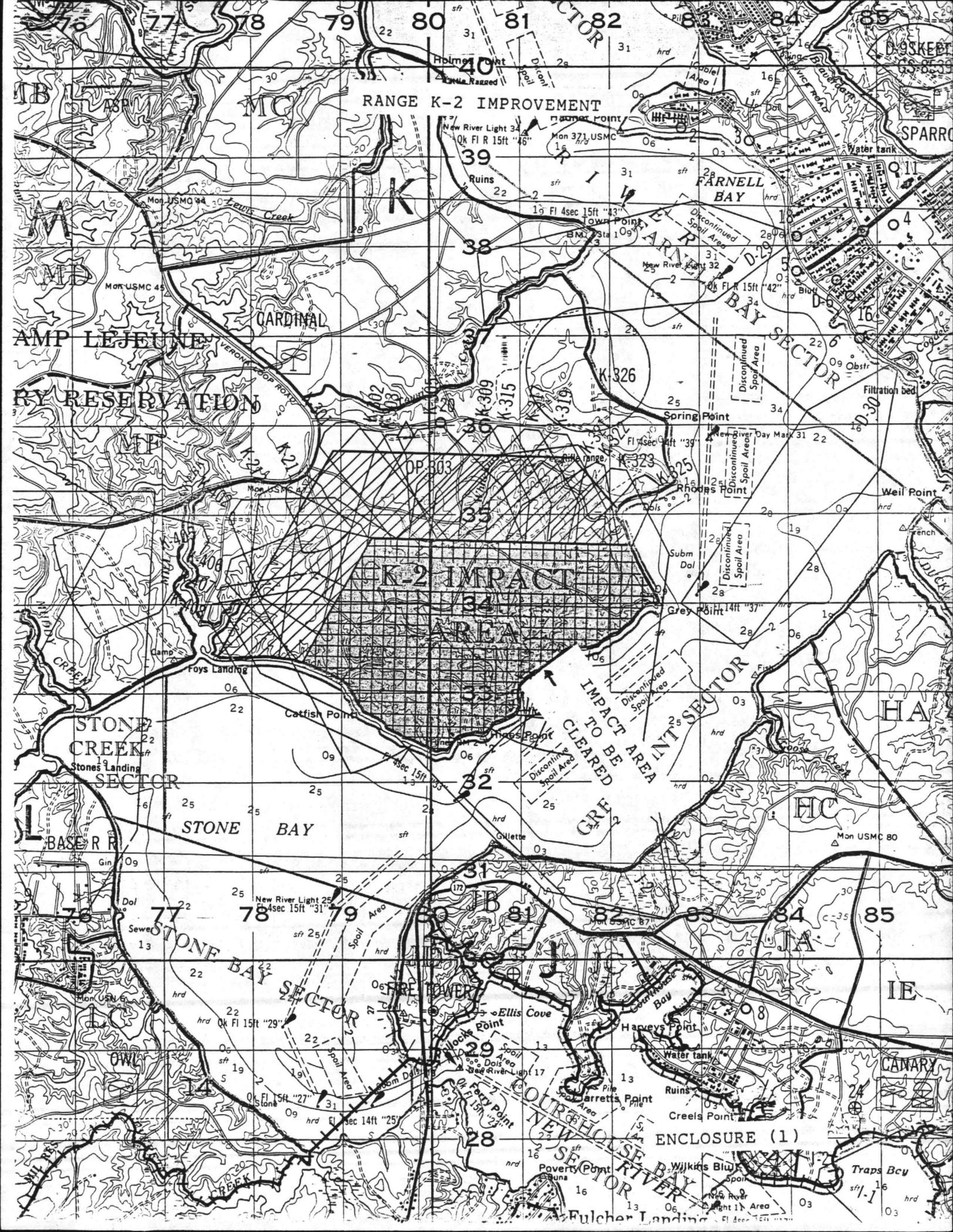
Ref: (a) Range Control Officer ltr RCTL/HBR/irh over 1100 dtd
8 Mar 1984

Encl: (1) Map Showing Range

1. Reference (a) was a request for improvement to the K-2 Impact Area. This letter established the need for work in this area.
2. It is anticipated that an Observation Post (OP) will be established at Gillette Point in the near future. This OP will provide a quantum leap for training of artillery batteries aboard Camp Lejeune as it will open another impact area to them normally closed due to lack of observation.
3. In order to further enhance this training, it is requested that reference (a) be modified to include a clearing project of all of K-2 vice the limited project proposed. It is further requested that enclosure (1) of this letter be substituted for enclosure (1) of the reference.


K. W. ZITZ



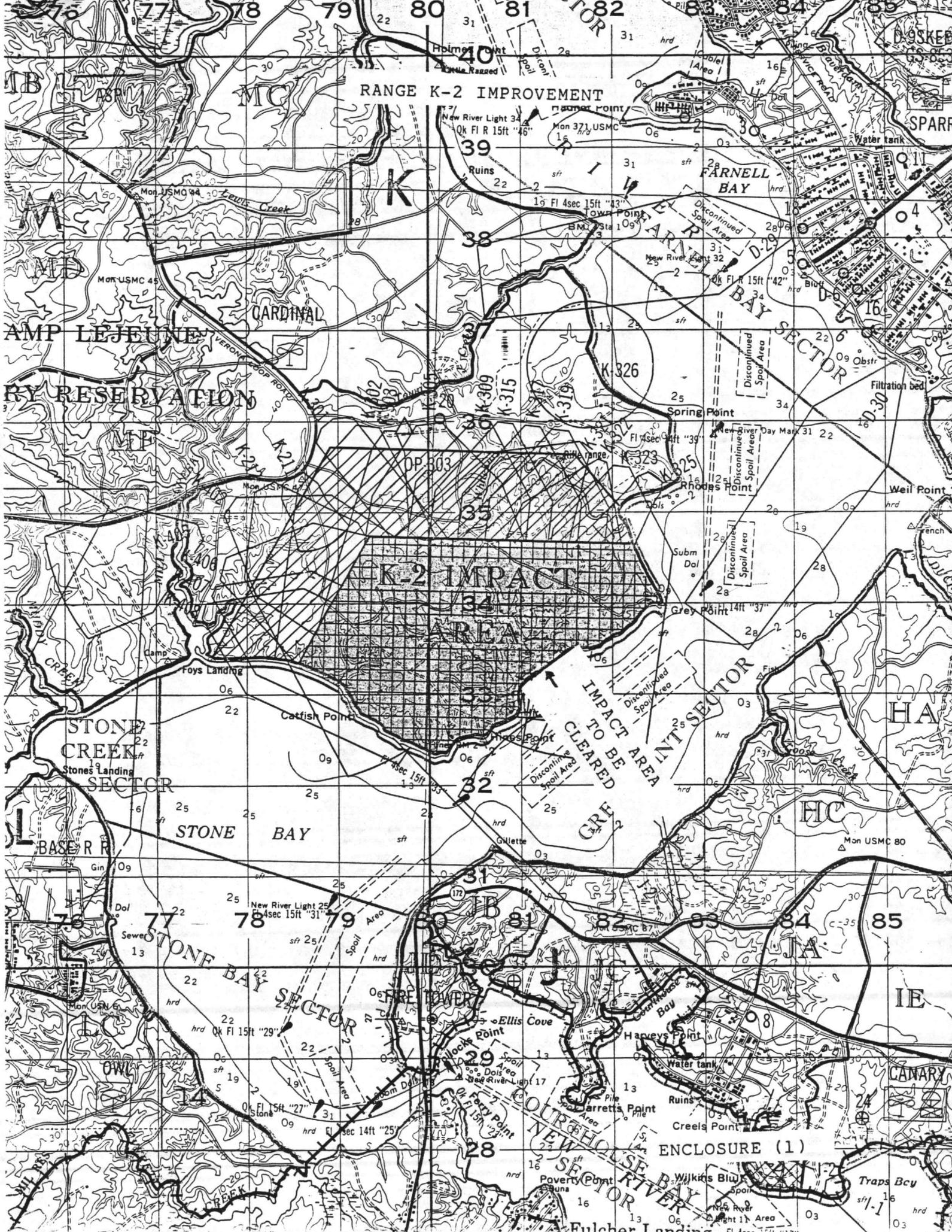


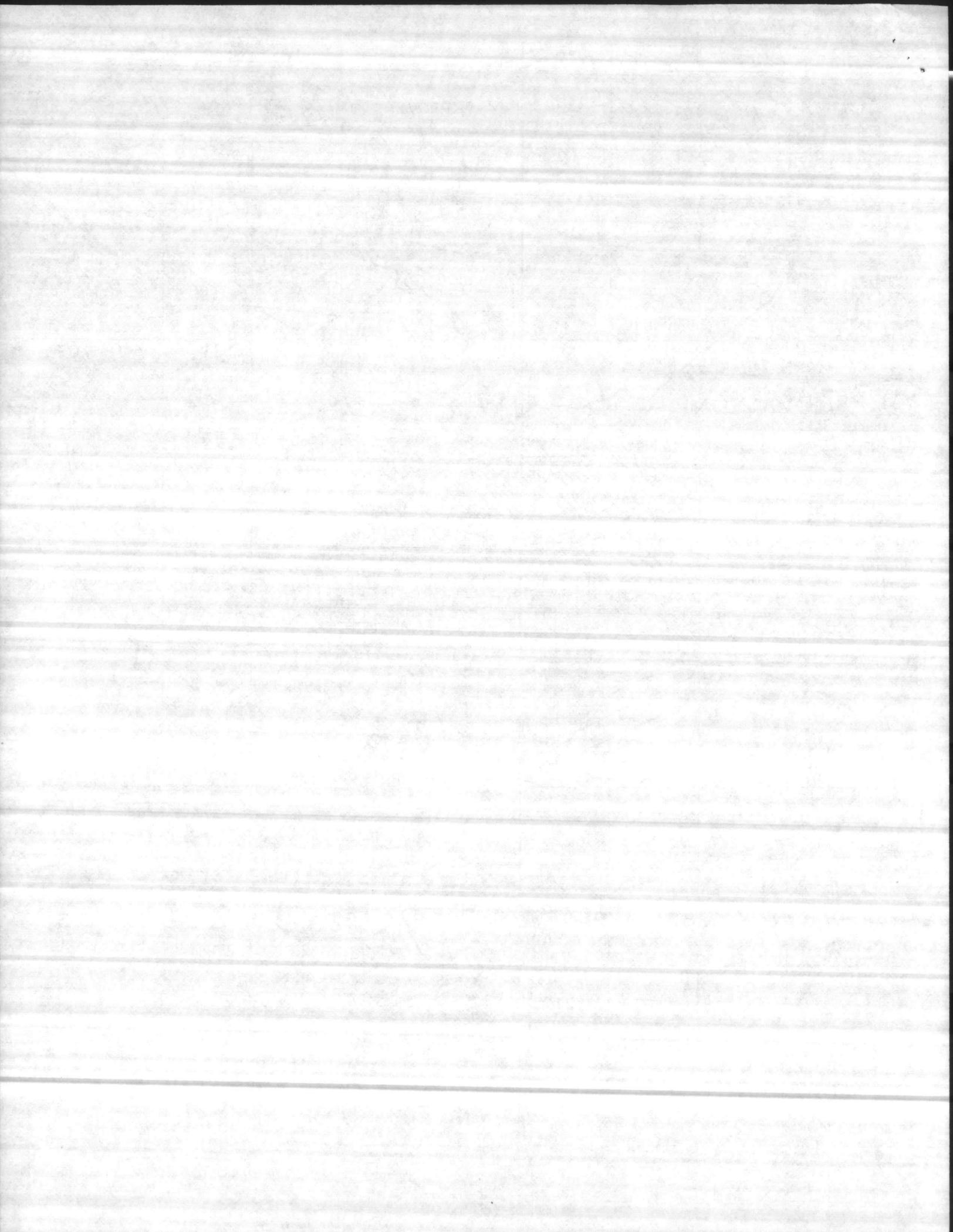
RANGE K-2 IMPROVEMENT

K-2 IMPACT AREA

IMPACT AREA TO BE CLEARED

ENCLOSURE (1)





RANGE CONTROL

LT Redmond
FYI

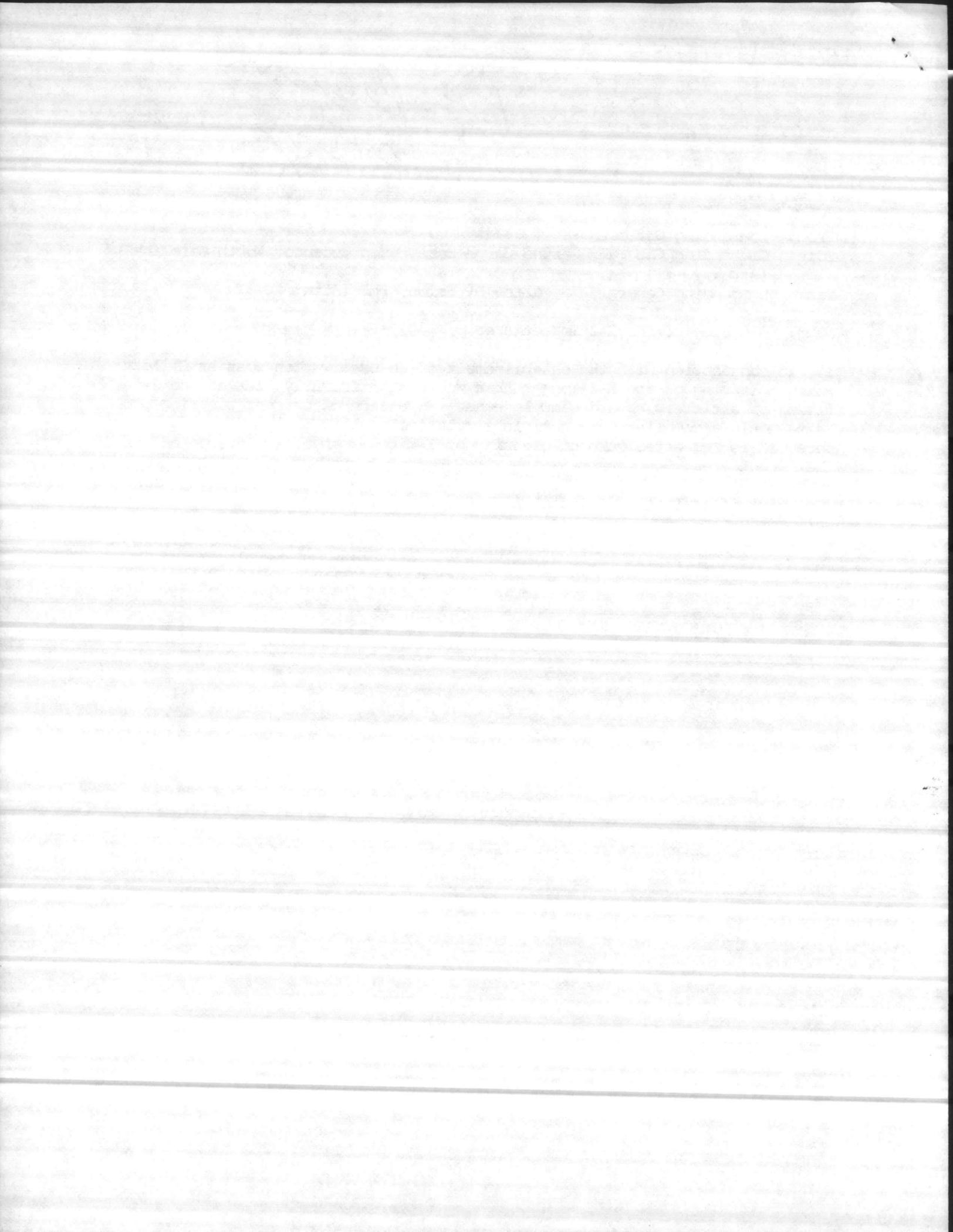
3/WAH/tfm
1500
7 May 1984

From: Commanding Officer
To: Commanding General, Marine Corps Base, Camp Lejeune, North Carolina
(Attn: G-3T)
Via: Commanding General, 2d Marine Division, FMF (Attn: G-3T)
Subj: Clearing of the K-2 Impact Area

1. In conjunction with the establishment of an observation post at Gillette Point, clearing of the K-2 Impact Area would significantly enhance the safe firing of artillery aboard Camp Lejeune. Expansion of current clearing projects could accomplish this goal in a relatively short period of time. Therefore, it is requested current clearing of K-2 be expanded to include all of the impact area.

2. Point of contact is Captain HAMILTON, ext 5527.

Kent O. W. STEEN





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

RCTL/HBR/irh
11000
8 March 1984

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: Improvement of K-2 Impact Area; request for

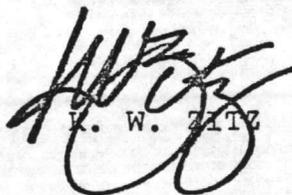
Ref: (a) MCO 3570.1A

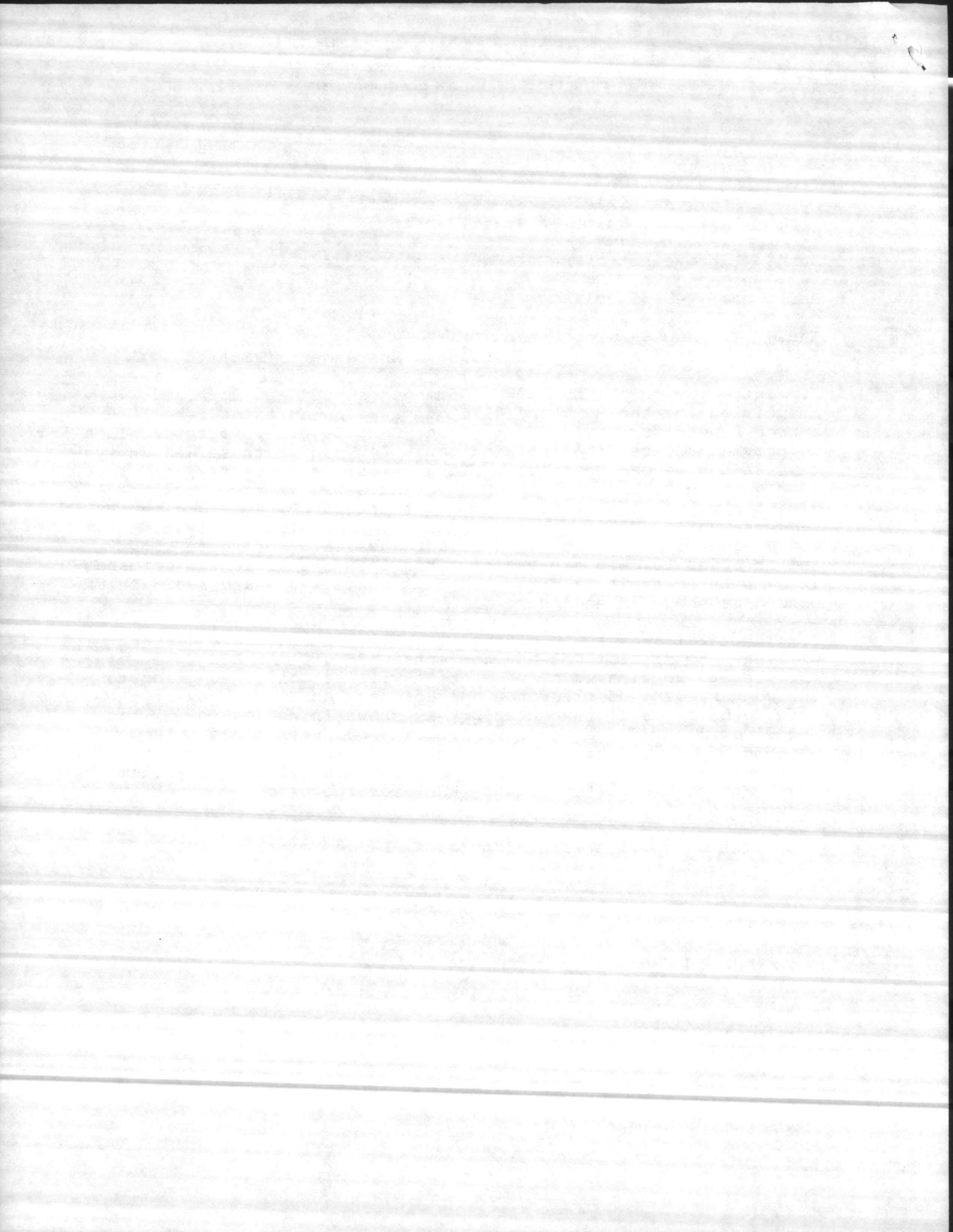
Encl: (1) Map Showing Range
(2) Preliminary Environmental Assessment (PEA)

1. Introduction of the M198, 155mm gun system and improved ammunition for the 60mm and 81mm gun system has established a requirement for Marine Corps Base, Camp Lejeune, North Carolina to provide a live fire training range for use of these weapon systems in the Verona Loop Area. Range K-211 is currently used for 40mm grenade firing with the M203 grenade launcher and is scheduled for refurbishment to accommodate the MK-19, 40mm gun system. Range K-303 and K-305 are used for the 60mm, 81mm gun system, and Dragon Missile system. In accordance with reference (a), and in order to meet the training requirements of tenant commands at Camp Lejeune, it is requested that Range K-303 and K-305 be expanded as shown in enclosure (1).

2. The total area to be cleared is shown in enclosure (1) and will have no significant environmental impact. An EOD sweep of the area to be cleared of vegetation will be conducted prior to the commencement of clearance operations. An EOD survey of the area to be cleared of vegetation, as shown in enclosure (1) has not located any dud ordnance. Clearing of trees could be accomplished by heavy equipment. EOD support will be provided for all down range construction work. Enclosure (2) is the Preliminary Environmental Assessment (PEA) for the proposed range improvement.

3. Point of contact is: MSgt Moses, Range Maintenance Chief, phone extension 5211/3542.


K. W. ZITZ



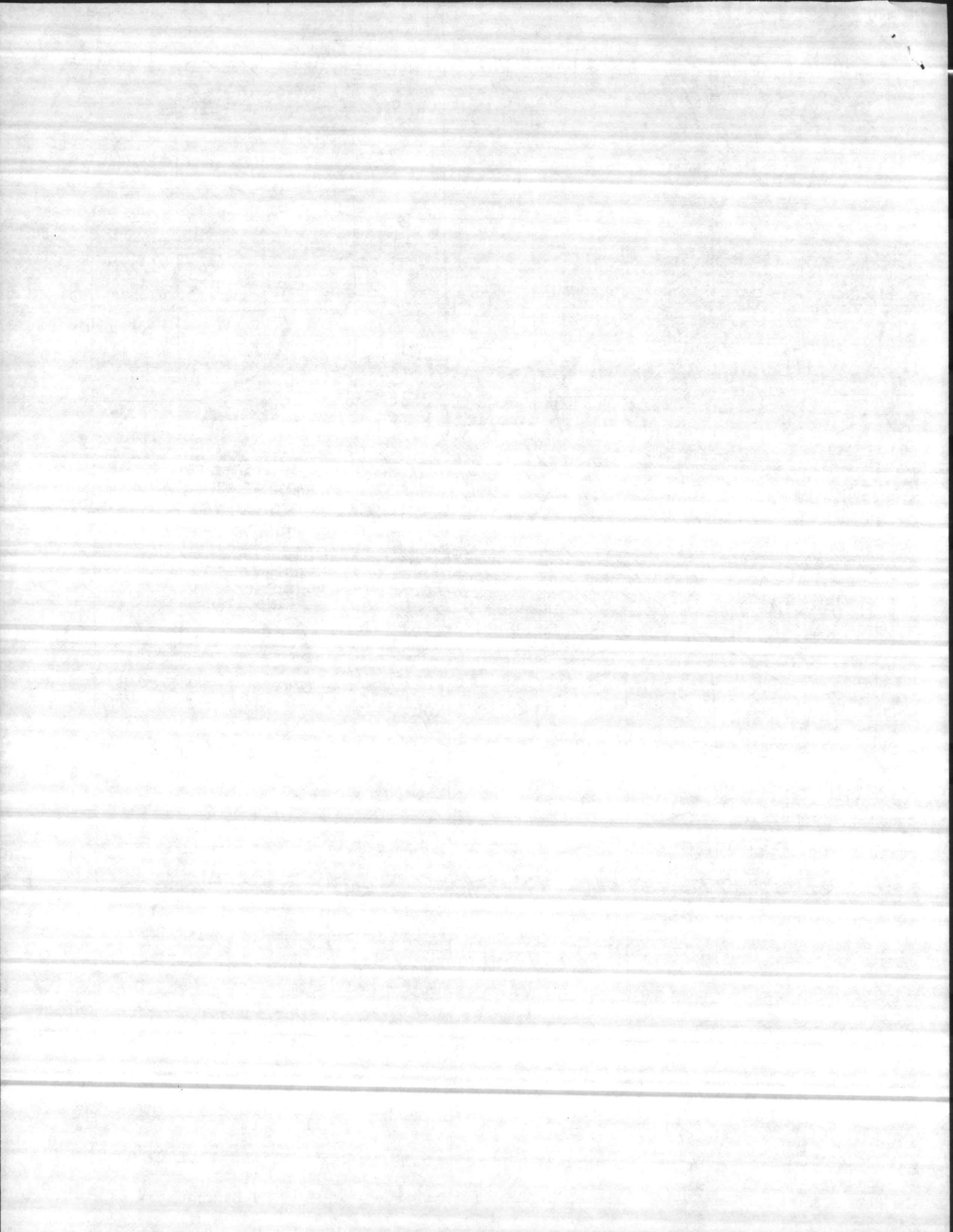
RANGE K-2 IMPROVEMENT



IMPACT AREA
TO BE
CLEARED

ENCLOSURE (1)

Fulcher Landing



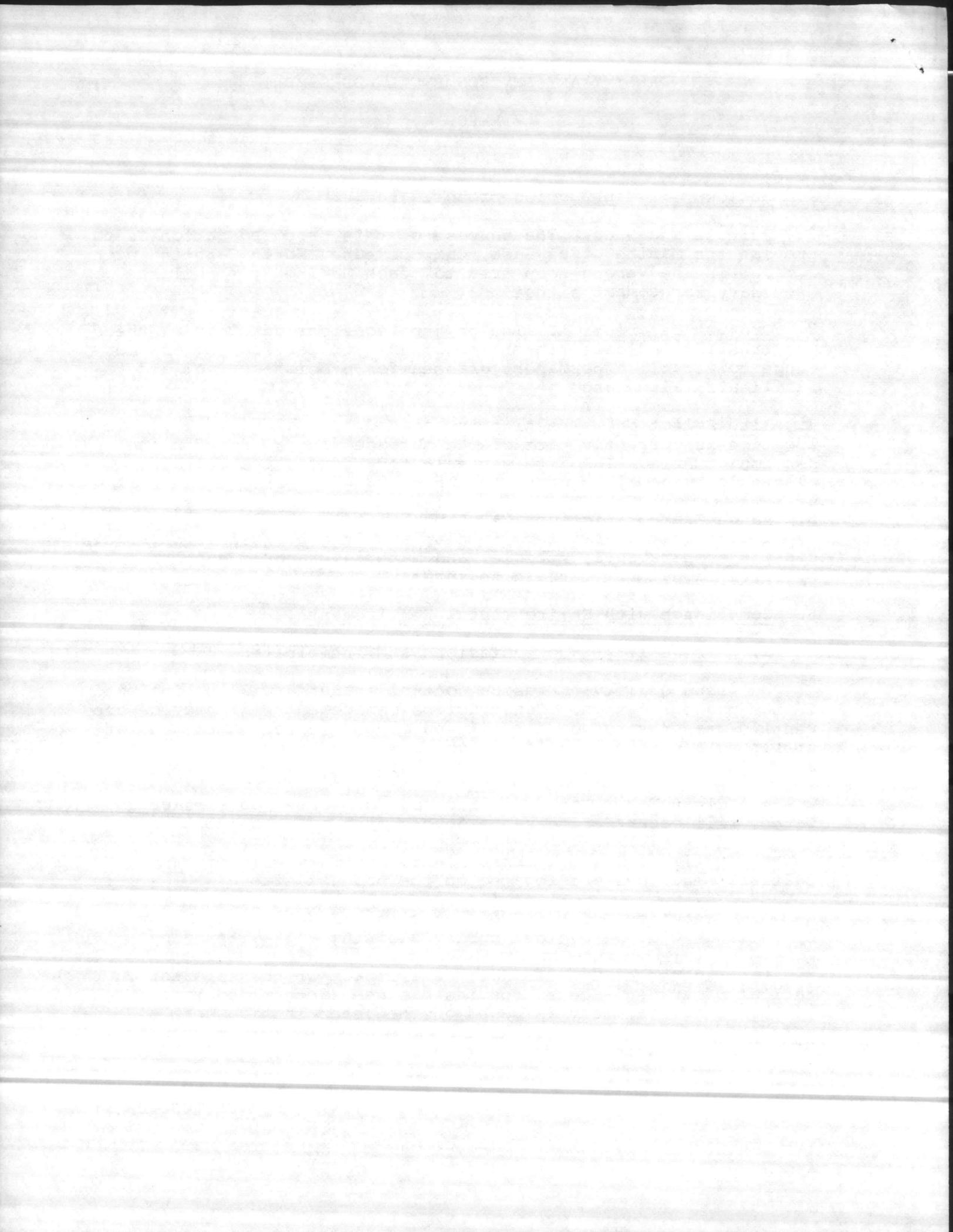
PRELIMINARY ENVIRONMENTAL ASSESSMENT

FOR

RANGE K-2

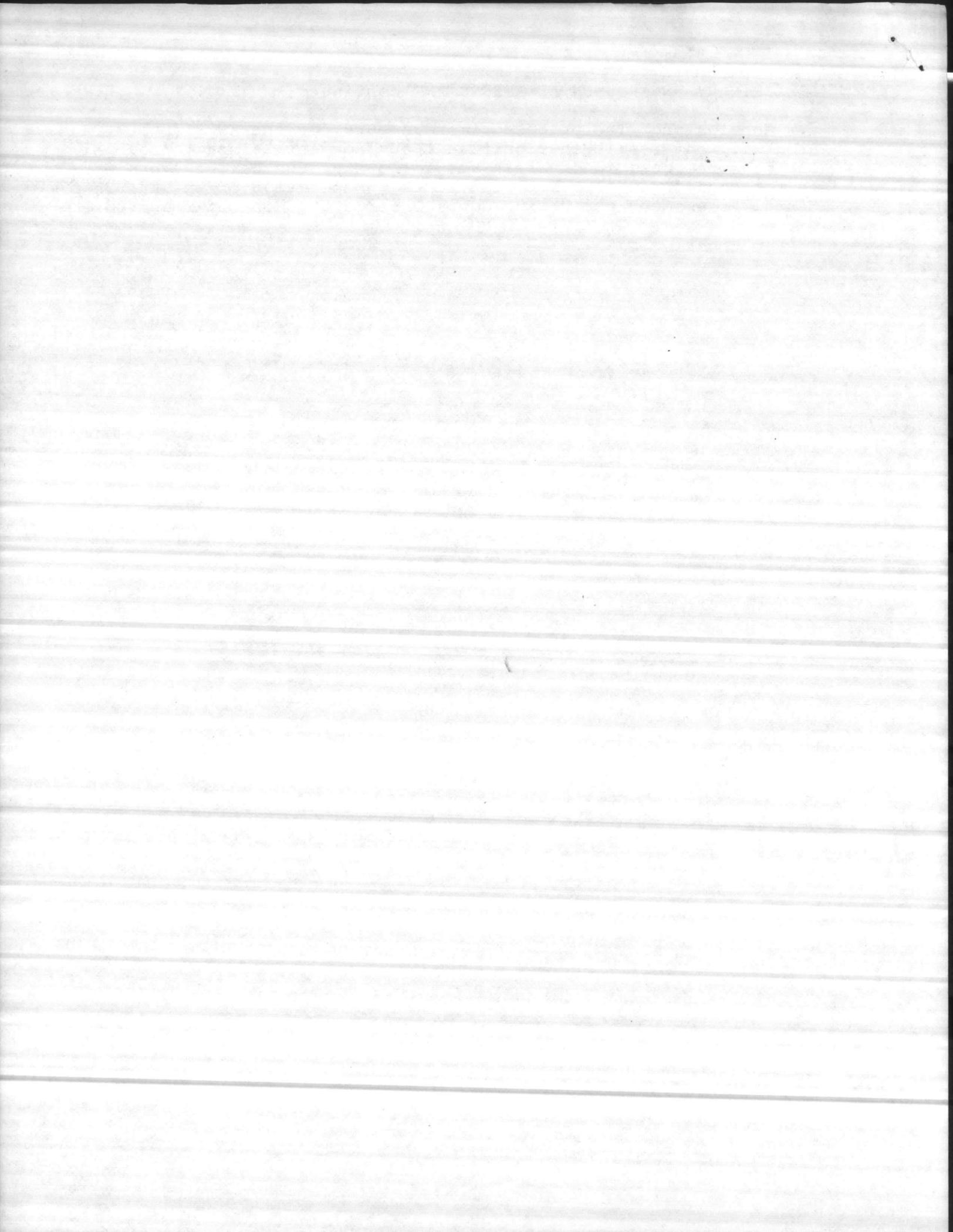
1. Enclosure. Map showing proposed range.
2. Purpose and Need. The purpose of this proposed action is to provide the Marine Corps Base, Camp Lejeune, North Carolina with a range in the Verona Loop Area to teach Marines the skills necessary for combat situations.
3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and to facilitate maintenance.
4. Site Selection. The site is located on enclosure (1). The location is currently part of the surface danger area for the K-2 Impact Area. The site was selected because the terrain allows for visibility at ranges up to 2800 meters.
5. Range Characteristics. A common impact area is used for all types of mortars, artillery rounds, and dragon missiles. Targets consist of personnel, vehicle, and material targets supplemented by surveyed natural terrain features.
6. Compliance with Environmental Requirements.
 - a. Air Quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
 - c. Clean Water Act: No discharge of wastes to surface waters will occur during range development or subsequent use.
 - d. National Historic Preservation Act: No significant cultural resources are located on the project site.
 - e. Executive Order 11990 Protection of Wetlands: Disturbance of wetlands will be avoided during clearing and earthmoving.
 - f. Endangered Species Act: The impact of this project on the habitat of any endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by clearing and earthwork.

ENCLOSURE (2)



PRELIMINARY ENVIRONMENTAL ASSESSMENT continued:

7. Conclusion. The proposed improvements for the K-2 Impact Area will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.





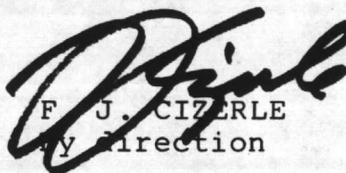
UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
11000
TRNG
11 Jul 1984

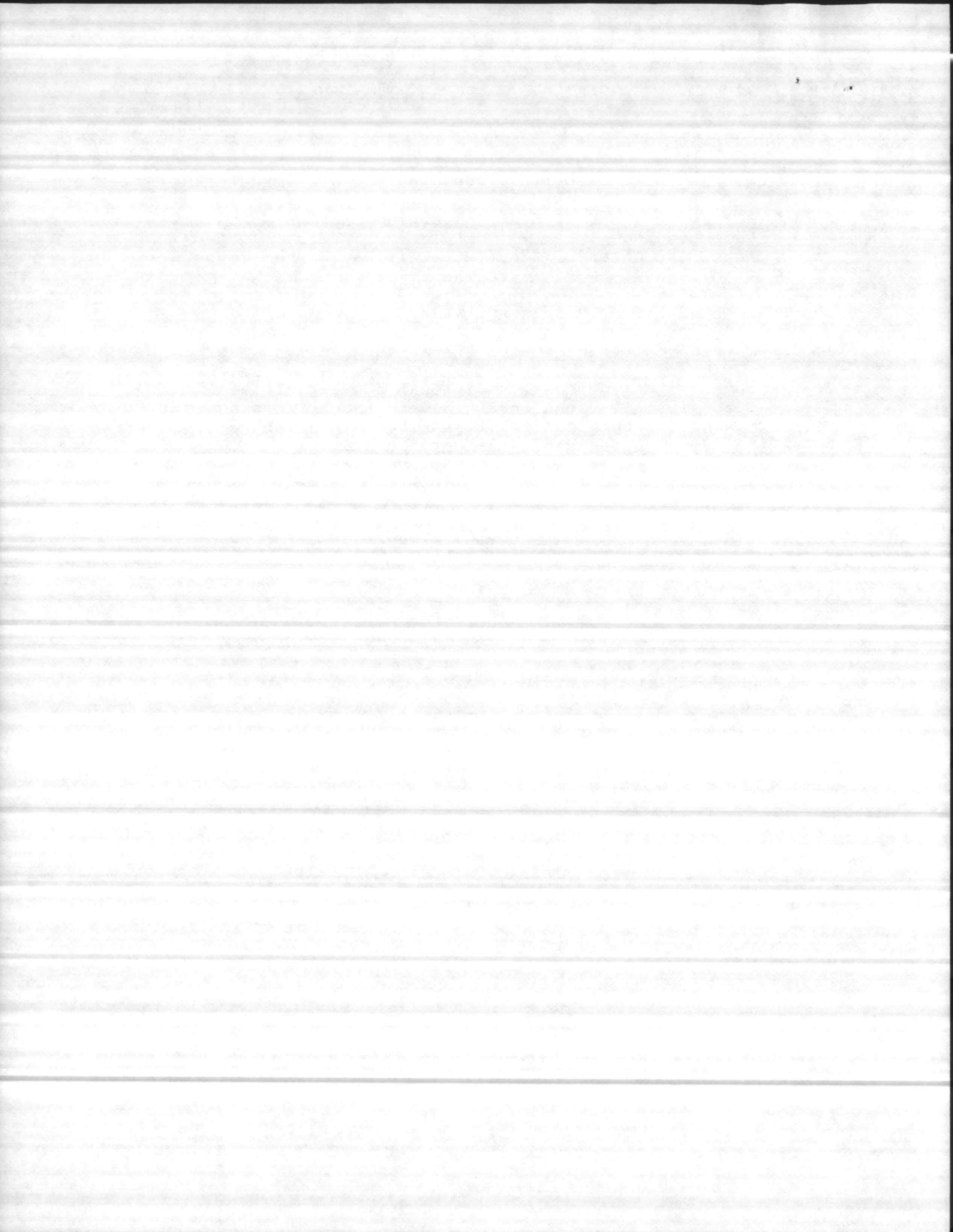
FIRST ENDORSEMENT on RCO ltr 11000 over EOD dtd 11 Jul 1984

From: Assistant Chief of Staff, Training, Marine Corps Base,
Camp Lejeune
To: Assistant Chief of Staff, Facilities, Marine Corps Base,
Camp Lejeune, North Carolina 28542
Subj: IMPROVEMENT OF K-2 IMPACT AREA

1. Forwarded concurring in the PEA as written.
2. As a matter of interest, additional EOD technicians from Marine Corps installations in South Carolina, Virginia and California have been requested to assist in the subject clearing operation from 5 September to 31 October 1984.


F. J. CIZERLE
by direction

Copy to:
RCO
EOD





UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

11000
EOD
11 July 84

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: IMPROVEMENT OF K-2 IMPACT AREA

Ref: (a) AC/S, FAC ltr 6280 over FAC dtd 20JUN84

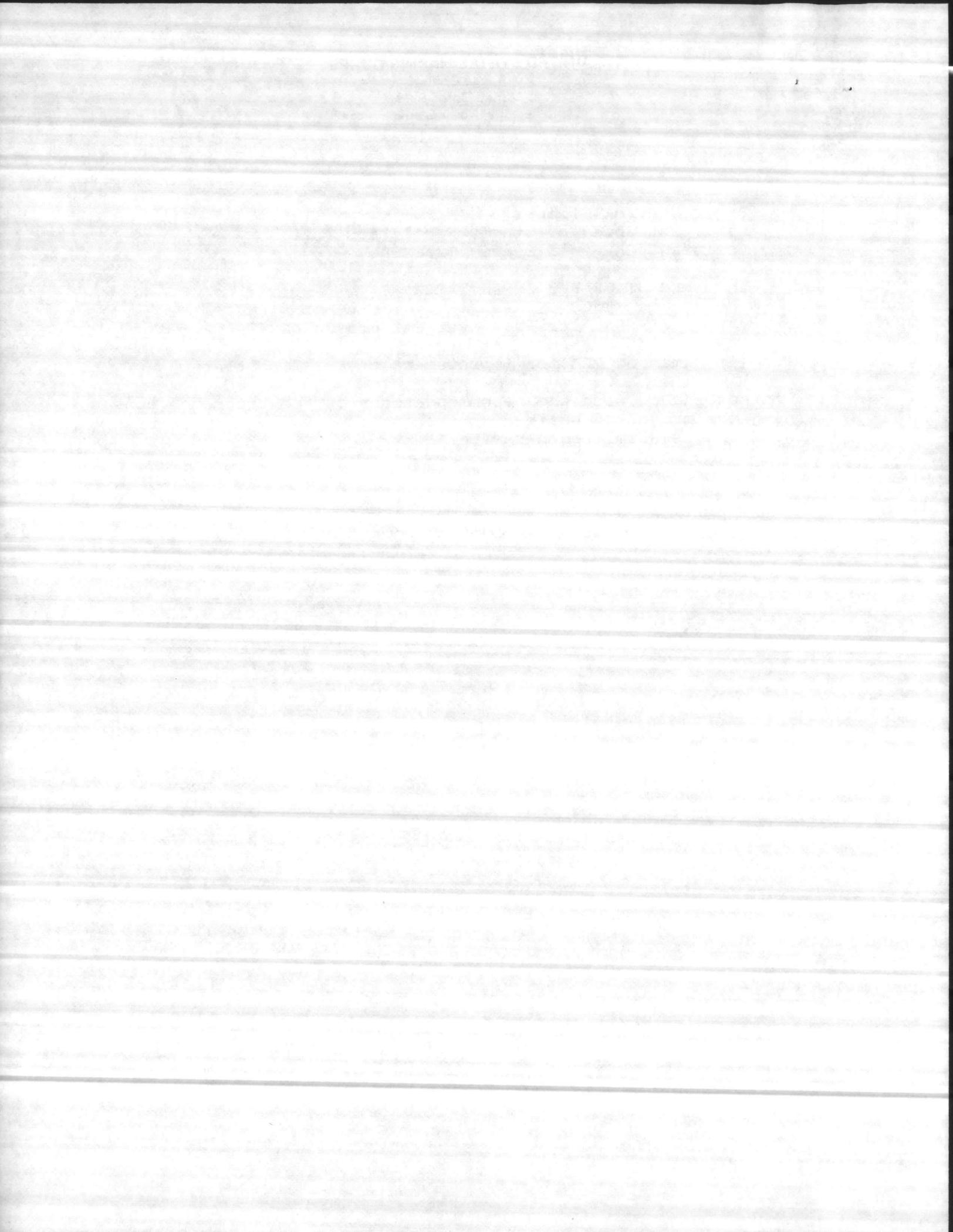
Encl: (1) Amended PEA for Improvement of K-2 Impact Area

1. In accordance with the recommendations of the reference concerning the project described at the enclosure, the PEA has been amended and is submitted herewith.

T. B. Howard

T. B. HOWARD

Copy to:
Range Maintenance
EOD



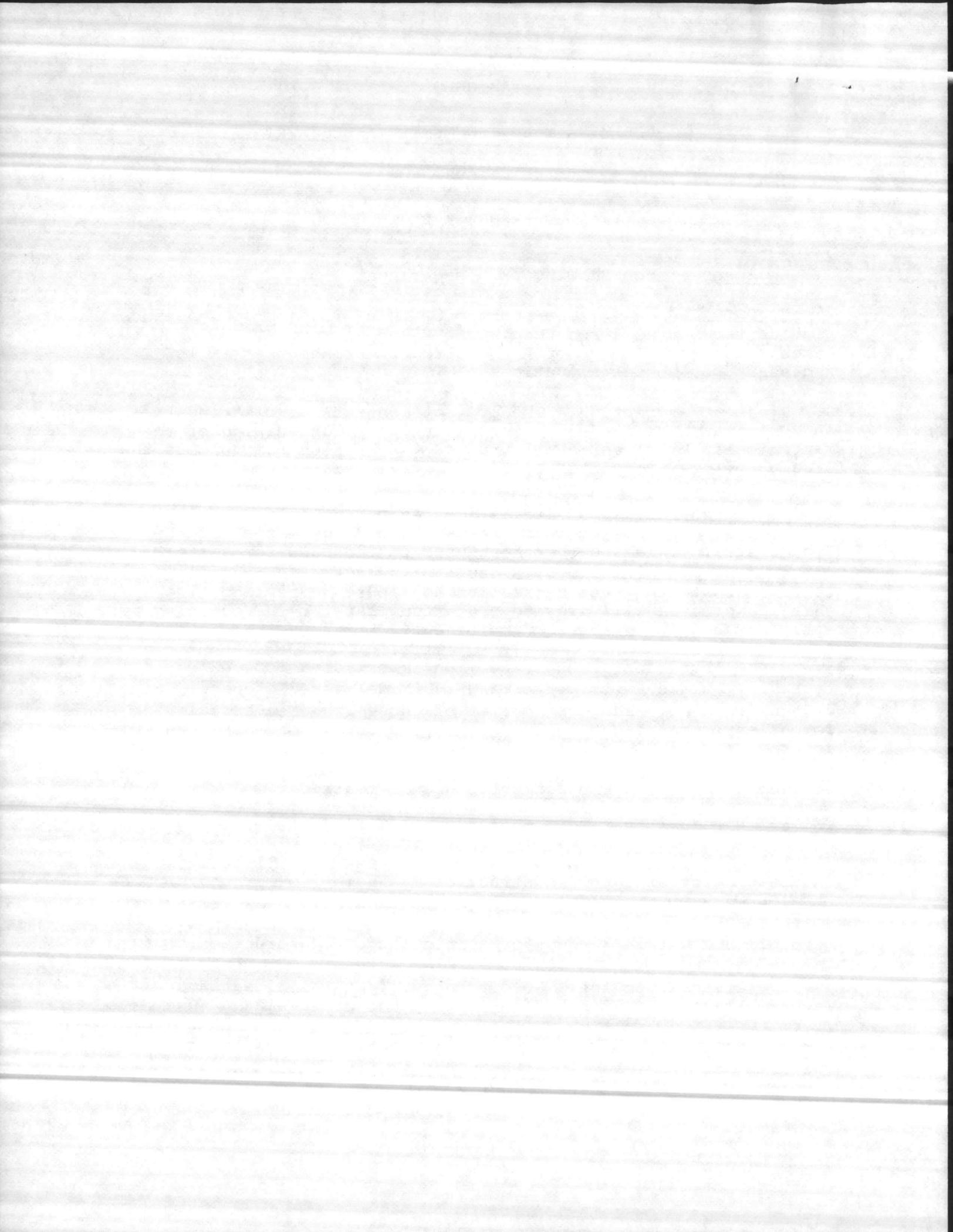
*AMENDED

PRELIMINARY ENVIRONMENTAL ASSESSMENT

FOR

RANGE K-2

1. Enclosure. Map showing proposed range.
2. Purpose and Need. The purpose of this proposed action is to provide the Marine Corps Base, Camp Lejeune, North Carolina with a range in the Verona Loop Area to teach Marines the skills necessary for combat situations.
- *3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and the digging of drainage ditches to facilitate maintenance.
- *4. Site Location. The site is located on enclosure (1). The location is currently part of the surface danger area for the K-2 Impact Area. This area has been used in the past for aerial bombardment and artillery. Because of a lack of observation due to tree growth the area has fallen to disuse. The reopening of this impact area will provide a quantum leap for the training of artillery batteries aboard Camp Lejeune.
- *5. Range Characteristics. A common impact area is used for all types of mortars, artillery rounds, air delivered ordnance, and dragon missiles. Targets consist of those found in a realistic combat environment such as personnel, vehicle, aircraft, and material targets supplemented by surveyed natural terrain features.
6. Compliance with Environmental Requirements.
 - a. Air Quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
 - c. Clean Water Act: No discharge of wastes to surface waters will occur during range development or subsequent use.
 - * d. National Historic Preservation Act: No significant cultural resources are located on the project site. However, in

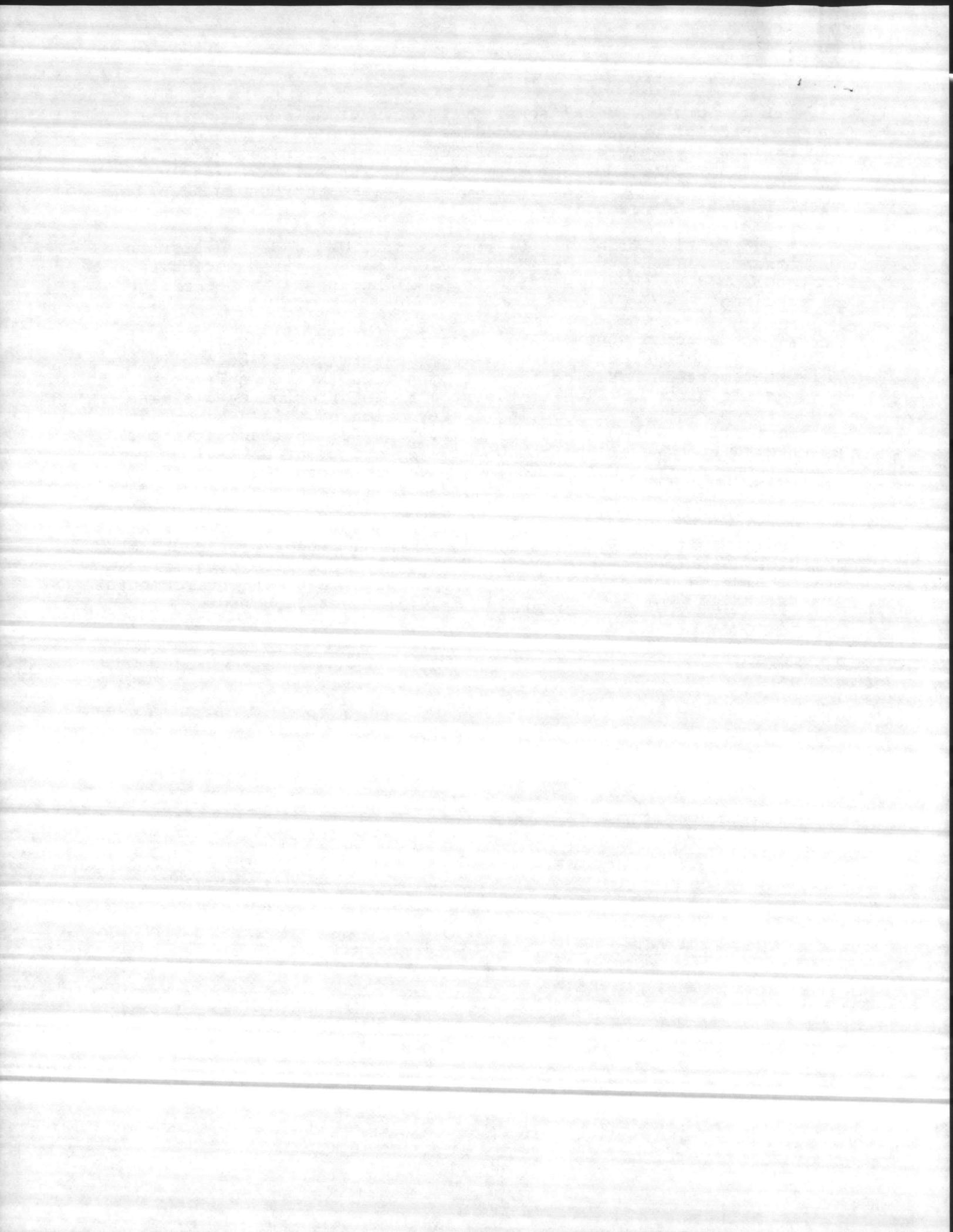


view of the archeological sensitive area, during construction of this project extreme care will be exercised in watching for any indications of matters of historical interest/significance. In the event any evidence is found, construction will immediately be suspended pending further, detailed study and actions in accordance with appropriate directives.

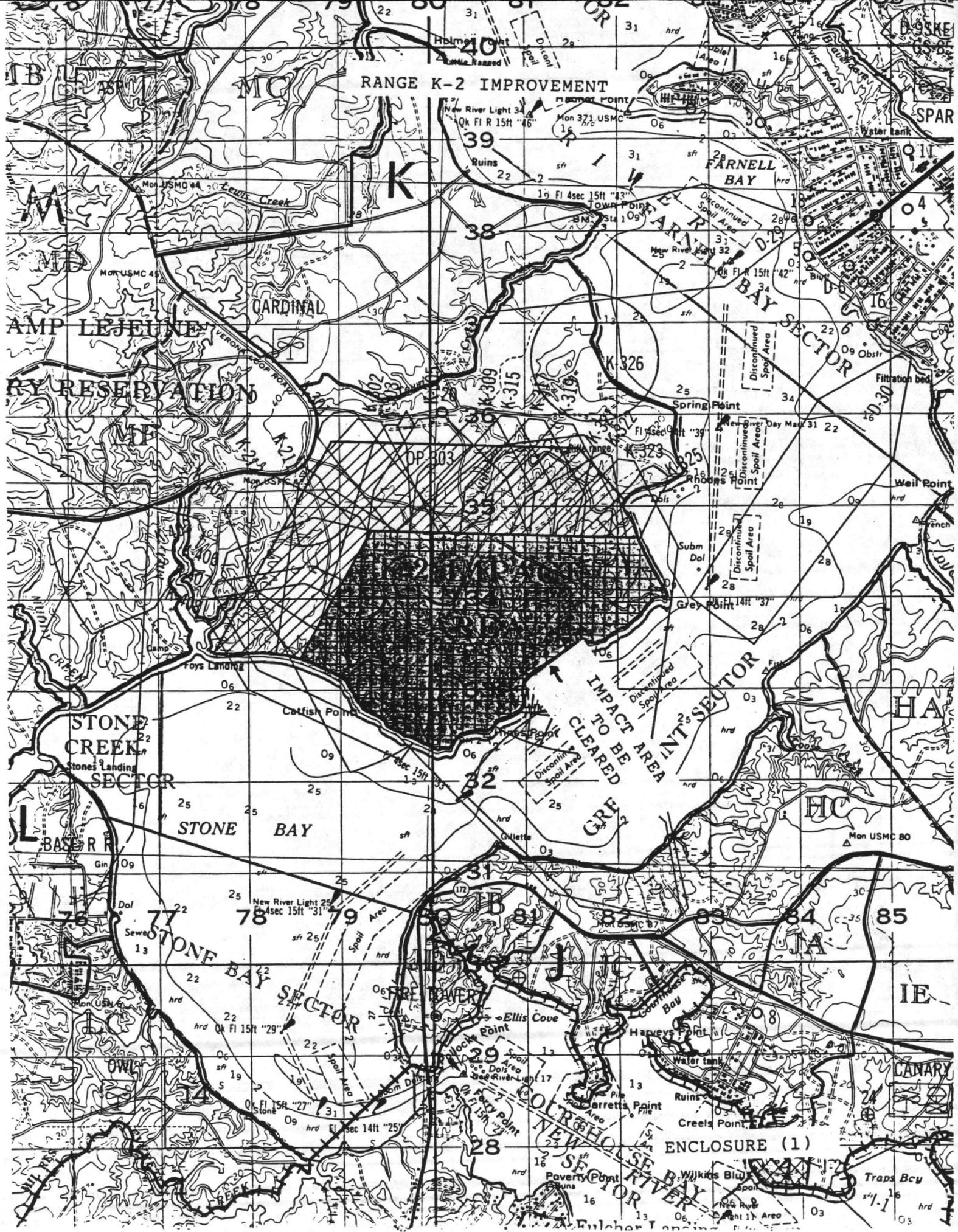
*e. Executive Order 11990 Protection of Wetlands: Disturbance of wetlands will be avoided during clearing and earth moving except that approved by the U. S. Army Corps of Engineers and other agencies as required.

*f. Endangered Species Act: The impact of this project on the habitat of endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by clearing and earthwork. However, during construction of this project extreme care will be exercised in watching for any indications of endangered species or their habitat. In the event any evidence is found, construction will immediately be suspended pending further, detailed study and actions in accordance with appropriate directives.

7. Conclusion. The proposed improvements for the K-2 Impact Area will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.

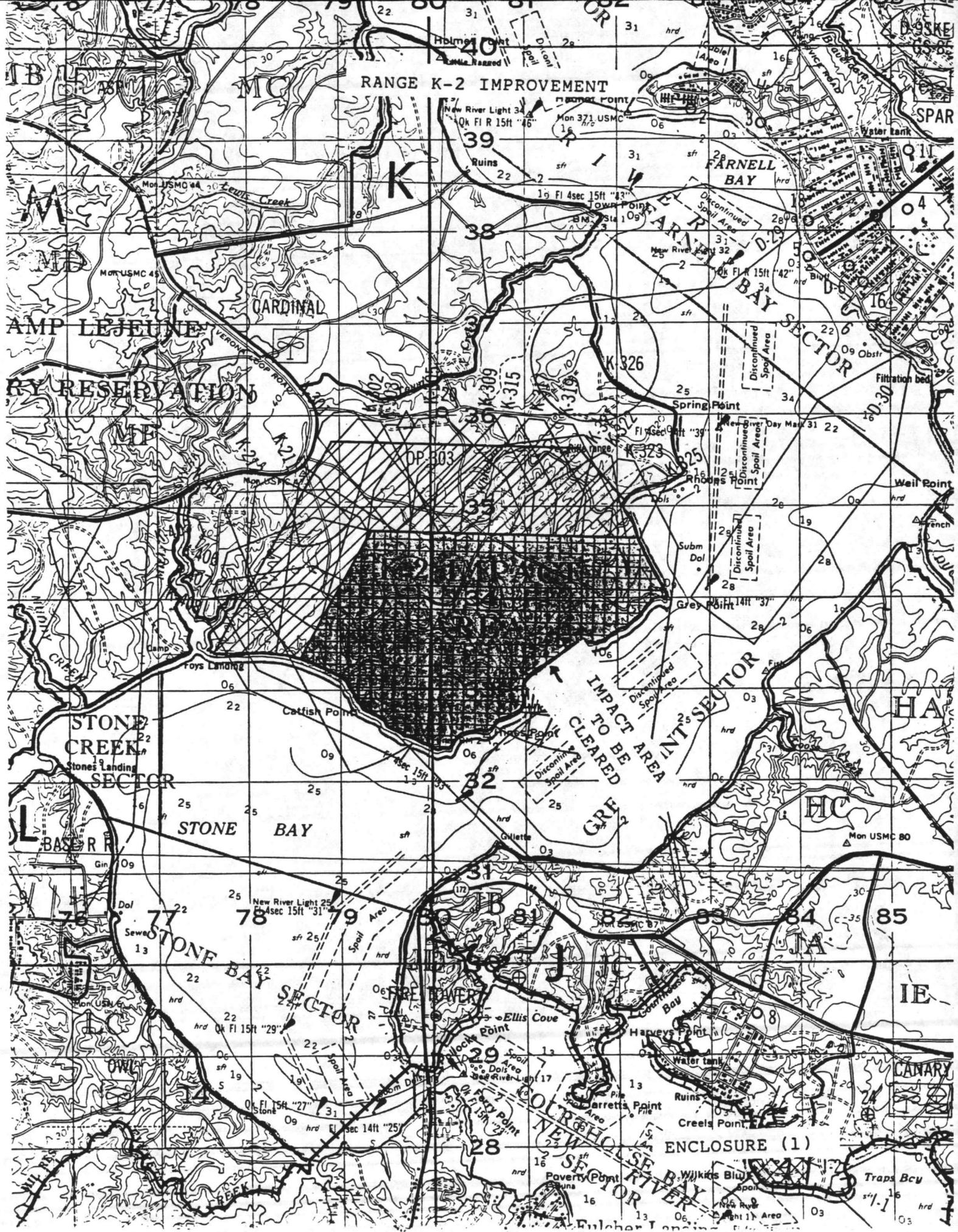


RANGE K-2 IMPROVEMENT

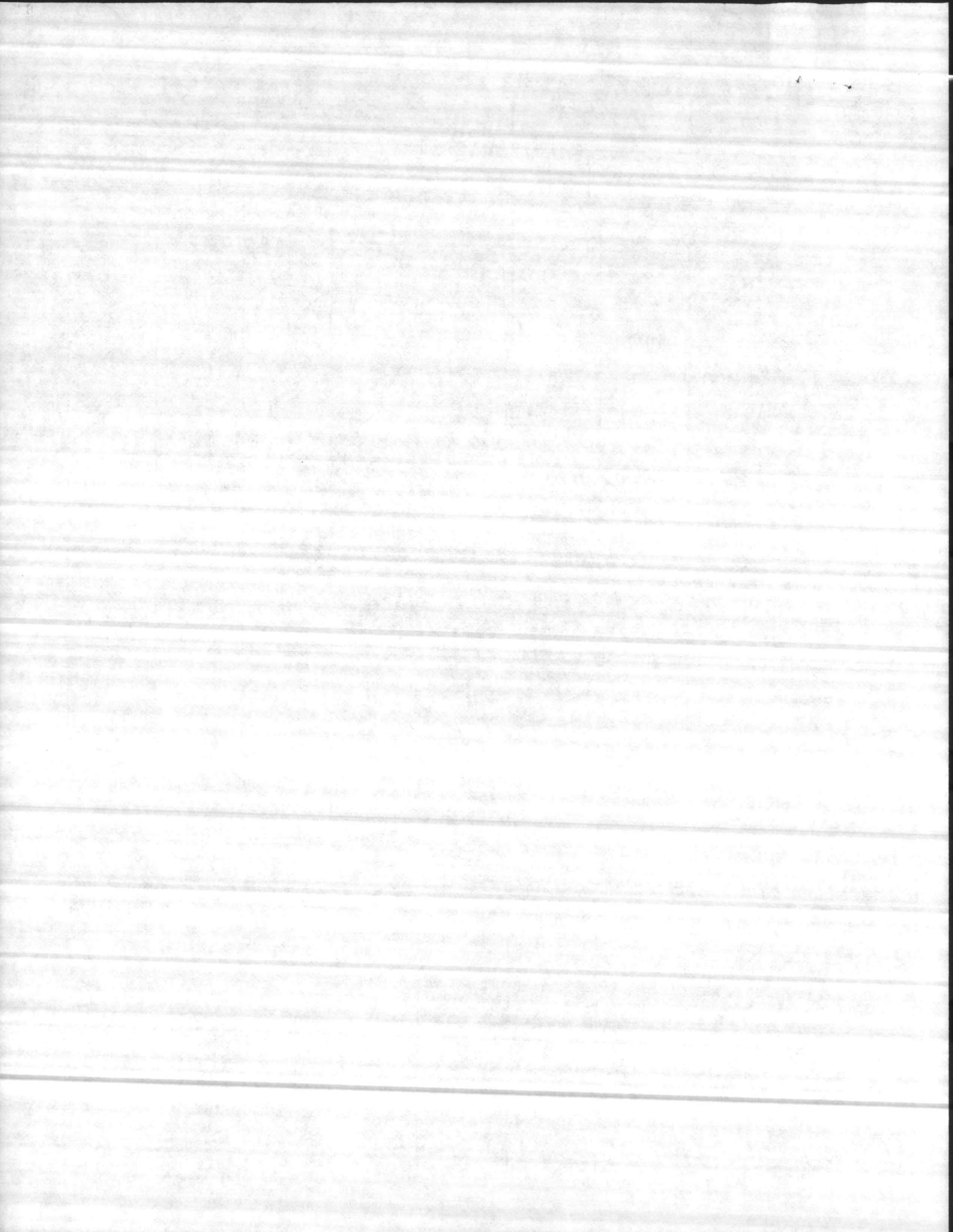


IMPACT AREA
TO BE CLEARED

RANGE K-2 IMPROVEMENT



IMPACT AREA
TO BE CLEARED





UNITED STATES MARINE CORPS
2D FORCE SERVICE SUPPORT GROUP (REIN)
FLEET MARINE FORCE, ATLANTIC
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

11000
42
22 Jun 1984

FIRST ENDORSEMENT on CO, 8th EngrSptBn ltr 3000 03 of 7 June 1984

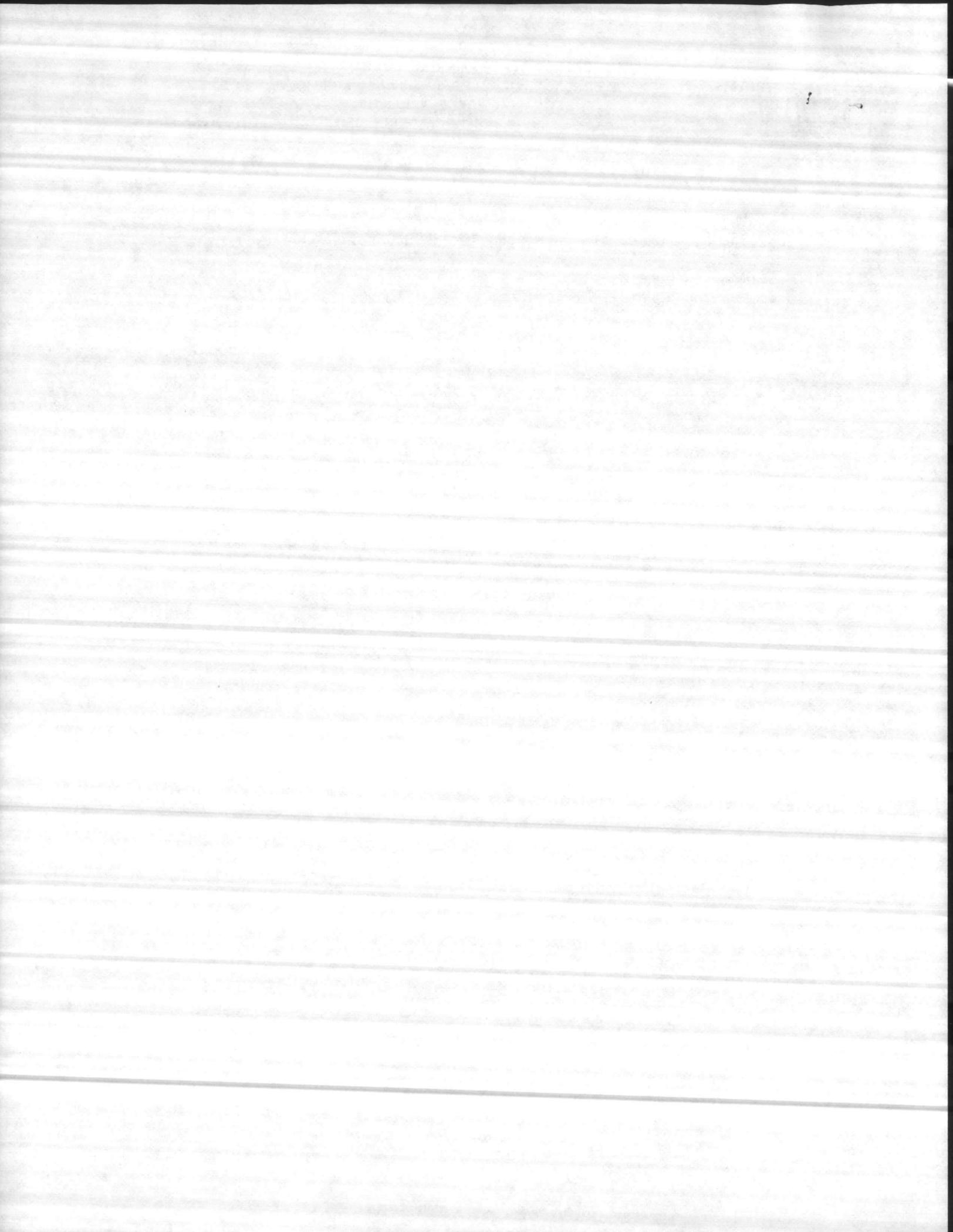
From: Commanding General
To: Commanding General, Marine Corps Base, Camp Lejeune (Attn: Assistant
Chief of Staff, Facilities)

SUBJ: PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT FOR BRIDGE COMPANY LOT.

1. Readdressed and forwarded requesting approval.

D. A. Cerveny
D. A. CERVENY
By direction

Copy to:
CO, 8th EngrSptBn



UNITED STATES MARINE CORPS
8th Engineer Support Battalion
2d Force Service Support Group (REIN)
Fleet Marine Force, Atlantic
Camp Lejeune, North Carolina 28542

3000
03
7 Jun 1984

From: Commanding Officer
To: Commanding General, 2d Force Service Support Group (REIN), Fleet Marine Force, Atlantic, Camp Lejeune, North Carolina 28542 (EngrSptO)

Subj: PRELIMINARY ENVIRONMENTAL IMPACT ASSESMENT FOR BRIDGE COMPANY LOT

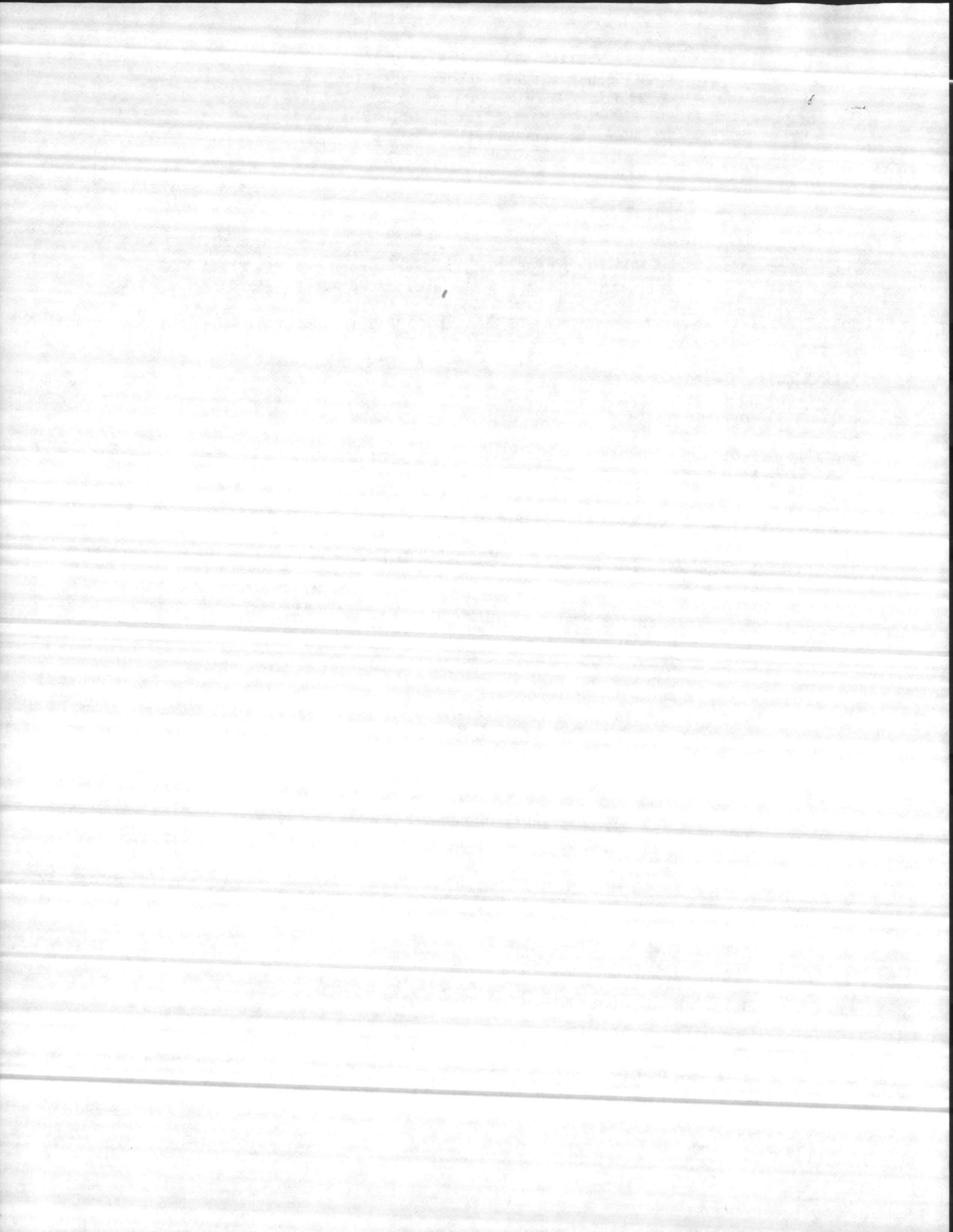
Ref: (a) MCO P11000.8B
(b) MCO 6280.5
(c) BO 11015.2G
(d) BO P11102.1J

Encl: (1) Preliminary Environmental Impact Assesment
(2) Site Map

1. It is requested that this Battalion be allowed to remove trees and excavate the area, to inlarge storage lot for MGB Bridge Componets.

2. The area to be cleared and excavated is approximately 60,000 square feet.

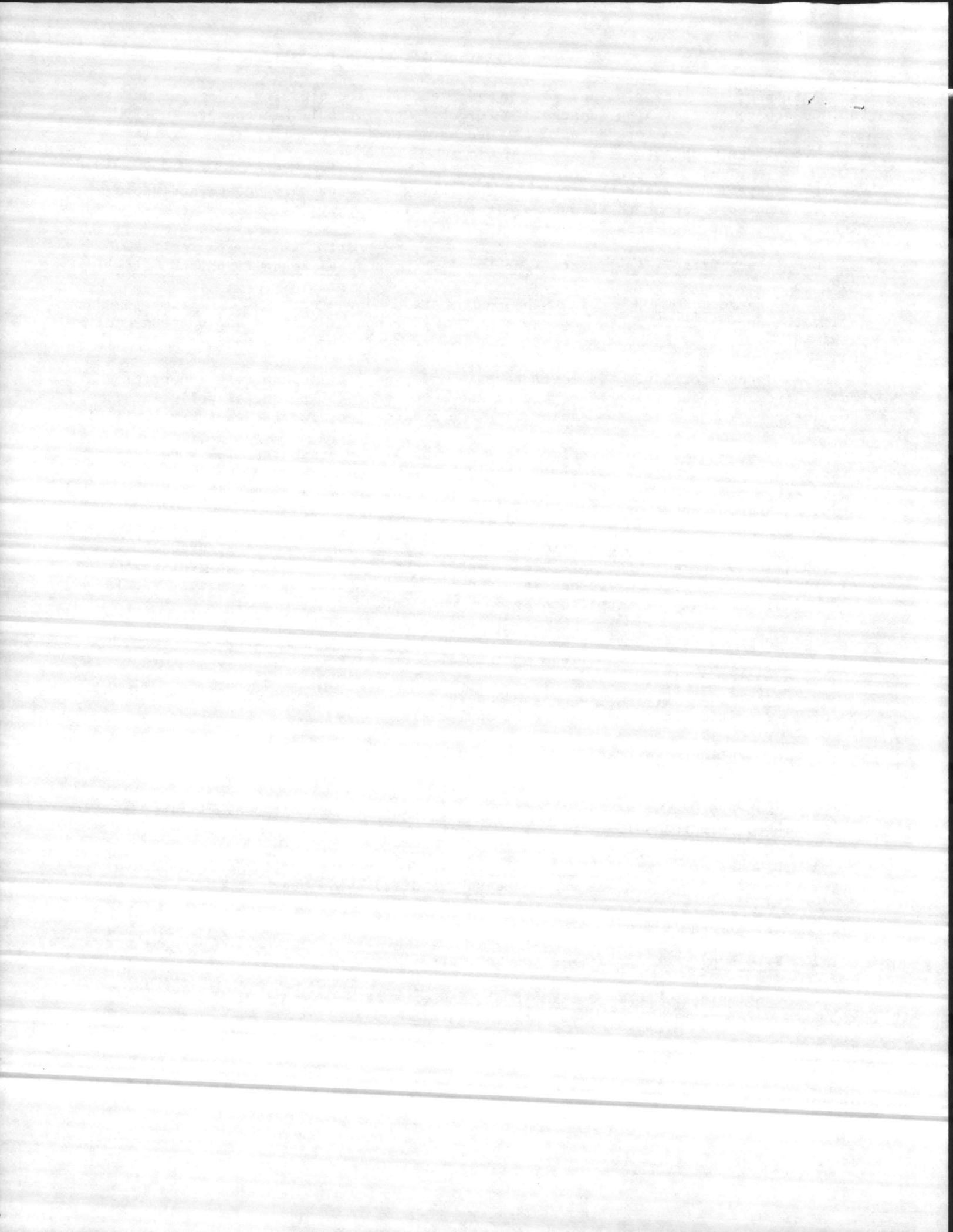

D. E. KNIGHT
By direction



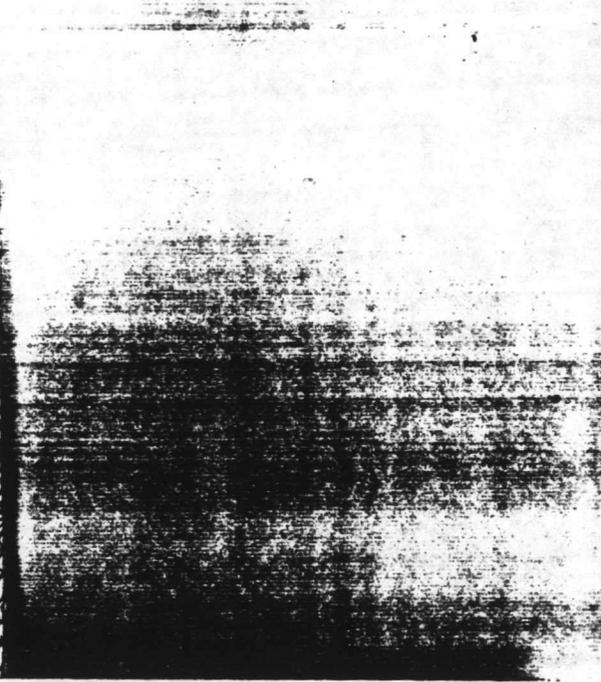
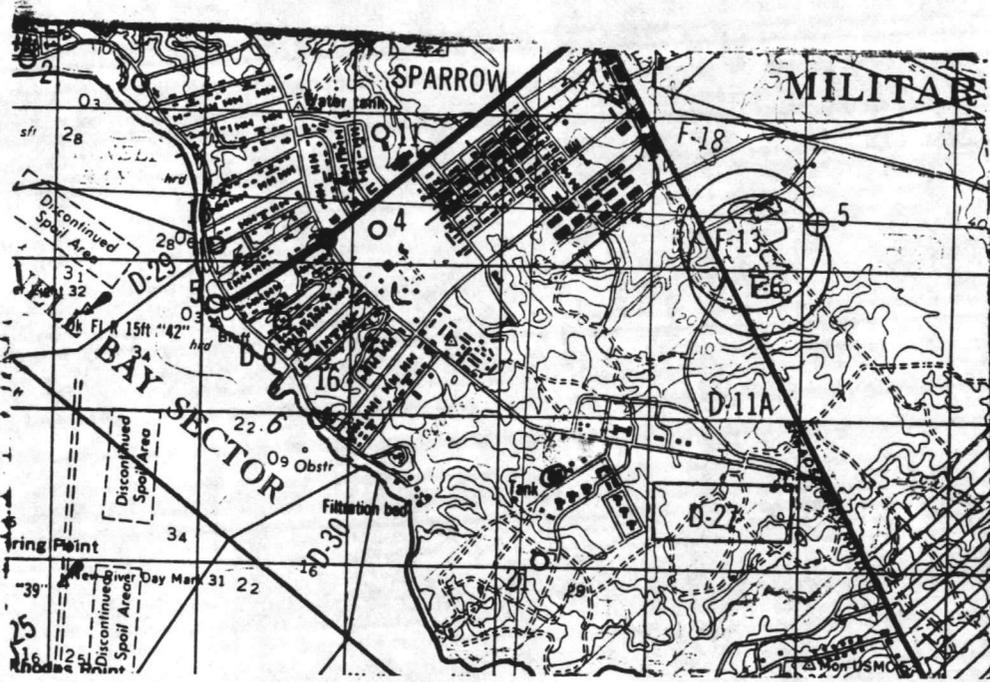
Preliminary Environmental Impact Assessment for Bridge Lot

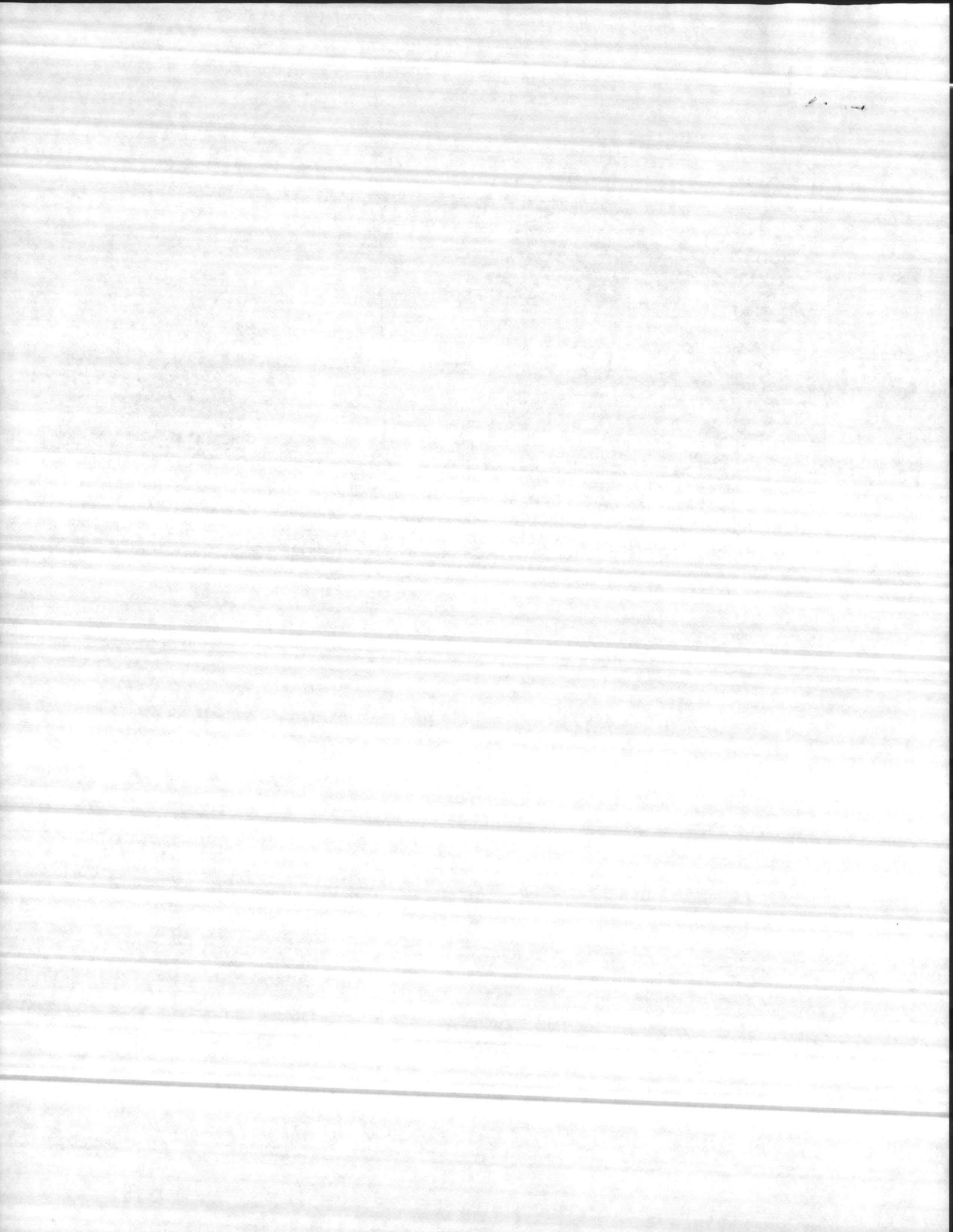
1. Action/Project Description. The project entails the clearing of approximately 60,000 square feet of area adjacent to FC 816. Once established the area will be ditched and sloped for drainage for use as a parking area for Bridge Trailer and MGB Bridge Components.
2. Consideration of other Sites. In that Bridge Company maintenance and storage lot is located adjacent to this area, it provides the only desirable site for location of a storage area.
3. Compliance with Federal State, and Local Environmental Regulations and Guidelines.
 - a. Endangered Species. Use of the cleared area by endangered species (Primarily the Alligator and red cockaded woodpecker) appears to be nonexistent. The project has no apparent beneficial or adverse impact on any endangered or threatened species.
 - b. Clean Water Act. The level terrain and sandy soils result in a condition of low erosion potential. There are no known residues of potential pollutants. Routine use of the area is of short duration and does not require sanitary facilities.
 - c. Clean Air Act. Not applicable. No significant discharge of air pollution.
 - d. Costal Zone Management Act. There is no direct or indirect impact on tidal marshes, beaches or other protected areas.
 - e. Archeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on state or national registers of historic sites. There are no visible remnant structures of home sites, artifacts which indicate that the site is covered by this Act.
 - f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) above, there is no significant potential for sediment leaving the site.
 - g. Hazardous Materials and Hazardous Waste Disposal. Current State and Federal regulations do not appear to be applicable.
 - h. Protection of Wetlands, Executive Order 11990. There are no wetlands present in this area.
 - i. Sanitary Waste and Refuse Disposal. Regular refuse disposal will be accomplished by personnel.
 - j. Discuss other Regulations Applicable. The proposed action does not involve any environmental regulations other than those discussed above.
 - k. Permit Requirement. None.
 - l. Site Map. See Appendix A to enclosure (2).
 - m. Conclusion. The removal of trees and excavation of this area would provide the Engineer Battalion with enough area to store MGB for future use.

ENCLOSURE (1)



Map MGB Bridge Lot







UNITED STATES MARINE CORPS
2D FORCE SERVICE SUPPORT GROUP (REIN)
FLEET MARINE FORCE, ATLANTIC
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
11000
42
13 Jul 1984

FIRST ENDORSEMENT on CO, 8th EngrSptBn ltr 3000 of 10 Jul 1984

From: Commanding General
To: Commanding General, Marine Corps Base, Camp Lejeune NC
(Attn: Assistant Chief of Staff, Facilities)

Subj: PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT FOR STORAGE
AND MAINTENANCE FACILITIES

1. Readdressed and forwarded requesting approval.


D. A. CERVENY
By direction

Copy to:
CO, 8th EngrSptBn

UNITED STATES MARINE CORPS
8th Engineer Support Battalion
2d Force Service Support Group (REIN)
Fleet Marine Force, Atlantic
Camp Lejeune, North Carolina 28542

3000
03
10 Jul 1984

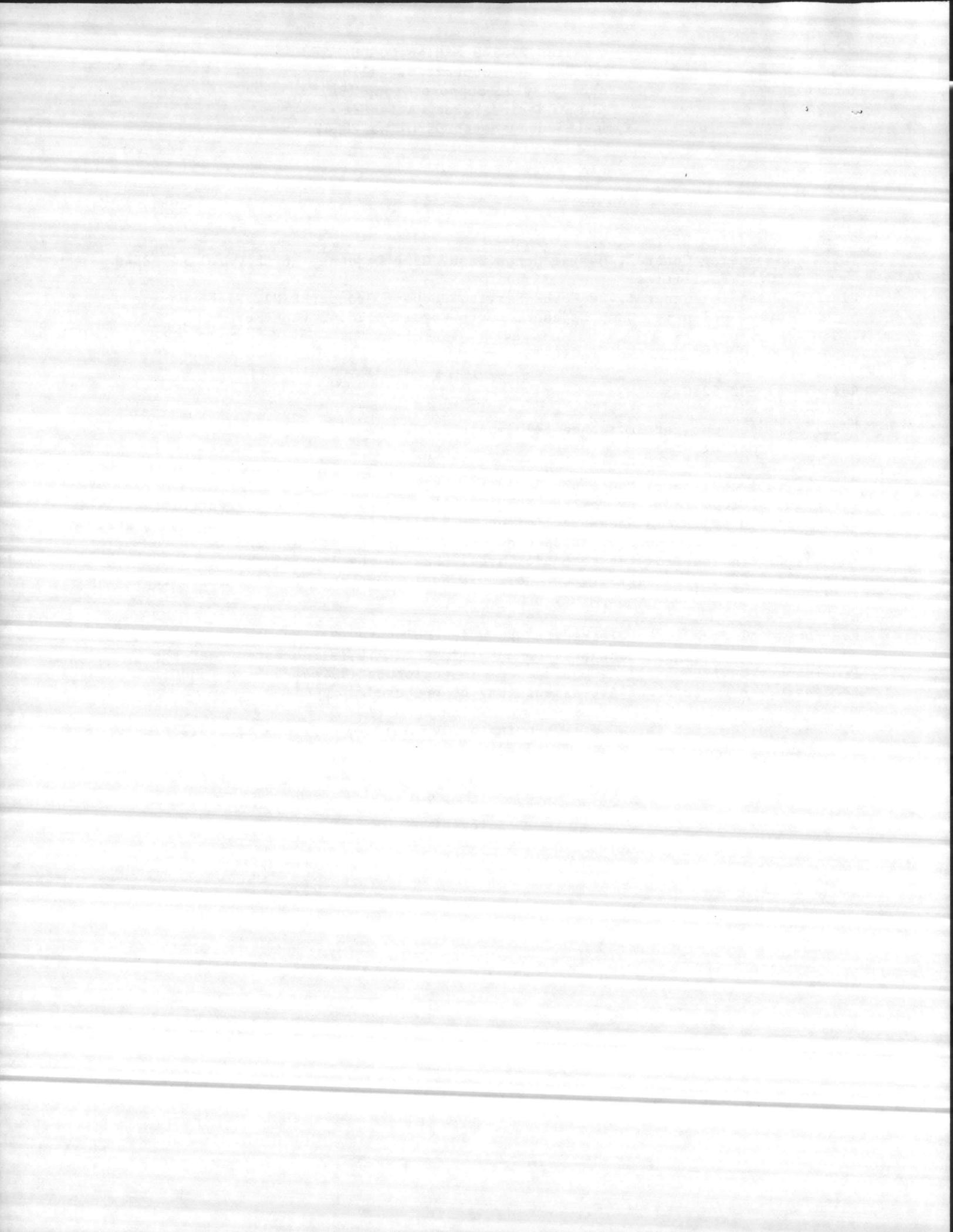
From: Commanding Officer
To: Commanding General, Marine Corps Base, Camp Lejeune, North Carolina 28542
(AC/S, Facilities)
Via: Commanding General, 2d Force Service Support Group (REIN), Fleet Marine
Force, Atlantic, Camp Lejeune, North Carolina 28542 (EngrSptO)
Subj: STORAGE, MAINTENANCE FACILITY
Ref: (a) MCO 6280.5
Encl: (1) Request for Environmental Impact Review
(2) Map of Area

1. The introduction of these new Buildings will result in establishing a more efficient storage facility for the Bulk Fuel Companies. At the current time the Companies storage spaces are limited to Building 914 and two Butler Buildings. Building 914 is also used by three other Battalions for storage and is approximately five miles from the companies' area. Due to the lack of storage space in the 2d FSSG a substantial amount of Bulk Fuel items are stored outside resulting in damage to boxes and equipment.

2. The total area to be cleared is shown in enclosure (2), has no economic value and will have no significant environmental impact. It is requested that the Preliminary Environmental Assessment PEA in enclosure (1) be reviewed and if necessary, an Environment Assessment (EA) be prepared.

3. Point of contact is: WO J. W. Howington, Construction Officer ext. 5175/1693.


D. E. KNIGHT
By direction



1. Action Sponsor. 8th Engineer Support Battalion

2. Point of Contact

Capt R. H. GLISSON, 8th Engineer Support Battalion, S-4 Officer ext. 2622/1693.

3. Purpose and Need

a. The purpose of this proposed action is to provide 8th Engineer Support Battalion with efficient room to construct six 60' X 180' Pascoe Buildings and four Hose Racks.

(1) Storage Facility to store 1st Bulk Fuel Company and 2d Bulk Fuel Company T/E equipment.

(2) Working space for operation and 1st Echelon maintenance of Bulk Fuel Equipment.

(3) Provide an area to construct hose racks for storage of hose after use.

b. Project Description

(1) Removal of brush and trees approximately 300,384 Sq. Ft. or 6.9 acres.

(2) Excavate and contour area for drainage, using straw or matting for control of erosion during the process of construction.

(3) Emplace a shallow ditch or culvert for drainage of Bridge Companies equipment lot.

(4) Emplace a drop box or sump for drainage of water in the area.

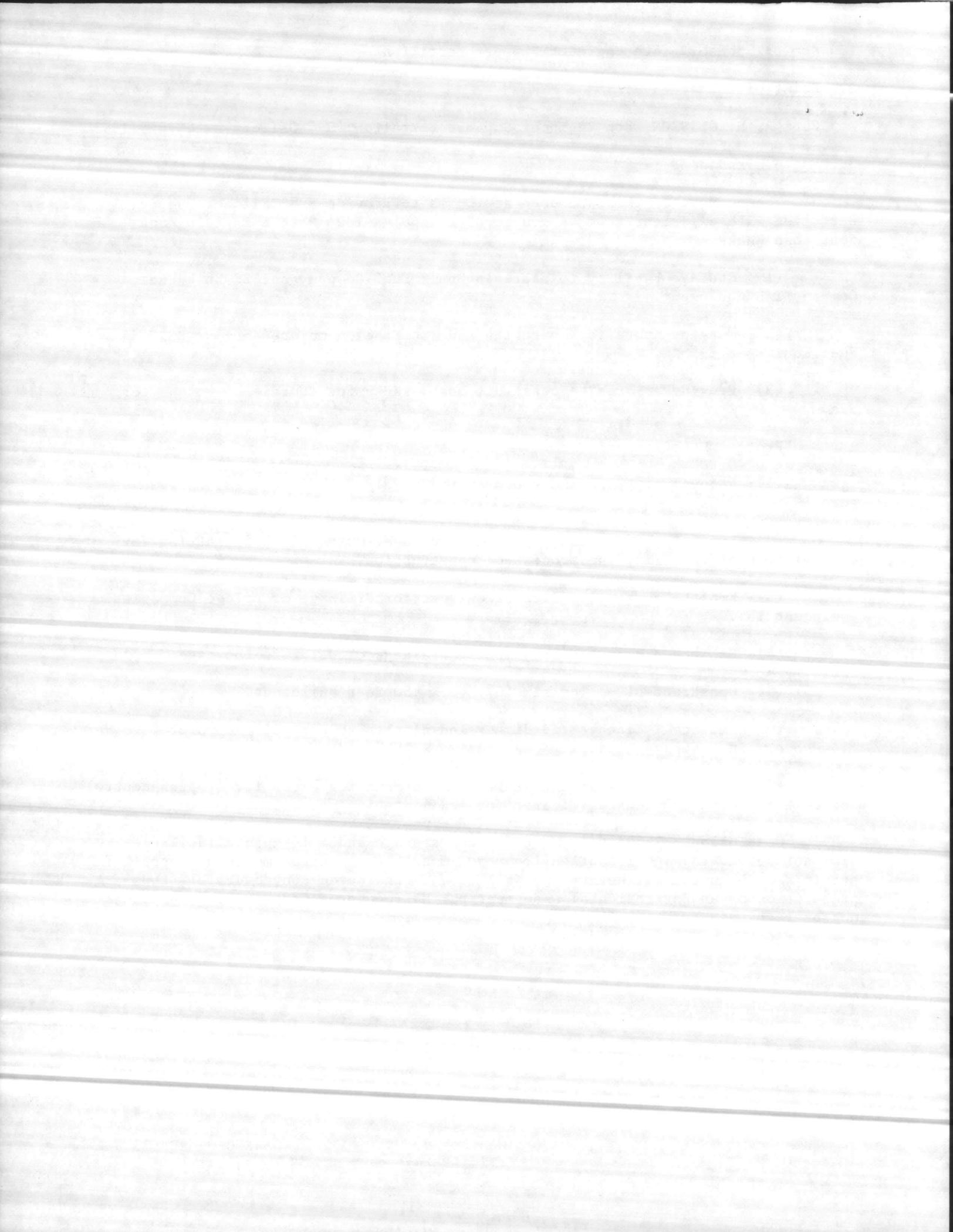
(5) Construct sites for six (6), 60 X 180 feet buildings.

(6) Emplace V ditches and diversion ditches to control the water flow to a main drainage area.

(7) Land Scape the area to establish permanent grasses for erosion control and to facilitate maintenance of area for sedimentation control.

c. Conclusion. The development for the storage and maintenance facilities will not result in significant environment impact provided the measures described herein are followed, further the project is not considered controversial, thus preparation of an Environmental Assessment per Mairne Corps Order 6280.5 should not be required.

ENCLOSURE (1)



4. Location: Attach a Camp Lejeune Special Map (or equivalent quality map) showing location of proposed action/project site(s).

5. Potential Environmental Impact/Considerations: (See Note 1)

a. Air Quality: Will there be any open burning associated with the project/action? NO Will there be any new boilers, incinerators or fuel storage tanks (larger than 1,000 gallons) provided? NO Will there be any paint booths, solvent vats, degreasers or other vapor-producing industrial processes involved? NO Will the project involve the use or disposal of asbestos? NO Will project cause dust problems? YES

b. Land Quality: Will the action require use of significant amount of earthen fill material? YES Will there be an increase in level of soil disturbance/damage to vegetation? YES Will there be one acre or more of land cleared/disturbed? YES

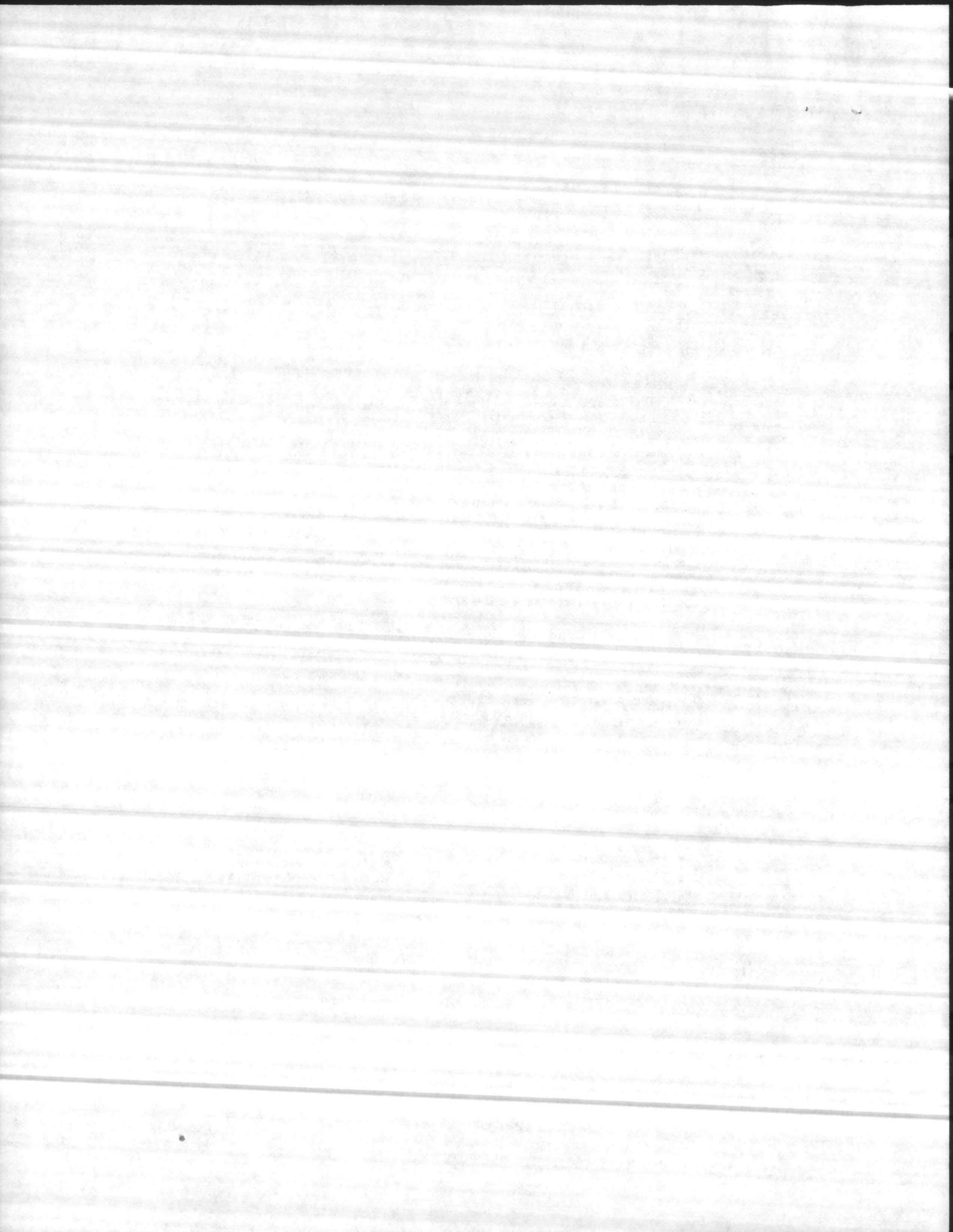
c. Groundwater Quality: Does the project involve use of herbicides, insecticides or other pesticides in significant amounts? NO Does the project involve installation/use of septic tanks, or any other on-site disposal of sanitary waste? NO Will there be any wells dug or any excavations deeper than twenty feet? NO Will any toxic or hazardous material/waste requiring disposal be used or generated by the project? NO Will there be a net increase of solid waste caused by implementing the project/action? NO Will the project or action be carried out within 200 feet of a drinking water supply well? NO

d. Surface Water Quality: Is the project located on or in a water body or adjacent 100-year flood plain? NO Will the project involve construction of drainage ditches/underground drains for purposes of lowering water table? NO Will all wastewater be connected to sanitary sewer? NO Will there be an increase in erosion/siltation from soil disturbing activity? NO Will petroleum oil and lubricants be routinely stored or used at the site? YES Will the project increase rates of surface/storm water run-off? NO

e. Natural Resources: Will there be a loss of forest land? NO Will public access for hunting, boating, fishing, etc., be restricted? NO Is there a change in land use from what is presently shown in Base Master Plan? NO Will removal of existing vegetation be required? YES Are there any known effects on any endangered species? NO Does the project involve the purchase or sale of any real estate? NO

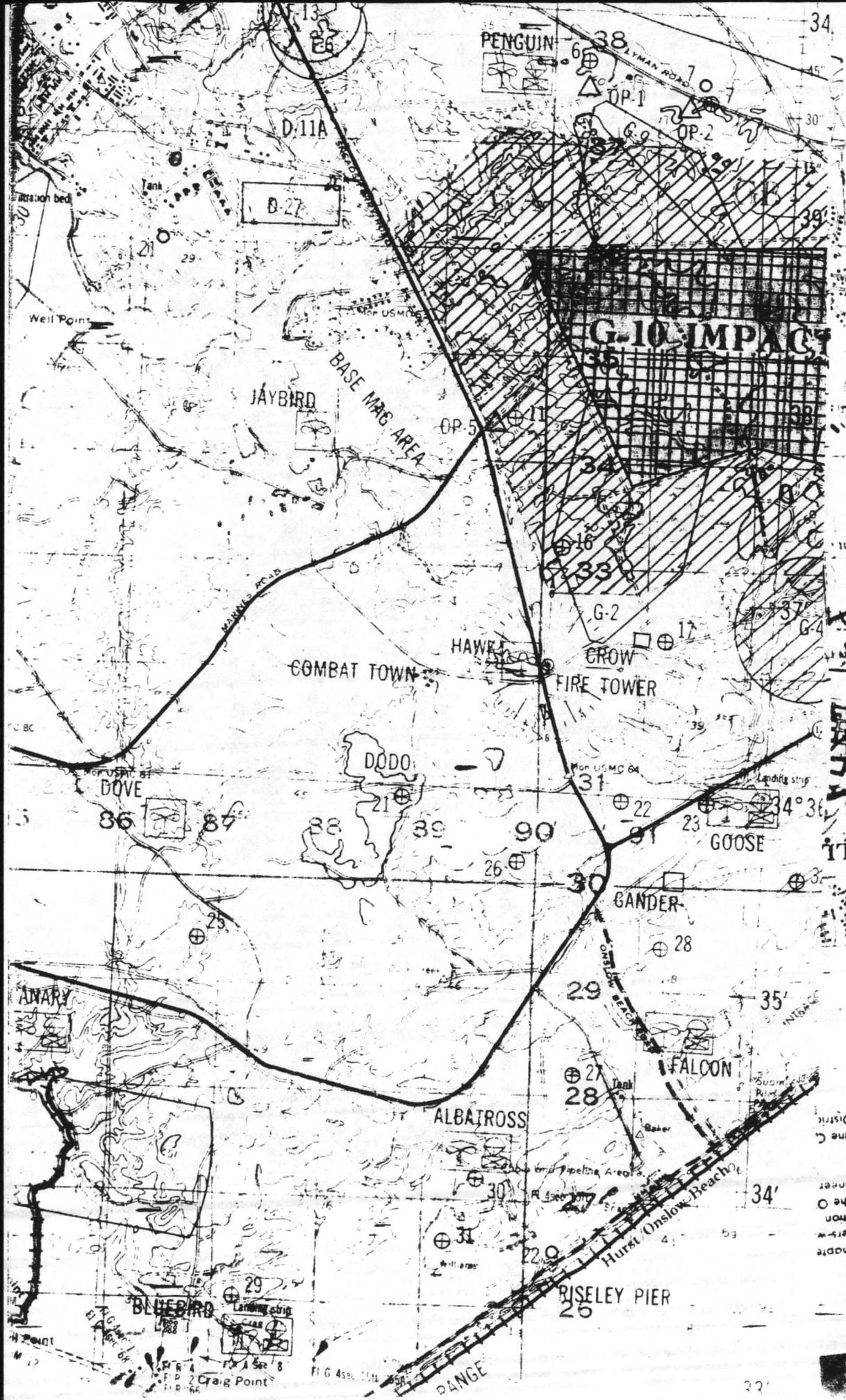
f. Socio-Economic Considerations: Will the project cause an increase/decrease in on or off-base military population? NO Will there be any increased demand on a local or state government to provide services? NO Will there be any changes to traffic flow and patterns on or off-base? NO Will any noise, traffic, dust, etc., be generated which may affect off-base persons or property? NO Is there any known controversy associated with the type of project or action proposed? NO Are there any historical or archaeological sites affected by project/action? NO

NOTE 1. Answer either "yes", "no" or "unknown". Answers should be based on information available to the action sponsor at time of submission to the Base Environmental Impact Review Board. Do not delay the submission of this request awaiting additional information. Many environmental considerations need to be addressed in early planning stages. If additional information becomes available after submission, it should be forwarded to the EIRB.

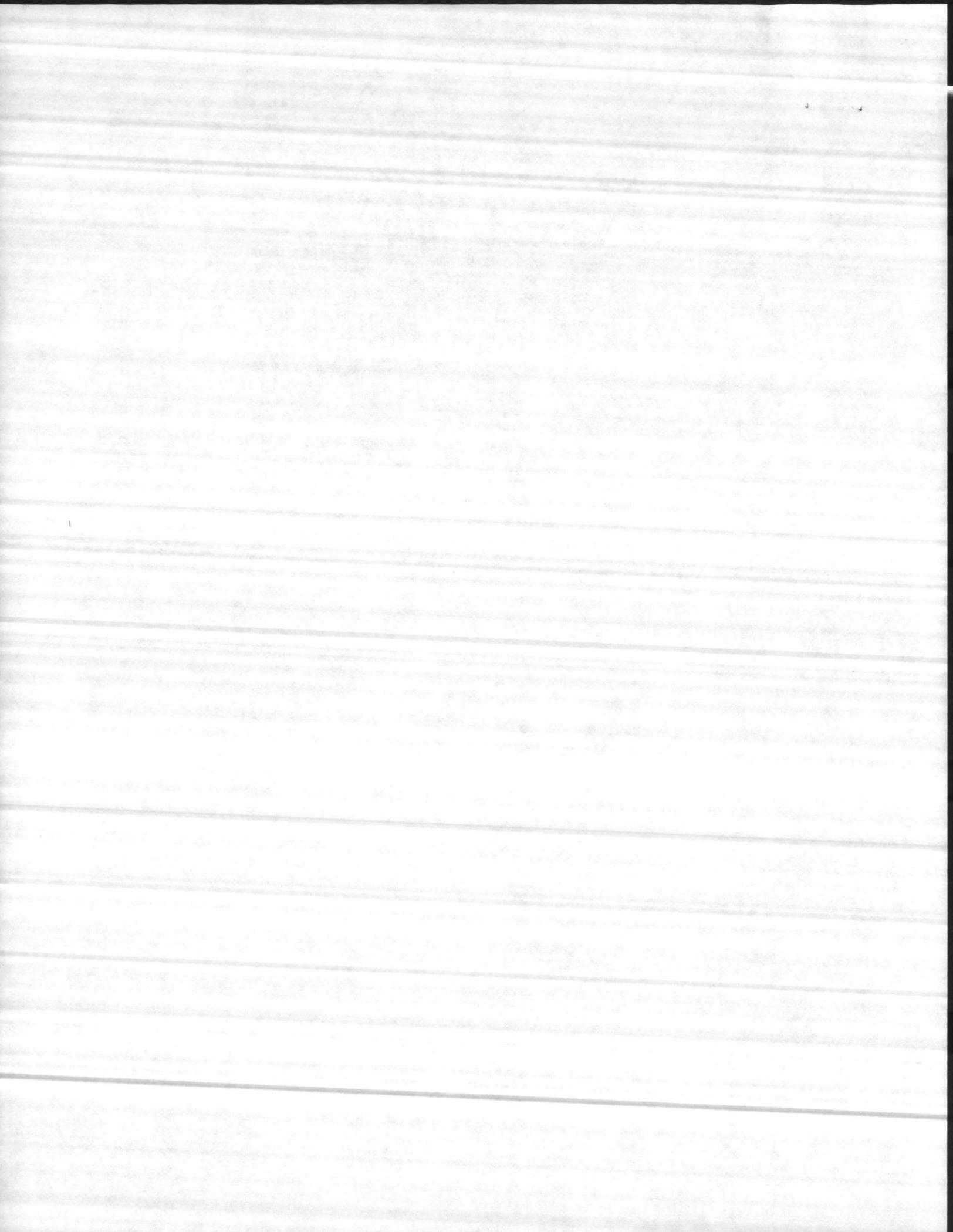


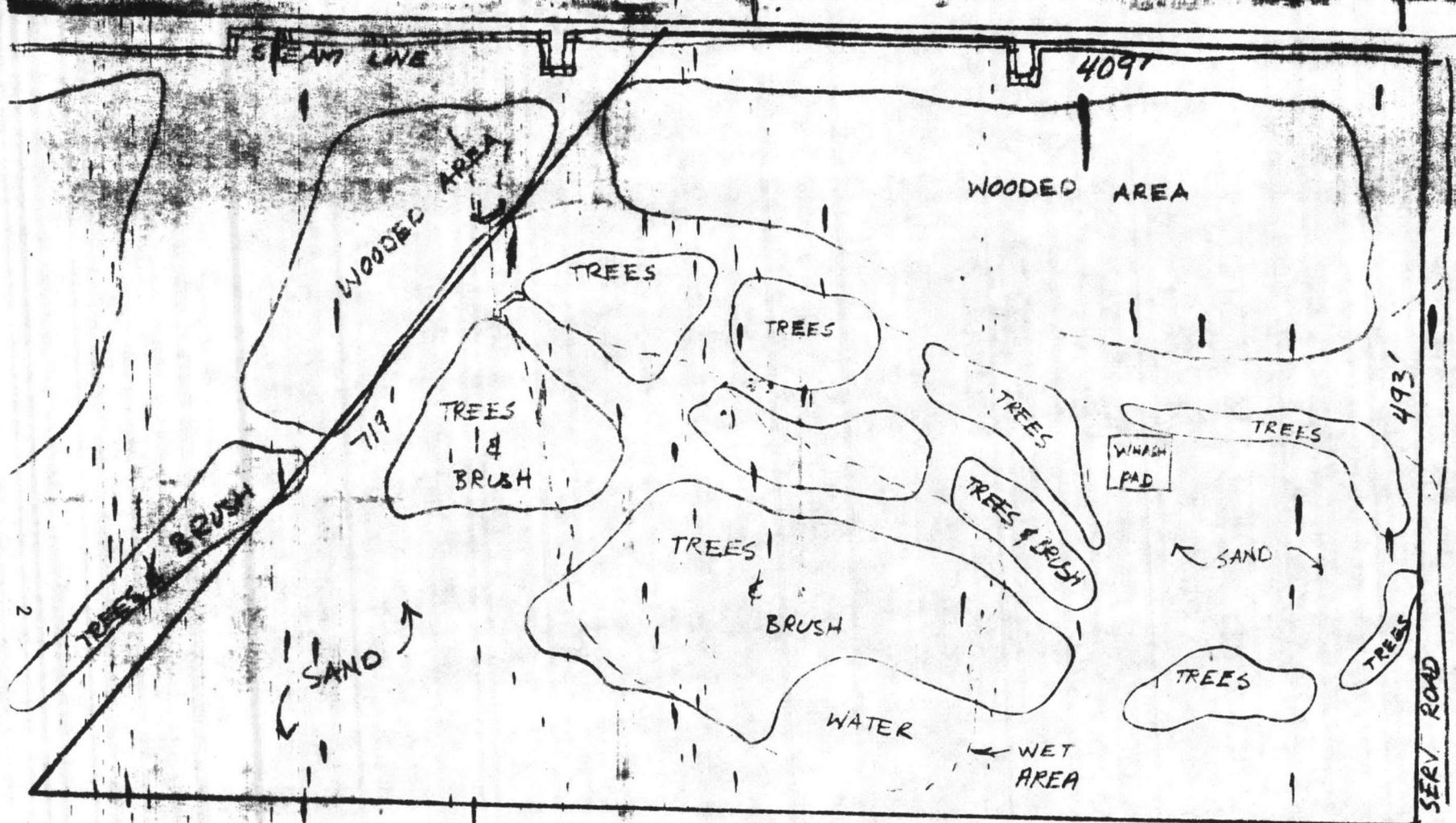
**THE FOLLOWING
DOCUMENT IMAGE(S)
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ORIGINAL PAPER FORMAT**

**Confidential Records Management, Inc.
New Bern, NC
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ENCLOSURE (2)





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/4
NREAD
23 July 1984

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 Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

Ref: (a) AC/S FAC memo 5420/2 FAC of 18 July 1984

Encl: (1) Comments on Proposed K-2 Impact Area/Drainage and
Clearing
(2) Comments on Tracked Vehicle Trail
(3) Comments on LAV Operations in Hoffman Forest
(4) Comments on LZ Bluebird Repair Project

1. Preliminary Environmental Assessments (PEA) furnished and scheduled by the reference for review by the Environmental Impact Review Board (EIRB) on 24 July 1984 have been reviewed and discussed by members of the NREAD staff and comments/recommendations are provided as enclosures (1) - (4). Although there are some minor variations between Mr. Peterson and Mr. Sharpe's comments our conclusion relative to the PEA's are essentially the same. Pertaining to K-2 Impact Area Clearing and Drainage Project, the following issues are not addressed or are not adequately addressed or there are inaccurate statements, i.e.:

NOT IN ARCH TO BE CLERKED
a. There are endangered species (Red-Cockaded Woodpeckers and American Alligators) in the proposed project area requiring formal consultation with the US Fish and Wildlife Service.

acceptable
b. Whitehurst Creek and Mill Creek are classified by state as primary nursery area. These areas will probably be impacted by the clearing and drainage of K-2 due to accelerated fresh-water flow.

X
c. The Base Archaeological and Historical Survey of 1981 showed part of the K-2 area as being sensitive and it is recommended consultation with the state Archives and History personnel be completed before clearing and drainage work begins.

No
d. Drainage of K-2 area wetlands requires review by the Army Corps of Engineers before work begins.



Subj: Environmental Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

No e. File a Federal Consistency Statement with the NC Office of Coastal Management.

No f. Submittal of a sedimentation control plan to the state prior to beginning the work in the K-2.

No g. In my opinion, outside agencies may consider the K-2 project a major federal action because of impacts on endangered species, wetlands, primary nursery areas and archaeological and historical resources. In my opinion an Environmental Assessment (EA) is required by Headquarters Marine Corps because of both the environmental impact and the potential for controversy.

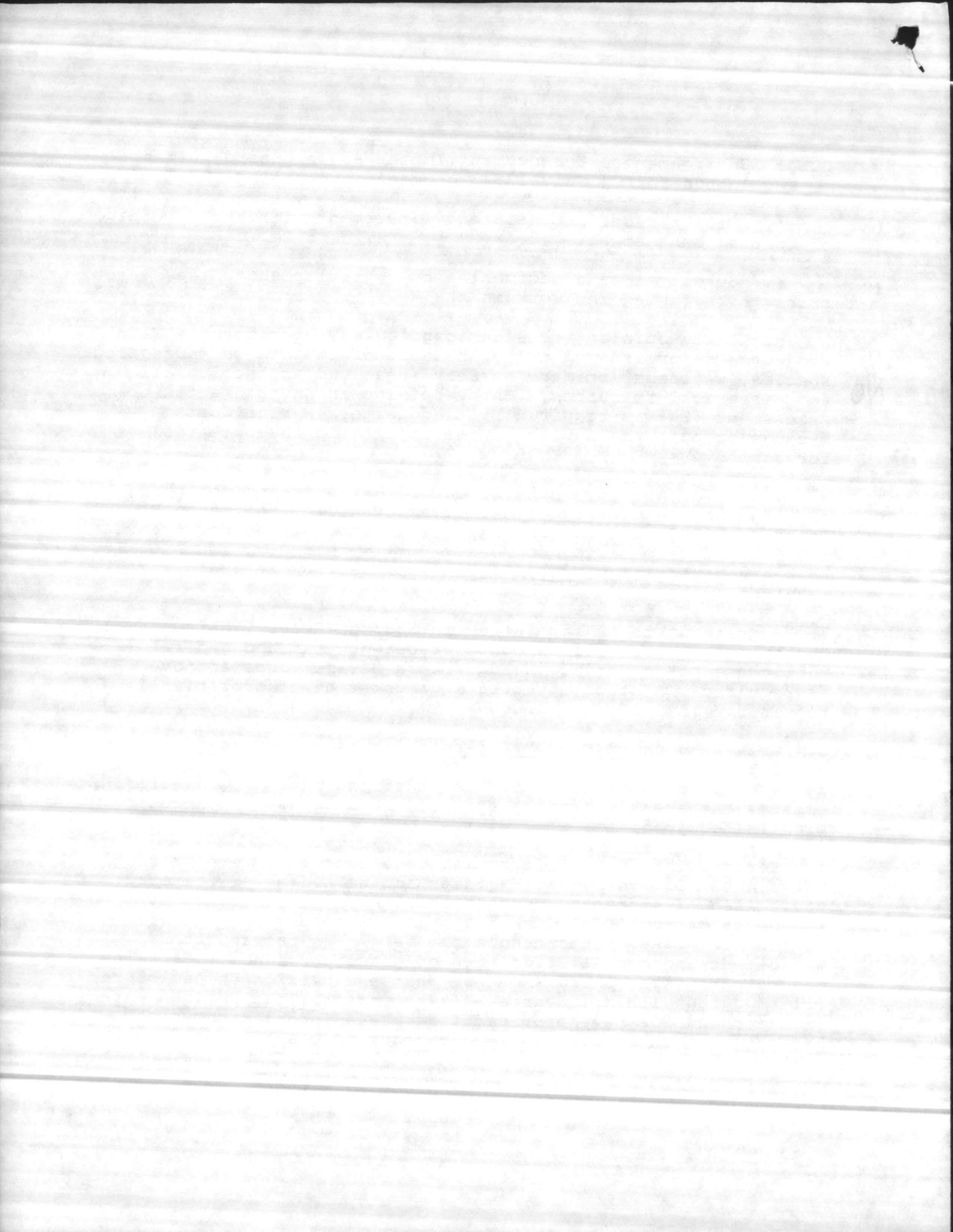
2. The reference gives the Director, NREAD credit for preparing the PEA for the construction of track vehicle trail from Rhodes Point to TLZ Cardinal. NREAD provided information for the PEA but did not prepare the document. It is this Division's position that a sedimentation control plan approved by the state is required.

3. Pertaining to LAV operation in Hoffman Forest, NREAD is of the opinion there will be conflict between LAV and general public use of the area. Headquarters Marine Corps approved EA is required. A state approved sedimentation control plan is required.

4. Pertaining to LZ Bluebird repair, it is recommended base consult with the State Department of Archives and History pertaining to possible artifacts under the matting, as well as adjacent areas. A state approved sedimentation control plan is required.

5. Earlier this year I discussed conflicts that were arising between the Environmental Engineer and me and my staff with you. Also, I expressed concern about some of the comments I was hearing from LtCol Cummings pertaining to NREAD matters and how the base should handle the matter as related to management and consultation with off base personnel. Pertaining to paragraphs 3 and 4 of Mr. Sharpe's portion of enclosure (1), I agree with Mr. Sharpe's statement that the Environmental Engineer and SJA have provided inaccurate information which has the base in a potentially embarrassing position.


J. I. WOOTEN





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

H. G. C

IN REPLY REFER TO
 6280/5
 FAC

From: Commanding General, Marine Corps Base, Camp Lejeune
 To: District Engineer, Wilmington District, Corps of Engineers,
 P. O. Box 1890, Wilmington, NC 28402-1890

Subj: DRAINAGE IMPROVEMENTS FOR THE K-2 IMPACT AREA

Ref: (a) Site Visit btwn Mr. Jahnke, COE; 1stLt Redmond, BTrng;
 and Mr. Alexander, BFac, of 18 Jul 84
 (b) 33 CFR Part 322

Encl: (1) Site Map, Jacksonville-South, NC USGS Quadrangle
 (2) Site Map, Sneads Ferry, NC USGS Quadrangle

1. Per Mr. Jahnke's request during reference (a), drainage maps for the subject improvements are provided as enclosures (1) and (2). Request you review the maps for compliance with reference (b). It should be noted the enclosures indicate areas considered during planning of this project which might require drainage. A significant reduction in the extent of this drainage effort is anticipated following more detailed on-site inspections during project start-up.

2. For further additional information, contact Mr. Bob Alexander at FTS 676-3034/3035 or at the above address.

M. G. LILLEY
 Colonel, U.S. Marine Corps
 Assistant Chief of Staff, Facilities
 By direction of the Commanding General

Scotch® 7664 "Post-it" Routing-Request Pad

ROUTING - REQUEST

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and

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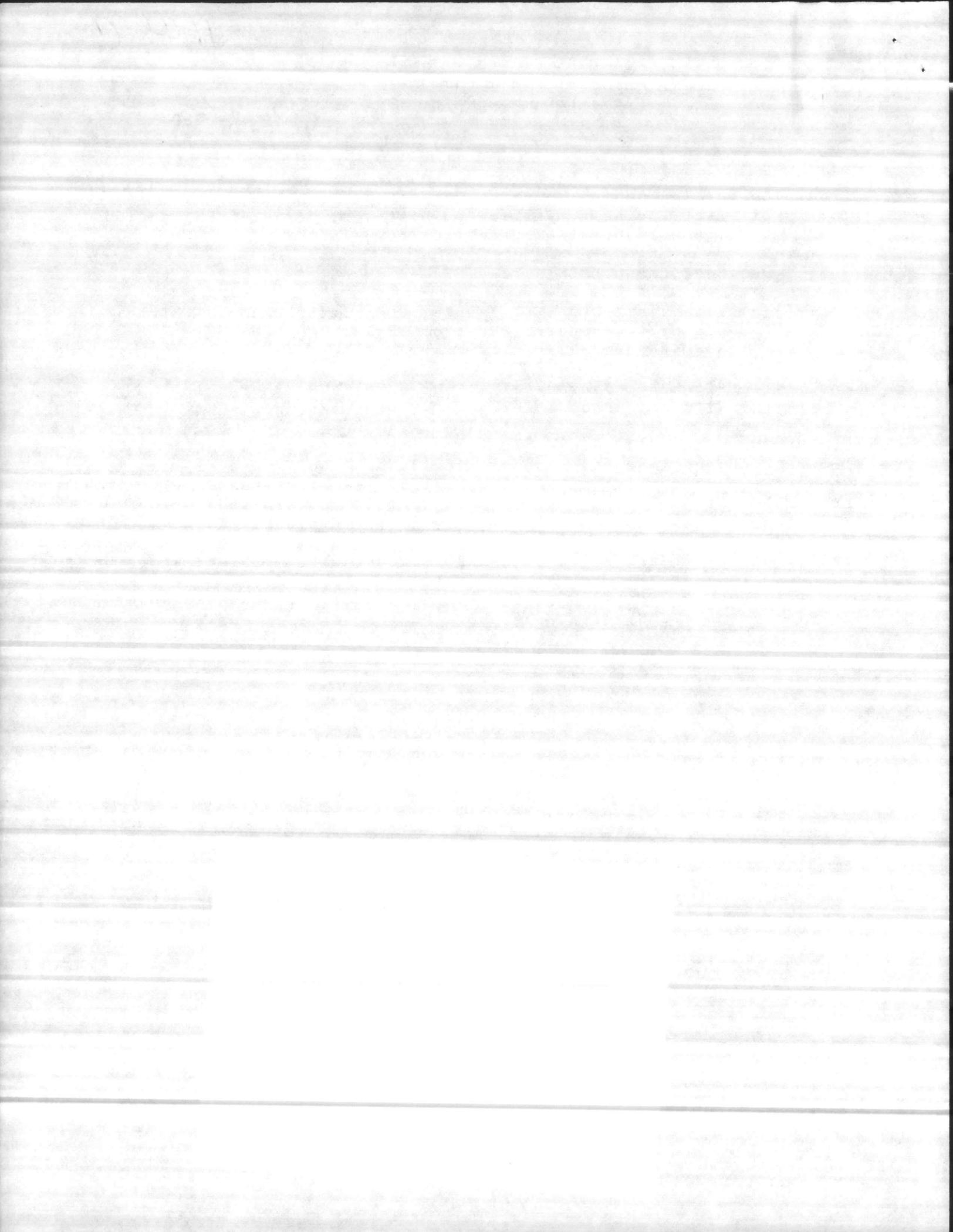
REVIEW WITH ME

To AC/S, TRNG

for info

Date 10 Aug 84

From AC/S, FAC





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
6280/5
FAC

From: Commanding General, Marine Corps Base, Camp Lejeune
To: District Engineer, Wilmington District, Corps of Engineers,
P. O. Box 1890, Wilmington, NC 28402-1890

Subj: DRAINAGE IMPROVEMENTS FOR THE K-2 IMPACT AREA

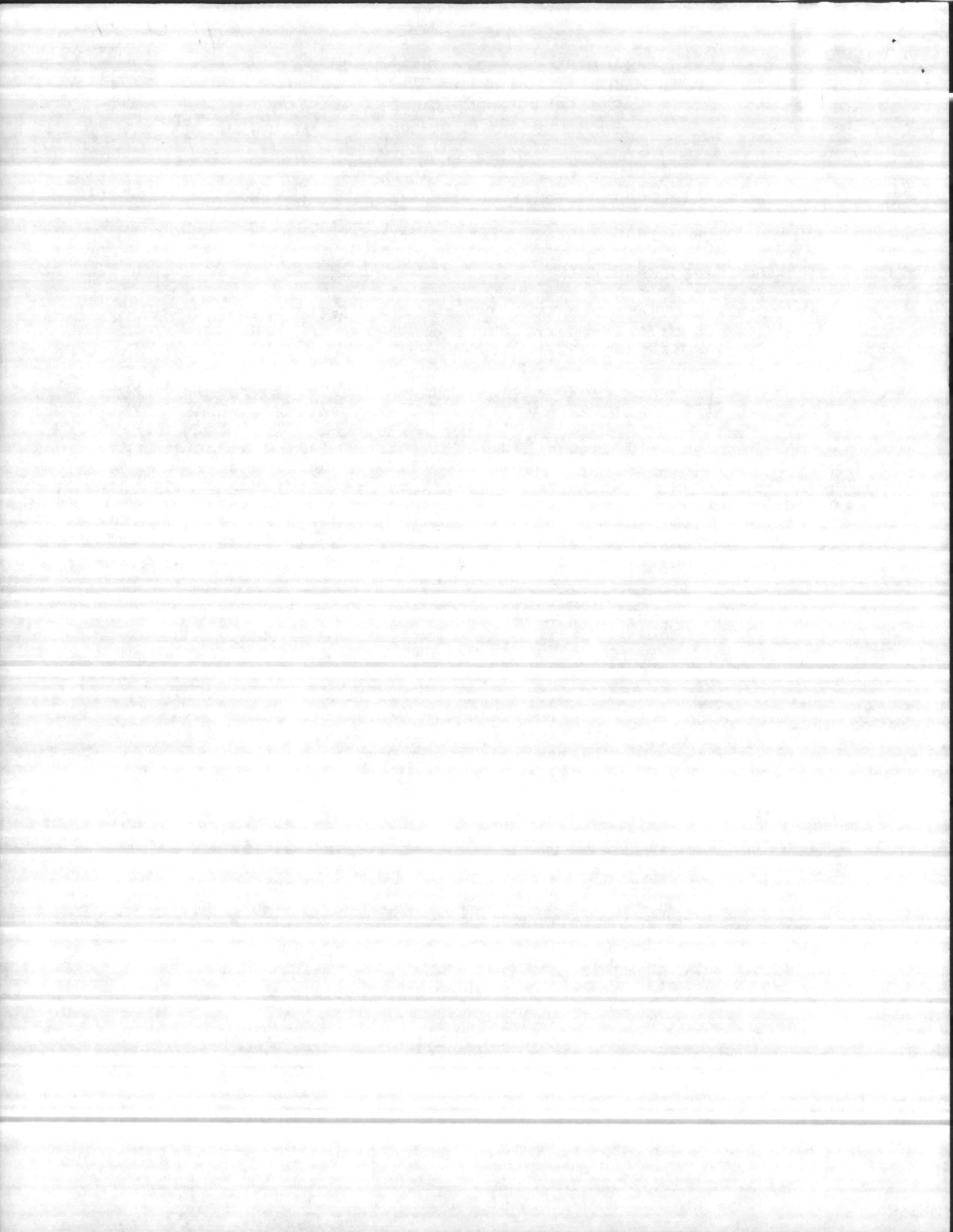
Ref: (a) Site Visit btwn Mr. Jahnke, COE; 1stLt Redmond, BTrng;
and Mr. Alexander, BFac, of 18 Jul 84
(b) 33 CFR Part 322

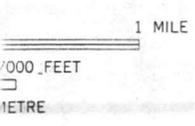
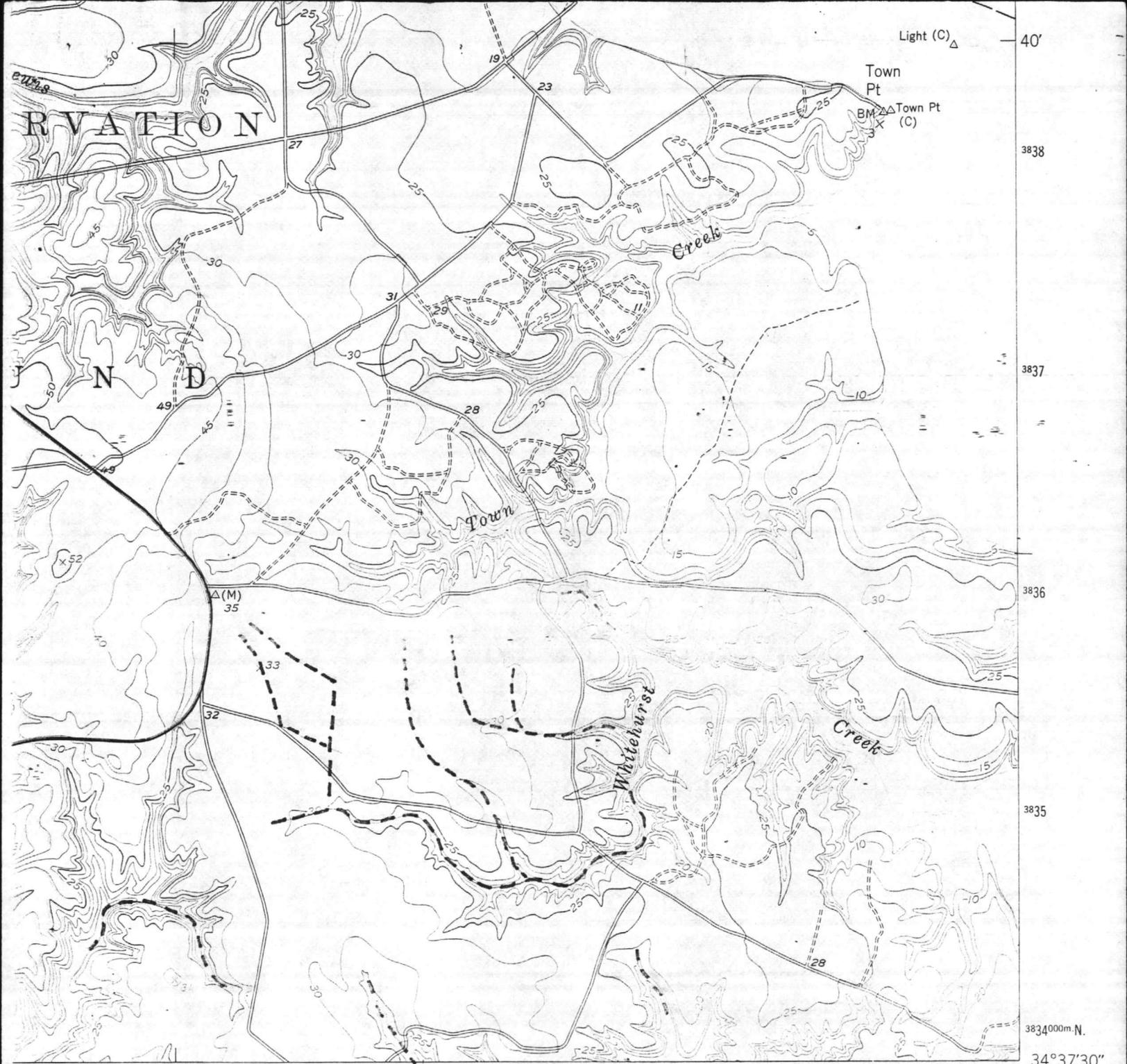
Encl: (1) Site Map, Jacksonville-South, NC USGS Quadrangle
(2) Site Map, Sneads Ferry, NC USGS Quadrangle

1. Per Mr. Jahnke's request during reference (a), drainage maps for the subject improvements are provided as enclosures (1) and (2). Request you review the maps for compliance with reference (b). It should be noted the enclosures indicate areas considered during planning of this project which might require drainage. A significant reduction in the extent of this drainage effort is anticipated following more detailed on-site inspections during project start-up.

2. For further additional information, contact Mr. Bob Alexander at FTS 676-3034/3035 or at the above address.

M. G. LILLEY
Colonel, U.S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General





LEGEND
 Proposed Drainage Ditch
 approx. 5' wide X
 3' deep

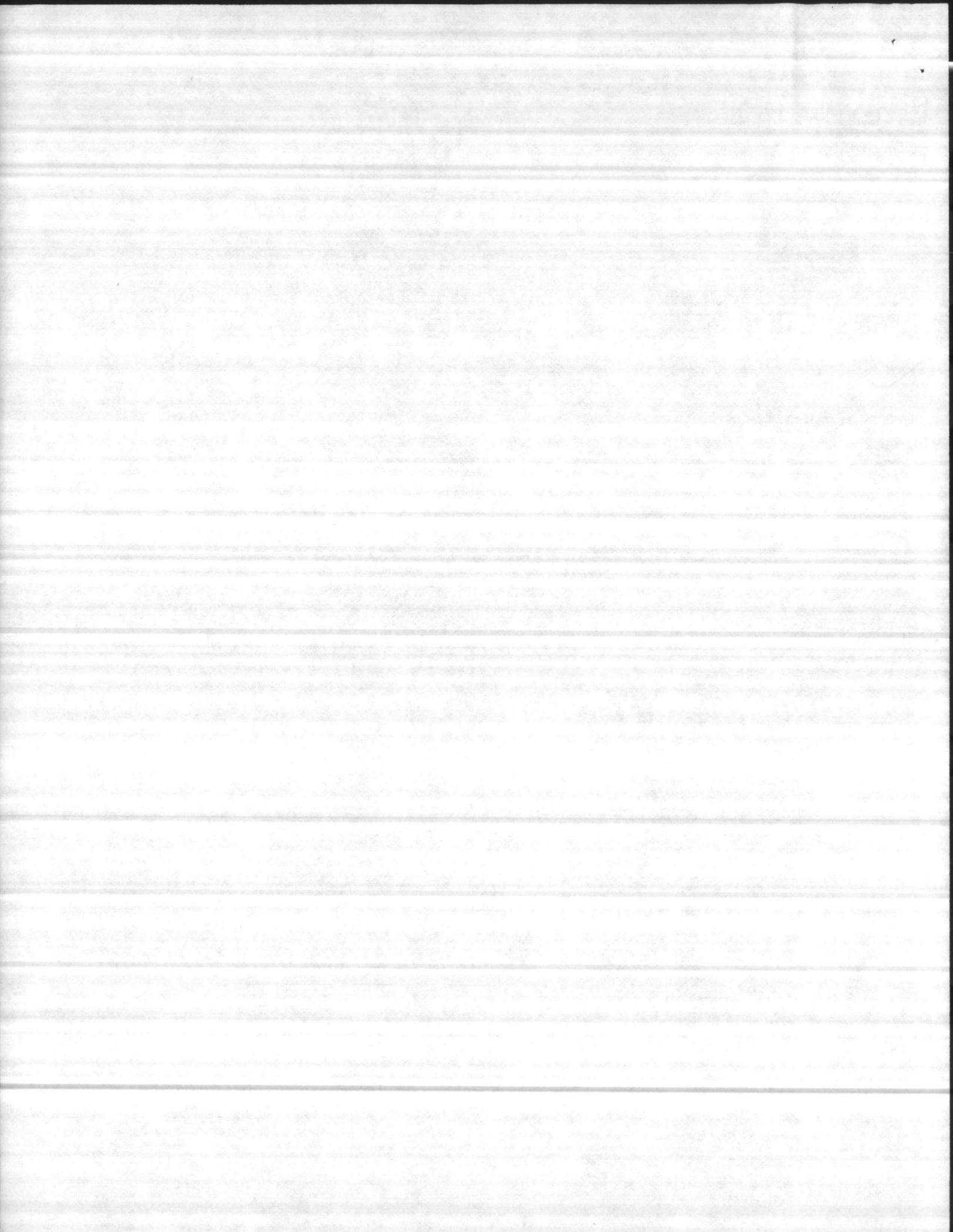
ROAD CLASSIFICATION

Heavy-duty		<u>4 LANE</u> <u>6 LANE</u>	Light-duty	
Medium-duty		<u>4 LANE</u> <u>6 LANE</u>	Unimproved dirt	
		U. S. Route		State Route

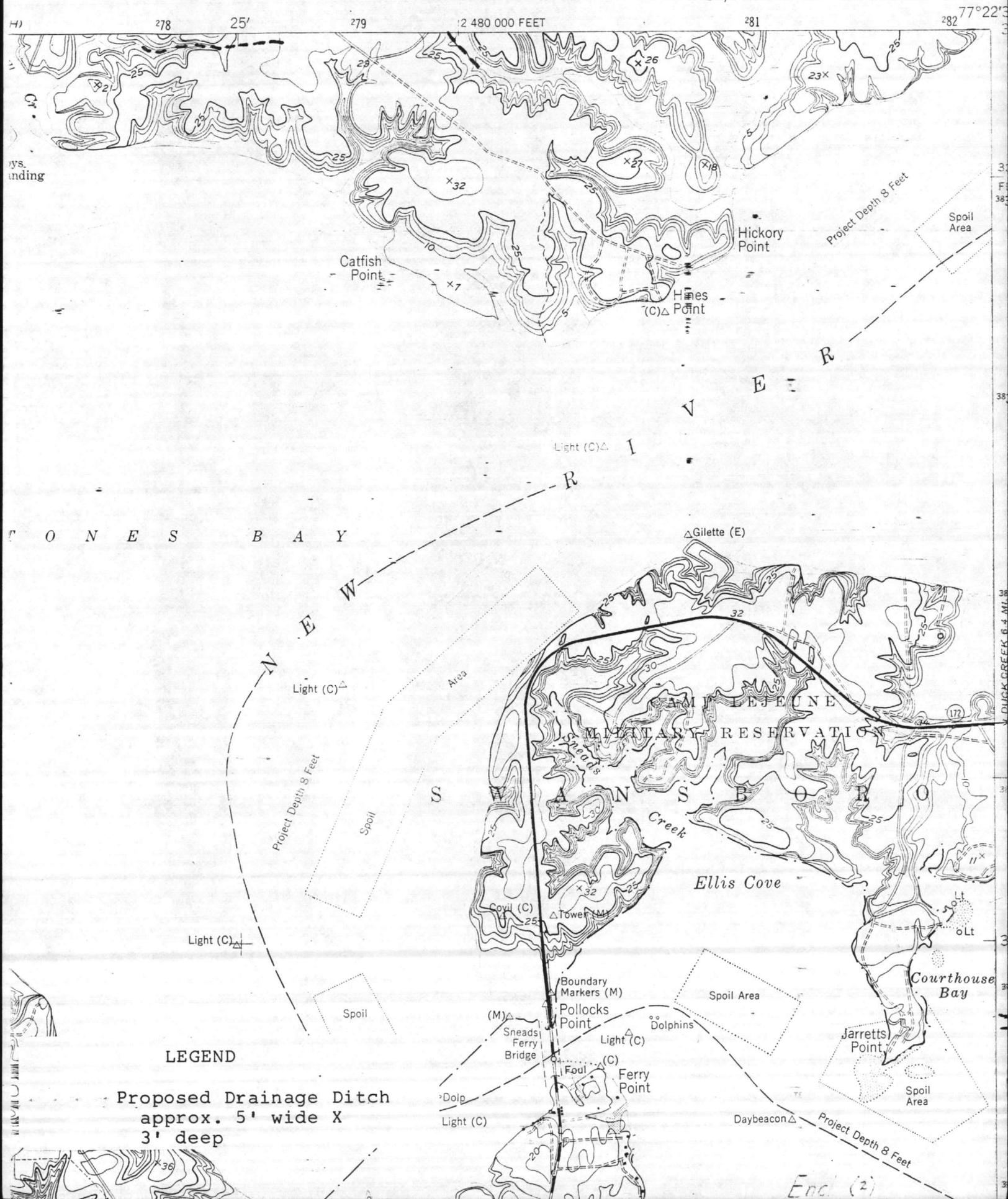
JACKSONVILLE SOUTH, N. C.
 NW/4 NEW RIVER 15' QUADRANGLE
 N3437.5—W7722.5/7.5

1952
 PHOTOINSPECTED 1971
 AMS 5553 III NW—SERIES V 842

Enc (C)



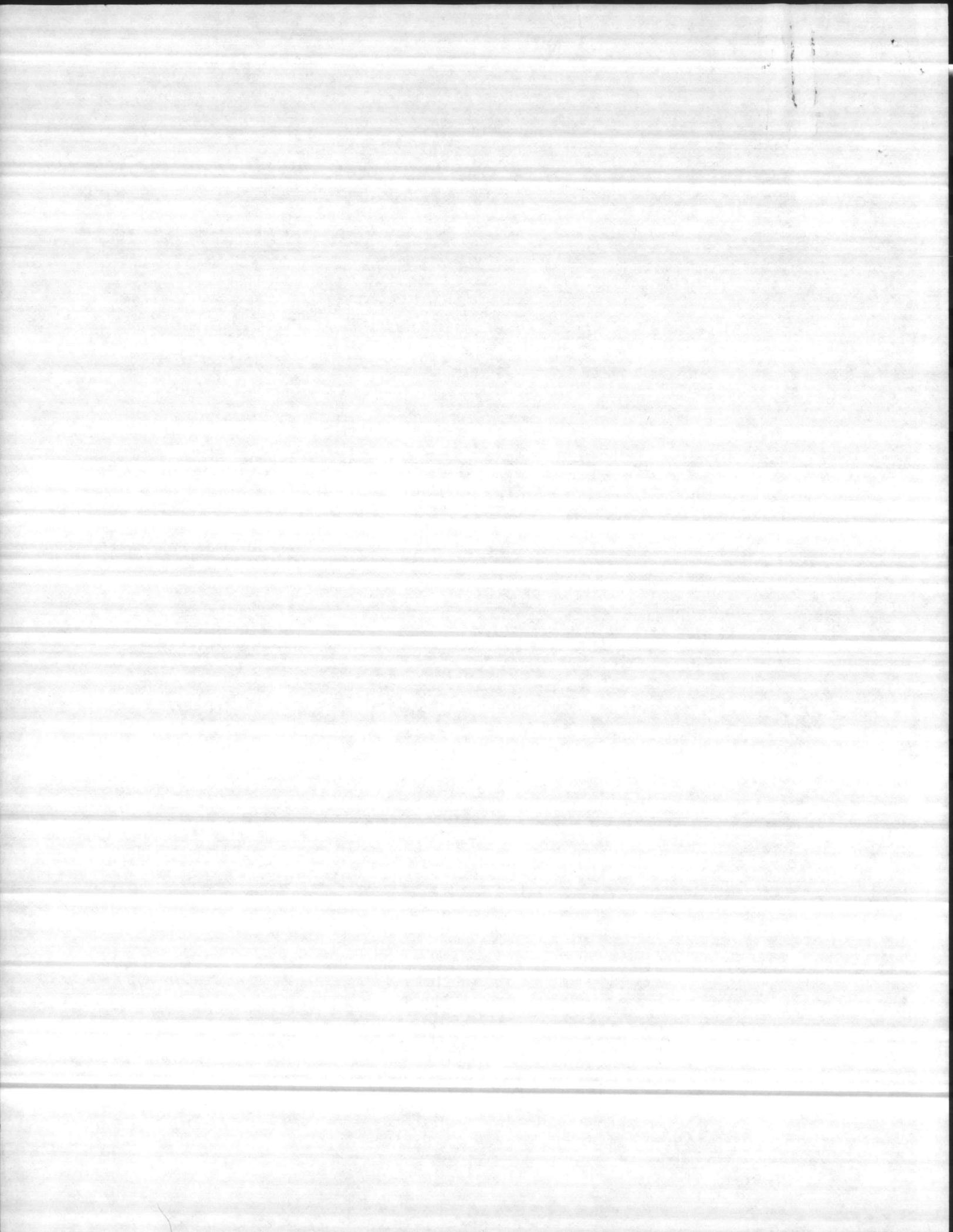
SNEADS FERRY QUADRANGLE
 NORTH CAROLINA—ONSLOW CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 SW/4 NEW RIVER 15' QUADRANGLE



LEGEND

Proposed Drainage Ditch
 approx. 5' wide X
 3' deep

Enc. (2)



Given: 100 foot tower located
at Gillette point. Tower
is built on ground which
has an altitude of 20 feet.

straight line distance from
this tower to the nearest
point in K-2 access stone
Bay was measured at 1400 meters
(4200 feet, approximately)

If a 200 foot deep tree line is left in K-2 we would
lose 968 meters (approximately) of observation. (This assumes
an average tree height of 60 feet.)

Trees can be left from Grid 823347 to 824340
and from 785334 to 790332 without hindering observation
into K-2, from Gillette point.

T. J. KRAWENKEZ
Army Safety O
5527/1640

$$\begin{aligned} 3700 \text{ ft} &= 1066.67 \text{ yds} \\ &= 968.71 \text{ meters} \\ 3000 \text{ ft} &= 1000 \text{ yds} \\ &= 908.17 \text{ meters} \end{aligned}$$

60.5 yds
200 feet
60.5 meters

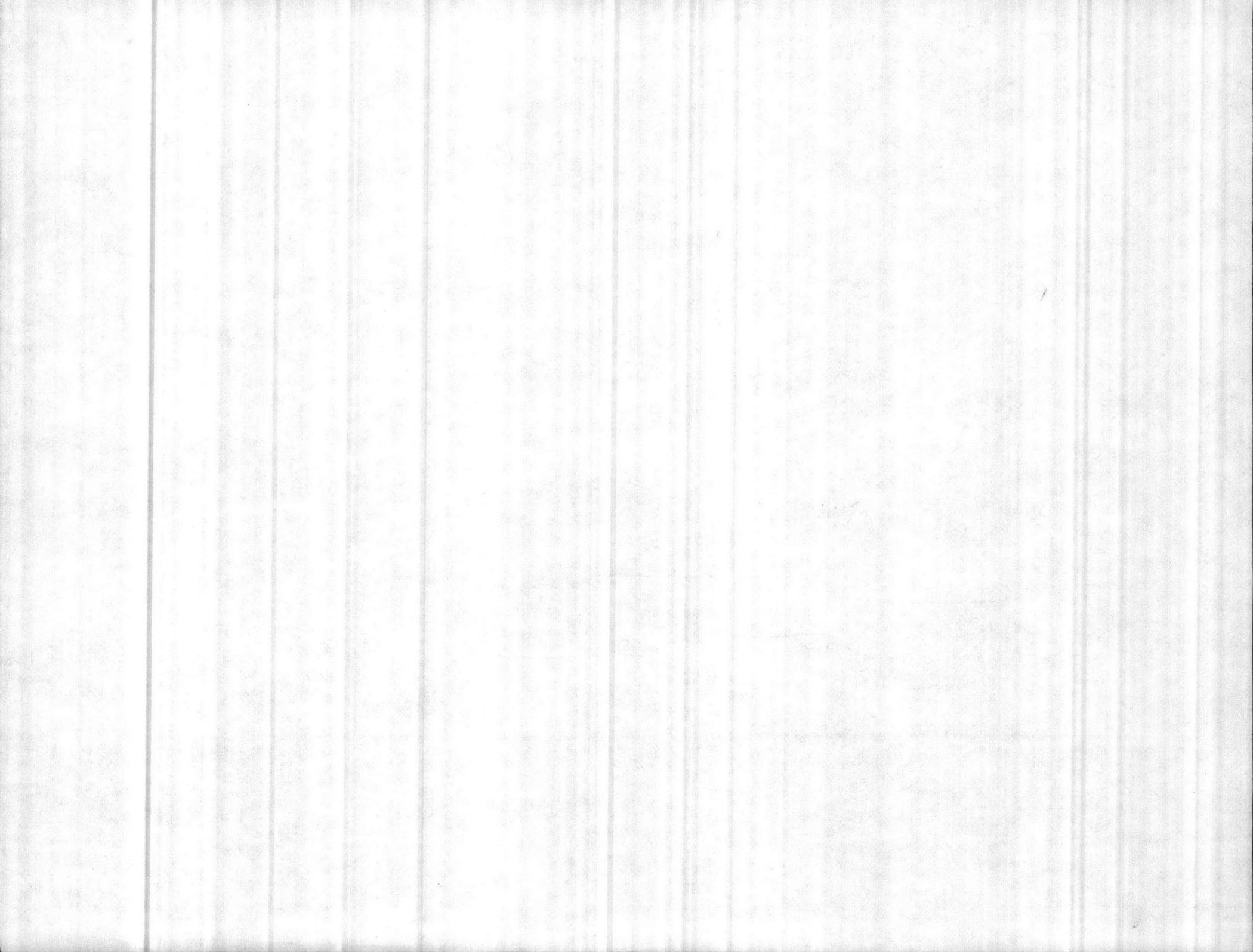
60'

4200

5000

6000

7000 ft



— OLD ROADS

— PROPOSED DITCHING

/// PROPOSED CLEARING

K-2 IMPROVEMENT

K-2 IMPROVEMENT

PROPOSED CLEARING

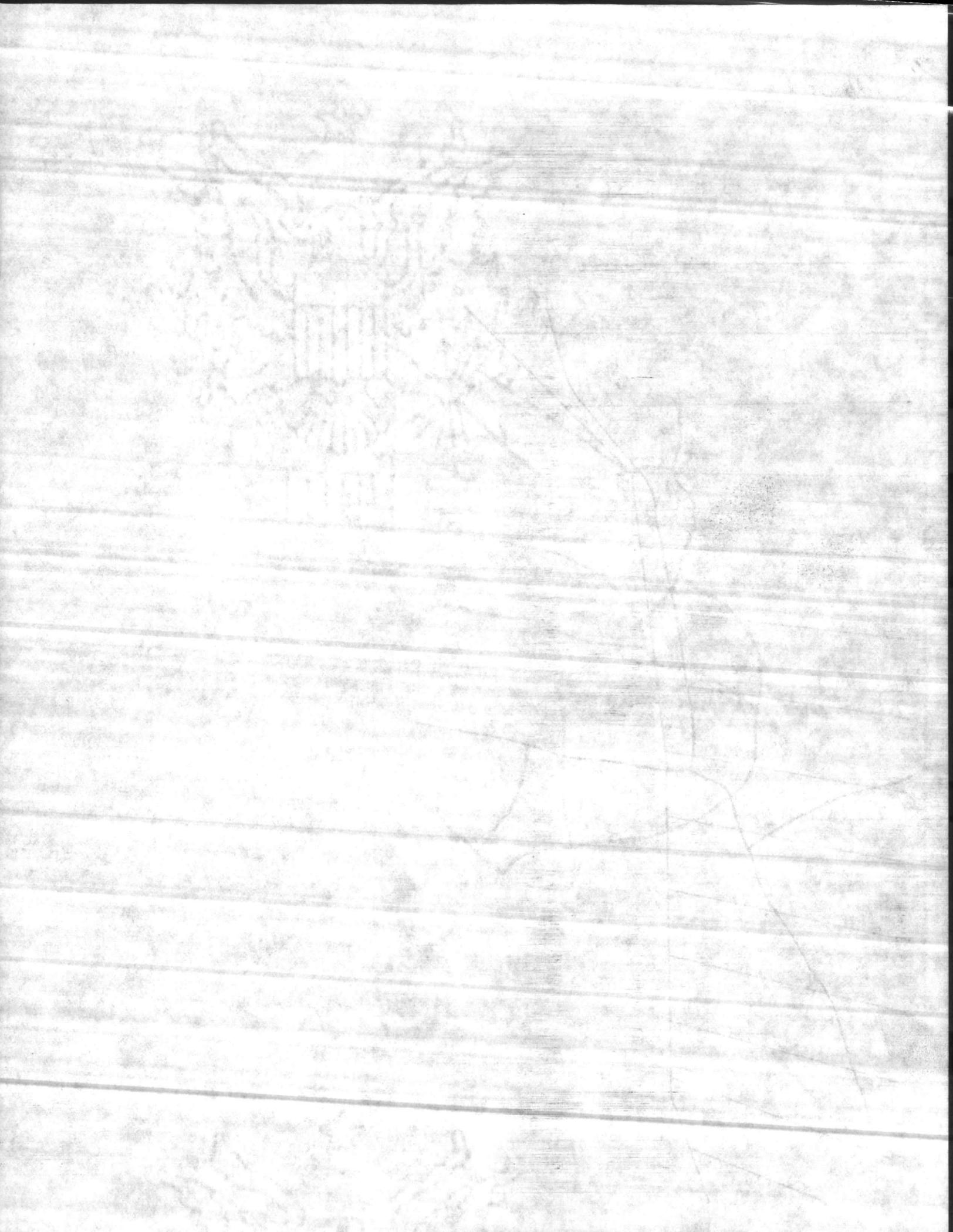
PROPOSED CLEARING

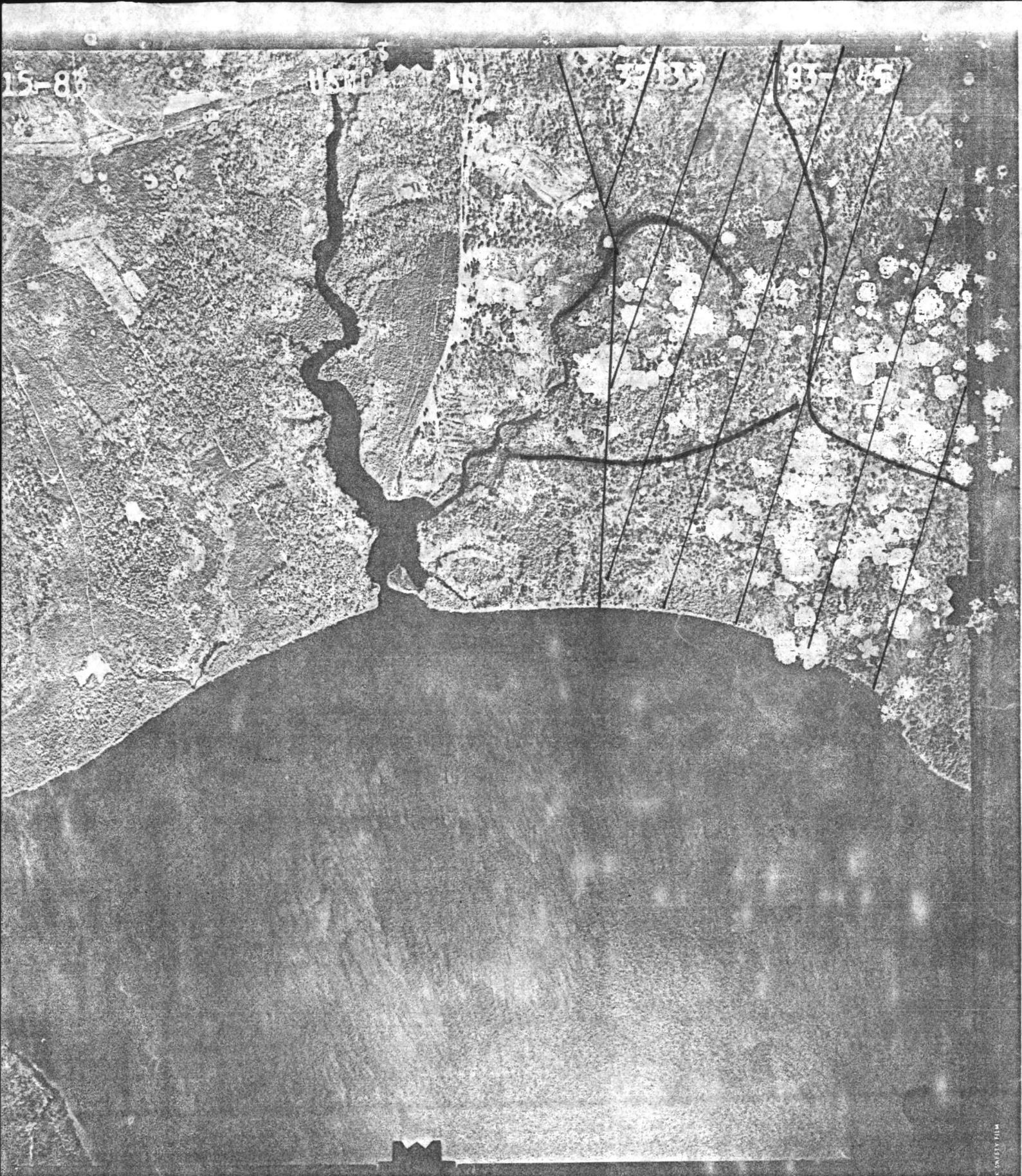
PROPOSED CLEARING

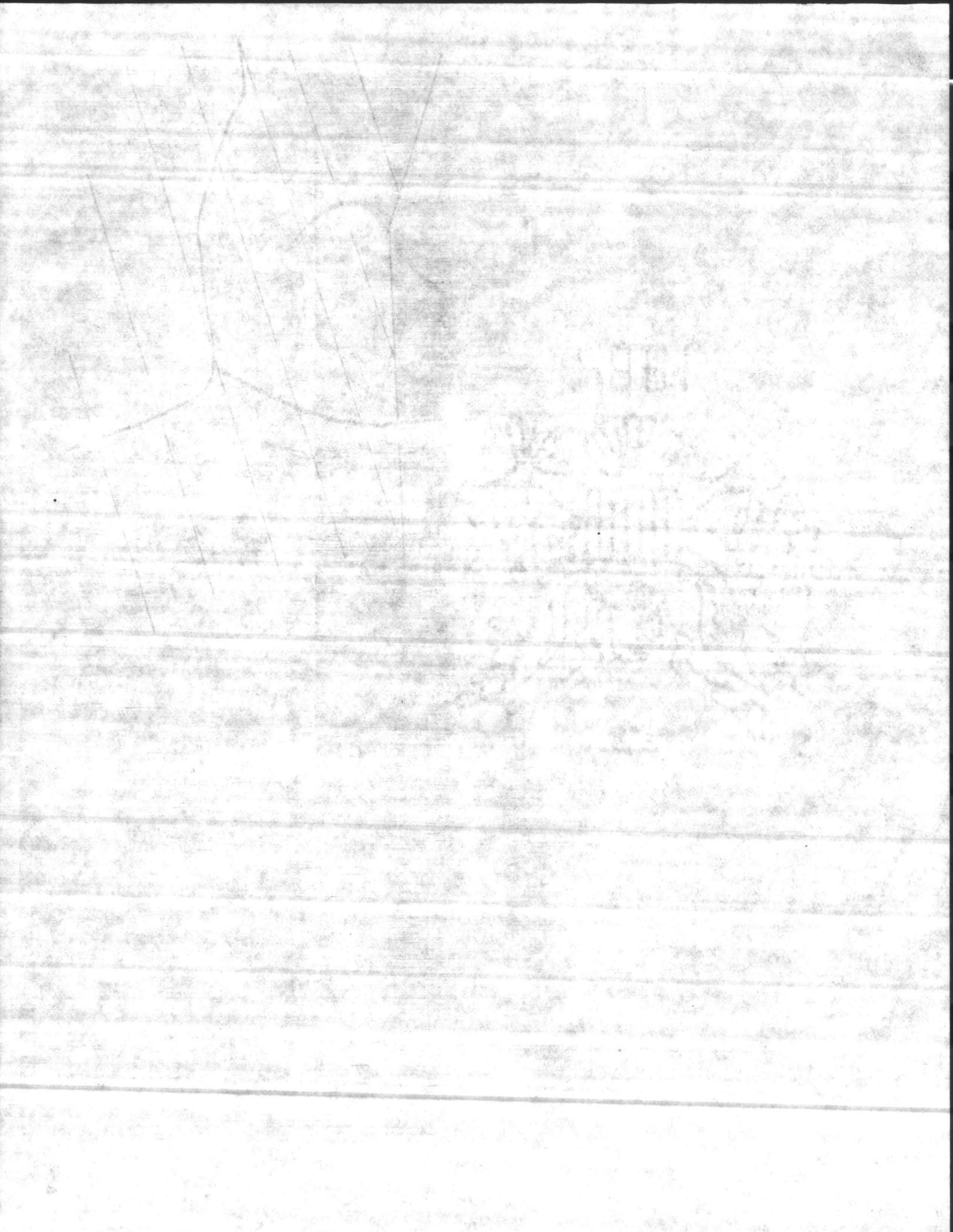
Old Road

CHINA









2-15-83

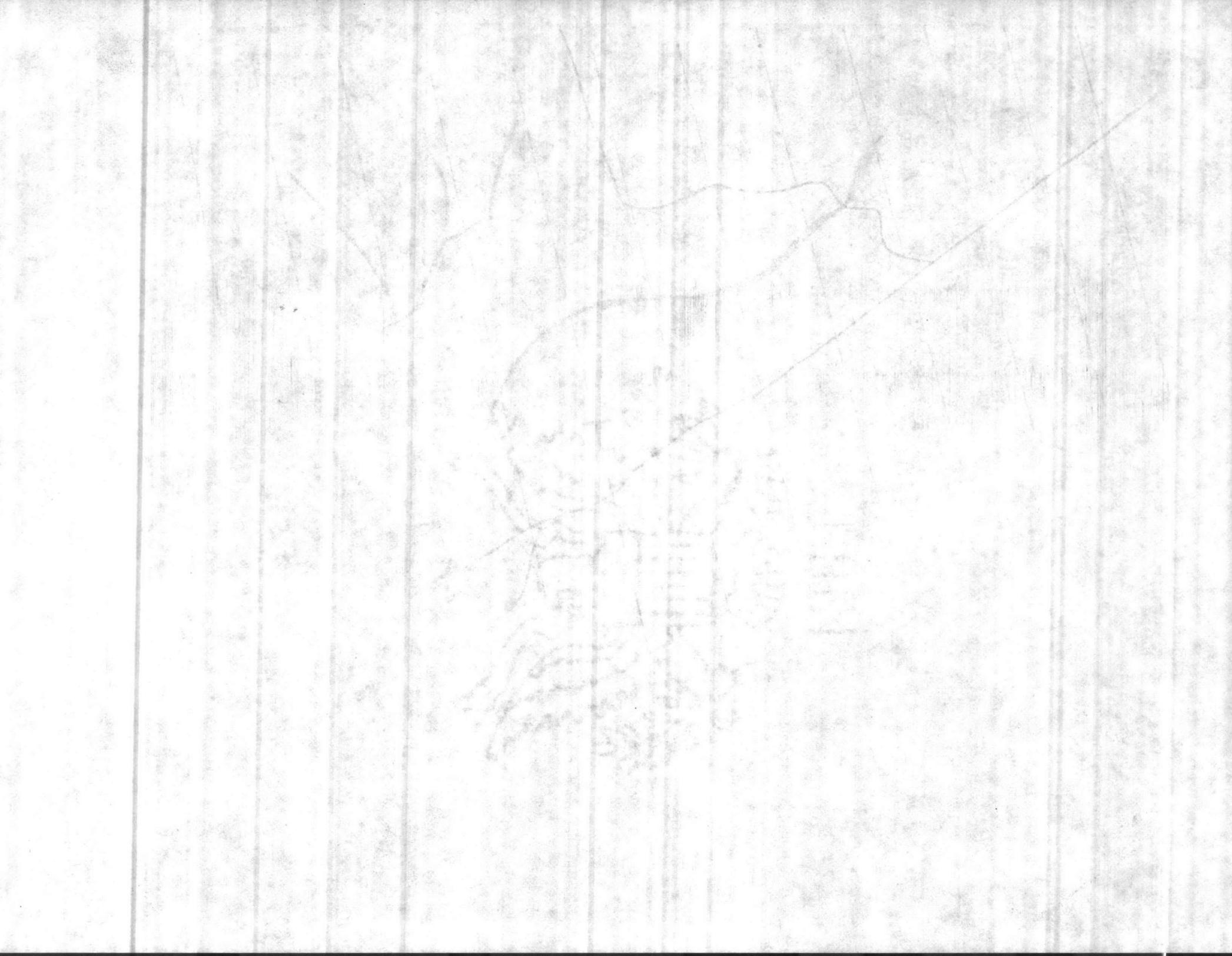
USMC 16

37133

183-56



UNITED STATES GOVERNMENT



70

2-5-8

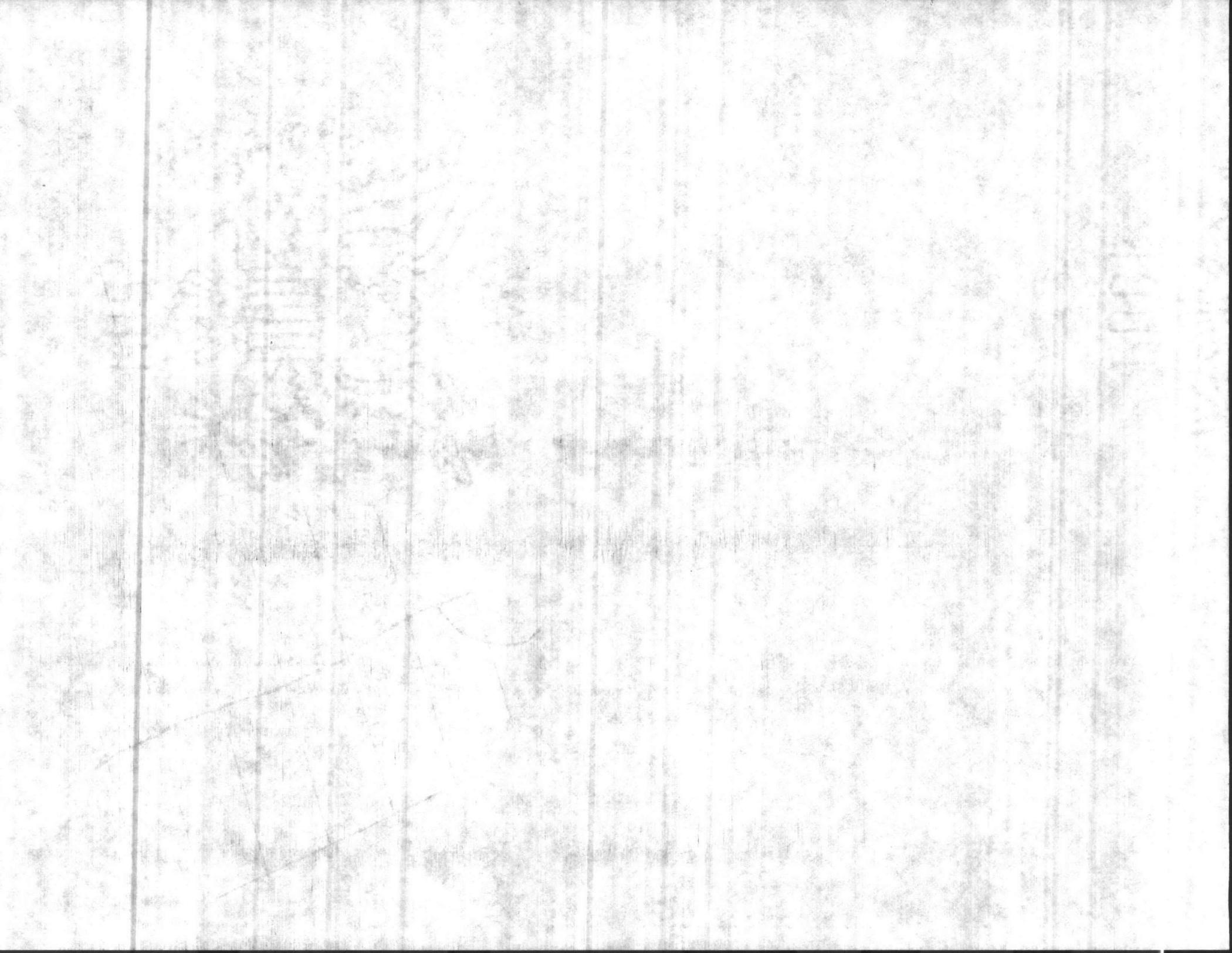
USMC

16

37133

18-79







UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
8027
RCTL
18 Jul 84

FIRST ENDORSEMENT on Memorandum for the Record from EOD Officer,
EOD over 8027 dtd 18 Jul 84

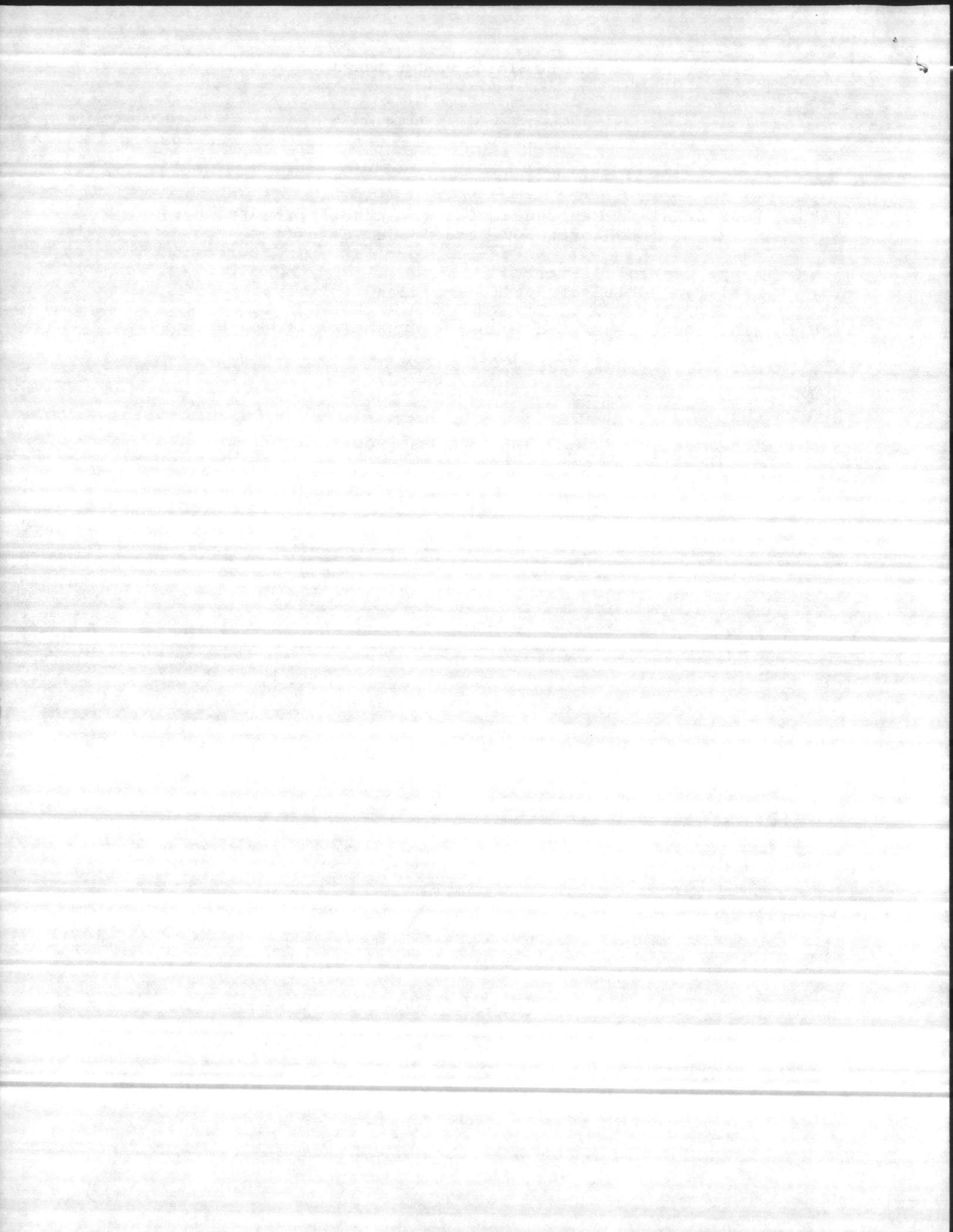
From: Range Control Officer

To: Assistant Chief of Staff, Training

Subj: HISTORICAL SUMMARY OF ORDNANCE USED IN K-2 IMPACT AREA

1. Forwarded as requested.

T. B. HOWARD





UNITED STATES MARINE CORPS

Range Control

Marine Corps Base

Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

EOD

8027

18 July 1984

MEMORANDUM FOR THE RECORD

From: Explosive Ordnance Disposal Officer
To: Assistant Chief of Staff, Training
Via: Range Control Officer

Subj: Historical Summary of Ordnance Used in K-2 Impact Area

1. A review of all available historical data, both written and in corporate memory, on dud producing ordnance used in the K-2 Impact Area and associated ranges has been conducted. The results are as follows:

a. K-2. No known written records are available. EOD surveys have found evidence of:

1) 100 lb. to 500 lb. old style general purpose high explosive bombs dating from the 1950s.

2) 2.75" rockets.

3) 20mm HEI.

4) 250 lb. water-sand filled practice bombs.

5) 3.5" rockets.

6) 60mm mortars.

7) 81mm mortars.

8) 4.2" mortars.

9) 57mm HE.

10) 75mm HE.

11) 105mm projectiles.

12) 155mm projectiles.

13) 8" projectiles.

14) Dragon missile.

b. K-211.

1) 40mm HE

2) 40mm practice.

3) 40mm illumination.

4) 40mm CS.

c. K-301.

1) 66mm LAAW.

2) 66mm flame.

3) 3.5" HEAT.

4) 3.5" practice.

5) 3.5" WP.

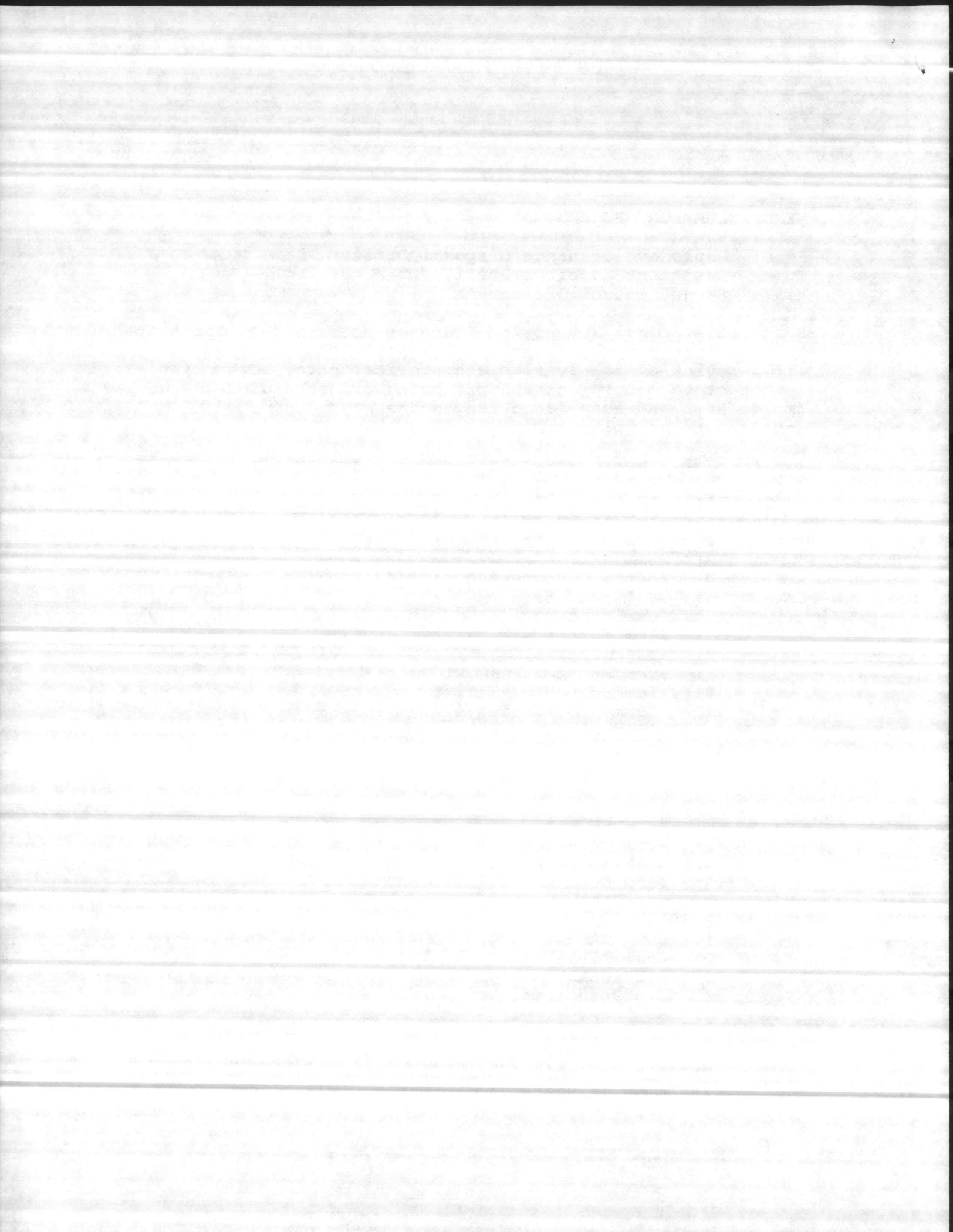
6) 40mm HE.

7) 40mm practice.

8) 40mm illumination.

9) 81mm illumination.

10) 35mm Sub-Cal LAAW.



d. K-303.

- 1) 60mm mortars.
- 2) 81mm montars.
- 3) 3.5" HEAT.
- 4) 3.5" WP.
- 5) 3.5" practice.
- 6) 40mm HE.
- 7) 40mm practice.
- 8) 40mm illumination.
- 9) 40mm CS.
- 10) Dragon missile.

e. K-305.

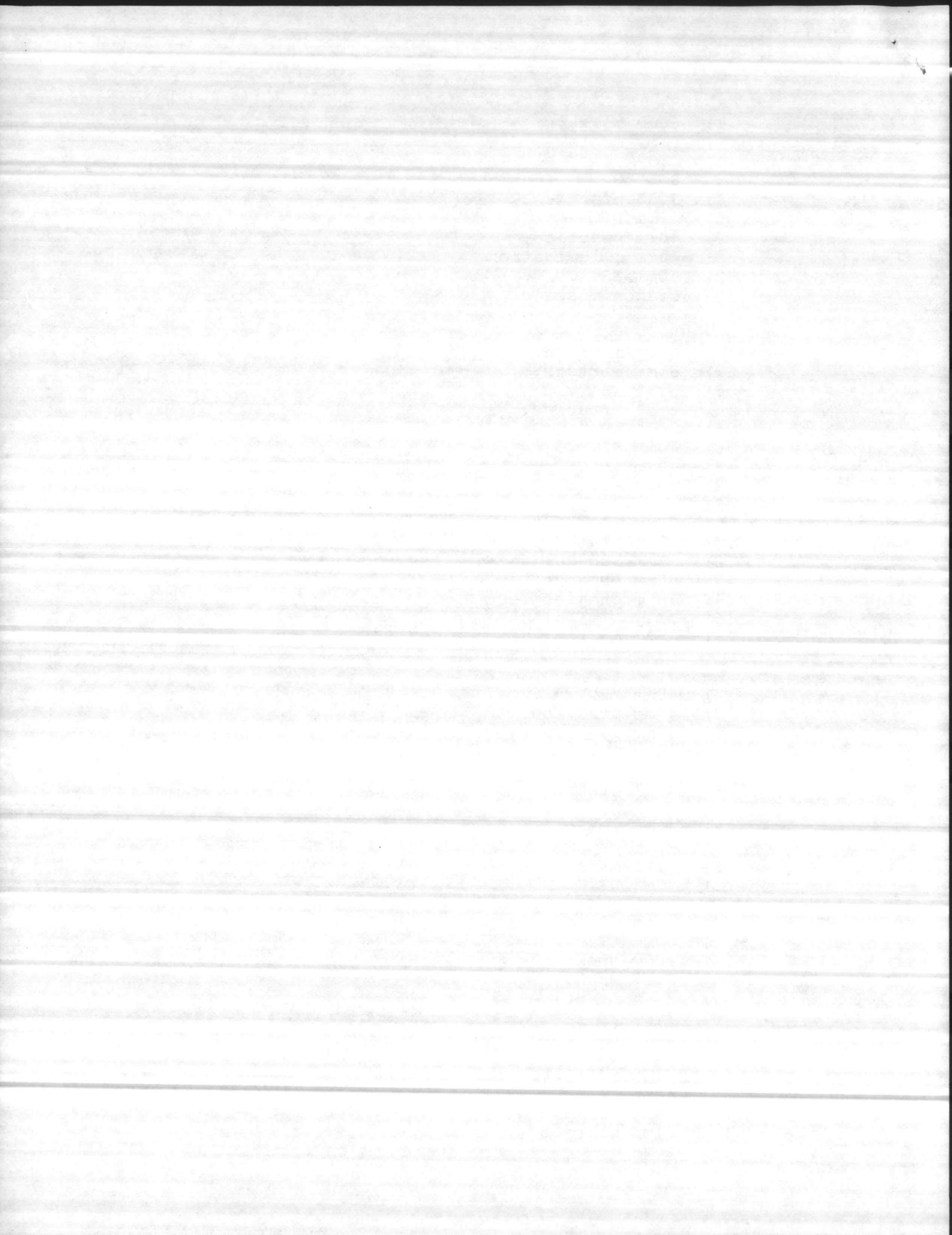
- 1) 60mm mortars.
- 2) 81mm mortars.
- 3) 3.5" HEAT.
- 4) 3.5" practice.
- 5) 3.5" WP.
- 6) 40mm HE.
- 7) 40mm practice.
- 8) 40mm illumination.
- 9) 40mm CS.
- 10) 66mm LAAW.
- 11) 66mm flame.
- 12) 35mm Sub-Cal LAAW.
- 13) 57mm projectiles.
- 14) 75mm projectiles.
- 15) Dragon missiles.
- 16) 4.2" mortars.

f. K-323.

- 1) 40mm HE.
- 2) 40mm practice.
- 3) 40mm illumination.
- 4) 40mm CS.
- 5) 3.5" HEAT.
- 6) 3.5" practice.
- 7) 3.5" WP.
- 8) 40mm smoke.

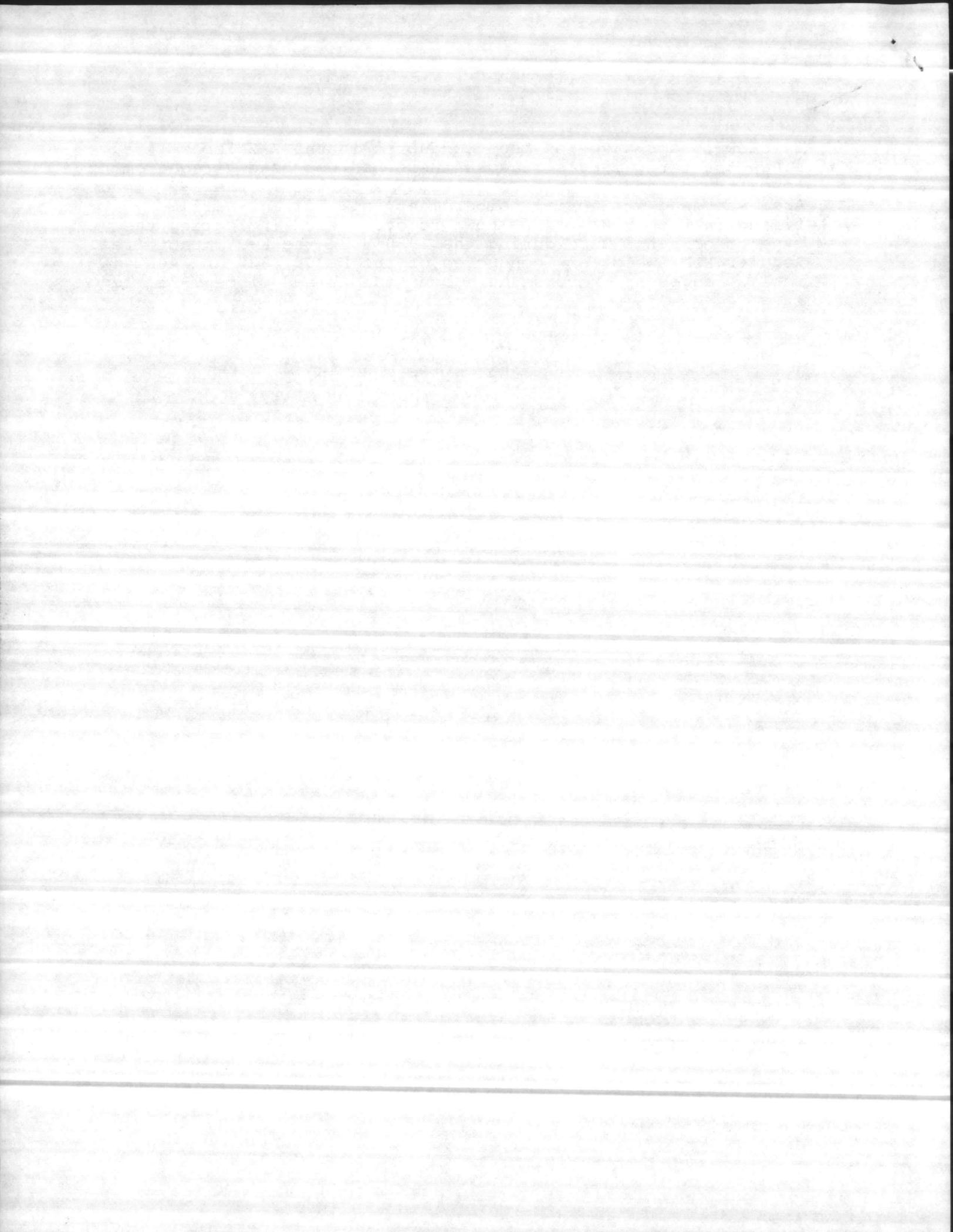
g. K-325.

- 1) 40mm HE.
- 2) 40mm practice.
- 3) 40mm illumination.
- 4) 40mm CS.
- 5) 40mm smoke.
- 6) 3.5" HEAT.
- 7) 3.5" practice.
- 8) 3.5" WP.
- 9) 35mm Sub-Cal LAAW.
- 10) 83mm SMAW.
- 11) 83mm SMAW practice.
- 12) 66mm LAAW.
- 13) 66mm flame.
- 14) 81mm mortars.
- 15) 2.75" practice rockets.



2. EOD sweeps have not been conducted in the K-2 Impact Area since the early 1960's because there has not been a requirement to maintain the impact area or replace targets. The K-2 Impact Area was used for aerial bombardment and indirect artillery firing in the 1950's. No known records exist indicating the type of ordnance used during the 1950's in the K-2 Impact Area. Regular EOD sweeps are conducted of the K-200, 300 and 400 series ranges and records have been maintained since 1975.

H. B. Redmond Jr
H. B. REDMOND JR. -



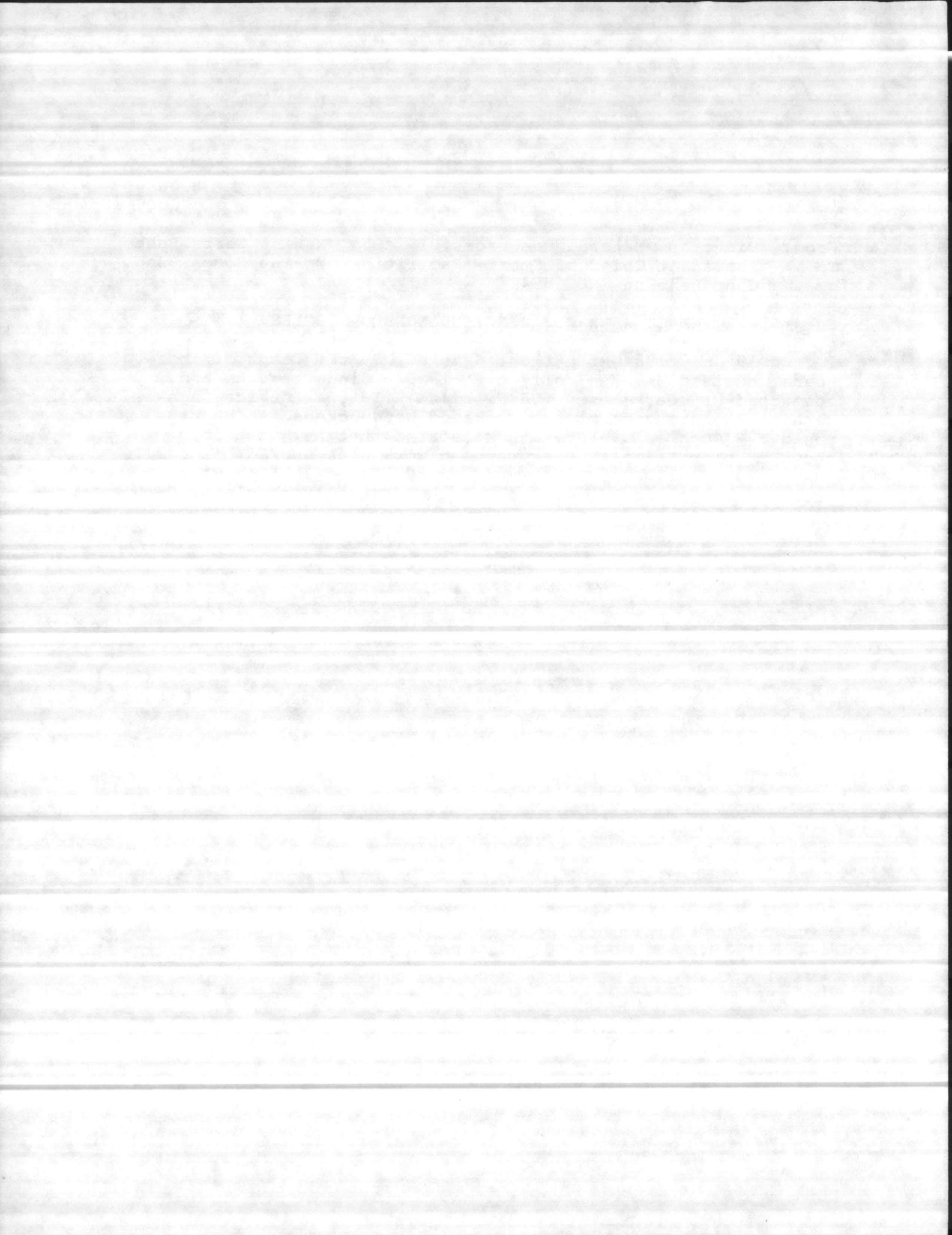
11000/5
NREAD
23 July 1984

From: Director, Natural Resources Division, Marine Corps Base
To: Assistant Chief of Staff, Facilities, Marine Corps Base
Camp Lejeune, NC 28542

Subj: K-2 IMPACT AREA CLEARING/ENDANGERED SPECIES

*we should
him*
1. On 19 July 1984 Mr. Ernest Jahnke, US Army Corps of Engineers, advised Mr. Ken Jolly of this Division, that he had contacted Mr. Gary Henry, US Fish and Wildlife Service, concerning the presence of Red-Cockaded Woodpeckers in the proposed K-2 work area. Mr. Jahnke stated that he had been shown a colony site in the proposed work area during his onsite inspection of 18 July 1984. Mr. Henry stated that he was not aware of the proposed work nor of the partially completed G-10 work. Mr. Jahnke is to copy his correspondence with Camp Lejeune to Mr. Henry for the record.

J. I. WOOTEN





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/5
NREAD
23 Jul 1984

From: Supervisory Ecologist
To: Director, Natural Resource and Environmental Affairs
Division

Subj: PRELIMINARY ENVIRONMENTAL ASSESSMENT FOR LAV CREW TRAINING
IN HOFFMAN FOREST

Ref: (a) Chairman, Environmental Impact Review Board ltr 5420/2
Fac 18 Jul 1984
(b) BO 11000.1B
(c) MCO P11000.8B

1. The Preliminary Environmental Assessment (PEA) provided by reference (a) was prepared following current procedures in reference (b). The description is adequate for initial review. However, a map showing roads to be traveled should be incorporated into environmental impact assessment document. The following comments are provided relative to accuracy of section 5 of the subject PEA.

a. Air Quality: Agree

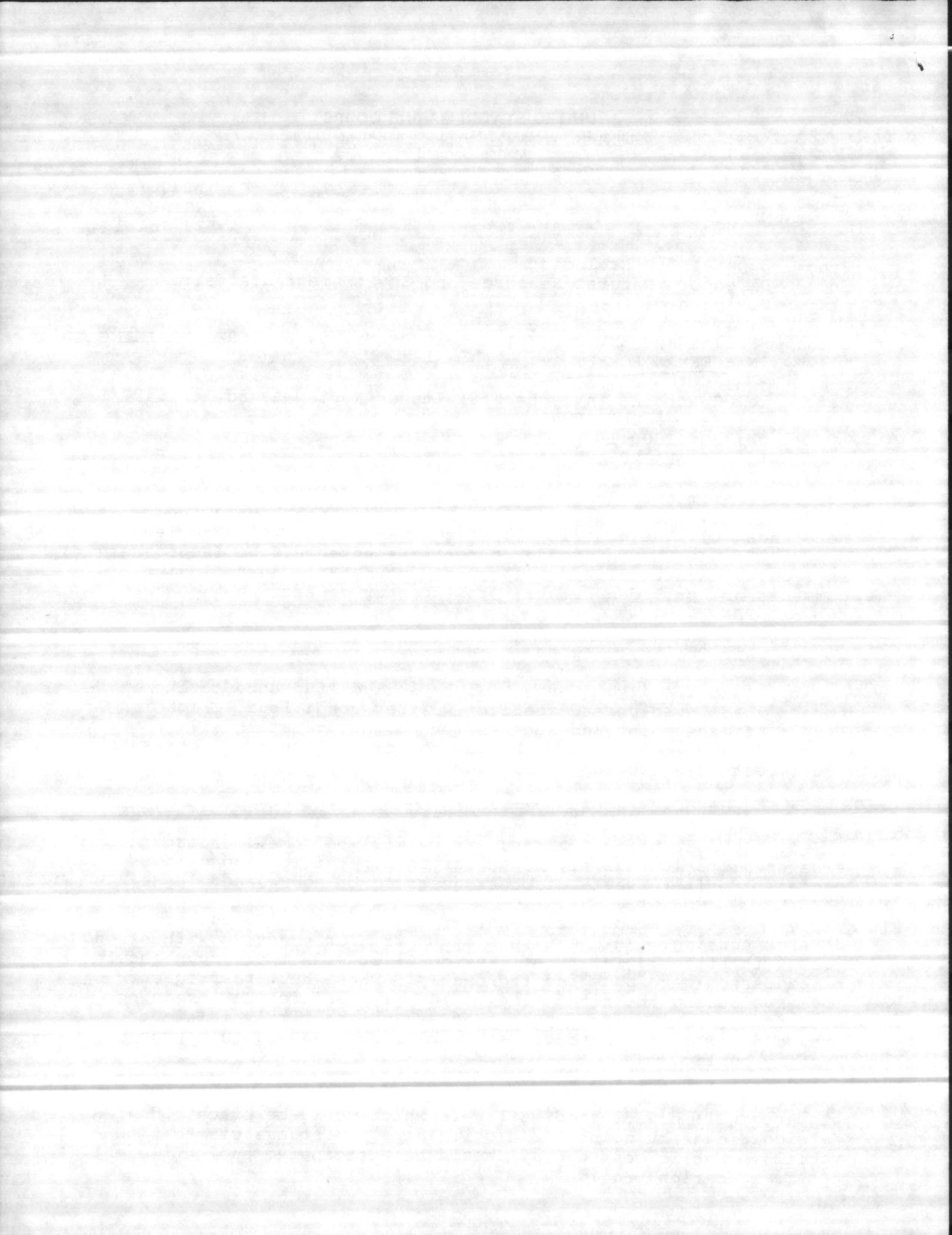
b. Land Quality: There will be soil disturbance to the forest roads even under excellent weather conditions. High levels of management and supervision of the operation will be required. Has potential to be controversial if public access to the forest is affected by road damage.

c. Groundwater Quality: Agree

d. Surface Water Quality: There will be some increase in erosion/siltation (highly dependent on supervision and maintenance). Sanitary waste disposal needs to be addressed.

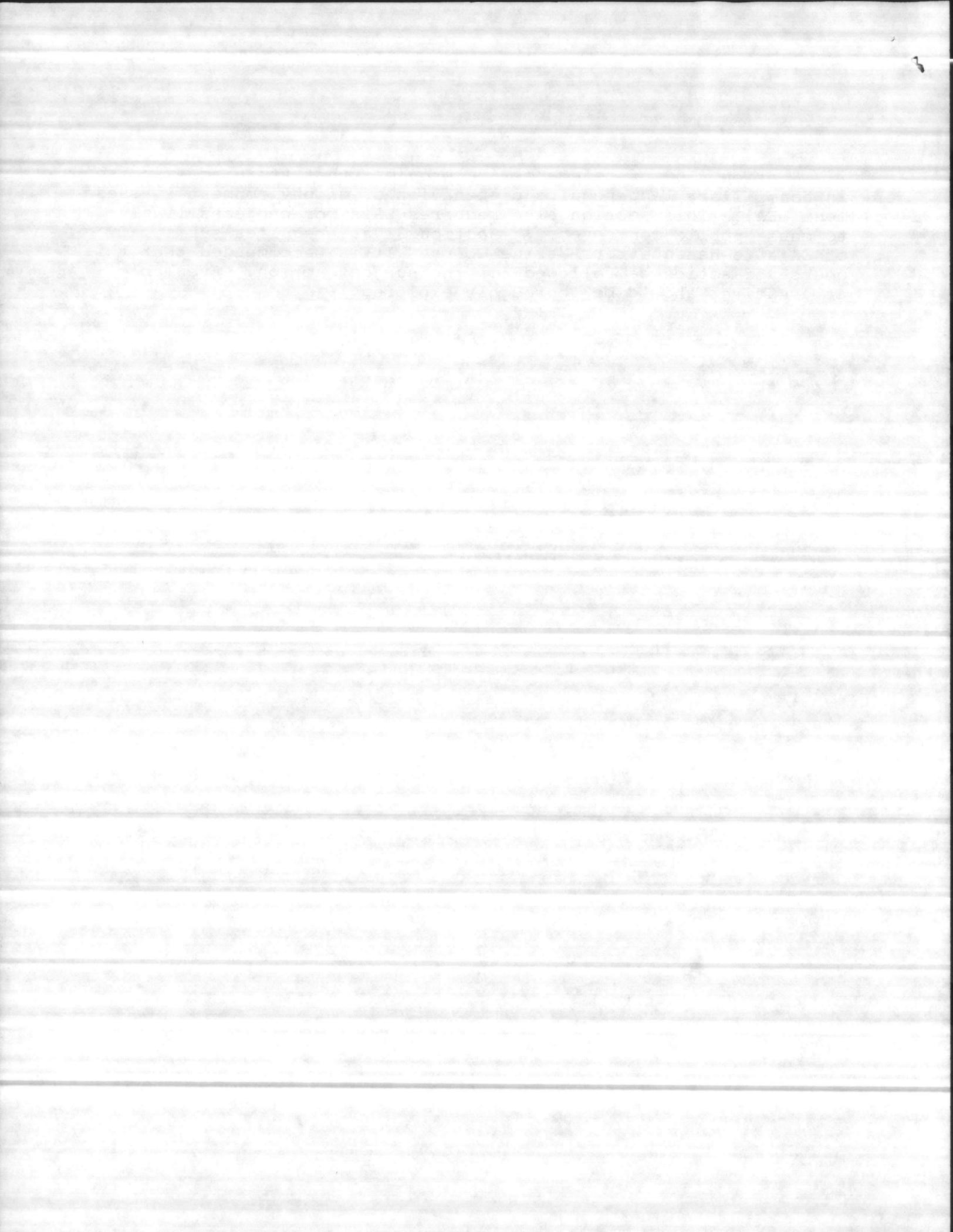
e. Natural Resources: Many areas of Hoffman Forest are used for fox hunting. This citizens group is highly active with strong ties with state legislature. Any conflict with this group should be addressed carefully and thoroughly. These hunters frequent the area during the night time period proposed for LAV training. Road damage could affect public access unless timely maintenance provided. The area involved are public gamelands open to the hunting public.

f. Socio-Economic Considerations: Off base persons and property will be affected at levels which could be perceived as significant by noise traffic impact and dust associated with vehicle. Public controversy should be anticipated and sufficient public education provided.



2. Section 3109 of reference (c) provides that training exercise in nonmilitary land require preparation of an environmental assessment (EA). This section also requires EA's for projects likely to cause public controversy. Section 3105.2 requires submittal of EA's to Headquarters Marine Corps. It is recommended that this course of action be followed for the subject action. Available alternatives should be thoroughly explored.

D. D. SHARPE





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:

11000/2

NREAD

23 July 1984

From: Base Wildlife Manager
To: Director, Natural Resources and Environmental Affairs
Division

Subj: REVIEW OF PEA FOR LAV CREW TRAINING

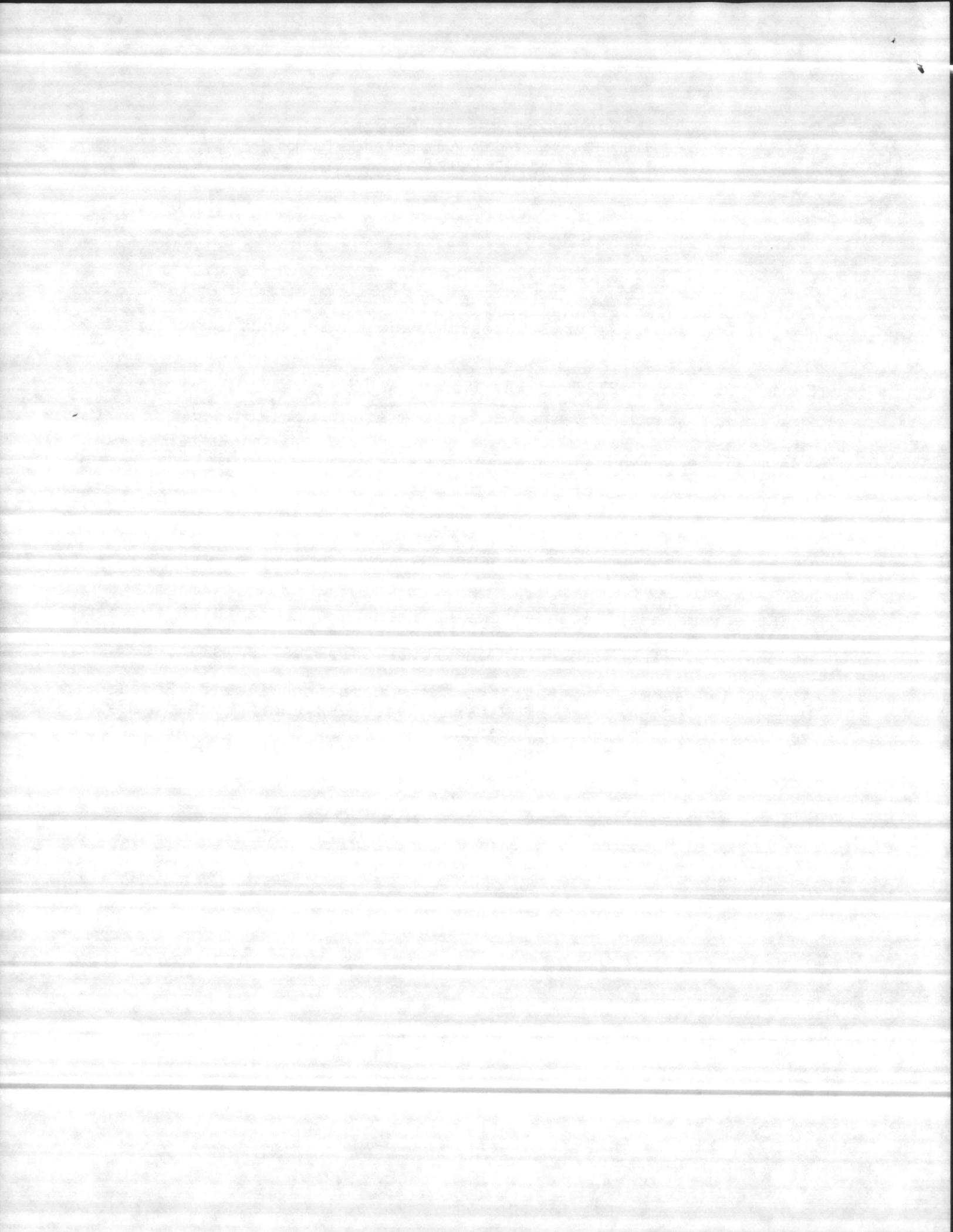
Ref: (a) Chairman, EIRB ltr 542072 FAC of 18 Jul 1984

1. The reference has been reviewed as requested relative to the PEA for LAV Crew Training in the Hoffman Forest area of Onslow County. Hoffman Forest is an area which is extensively used by the public for recreational hunting, fishing and trapping. There is a tremendous amount of deer hunting from October through December each year, and fox hunting throughout the year.

2. Some of the land is leased for deer hunting by private clubs and the remainder includes the Hoffman Game Lands which are set aside for public hunting. Both the deer and fox hunters have strong ties with members of the North Carolina Legislature.

3. It is recommended that the North Carolina Wildlife Resources Commission, Department of Natural Resources and Community Development be contacted concerning the proposed use of LAV Crew Training in Hoffman Forest, since there will likely be conflicts with hunters in particular.

C. D. Peterson
C. D. PETERSON





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:
11000/5
NREAD
23 July 1984

From: Base Wildlife Manager
To: Director, Natural Resources and Environmental Affairs
Division

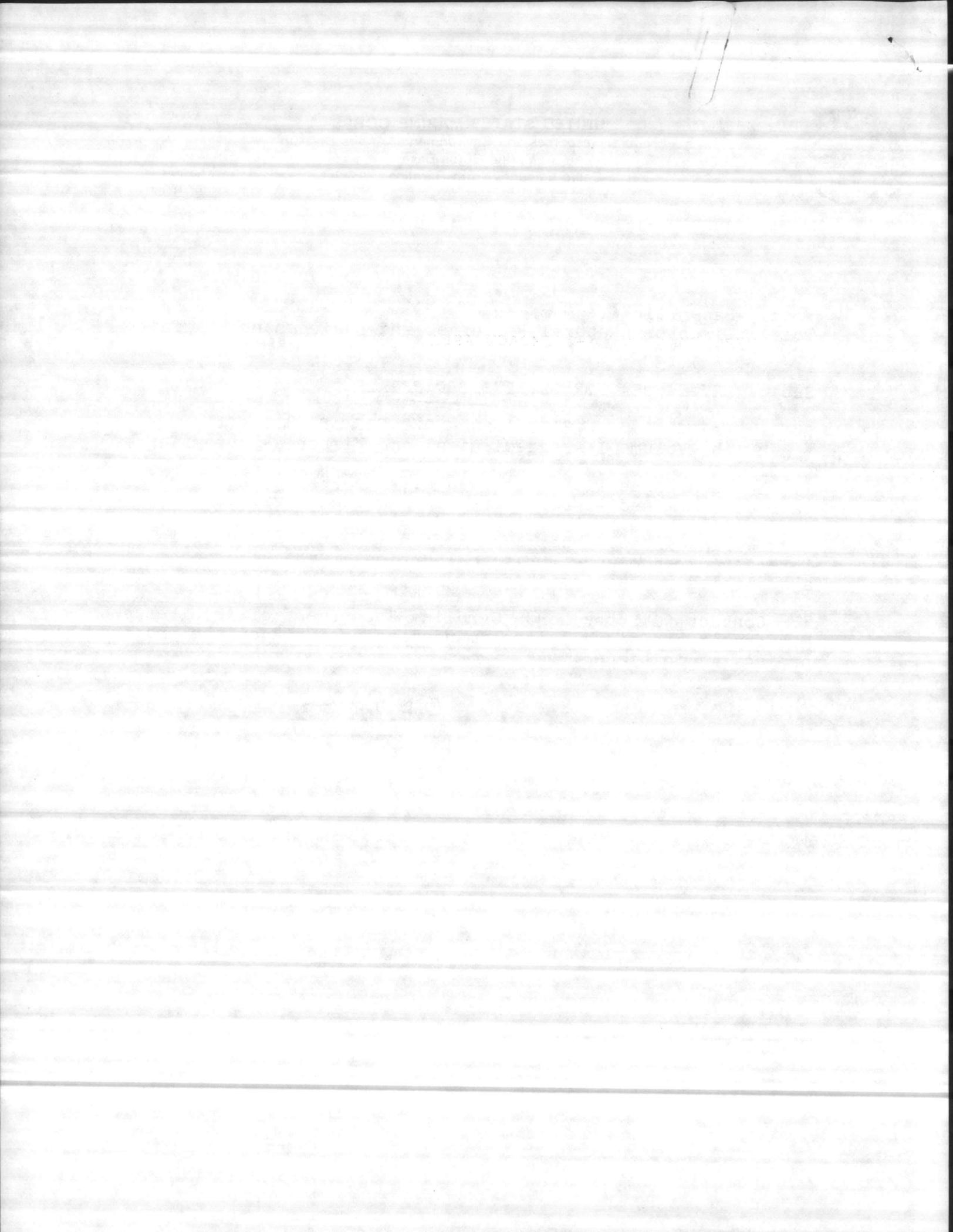
Subj: REVIEW PEA FOR LZ BLUEBIRD REPAIR

Ref: (a) Chairman, EIRB ltr 542072 EAC of 18 Jul 1984
(b) Volume I Archaeological and Historic Survey for MCB

1. In accordance with your request, the PEA for LZ Bluebird repair as contained in reference (a) has been reviewed. There is a possibility that a portion of Site ON^V 138 contained in reference (b) remains intact under the existing AM2 matting material. Therefore it is recommended that the portion of the site be examined by a qualified archaeologist before grading and filling is initiated.

2. Contact with the North Carolina Department of Archives and History is additionally recommended before work on the proposed project is initiated.

C D Peterson
C. D. PETERSON





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:

11000/5
NREAD
23 July 1984

From: Supervisory Ecologist
To: Director, Natural Resources and Environmental Affairs
Division

Subj: PROPOSED PROJECT TO CLEAR AND DRAIN THE K-2 IMPACT AREA

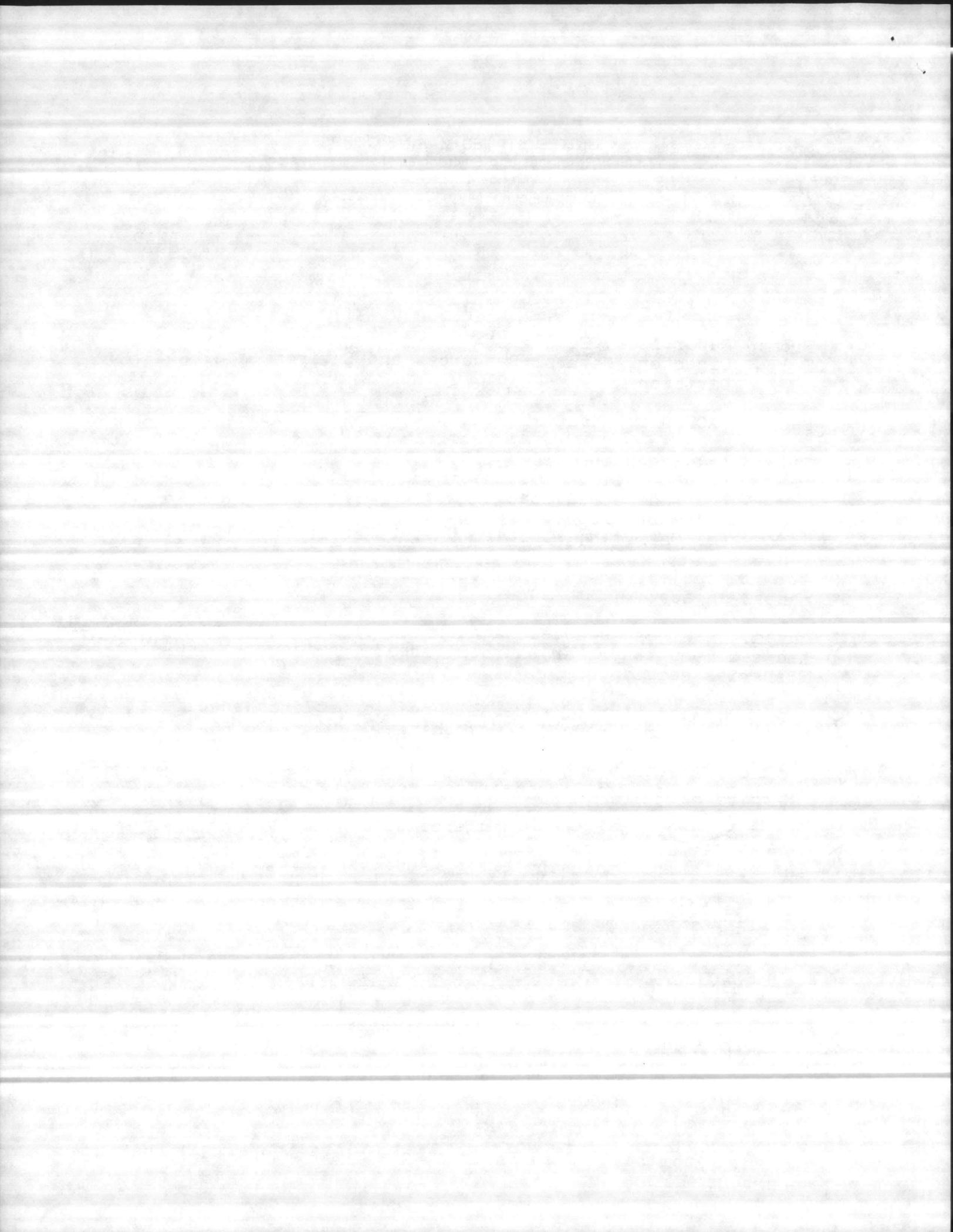
Ref: (a) Executive Order 11990
(b) NCAC Title 15, Chap 4, Sedimentation Control
(c) Endangered Species Act of 1973 as Amended
(d) MCO P11000.8B
(e) Chairman, EIRB ltr 5420/2 FAC of 18 July 1984

1. The subject project has the following significant environmental impact:

- x a. Will cause accelerated rates of discharge of freshwater and sediment to primary nursery areas (as identified by State fisheries regulations).
- x b. Alteration of several types of wetlands specifically protected by reference (a) by channelization/drainage.
- x c. Affects the habitat of the endangered species, Dendrocopos Borealis (Red-Cockaded Woodpecker).
- x d. May affect the endangered species Dionaea Muscipula (Venus Fly Trap); several species of Sarracenia (Pitcher Plants), and alligator mississippiensis (American Alligator).

2. The subject project requires implementation of the following procedural requirements:

- x a. Filing of a Federal Consistency Determination with the North Carolina Office of Coastal Management.
- x b. Submittal of a Sedimentation Control Plan required by reference (b).
- x c. Consultation with United States Fish and Wildlife Service (USFWS) and North Carolina Wildlife Resources Commission as required by reference (c).
- x d. Submittal of an Environmental Assessment (EA) to Headquarters Marine Corps as required by reference (d).

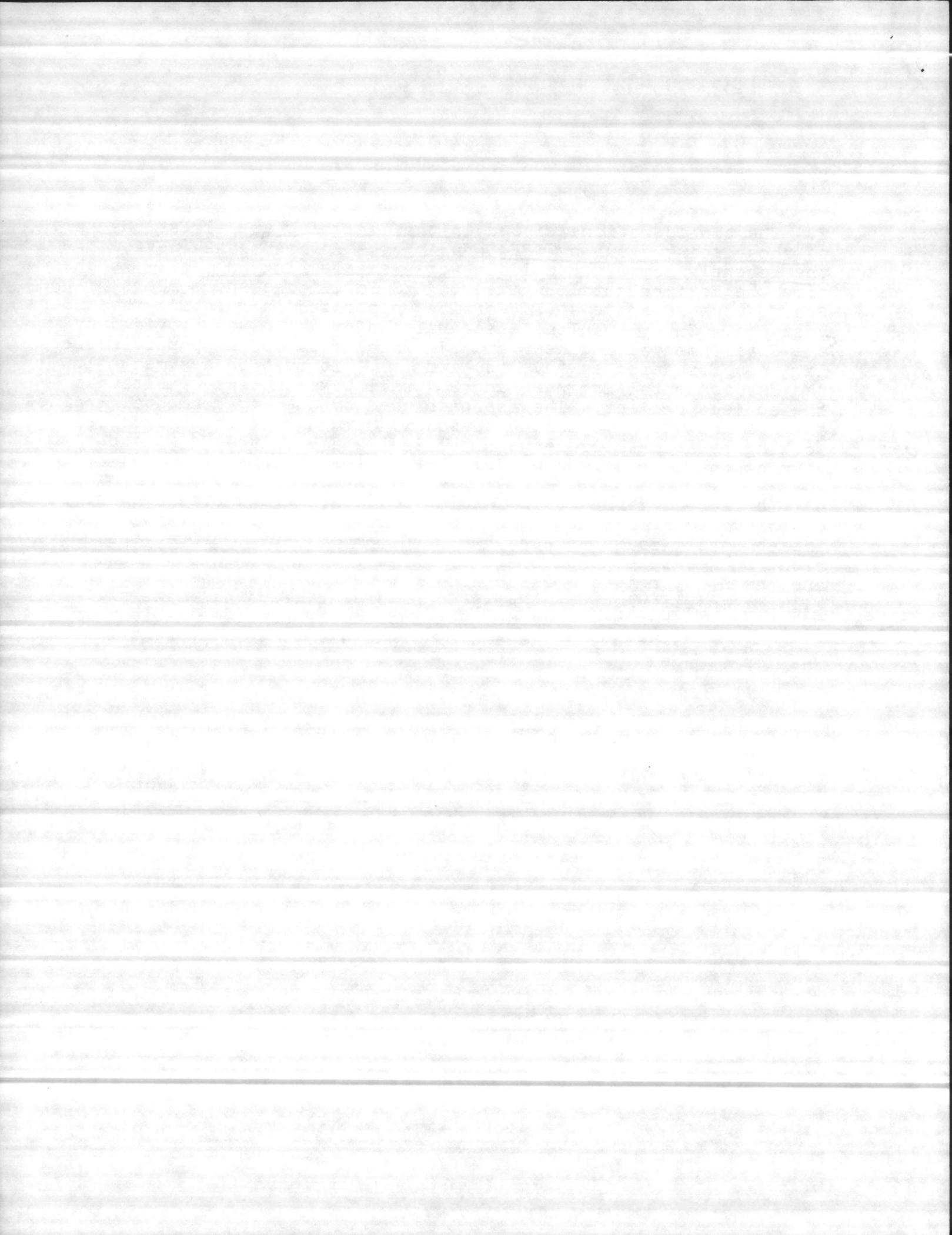


Subj: PROPOSED PROJECT TO CLEAR AND DRAIN THE K-2 IMPACT AREA

3. The considerations listed in the foregoing are almost the same as those pointed out by NREAD during the Environmental review of the recently completed G-10 Impact Area clearing project. At that time the Environmental Engineer, AC/S Facilities and members of the Staff Judge Advocate's (SJA) office cooperated in refuting the NREAD position. In my opinion, inaccurate information was provided by the Environmental Engineer and SJA which resulted in possible violations of references (a), (b) and (c). It must be assumed that the Environmental Engineer and SJA will take the same position on the subject project. The approach used by the Environmental Engineer and SJA has, in my opinion, seriously harmed previously excellent working relationships between the Base and both the USFWS and the Wilmington District, U. S. Army Corps of Engineers.

4. It is recommended that K-2 Impact Clearing and Drainage Project PEA provided by reference (c) not be put before the Environmental Impact Review Board unless the board members are provided thorough background which includes all of NREAD's comments on both the K-2 and the G-10 project. The Board should also be advised that the Wilmington District U. S. Army Corps of Engineers has made the USFWS aware that the areas of Red-Cockaded Woodpecker habitat in the G-10 have been cleared and that habitat is also present in the K-2 Impact Area.

D. D. SHARPE





UNITED STATES MARINE CORPS
 Natural Resources and Environmental Affairs Division
 Marine Corps Base
 Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:
 11015/1A
 NREAD
 23 July 1984

From: Base Wildlife Manager
 To: Director, Natural Resources and Environmental Affairs
 Division
 Subj: Clearing K-2 Impact Area

Ref: (a) Range Control Officer ltr 11000 EOD of 11 July 1984
 (b) Section 7 of the Endangered Species Act of 1973

Encl: (1) North Carolina Fisheries' Regulations

*not being
cleared*

1. The amended preliminary environmental assessment contained in reference (a) has been reviewed as requested. Five previously unknown active cavity trees of the endangered Red-Cockaded Woodpecker have been located in the area which is proposed for clearing according to the Environmental Engineer. This apparently indicates that there is at least one colony of woodpeckers in the area. Any major clearing operation in this area would create a "may affect" situation requiring consultation with the U. S. Fish and Wildlife Service in accordance with reference (b).

X

*not
being
cleared*

2. The endangered American Alligator occurs along Whitehurst Creek which is in the area proposed for clearing. The alligator nests above the tidal zone well within the fire-line along the creek. Clearing the area would also create a "may affect" situation relative to the occurrence of alligators thereby requiring consultation.

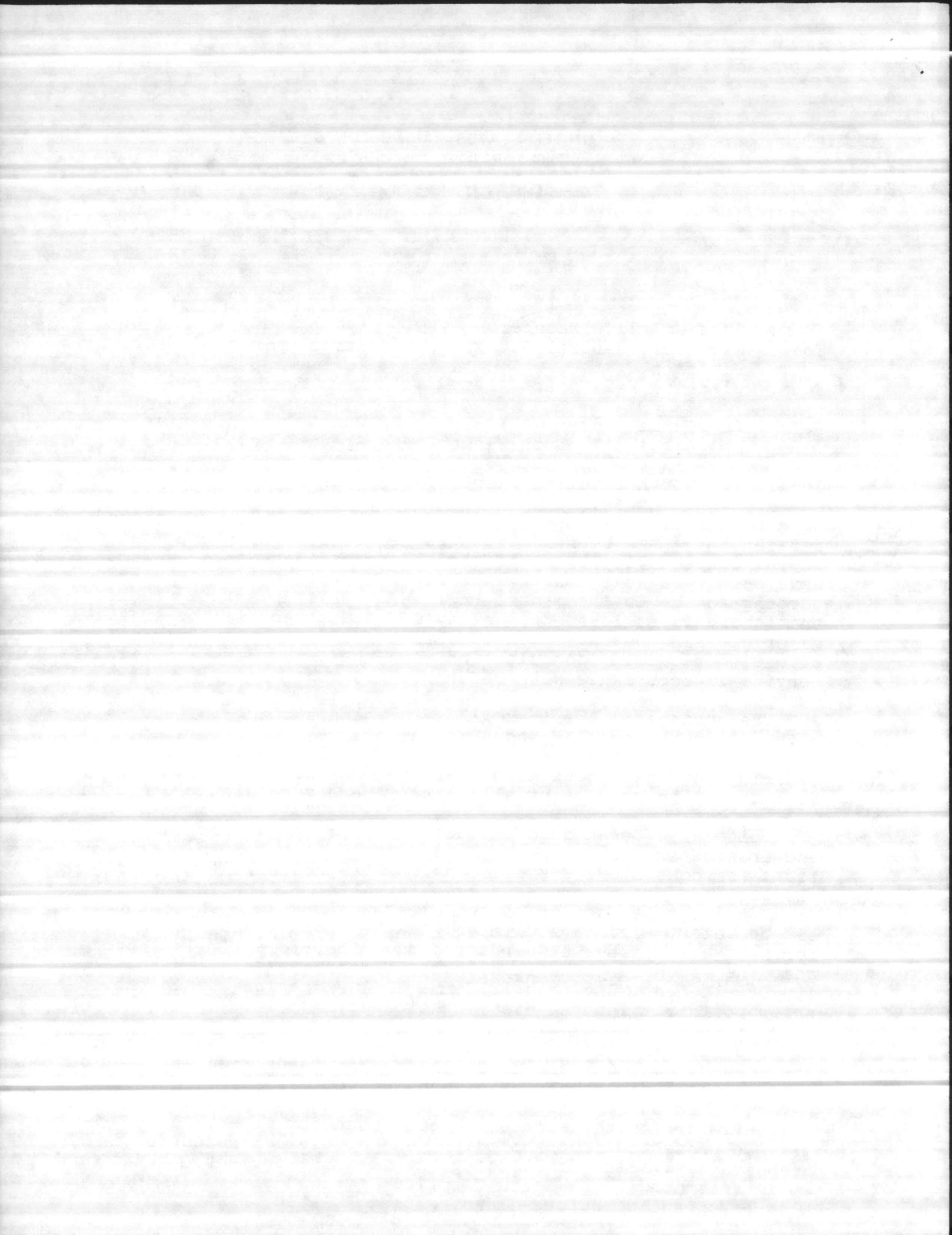
*not
significant*

3. Whitehurst Creek is a protected nursery area for young finfish and crustaceans as defined in the North Carolina Fisheries Regulations for coastal waters as contained in enclosure (1). Draining the wetlands of the area proposed for clearing into Whitehurst Creek and channelization of the creek would change the salinity of the water. This would impact on the productivity of the creek for saltwater fishes and crustaceans. Therefore, it is recommended that the North Carolina Department of Natural Resources and Community Development, Division of Commercial Fisheries, be contacted prior to initiating the clearing project.

X

4. The shorelines along Whitehurst Creek and New River proper where the proposed clearing is planned is identified as a sensitive area in the 1981 Archaeological and Historical Survey for Camp Lejeune. It is recommended that Dr. Thomas Loftfield, principal investigator for the survey, be contacted for expert advice relative to protecting archaeological and historical resources in the proposed area before initiating the clearing project. Additionally, it is recommended the North Carolina Division of Archives and History also be consulted before clearing is initiated.

C. D. Peterson
 C. D. PETERSON



.1403 MAPS AND MARKING

(a) The division of marine fisheries shall prepare detailed maps or charts showing all primary nursery areas. Such maps or charts will be available for inspection at the division of marine fisheries office, Morehead City.

(b) As a courtesy to the fishing public the division of marine fisheries will mark the downstream boundary of each primary nursery area with signs insofar as may be practicable. No unauthorized removal or relocation of any such marker or sign shall have the effect of changing the classification of any body of water or portion thereof, nor shall any such unauthorized removal or relocation or the absence of any marker or sign affect the applicability of any regulation pertaining to any such body of water or portion thereof.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977.

.1404 VIOLATION TO USE SPECIFIC NETS AND DREDGES

It shall be unlawful to use or attempt to use any trawl net, long haul seine, swipe net, or dredge, for the purpose of taking any marine fishes in any of the primary nursery areas described in 45 NCAC 3B .1405.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977; Amended Eff. January 1, 1983.

.1405 DESCRIPTIVE BOUNDARIES: PRIMARY NURSERY AREAS

Page 92 3B/.1405

- W; running 219° (M) to a point on the west shore 34° 35' 17" N — 77° 23' 34" W;
- (F) Everette Creek, south of a line beginning at a point on the east shore 34° 34' 13" N — 77° 24' 44" W; running 273° (M) to a point on the west shore 34° 34' 12" N — 77° 24' 49" W;
- (G) Stone's Creek, southwest of a line beginning at a point on the southeast shore 34° 36' 36" N — 77° 26' 51" W; running 301° (M) to a point on the northwest shore 34° 36' 37" N — 77° 26' 52" W;
- (H) Muddy Creek, north of a line beginning at a point on the west shore 34° 36' 52" N — 77° 25' 38" W; running 087° (M) to a point on the east shore 34° 36' 52" N — 77° 25' 37" W;
- (I) Mill Creek, north of a line beginning at a point on the west shore 34° 37' 13" N — 77° 25' 44" W; running 109° (M) to a point on the east shore 34° 37' 11" N — 77° 25' 37" W;
- (J) Whitehurst Creek, west and south of a line beginning at a point on the south shore 34° 38' 04" N — 77° 22' 37" W; running 280° (M) to a point on the north shore 34° 38' 04" N — 77° 22' 28" W;
- (K) Town Creek, west of a line beginning at a point on the south shore 34° 39' 36" N — 77° 23' 06" W; running 007° (M) to a point on the north shore 34° 39' 37" N — 77° 23' 06" W;
- (L) Lewis Creek, southwest of a line beginning at a point on the southeast shore 34° 40' 54" N — 77° 24' 30" W; running 301° (M) to a point on the northwest shore 34° 40' 55" N — 77° 24' 32" W;
- (M) Northeast Creek, east of a line beginning at a point on the south shore 34° 43' 23" N — 77° 23' 35" W; running 316° (M) to a point at the mouth of Scale's Creek 34° 43' 46" N — 77° 24' 06" W;
- (N) Southwest Creek, southwest of a line beginning at a point on the east shore 34° 41' 30" N — 77° 25' 20" W; running 328° (M) to a point on the north shore 34° 41' 52" N — 77° 25' 40" W;
- (O) Upper New River, north of a line beginning at a point on Mumford Point 34° 43' 17" N — 77° 25' 00" W; running 271° (M) through beacon #53 to a point on the west shore 34° 43' 14" N — 77° 25' 49" W;
- (4) Chadwick Bay, all waters between a line beginning at

3B/.1402..1405 Pa

.1402 NURSERY AREAS DEFINED

Nursery areas are defined as those areas, in which factors such as food, cover, bottom type, salinity, temperature and other factors, young finfish and crustaceans spend a major portion of their initial growing season:

- (1) Primary nursery areas are those areas in the estuarine system where initial post-larval development takes place. These areas are usually located in the uppermost section of a system where populations are uniformly very young juveniles.
- (2) Secondary nursery areas are those areas in the estuarine system where later juvenile development takes place. Populations are usually composed of developing adults of similar size which have migrated from an upstream primary nursery area to the secondary nursery area located in the middle portion of the estuarine system.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977.

3B/.1405 Page

(C) Unnamed creek, east of a line beginning at a point on the south shore 34° 41' 00" N — 77° 09' 42" W; running 337° (M) to a point on the north shore 34° 41' 08" N — 77° 09' 44" W;

(7) Bear Creek, west of Willis Landing.

(m) New River Area

(1) Salliers Bay area, all waters north and northwest of the IWW beginning at a point on Cedar Point 34° 08' N — 77° 20' 26" W to beacon #58 34° 37' 56" N — 77° 12' 20" W including Howard Bay, Mile Hammock, Salliers Bay, and Freeman Creek;

(2) New River Inlet area (including Hellgate Creek, Ward's Channel), all waters south of the IWW beginning at a point on beacon #65 34° 32' 39" N — 77° 19' 03" W to beacon #66 34° 31' 03" N — 77° 22' 18" W, excluding the main channel of the New River Inlet Channel;

(3) New River:

(A) Trap's Bay, northeast of a line beginning at a point on the east shore 34° 33' 47" N — 77° 20' 26" W running 317° (M) to a point on the west shore 34° 34' 10" N — 77° 20' 57" W;

(B) Courthouse Bay:

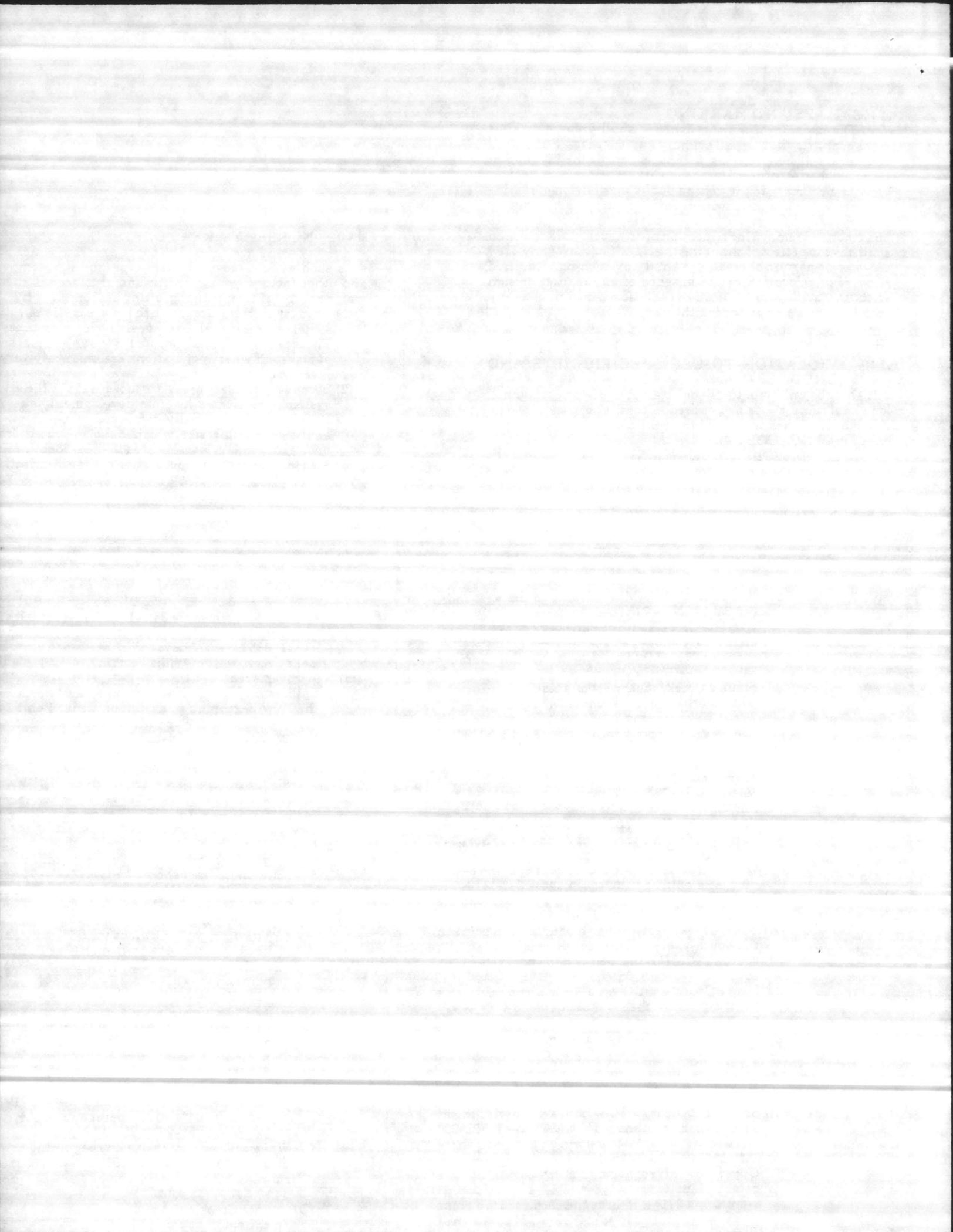
(i) Tributary of Courthouse Bay, southeast of a line beginning at a point on Harvey's Point 34° 59' N — 77° 22' 23" W; running 066° (M) to a point on the east shore 34° 35' 05" N — 77° 11" W;

(ii) Tributary of Courthouse Bay, northwest of a line beginning at a point on the west shore 34° 35' 05" N — 77° 22' 40" W; running 057° (M) to a point on the east shore 34° 35' 10" N — 77° 31" W;

(iii) Rufus Creek, east of a line beginning at a point on Wilken's Bluff 34° 34' 25" N — 77° 21' 41" W; running 002° (M) to a point on the north shore 34° 34' 34" N — 77° 21' 41" W;

(C) Wheeler Creek, south of a line beginning at a point on Poverty Point 34° 34' 06" N — 77° 23' 00" W running 267° (M) to a point on the west shore 34° 03' N — 77° 23' 23" W;

(D) Fannie Creek, west of a line beginning at a point on the south shore 34° 34' 07" N — 77° 23' 31" W; running 228° (M) to a point on the north shore 34° 34' 07" N — 77° 23' 31" W;





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

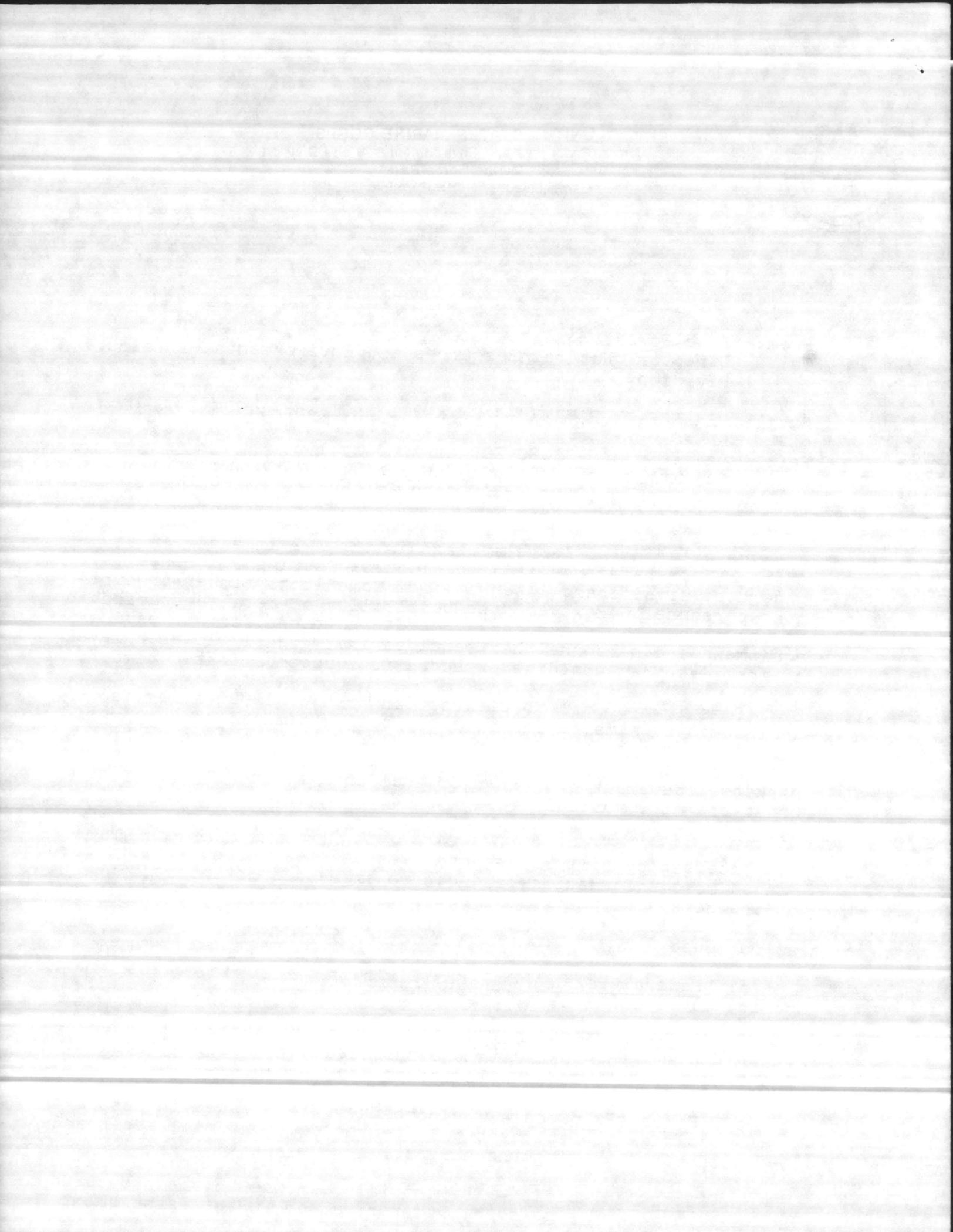
IN REPLY REFER TO:
11000/2
NREAD
24 July 1984

From: Base Forester
To: Director, Natural Resources and Environmental Affairs
Division

Subj: PEA FOR IMPROVEMENTS OF K-2 IMPACT AREA; COMMENTS ON

Ref: (a) EODO ltr 11000 EOD of 11 July 1984
(b) Mtg btwn AC/S FAC; DAC/S FAC; ROICC/PWO; TFO; EODO;
EnvEngr; Dir NREAD, and AsstBase Forester on
17 July 1984

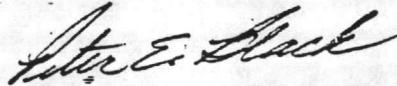
1. The clearing of large acreage in the K-2 Impact Area as addressed in reference (a) and discussed during reference (b) generated significant interest from some local timber procurement personnel. However, the possibility of metal contamination in the timber, and hazardous ground conditions for harvesting equipment and personnel has resulted in a greatly lowered level of interest than would be expected from uncontaminated timber.
2. If maximum effort to clearcut an area of 1,000 acres is undertaken by a major contractor, it is estimated that approximately two months would be needed to harvest the area under the most ideal circumstances. Poor weather, suppressed timber markets, equipment breakdown or accidents at the logging site or at the mill would increase the time required for the completion of the job.
3. Interest by some representatives has been high, while others wanted more information, and others expressed no interest because of the possibility of metal contaminated timber and hazardous ground conditions from unexploded ordnance. Interest is noted as follows:
 - a. Federal Paper Woodlands Division - Official company policy is to avoid metal contaminated timber.
 - b. Squires Timber Company - Procurement personnel indicate that they are interested in the proposed timber salvage provided that primary purchasers will accept the timber.
 - c. Hinson Pulpwood - The company is interested in possible timber salvage operations but is concerned about mill acceptance or quotas interrupting the harvest.
 - d. Georgia Pacific - The initial response to the proposed salvage harvest was guarded; however, after further assessment



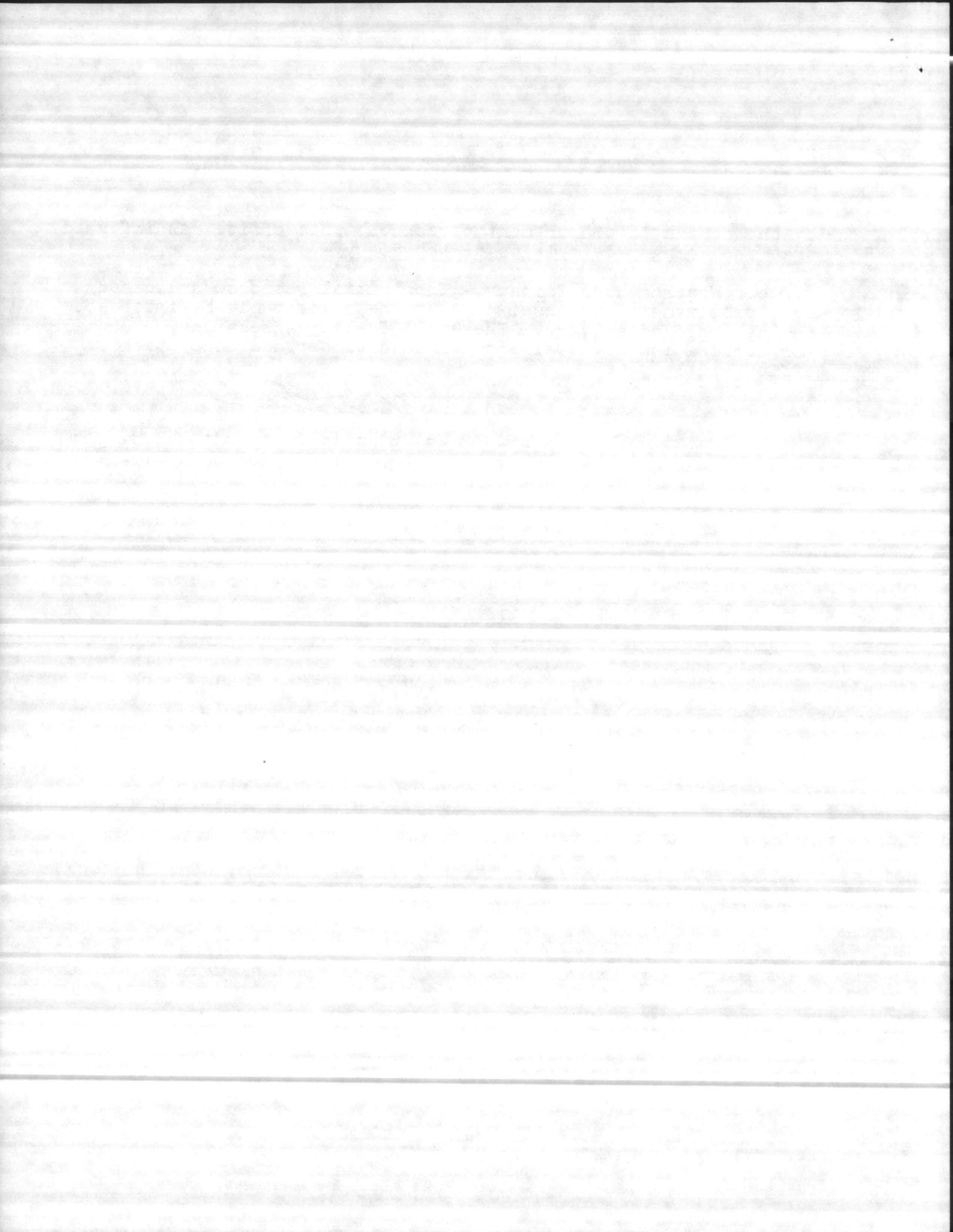
Subj: PEA FOR IMPROVEMENTS OF K-2 IMPACT AREA; COMMENTS ON

by the company's procurement personnel, this office was informed that the company felt it to be too risky.

e. Weyerhaeuser Company - The initial response solicited from procurement personnel is that the company may be interested in the proposed salvage. They will further assess the potential for utilization of metal contaminated timber and contact this office.



P. E. BLACK





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/5
NREAD
23 Jul 1984

From: Supervisory Ecologist
To: Director, Natural Resources and Environmental Division
Subj: CONSTRUCTION OF TRACKED VEHICLE TRAIL FROM RHODES POINT TO
TLZ CARDINAL; PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) OF
Ref: (a) Chairman, EIRB ltr 5420/2 FAC 18 Jul 1984
(b) SJA ltr 5800 CLO 5 Jul 1984
(c) Director, NREAD ltr 5200 NREAD 20 Jun 1984
(d) Director, NREAD ltr 11000/5 NREAD 20 Jun 1984
(e) MCO.P11000.8B

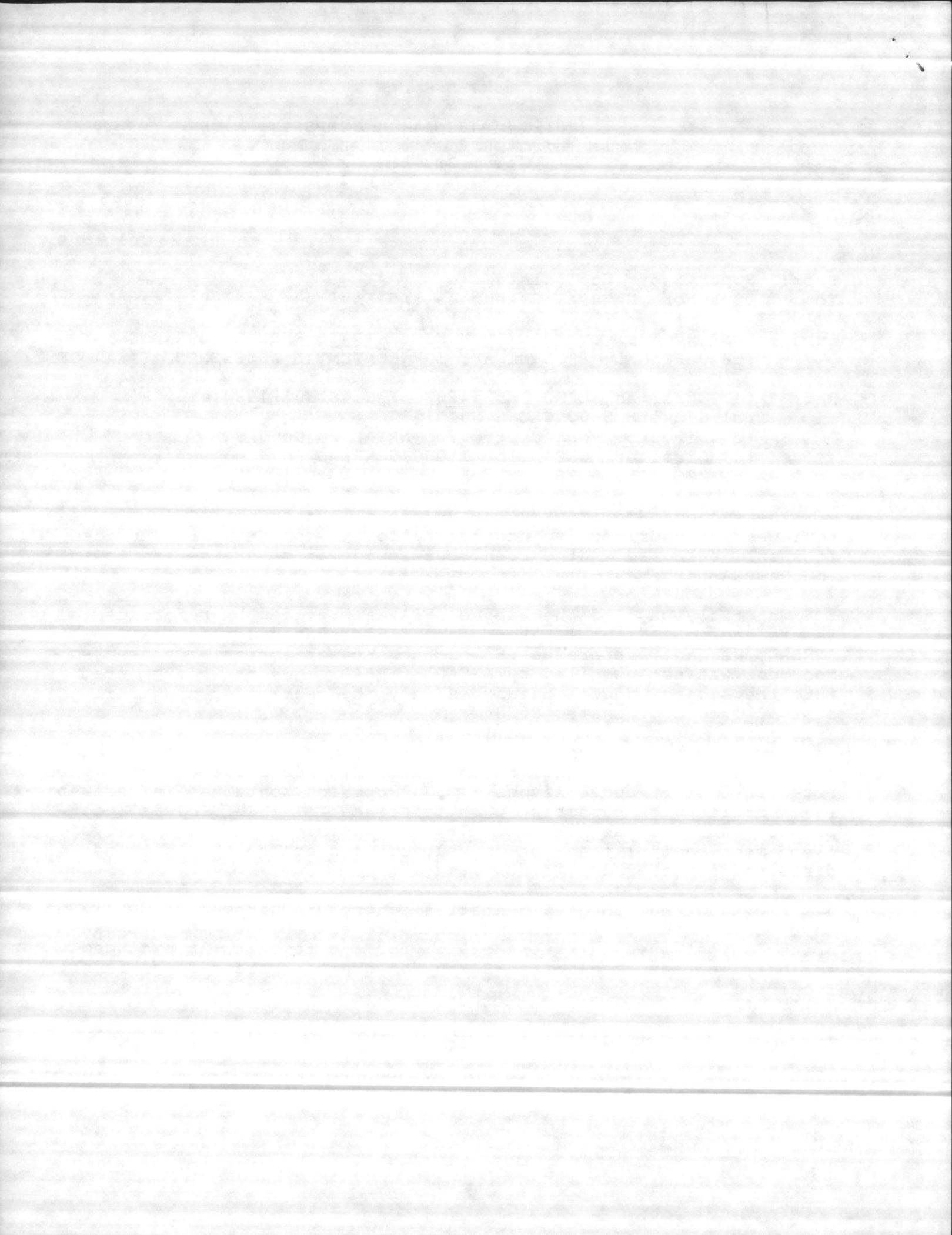
1. The subject Preliminary Environmental Assessment (PEA) has been reviewed per your request and the following comments are provided. It should be noted that current base guidelines were not followed in the PEA format.

2. The title page of the subject PEA as provided by reference (a) is misleading. Natural Resources and Environmental Affairs Division (NREAD) has not prepared a PEA of the subject action. The subject document was not compiled by NREAD. NREAD comments incorporated into the subject document address only the section of new trail east of grid coordinates 802362.

3. Engineering support is recommended to design road bed, associated ditches and culverts, and erosion control structures. It should be noted that Staff Judge Advocate (SJA) opinion contained in reference (b) conflict with paragraph 2 of reference (c). Ref (c) is incorporated into the subject PEA. It is my opinion that submittal of a sediment control plan for the subject project to the State as discussed in reference (d) is required.

4. Provided that the sedimentation control requirements identified in reference (c) are satisfied, this project appears to meet the criteria contained in reference (e) for a categorically excluded action (i.e. submittal of an EA to Headquarters Marine Corps is not required).

D. D. Sharpe
D. D. SHARPE



11G00/4
NREAD
23 July 1984

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 Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

Ref: (a) AC/S FAC memo 5420/2 FAC of 18 July 1984

Encl: (1) Comments on Proposed K-2 Impact Area/Drainage and
Clearing
(2) Comments on Tracked Vehicle Trail
(3) Comments on LAV Operations in Hoffman Forest
(4) Comments on LZ Bluebird Repair Project

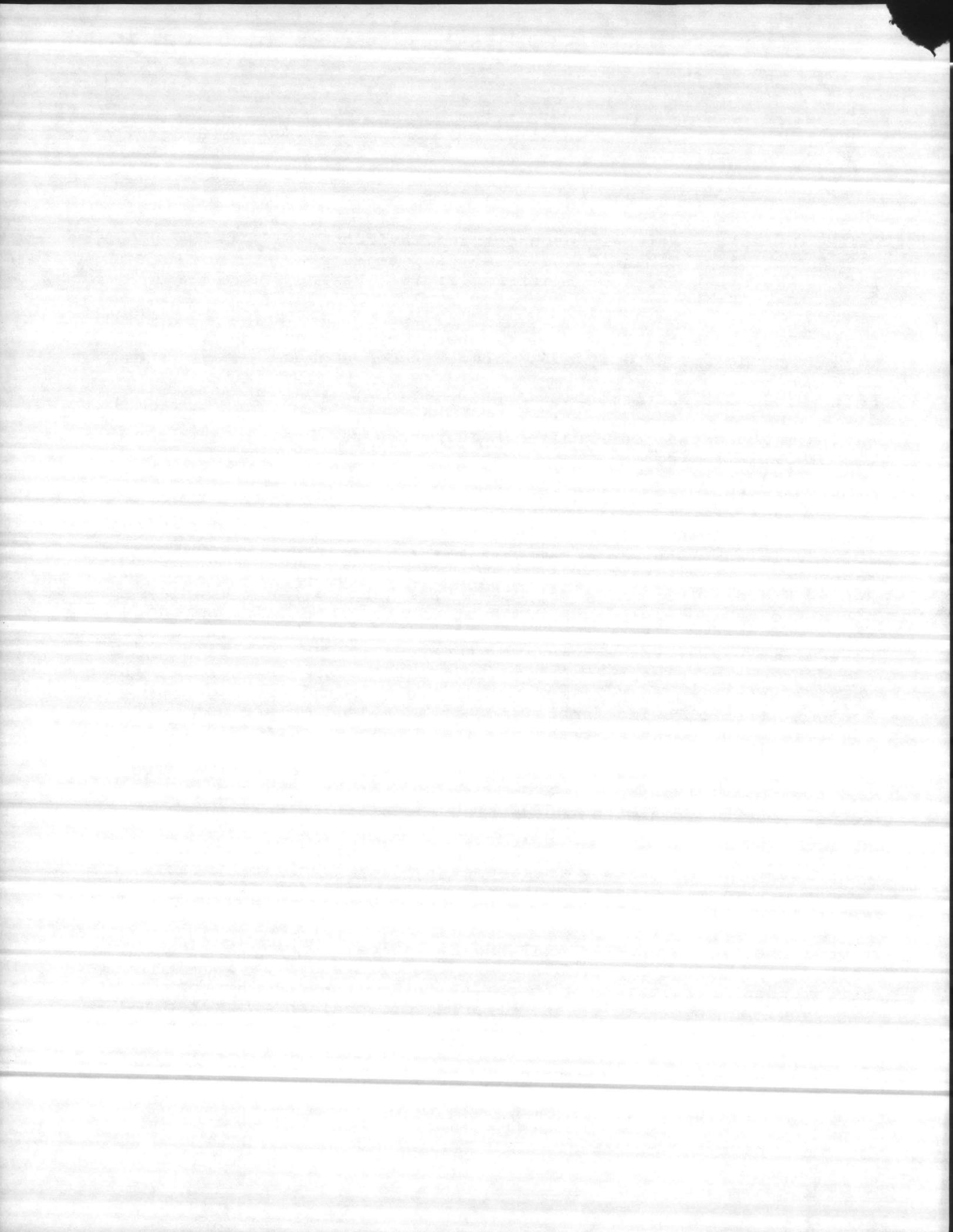
1. Preliminary Environmental Assessments (PEA) furnished and scheduled by the reference for review by the Environmental Impact Review Board (EIRB) on 24 July 1984 have been reviewed and discussed by members of the NREAD staff and comments/recommendations are provided as enclosures (1) - (4). Although there are some minor variations between Mr. Peterson and Mr. Sharpe's comments our conclusion relative to the PEA's are essentially the same. Pertaining to K-2 Impact Area Clearing and Drainage Project, the following issues are not addressed or are not adequately addressed or there are inaccurate statements, i.e.:

a. There are endangered species (Red-Cockaded Woodpeckers and American Alligators) in the proposed project area requiring formal consultation with the US Fish and Wildlife Service.

b. Whitehurst Creek and Mill Creek are classified by state as primary nursery area. These areas will probably be impacted by the clearing and drainage of K-2 due to accelerated fresh-water flow.

c. The Base Archaeological and Historical Survey of 1981 showed part of the K-2 area as being sensitive and it is recommended consultation with the state Archives and History personnel be completed before clearing and drainage work begins.

d. Drainage of K-2 area wetlands requires review by the Army Corps of Engineers before work begins.



Subj: Environmental Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

e. File a Federal Consistency Statement with the NC Office of Coastal Management.

f. Submittal of a sedimentation control plan to the state prior to beginning the work in the K-2.

g. In my opinion, outside agencies may consider the K-2 project a major federal action because of impacts on endangered species, wetlands, primary nursery areas and archaeological and historical resources. In my opinion an Environmental Assessment (EA) is required by Headquarters Marine Corps because of both the environmental impact and the potential for controversy.

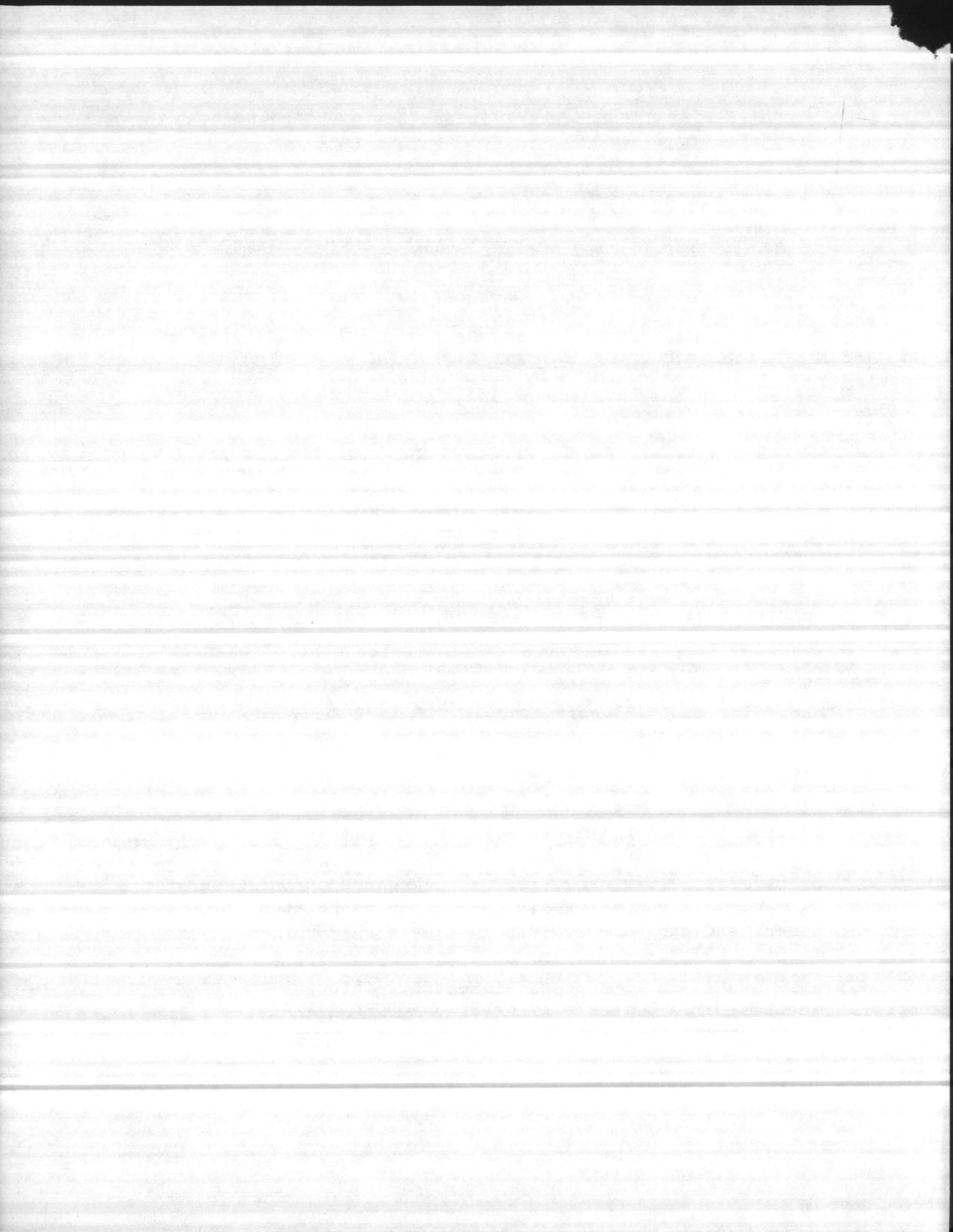
2. The reference gives the Director, NREAD credit for preparing the PEA for the construction of track vehicle trail from Rhodes Point to TLZ Cardinal. NREAD provided information for the PEA but did not prepare the document. It is this Division's position that a sedimentation control plan approved by the state is required.

3. Pertaining to LAV operation in Hoffman Forest, NREAD is of the opinion there will be conflict between LAV and general public use of the area. Headquarters Marine Corps approved EA is required. A state approved sedimentation control plan is required.

4. Pertaining to LZ Bluebird repair, it is recommended base consult with the State Department of Archives and History pertaining to possible artifacts under the matting, as well as adjacent areas. A state approved sedimentation control plan is required.

5. Earlier this year I discussed conflicts that were arising between the Environmental Engineer and me and my staff with you. Also, I expressed concern about some of the comments I was hearing from LtCol Cummings pertaining to NREAD matters and how the base should handle the matter as related to management and consultation with off base personnel. Pertaining to paragraphs 3 and 4 of Mr. Sharpe's portion of enclosure (1), I agree with Mr. Sharpe's statement that the Environmental Engineer and SJA have provided inaccurate information which has the base in a potentially embarrassing position.

J. I. WOOTEN





DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402

IN REPLY REFER TO

SAWCO-EP

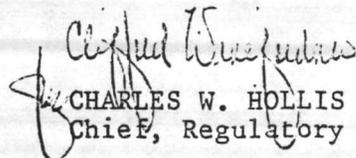
6 August 1984

SUBJECT: Clearing and Draining Activities in K-2 Impact Area

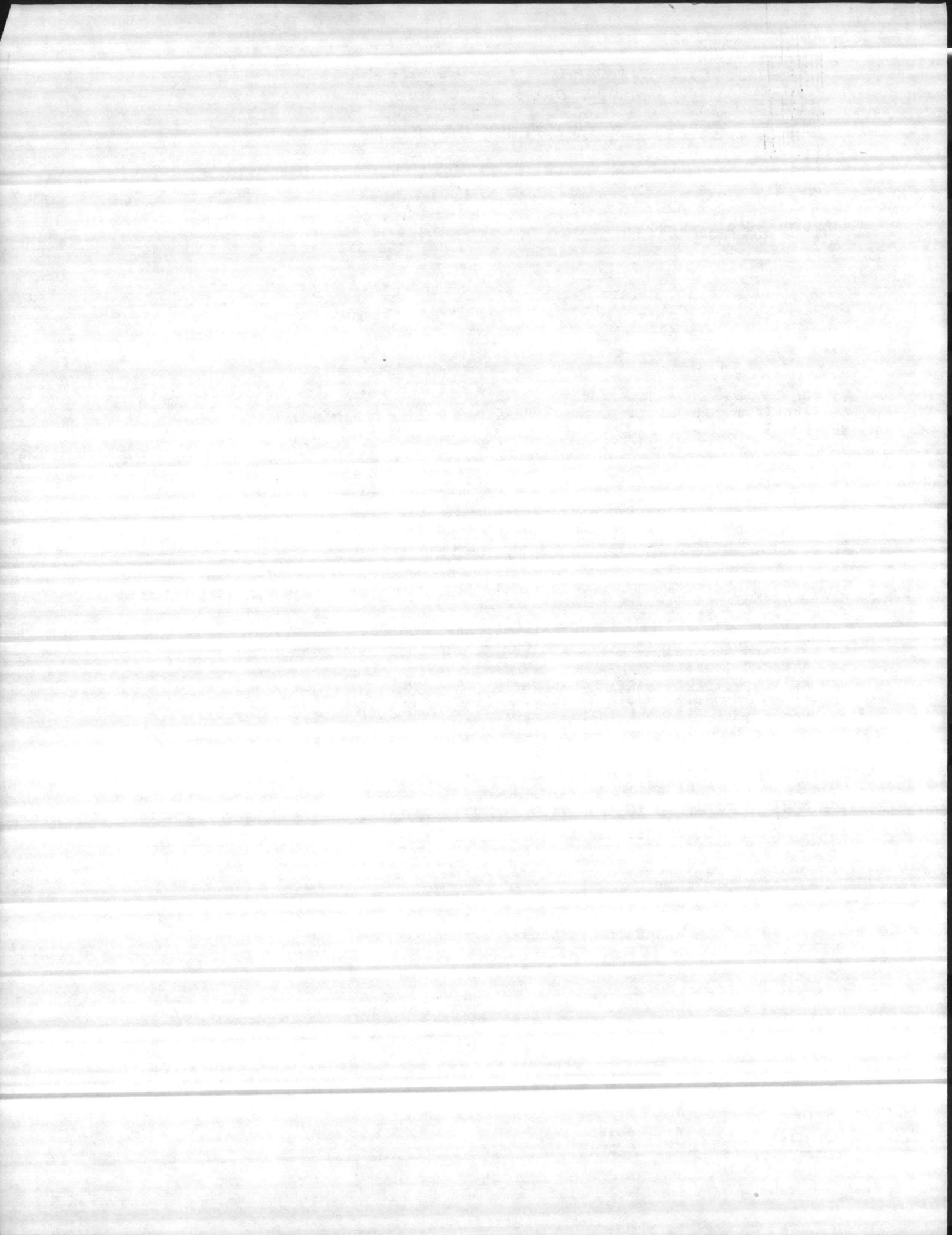
Commanding General, Marine Corps Base
ATTN: Assistant Chief of Staff, Facilities
Camp Lejeune, NC 28542

1. On 18 July 1984 Mr. Ernest Jahnke of my staff met with the following personnel of your office: Mr. Robert Alexander, LT Ben Redmon, and MSG Dennis L. Lecher. The purpose of this meeting was to discuss proposed clearing and drainage activities in the K-2 Impact Area.
2. As I understand, most of the K-2 Impact Area will be cleared of standing vegetation. This is to facilitate observation during firing exercises and to allow controlled burning to safely maintain the area for this purpose. A Department of the Army permit is not needed for this work and may be undertaken at your convenience.
3. The preliminary locations of most drainage alignments are not within the Corps of Engineers regulatory jurisdiction and will not need permits. Work in Whitehurst Creek and its flood plain is currently authorized under nationwide permit. This is also applicable to a number of unnamed tributaries of the New River. However, pending changes in our regulations may bring these areas into the individual permit process unless it is accomplished before they become effective. On this basis, Mr. Alexander has agreed to formally submit a drainage plan to this office. It is tentatively projected that all work in the K-2 Impact Area will be completed by 31 October 1984.
4. LT Redmon advised that a ditch is to be constructed parallel to but outside of a wooded area in the K-303 range which contains nest cavities of the red-cockaded woodpecker (Picoides borealis). To his knowledge this is the only site within the K-2 Impact Area containing this endangered species. As he explained, the timber in that location will be left undisturbed to protect this habitat. Although the site is not within our area of responsibility, I commend your staff for their conservation efforts and concern in this matter.
5. Thank you for coordinating your plans with this office. If you have questions, please contact Mr. Jahnke at telephone FTS 671-4467.

FOR THE COMMANDER:


CHARLES W. HOLLIS
Chief, Regulatory Branch

Copy Furnished:
U.S. Fish and Wildlife Service
ATTN: V. Gary Henry
100 Otis Street, Room 224
Asheville, NC 28801





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

11000
EOD
26 July 84

From: Explosive Ordnance Disposal Officer
To: Assistant Chief of Staff, Training

Subj: NREAD COMMENTS CONCERNING K-2 IMPROVEMENT PROJECT

Ref: (a) Director NREAD ltr 11000/4 over NREAD dtd 23 JUL 84
(b) Ecologists ltr 11000/5 over NREAD dtd 23 JUL 84
(c) Wildlife Manager ltr 11015/1A over NREAD dtd 23 JUL 84
(d) Forester ltr 11000/2 over NREAD dtd 24 JUL 84
(e) Ecologists ltr 11000/5 over NREAD dtd 23 JUL 84

1. References (a) through (e) have been carefully reviewed. The first request for range improvements in the K-2 Impact Area was submitted on 19 January 1984. Since that time numerous offers for NREAD to inspect or review the K-2 Impact Area have been made. Because it is the policy of NREAD not to go into impact areas, even with EOD escort, they have not taken advantage of these opportunities. Their letters while well written are of little value without on site visits of the areas in questions and constantly refer to "MAY AFFECT SITUATIONS". I believe the Amended PEA submitted on 11 July 84 effectively covers all areas of concern. Based on consultation with the Base Environmental Engineer and SJA office and our prepared presentation to the EIRB; I believe the PEA will be recommended for approval by the Commanding General.

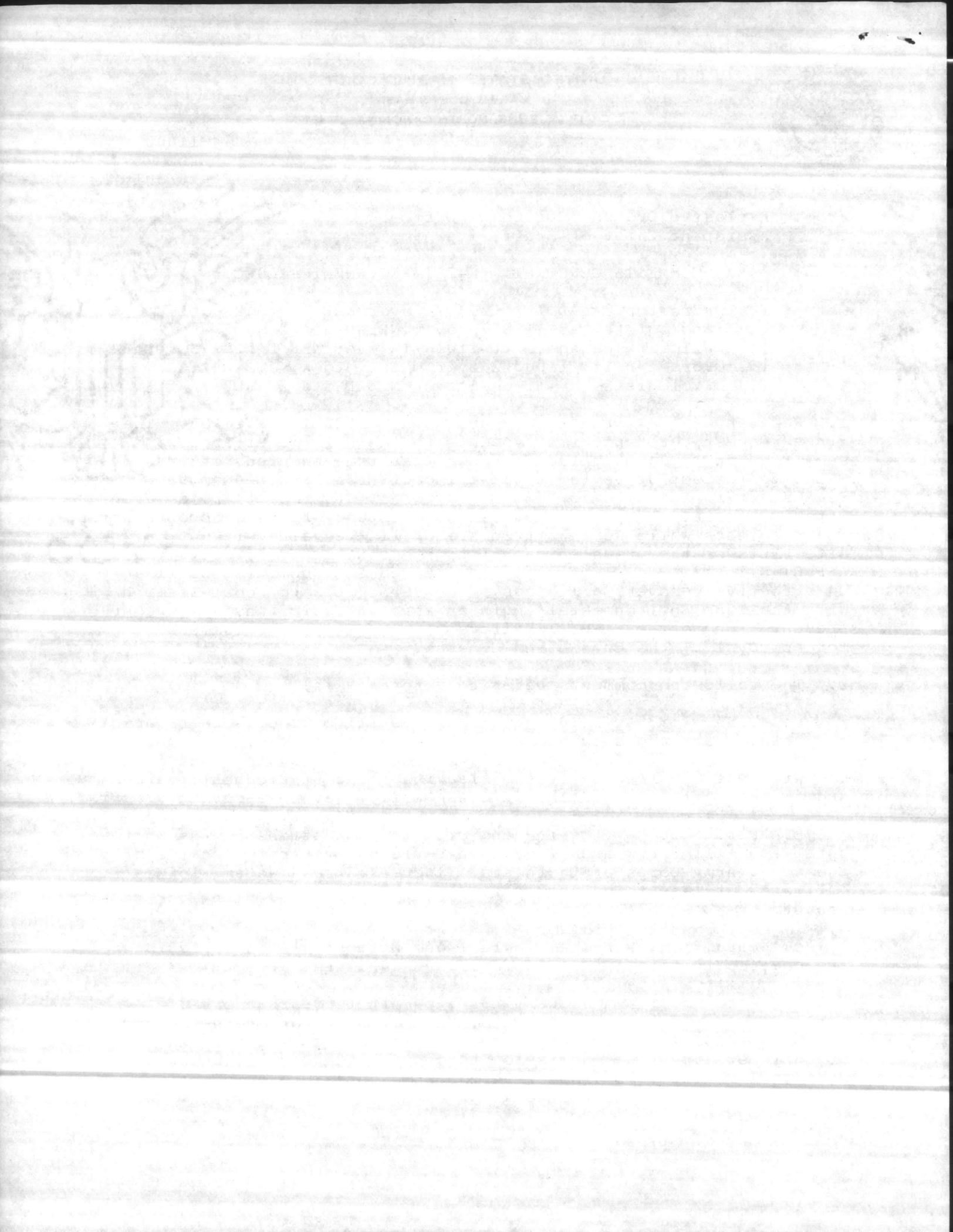
2. The following comments refer to reference (a):

a. Para. 1.a. - The Amended PEA is still correct. There are no known endangered species in the area to be cleared. The newly found Red-Cockaded Woodpecker Site is on Range K-303's right flank and will not be affected by the clearing. The American Alligators and their habitat in Whitehurst Creek will be avoided during clearing.

b. Para. 1.b. - Ditching and clearing operations in the Whitehurst and Mill Creek area have been reviewed by Earnie Jenkins of the U. S. Army Corps of Engineers. Increase fresh water flow is estimated at less than 5 cubic feet per second which is an acceptable amount.

c. Para. 1.c. - Archaeological and Historical considerations are covered in detail in the Amended PEA and are correct.

d. Para. 1.d. - A request for a permit to drain the K-2 wetlands was requested from the U. S. Army Corps of Engineers and has been accomplished. Correspondence is forthcoming from the Corps of Engineers granting permission to conduct the project under a "National Permit". Liaison with the Army Corps of Engineers was addressed in the Amended PEA.



e. Para. 1.e. - There is no requirement to file a Federal Consistency Statement with the North Carolina Office of Coastal Management because there will be no construction within 75' of tidal waters.

f. Para. 1.f. - A Sedimentation Control Plan is not required to be submitted to the State of North Carolina as per SJA opinion of 10 September 1980. However, sedimentation control is addressed in the Amended PEA and good construction practices will be followed.

g. Para. 1.g. - This project is not a major federal action and does not require a EA. It is classified as Routine Range Maintenance and will not change the primary purpose of the Range.

h. Para. 2 - A Sedimentation Control Plan is not required to be submitted to the State of North Carolina as per SJA opinion of 10 September 1980. However, sedimentation control is addressed in the Amended PEA and good construction practices will be followed.

i. Para. 3 and 4 - I am not involved in these two projects.

j. Para. 5 - I don't agree that the SJA and the Environmental Engineer have provided inaccurate information. However, I do agree that there are some conflicts within the NREAD staff and other sections.

3. The following comments refer to reference (b):

a. Para. 1.a. - Previously addressed in this letter para. 2.b.

b. Para. 1.b. - Previously addressed in this letter para. 2.d.

c. Para. 1.c. - Previously addressed in this letter para. 2.a.

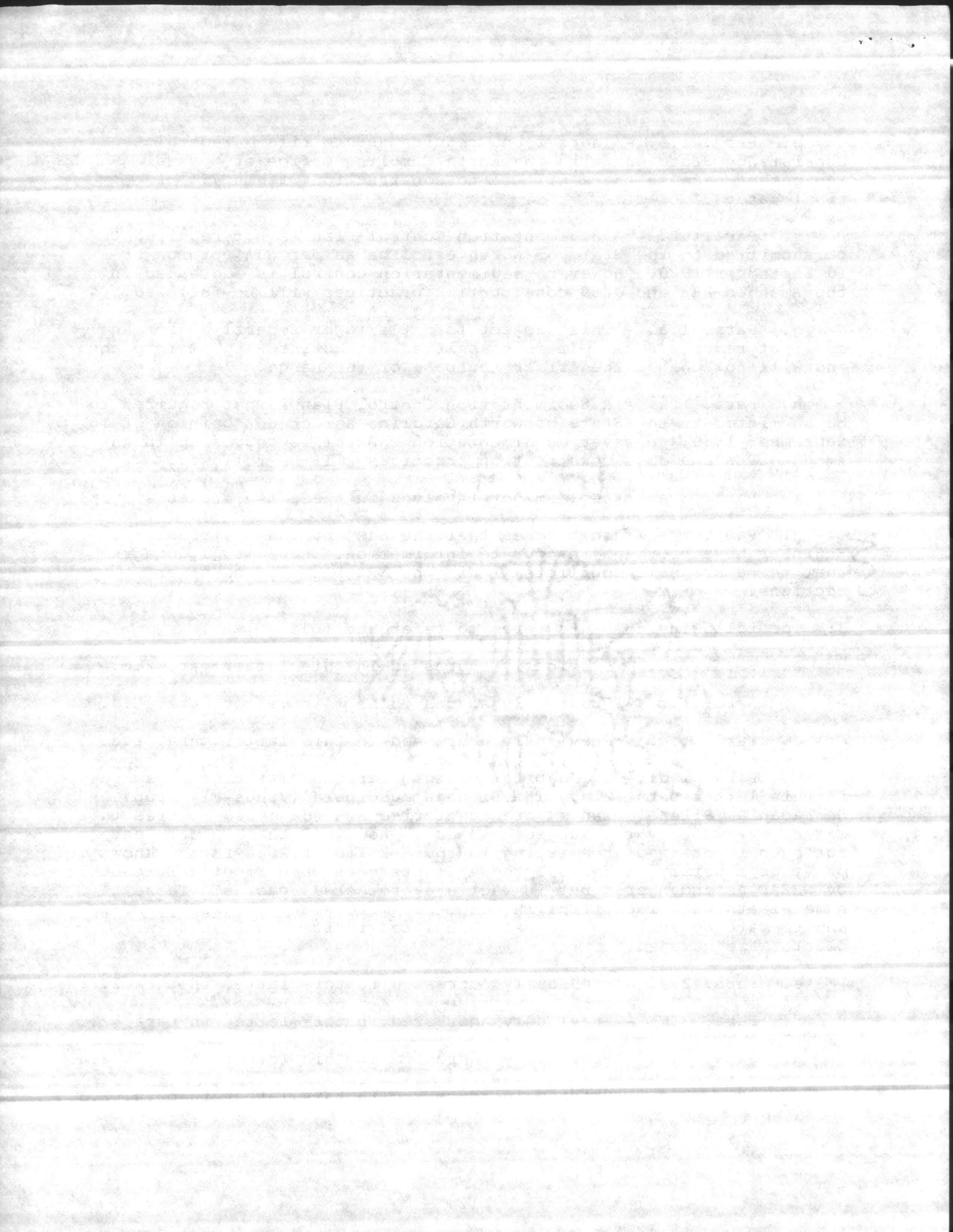
d. Para. 1.d. - The habitat of the American Alligator is addressed in this letter para. 2.a. The *Dionaea Muscipula* (Venus Fly Trap) and *Sarracenia* (Pitcher Plants) are identified as endangered species that MAY BE AFFECTED by the subject project. However, these plants have not been identified as existing in the K-2 Impact Area in any known previous studies. I believe these plants have been misclassified by NREAD as endangered but in fact are protected species. These same plants were identified in the G-10 Improvement Project by NREAD and to date no evidence has been submitted indicating that these plants were damaged.

e. Para. 2.a. - Previously addressed in this letter in para. 2.e.

f. Para. 2.b. - Previously addressed in this letter in para. 2.f.

g. Para. 2.c. - Previously addressed in this letter in para. 2.a.

h. Para. 2.d. - Previously addressed in this letter in para. 2.g.



i. Para. 3 - Previously addressed in this letter in para. 2.g.

j. Para. 4 - I disagree; the K-2 project should be put before the EIRB. NREAD has advisory members on the EIRB and have the opportunity/responsibility to present the EIRB with all available information. It is the responsibility of the EIRB not NREAD to determine whether proposed projects meet all legal and moral requirements before recommending approval to the Commanding General. NREAD is the only agency at Camp Lejeune that is represented by two voting members (AC/S, Facilities and Base Maintenance Officer) on the EIRB. Even if the EIRB approves a project that does not meet with the approval of NREAD there are procedures for writing a Minority Opinion. The final decision rests with the Commanding General.

4. The following comments refer to reference (c):

a. Para. 1 - Previously addressed in this letter para. 2.a.

b. Para. 2 - Previously addressed in this letter para. 2.a.

c. Para. 3 - Previously addressed in this letter para. 2.b., 2.d., and 2.e.

d. Para. 4 - Previously addressed in this letter para. 2.c.

5. The following comments refer to reference (d):

a. I find no faults with the comments provided by the Base Forester. He obviously knows his job and has provided the most accurate information available.

b. It is my opinion that the sale of timber in K-2 is worthwhile. However, because of the short lead time remaining, I believe it will be overcome by events.

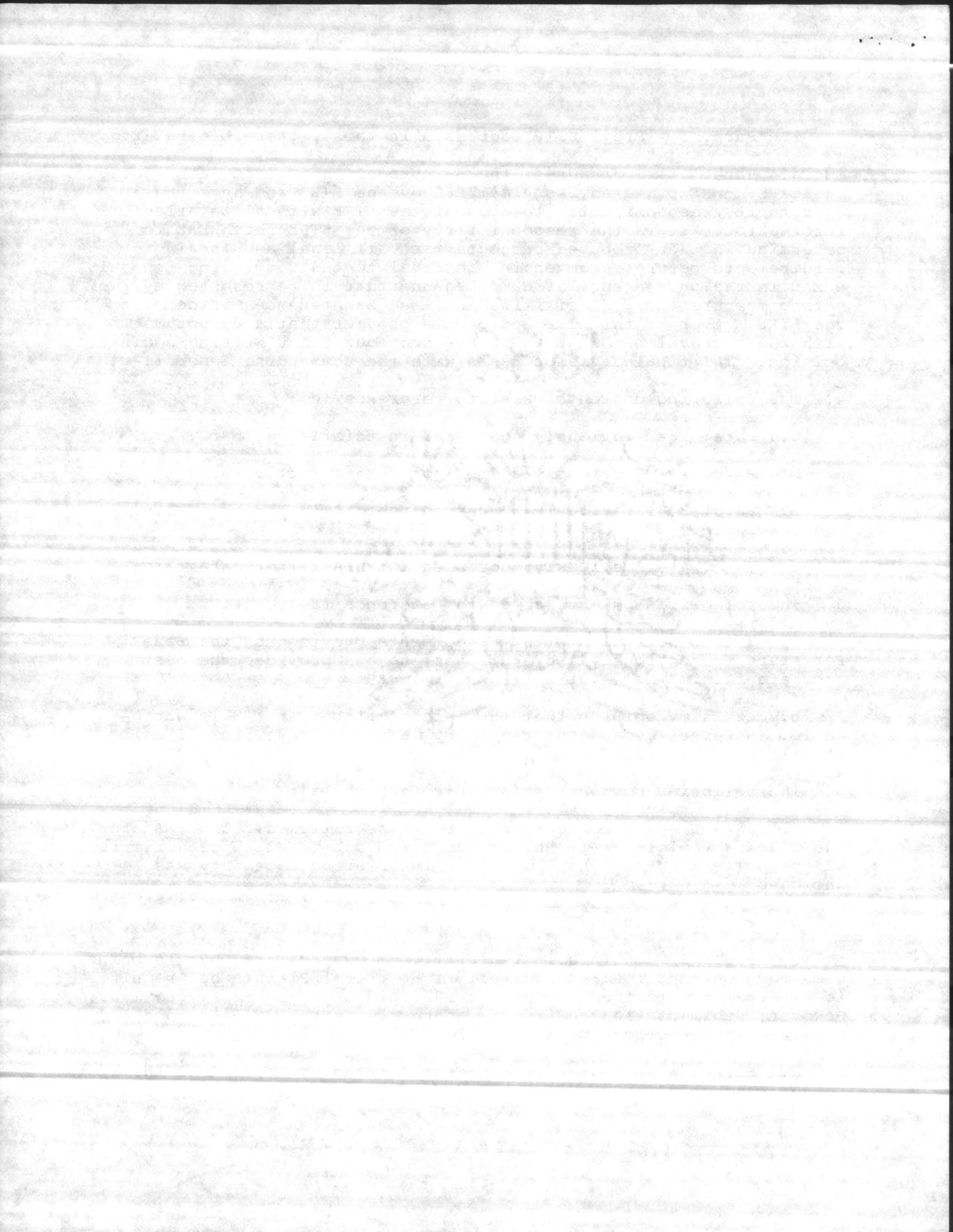
6. The following comments refer to reference (e):

a. Para 1 - The correct PEA format was followed. The PEA for the Tracked Vehicle Trail Rhodes Point was submitted before distribution of the new PEA format was made. All information necessary was included.

b. Para. 2 - Concur.

c. Para. 3 - Engineering support from Base Maintenance is being used for construction. A Sedimentation Control Plan is not required to be submitted to the state as per SJA opinion of 10 September 1980. However, sedimentation control is addressed in the PEA and good construction practices will be followed.

d. Para 4 - No Sedimentation Control Plan is needed for the state. Concur that no EA is required.



7. It is my opinion that any "Environmental Study" done on past or currently under way range projects will show that NO SIGNIFICANT ENVIRONMENTAL DAMAGE HAS BEEN DONE! I believe that we should and do follow the "Letter of the Law" but leave the interpreting of those laws to the legal experts. Additional information on the proposed projects is and has been available upon request for anyone having a valid interest. I believe it is time to stop throwing poison pens at each other and get to work fulfilling the mission of this base.

H. B. Redmond Jr.
H. B. REDMOND JR.

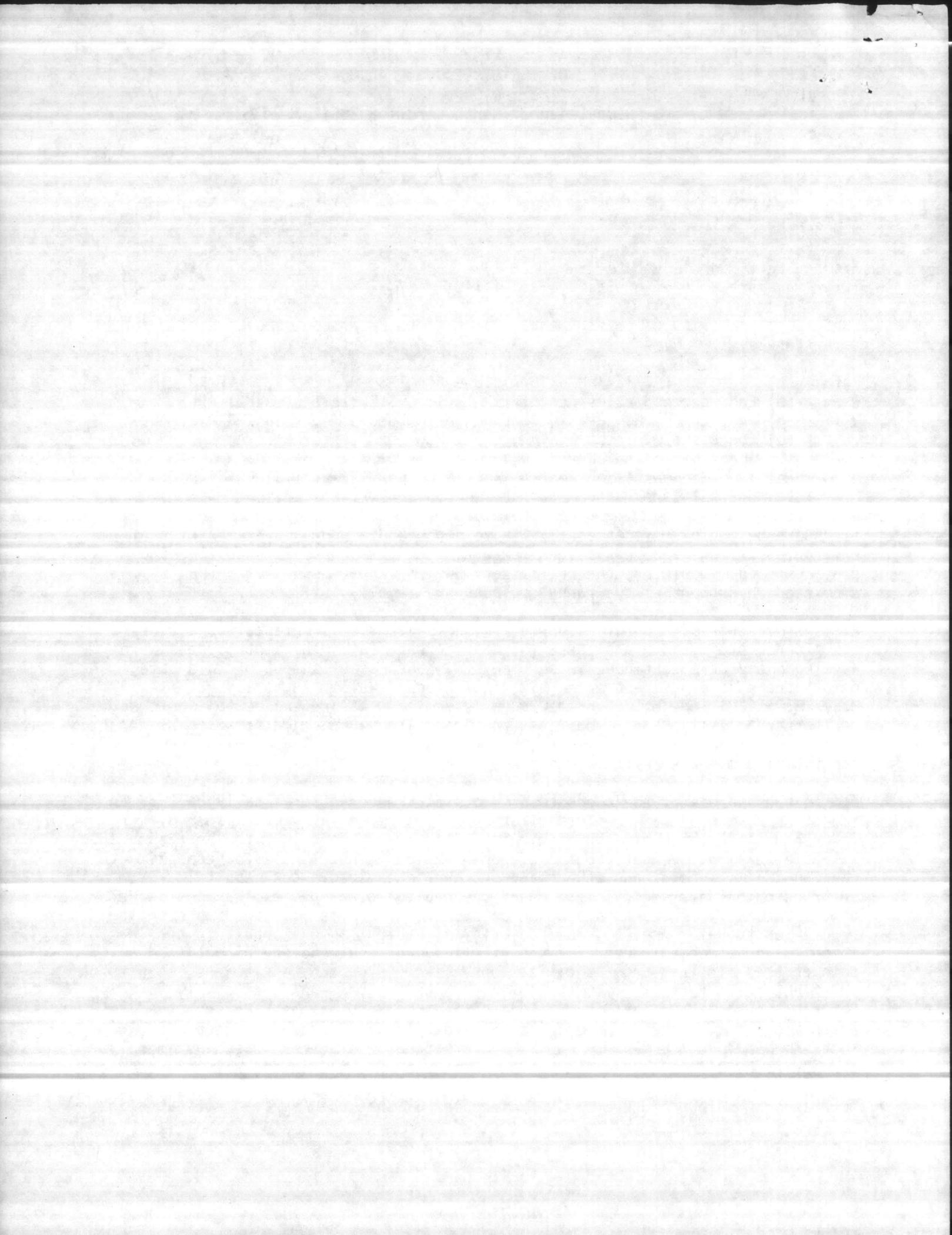
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Range Control Officer

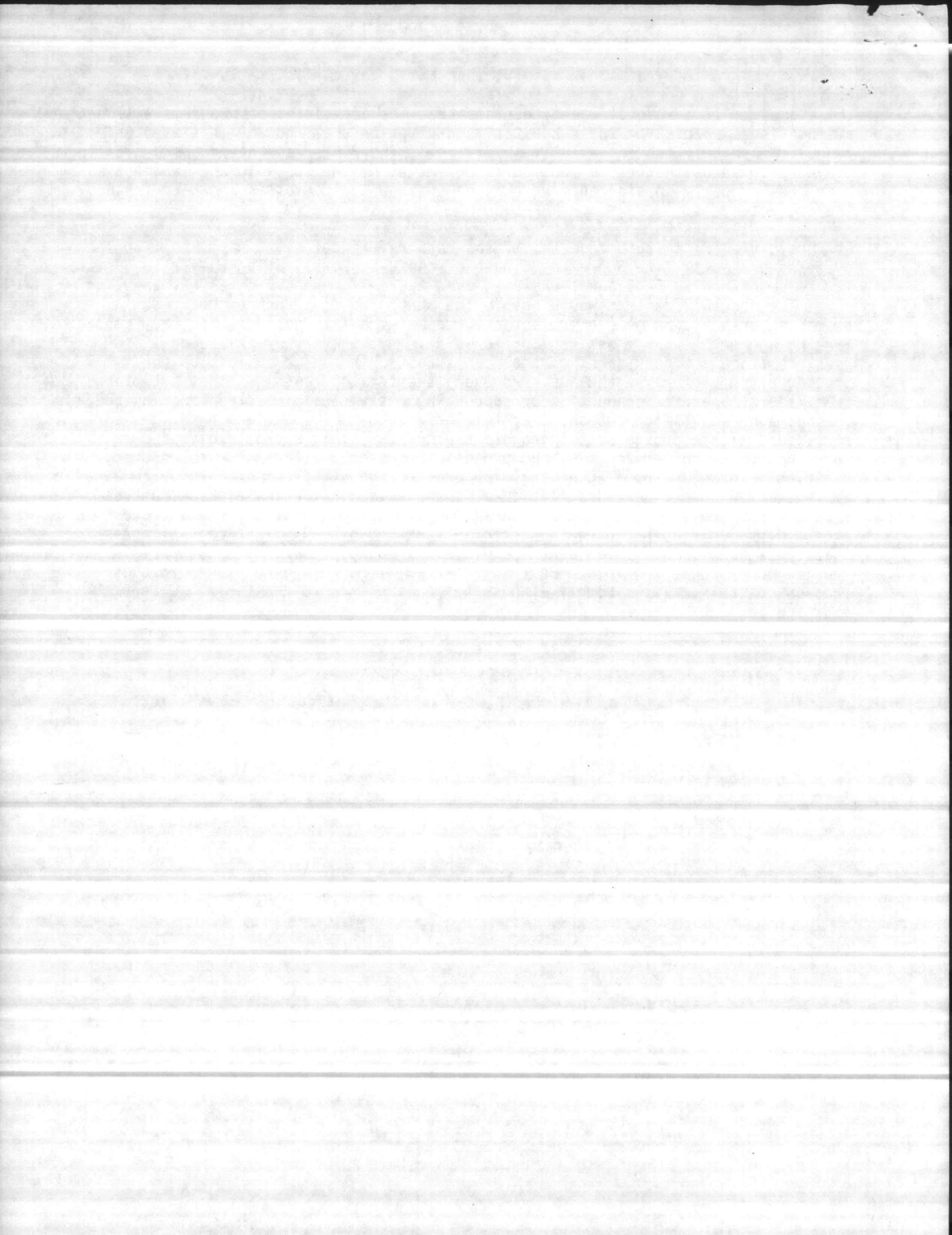
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UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, North Carolina 28542

FAC/REA/nh
6280/7
9 APR 1984

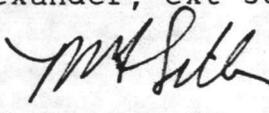
From: Assistant Chief of Staff, Facilities
To: Staff Judge Advocate

Subj: Applicability of Environmental Policies to Proposed
Clearing Projects within Impact Areas

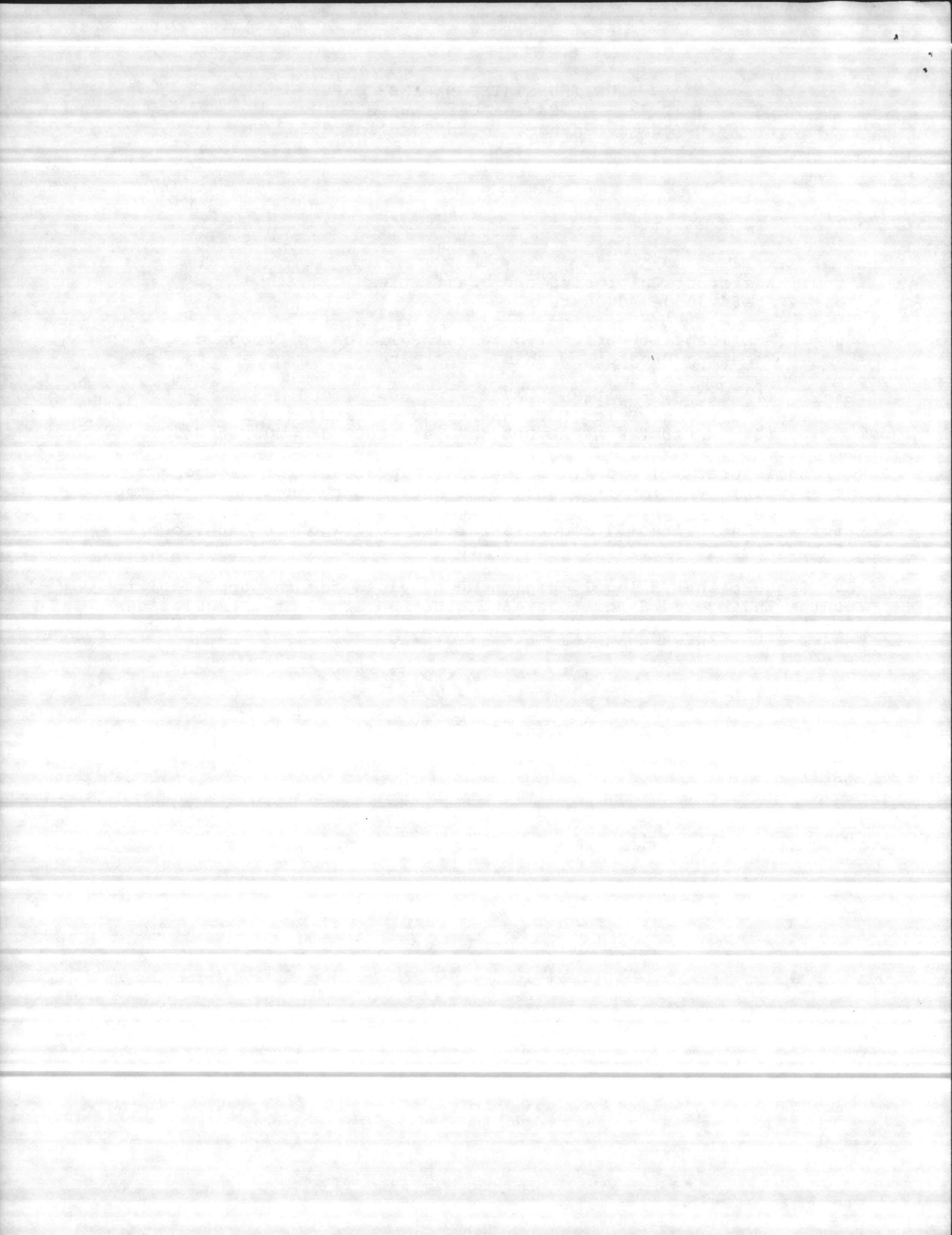
Encl: (1) AC/S Trng ltr TRNG/HBR/irh over 11000 dtd 8 Mar 84 w/ encl
(2) RgContrO ltr RCTL/HBR/vec over 11000 dtd 26 Mar 84
(3) NREAD ltr NREAD/DDS/je over 11000 dtd 20 Mar 84

1. Enclosures (1) and (2) describe the proposal for clearing of trees within the impact areas. The preliminary environmental impact assessments attached to these enclosures are provided for your review. Enclosure (3) requests further review of the applicability of the Endangered Species Act to this proposal.

2. Request that a legal opinion be provided for the applicability of the Endangered Species Act and other environmental regulations for clearing activities within these impact areas. Point of contact for this request is Mr. Alexander, ext 3034.


M. G. LILLEY

Copy to: (w/o encl)
NREAD





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

RCTL/HBR/irh
11000
8 March 1984

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: Improvement of K-2 Impact Area; request for

Ref: (a) MCO 3570.1A

Encl: (1) Map Showing Range
(2) Preliminary Environmental Assessment (PEA)

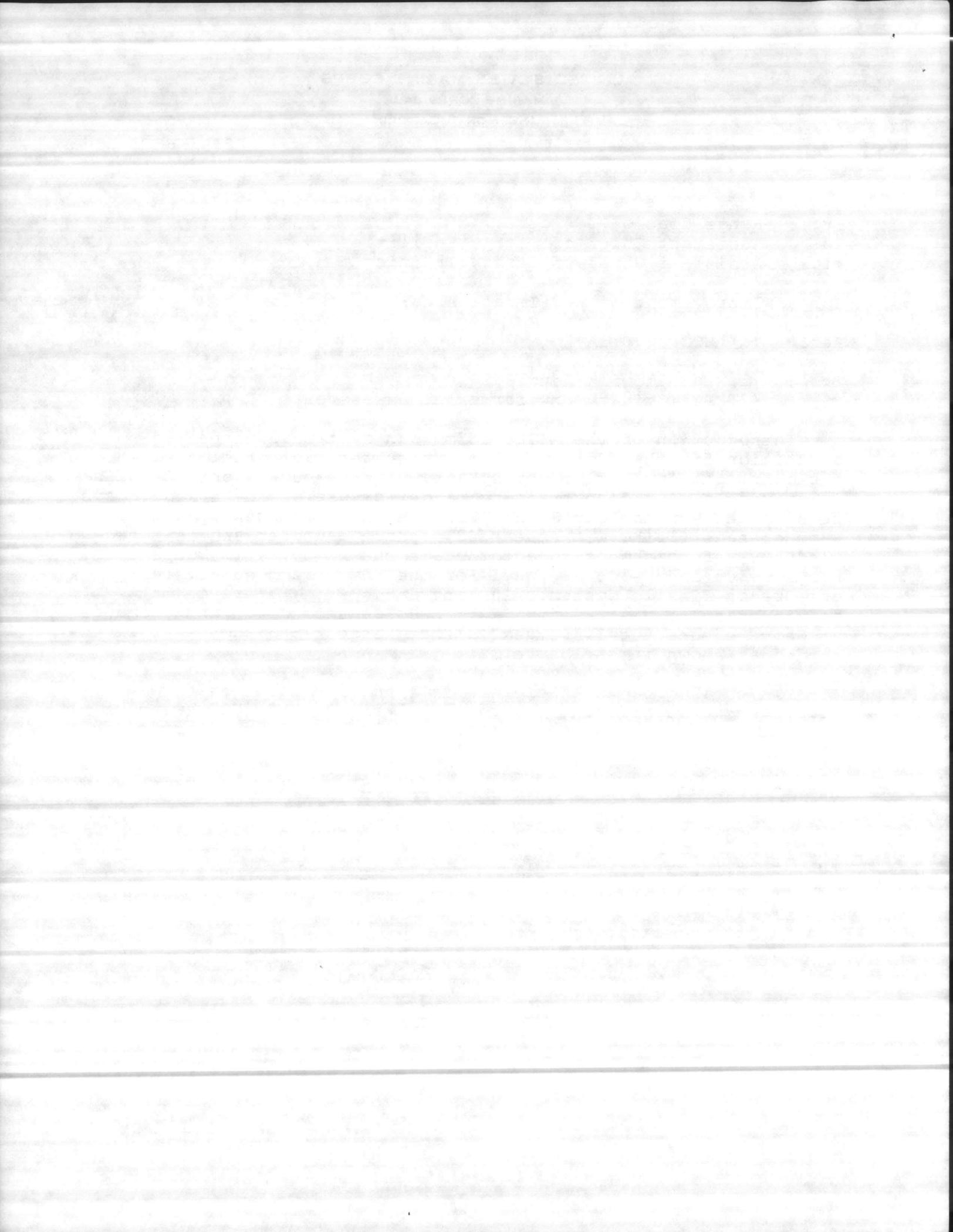
1. Introduction of the M198, 155mm gun system and improved ammunition for the 60mm and 81mm gun system has established a requirement for Marine Corps Base, Camp Lejeune, North Carolina to provide a live fire training range for use of these weapon systems in the Verona Loop Area. Range K-211 is currently used for 40mm grenade firing with the M203 grenade launcher and is scheduled for refurbishment to accommodate the MK-19, 40mm gun system. Range K-303 and K-305 are used for the 60mm, 81mm gun system, and Dragon Missile system. In accordance with reference (a), and in order to meet the training requirements of tenant commands at Camp Lejeune, it is requested that Range K-303 and K-305 be expanded as shown in enclosure (1).

2. The total area to be cleared is shown in enclosure (1) and will have no significant environmental impact. An EOD sweep of the area to be cleared of vegetation will be conducted prior to the commencement of clearance operations. An EOD survey of the area to be cleared of vegetation, as shown in enclosure (1) has not located any dud ordnance. Clearing of trees could be accomplished by heavy equipment. EOD support will be provided for all down range construction work. Enclosure (2) is the Preliminary Environmental Assessment (PEA) for the proposed range improvement.

3. Point of contact is: MSgt Moses, Range Maintenance Chief, phone extension 3211/3542.

[Handwritten signature]
K. W. GIBB

Encl (1)

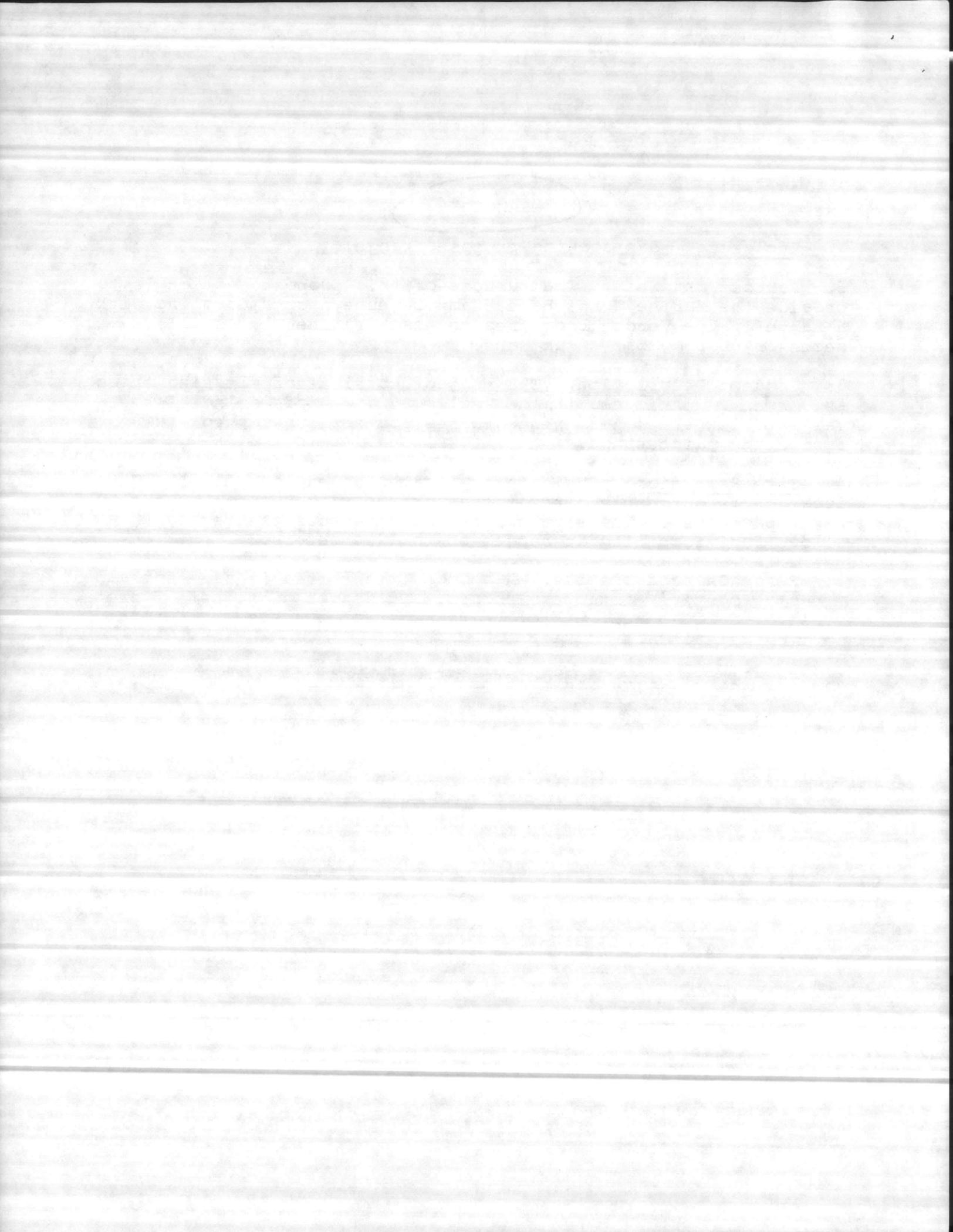


PRELIMINARY ENVIRONMENTAL ASSESSMENT

FOR

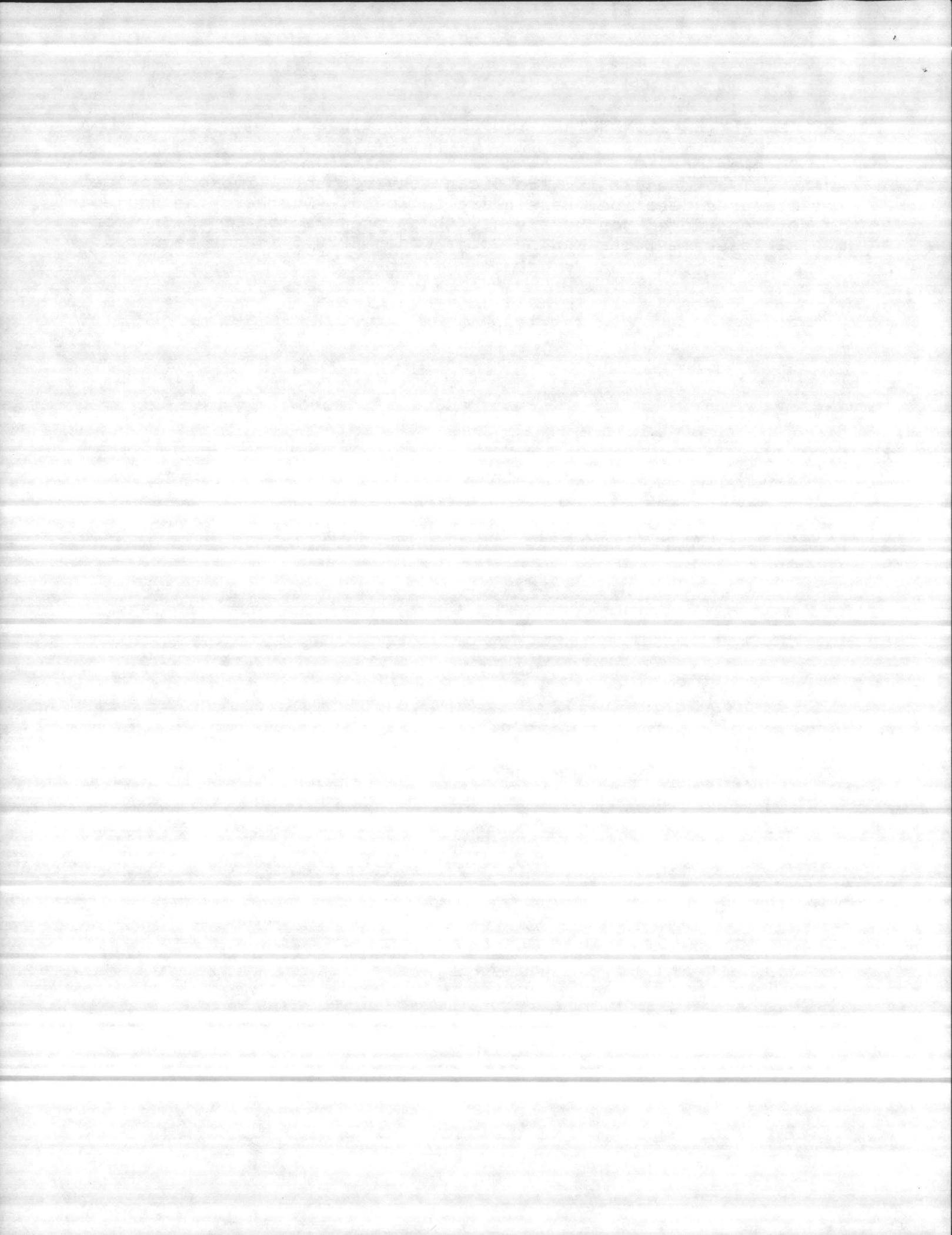
RANGE K-2

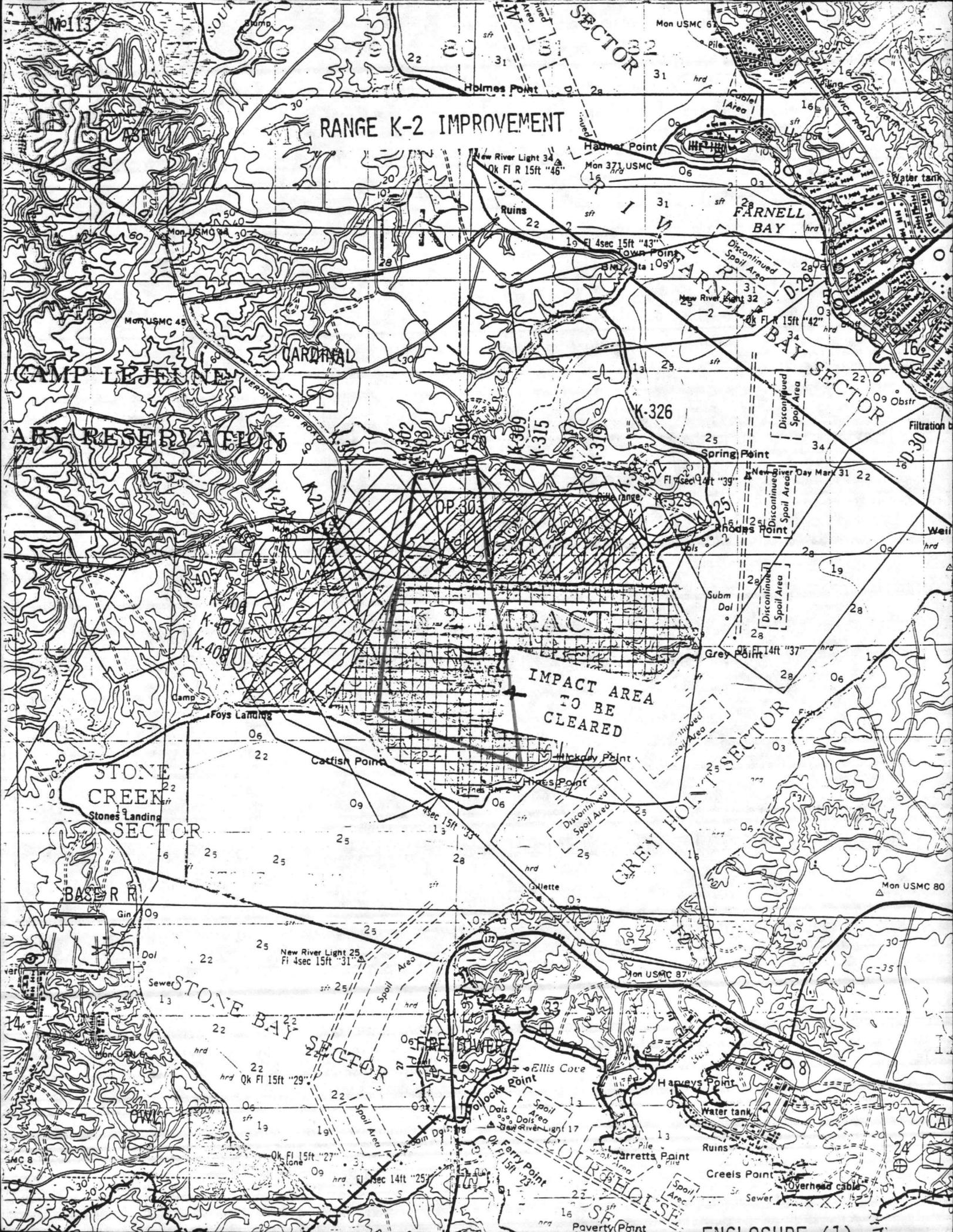
1. Enclosure. Map showing proposed range.
2. Purpose and Need. The purpose of this proposed action is to provide the Marine Corps Base, Camp Lejeune, North Carolina with a range in the Verona Loop Area to teach Marines the skills necessary for combat situations.
3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and to facilitate maintenance.
4. Site Selection. The site is located on enclosure (1). The location is currently part of the surface danger area for the K-2 Impact Area. The site was selected because the terrain allows for visibility at ranges up to 2800 meters.
5. Range Characteristics. A common impact area is used for all types of mortars, artillery rounds, and dragon missiles. Targets consist of personnel, vehicle, and material targets supplemented by surveyed natural terrain features.
6. Compliance with Environmental Requirements.
 - a. Air Quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to maintain all sediment on site. Reestablishment of disturbed areas and vegetative cover on the cleared area will be completed within 90 days of completion of construction.
 - c. Water Quality: No discharge of wastes to surface waters will occur during range development or subsequent use.
 - d. National Historic Preservation Act: No significant cultural resources are located on the project site.
 - e. Executive Order 11651 Protection of National Monuments: Disturbance of wrecks will be avoided during clearing and earthmoving.
 - f. Endangered Species Act: The impact of this project on the habitat of any endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by clearing and earthwork.

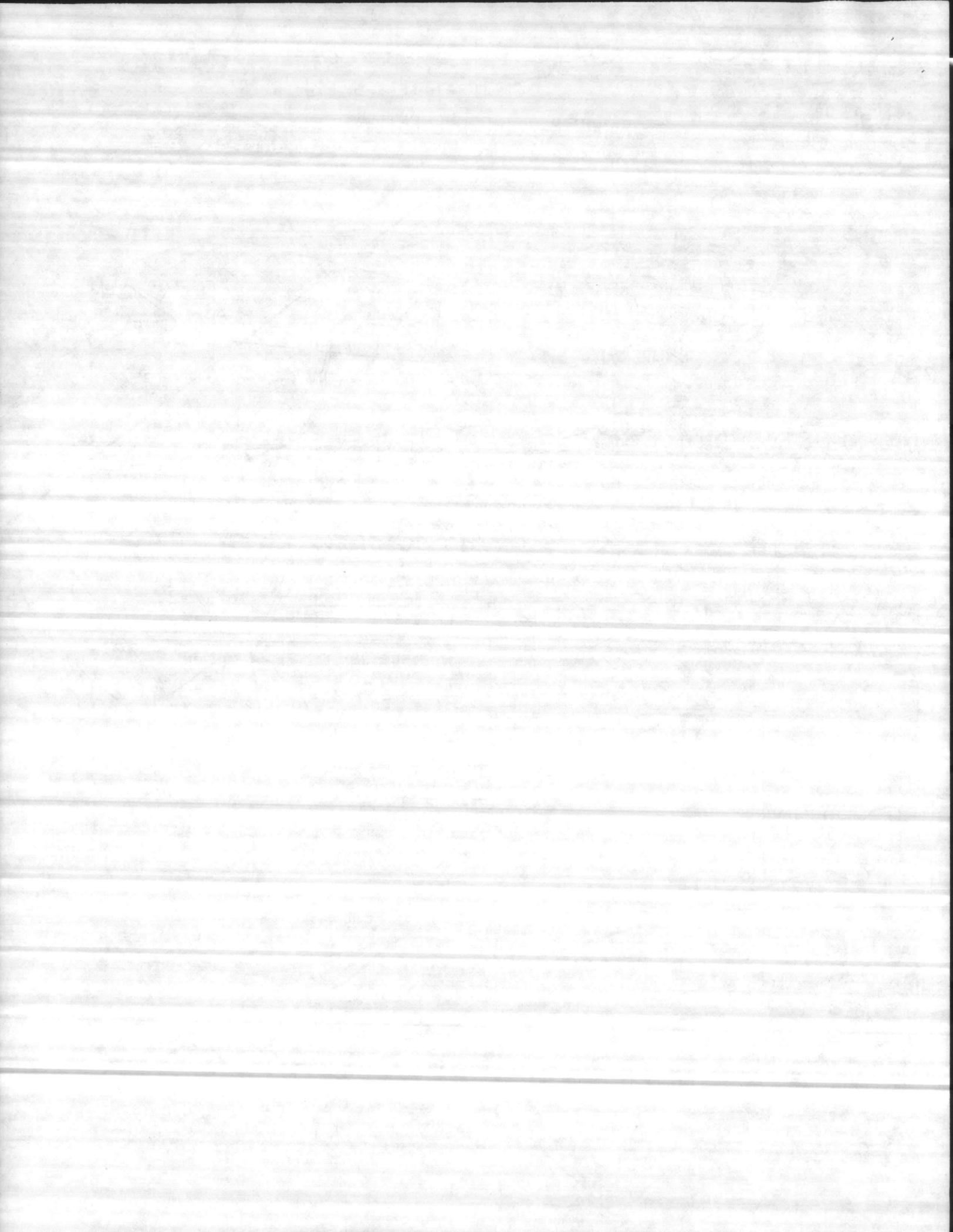


PRELIMINARY ENVIRONMENTAL ASSESSMENT continued:

7. Conclusion. The proposed improvements for the K-2 Impact Area will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.









UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

RCTL/HBR/vec
11000
26 Mar 84

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training *Forwarded recommending approval
K. W. ZITZ 26 MAR 1984*
Subj: Improvement of G-10 Impact Area; request for
Ref: (a) MCO 3570.1A
Encl: (1) Map Showing Range
(2) Preliminary Environmental Assessment (PEA)

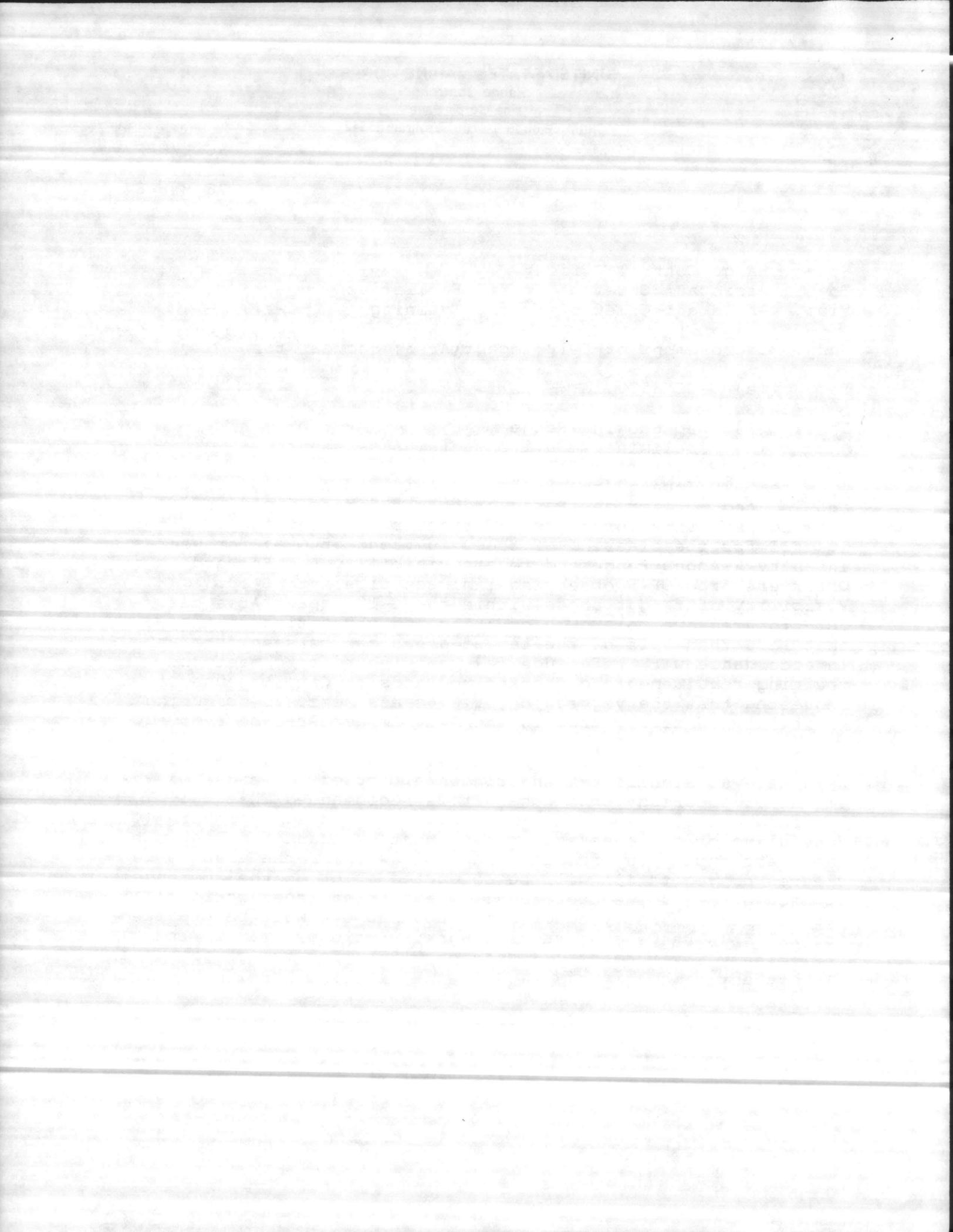
1. The G-10 Impact Area is the main impact area for Camp Lejeune and is used for air delivered ordnance, direct fired ordnance, and indirect fired ordnance. Current refurbishment plans for G-10 call for the clearing of trees in front of OP-5 for use as a Infantry Weapons Range and to aid visibility for Forward Observers from OP-5 observing indirect fire into G-10. Visibility of target areas within the G-10 Impact Area has deteriorated due to growth of trees and vegetation to the point that less than half of the target areas can be seen from any OP. In accordance with reference (a), and in order to meet the training requirements of tenant commands at Camp Lejeune, it is requested that the vegetation, i.e. trees, etc..., obscuring visibility of target area in the G-10 Impact Area be removed.

2. The total area to be cleared is shown in enclosure (1) and will have no significant environmental impact. Because of the amount of clearing to be done, it is recommended that the clearing operation be done in phases as shown in enclosure (1). Scheduling of the clearance phases must be planned so as to have the least impact on training. An EOD sweep of the area to be cleared of vegetation will be conducted prior to the commencement of each phase of the operation. Clearing of trees could be accomplished by heavy equipment. EOD support will be provided for all down range construction work. Enclosure (2) is the Preliminary Environmental Assessment (PEA) for the proposed range improvement.

3. Point of contact is: MSgt MOSES, Range Maintenance Chief, phone extension 5211/3542.

K. W. ZITZ
K. W. ZITZ

Encl (2)

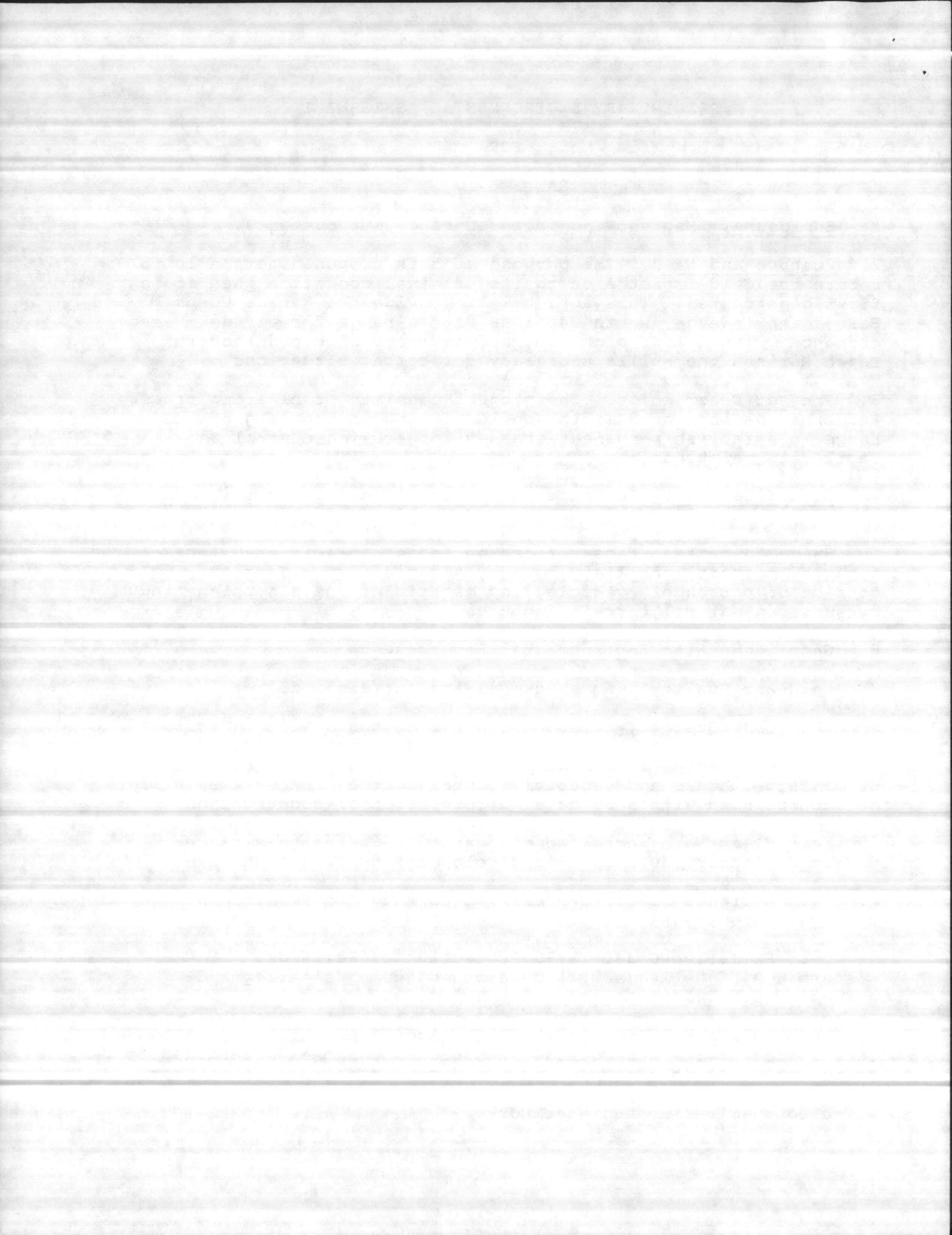


PRELIMINARY ENVIRONMENTAL ASSESSMENT

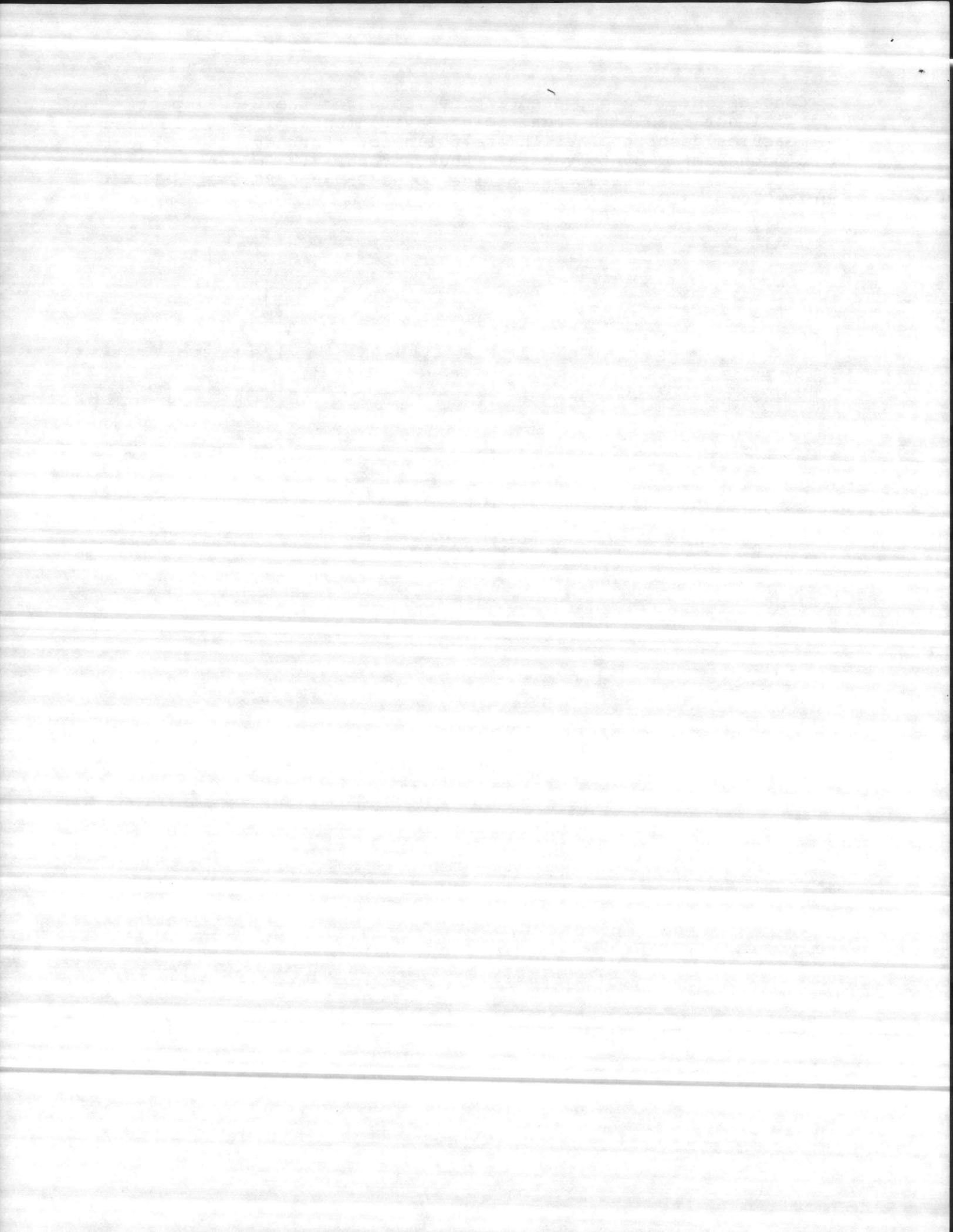
FOR

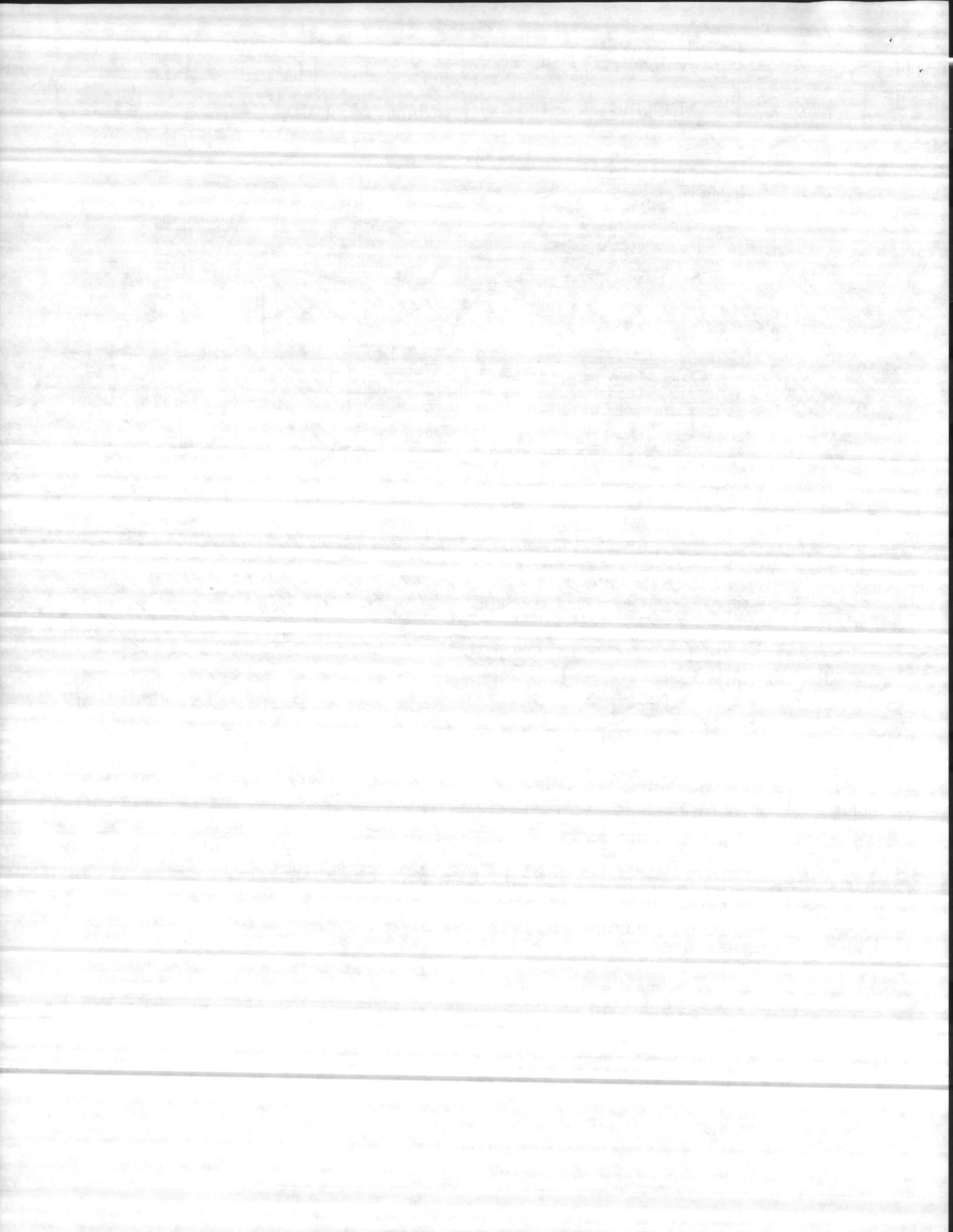
RANGE G-10

1. Enclosure. Map showing proposed range improvements.
2. Purpose and Need. The purpose of this proposed action is to return the G-10 Impact Area to its original condition when it was first constructed. This action will provide the Marine Corps Base, Camp Lejeune, North Carolina with a range for air delivered ordnance, direct fire ordnance, and indirect fire ordnance to teach Marines the skills necessary for combat situations.
3. Project Description. The project consists of clearing trees and brush as indicated in the enclosure and landscaping of the range to establish permanent grasses for erosion control and to facilitate maintenance.
4. Site Selection. The sites are located on enclosure (1) and allows for visibility of target areas.
5. Range Characteristics. A common impact area is used for all types of mortars, artillery rounds, and missiles. Targets consist of personnel, vehicle, and material targets supplemented by surveyed natural terrain features.
6. Compliance With Environmental Requirements
 - a. Air Quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
 - c. Clean Water Act: No discharge of wastes to surface waters will occur during range development or subsequent use.
 - d. National Historic Preservation Act: No significant cultural resources are located on the project site.
 - e. Executive Order 11990 Protection of Wetlands: Disturbance of wetlands will be avoided during clearing and earthmoving.
 - f. Endangered Species Act: The impact of this project on the habitat of the Red-Cockaded Woodpecker has been determined to be negligible. This statement is based on the determination that the habitate of the species does not occur within the area to be affected by clearing and earthwork.



7. Conclusion. The proposed improvements for the G-10 Impact Area will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.





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

NREAD/DDS/jc
11000
20 Mar 1984

From: Director
To: Assistant Chief of Staff, Facilities

Subj: Preliminary Environmental Assessments for the Proposed
Clearing within K-2 Impact Area and K-211 40MM Grenade
Range

Ref: (a) CG MCB CLNC ltr FAC/REA/nh 6280/1 of 16 Mar 1984
(b) BO 11000.1A
(c) NCAC Title 15, Chap 14, Sedimentation Control
(d) Endangered Species Act of 1973 as Amended
(e) MCO 11015.4

Encl: (1) Map depicting Clearing for K-211, 303 and 305 Ranges

1. Reference (a) provided the subject PEAs and requested review in accordance with reference (b). The following comments are provided:

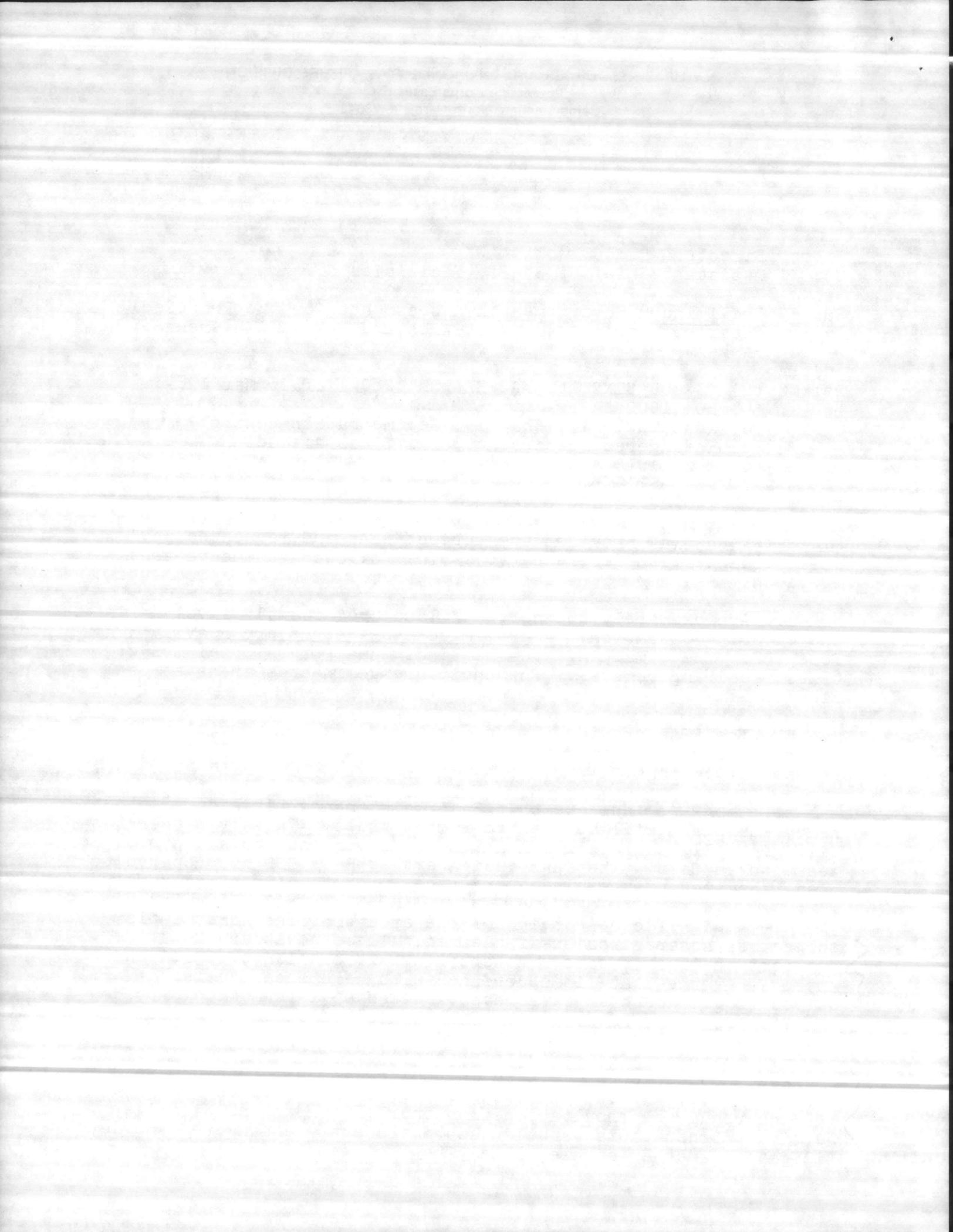
a. Approximately 851 acres of land are directly involved in the clearing operation. Approximately 634 acres are heavily forested. The remaining area has individual trees or clumps of trees requiring removal. The enclosure delineates areas to be cleared.

b. The PEAs provided by the reference do not provide a clear description of how the work will be accomplished, and the clearing specifications.

c. The PEAs indicate that Base Maintenance Division or other heavy equipment will be used to remove trees. This type operation will generally cause significant soil disturbance to a depth of at least three feet. The PEAs indicate that Base EOD is prepared to clear the area of unexploded ordnance prior to commencing work.

d. A significant portion of the area contains steep soils subject to severe erosion if cleared. These soils are located adjacent to live streams. An erosion control plan prepared and approved by the State in accordance with reference (c) is required if ground cover is removed. Based on information provided in reference (a), reference (c) is applicable to the project.

e. There is a significant probability that the endangered Red-Cockaded Woodpecker is located in the area to be cleared. This creates a "may affect" situation relative to references (d) and (e) and requires consultation with the U. S. Fish and Wildlife Service. Consultation should also include the endangered American Alligator, another species likely to be in the area.



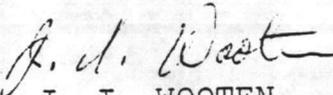
Subj: Preliminary Environmental Assessments for the Proposed Clearing within K-2 Impact Area and K-211 40MM Grenade Range

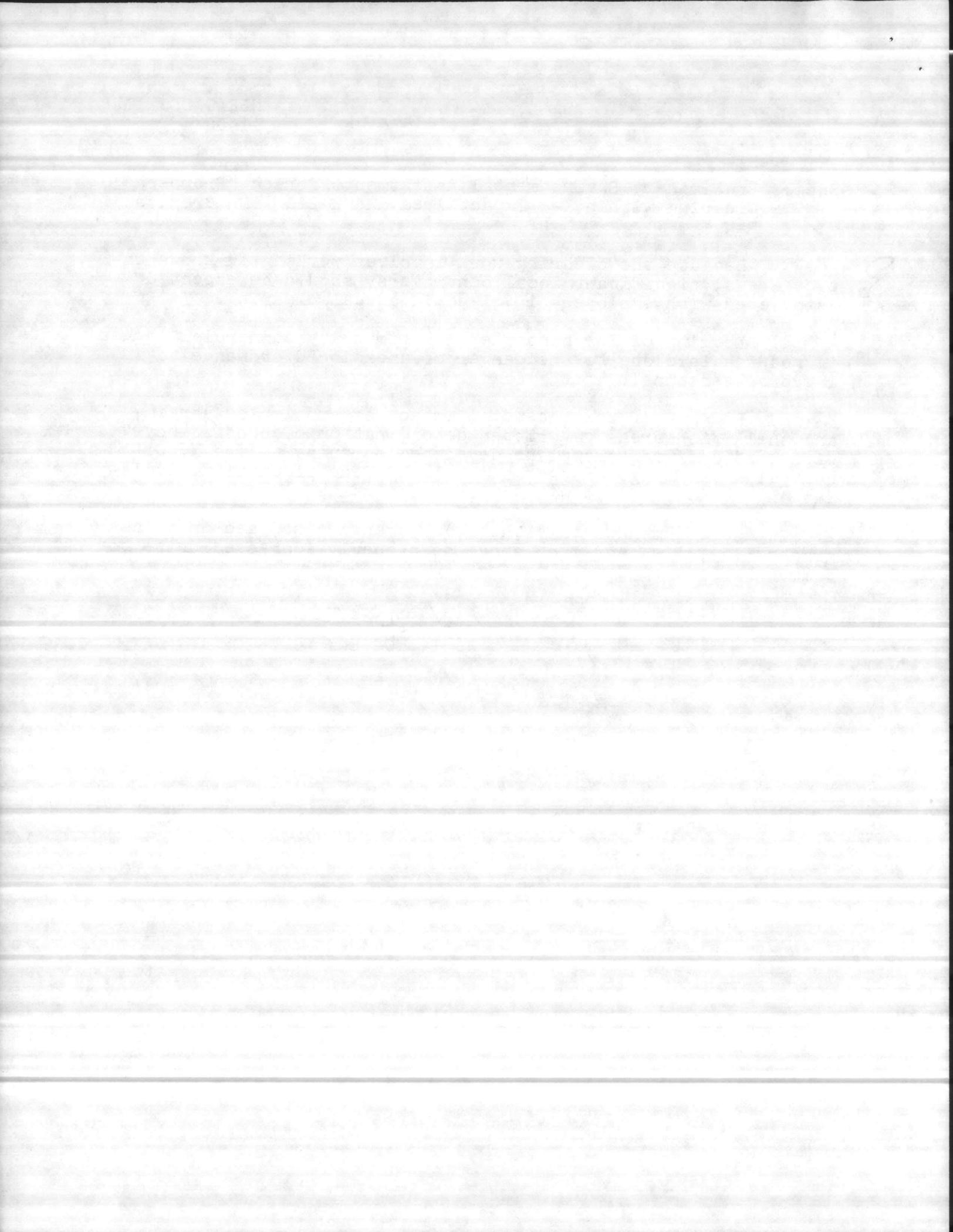
f. Because the clearing work involves working in known impact areas, significant local controversy should be expected associated with employees involved in actual clearing.

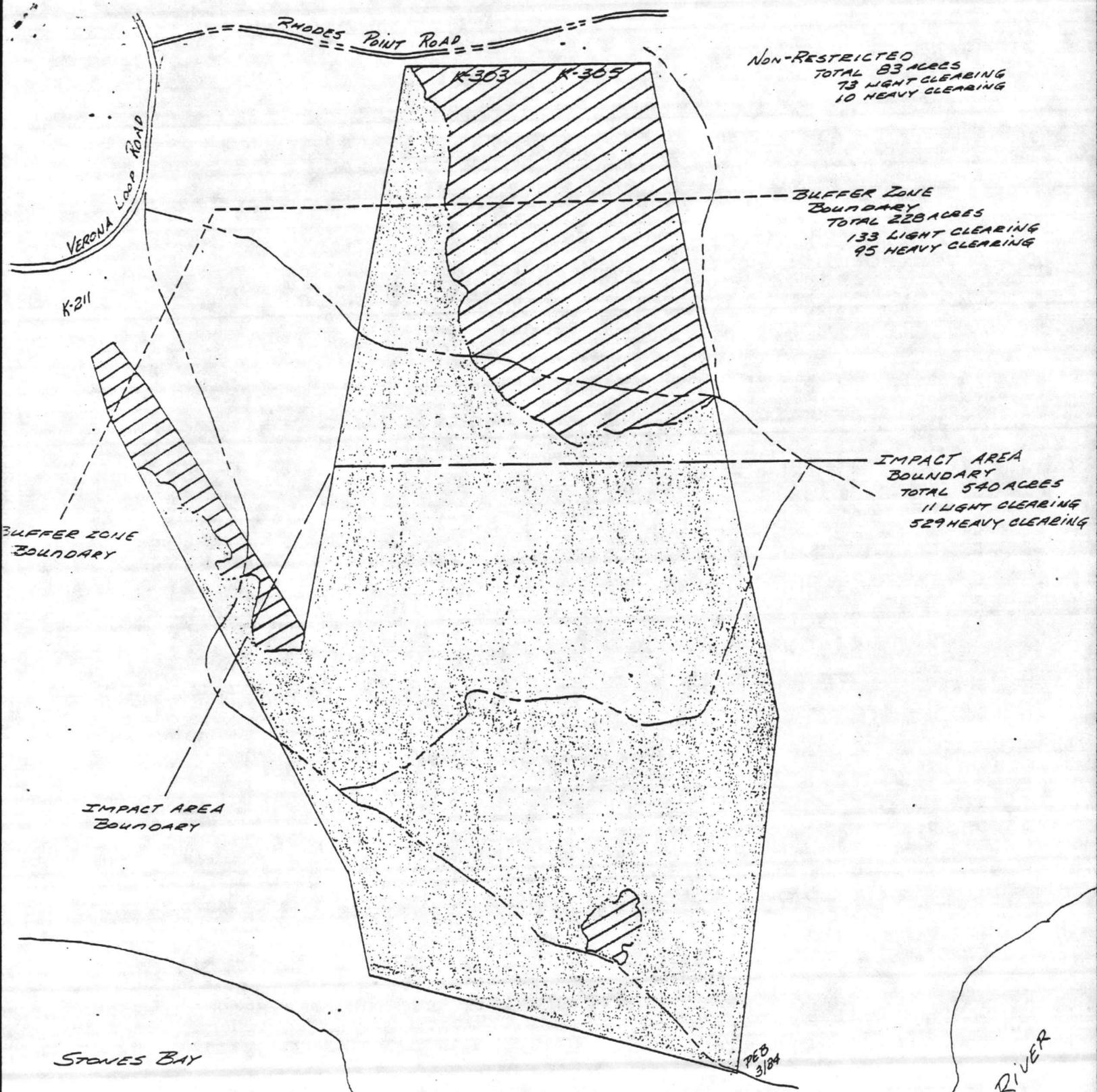
g. Logging of merchantable size timber by commercial logger is not feasible due to the danger of unexploded ordnance to loggers' personnel.

h. Because of the potential impact of erosion on streams and shell fish areas, a written determination of consistency with land use programs/plans developed pursuant to the N. C. Coastal Area Management Act and related federal enabling legislation should be filed with appropriate state agencies.

2. It is recommended that the requirements discussed in paragraphs l.d., i.e. and l.h. above be properly addressed prior to commencing actual land clearing.


J. I. WOOTEN





NON-RESTRICTED
 TOTAL 83 ACRES
 73 LIGHT CLEARING
 10 HEAVY CLEARING

BUFFER ZONE
 BOUNDARY
 TOTAL 228 ACRES
 133 LIGHT CLEARING
 95 HEAVY CLEARING

IMPACT AREA
 BOUNDARY
 TOTAL 540 ACRES
 11 LIGHT CLEARING
 529 HEAVY CLEARING

BUFFER ZONE
 BOUNDARY

IMPACT AREA
 BOUNDARY

STONE'S BAY

CATFISH
 POINT

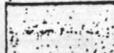
NEW RIVER

PEB
 3/84

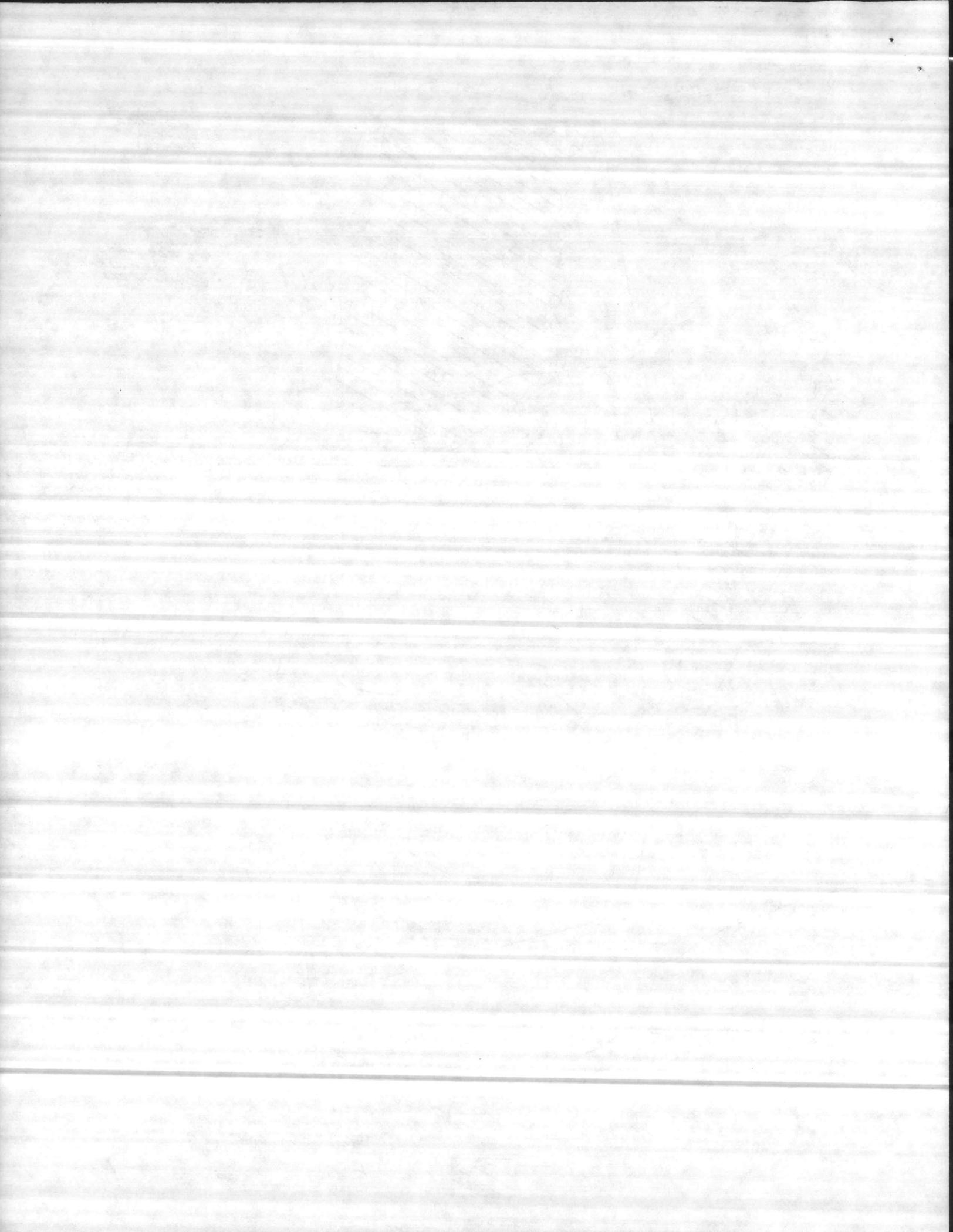
LEGEND

- ===== HARD SURFACE ROAD
- =====
===== PRIMARY DIRT ROAD
- SECONDARY DIRT ROAD
- CLEARING LIMITS
- BUFFER ZONE BOUNDARY
- IMPACT AREA BOUNDARY

 LIGHT CLEARING REQUIRED (217 ACRES)

 HEAVY CLEARING REQUIRED (634 ACRES)

SCALE:
 20 CHS = 1 INCH



Authorization of appropriations

(i) For the purposes of this section, there is authorized to be appropriated through the fiscal year ending June 30, 1977, not to exceed \$10,000,000.

Pub.L. 93-205, § 6, Dec. 28, 1973, 87 Stat. 889.

Historical Note

Effective Date. Section effective Dec. 28, 1973, see section 16 of Pub.L. 93-205, set out as a note under section 1531 of this title.

Legislative History. For legislative history and purpose of Pub.L. 93-205, see 1973 U.S.Code Cong. and Adm.News, p. 2989.

Library References

States 4.19.

C.J.S. States §§ 1, 7.

§ 1536. Interagency cooperation

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal departments and agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title and by taking such action as may be necessary to ensure the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined by the Secretary after consultation as appropriate with the affected States to be critical.

Pub.L. 93-205, § 7, Dec. 28, 1973, 87 Stat. 892.

Historical Note

Effective Date. Section effective Dec. 28, 1973, see section 16 of Pub.L. 93-205, set out as a note under section 1531 of this title.

Legislative History. For legislative history and purpose of Pub.L. 93-205, see 1973 U.S.Code Cong. and Adm.News, p. 2989.

§ 1537. International cooperation—Financial assistance

(a) As a demonstration of the commitment of the United States to the worldwide protection of endangered species and threatened species, the President may, subject to the provisions of section 724 of Title 31, use foreign currencies accruing to the United States Government under the Agricultural Trade Development and Assistance Act of 1954 or any other law to provide to any foreign country (with its consent) assistance in the development and management of programs in that country which the Secretary determines to be necessary or useful for the conservation of any endangered species or threatened species listed

by the Secretary pursuant to section 1533 shall provide assistance (which includes, acquisition, by lease or otherwise, of lands, to foreign countries under this section under conditions as he deems appropriate. Whenever available for the provision of assistance currencies shall be used in preference to funds of the authority of section 1542 of this title.

Encouragement of foreign

(b) In order to carry out further the purposes of this section, the Secretary, through the Secretary of State,

(1) foreign countries to provide for wildlife including endangered species pursuant to section 1533 of this title;

(2) the entering into of bilateral agreements with foreign countries to provide for

(3) foreign persons who directly or indirectly are engaged in life in foreign countries or on the high seas or in the United States for commercial or other purposes to carry out with such assistance as he deems appropriate practices designed to enhance such fishery resources.

Personnel

(c) After consultation with the Secretary, the Secretary may—

(1) assign or otherwise make available personnel of his department for the purpose of providing technical resources and programs which promote the conservation of wildlife; and

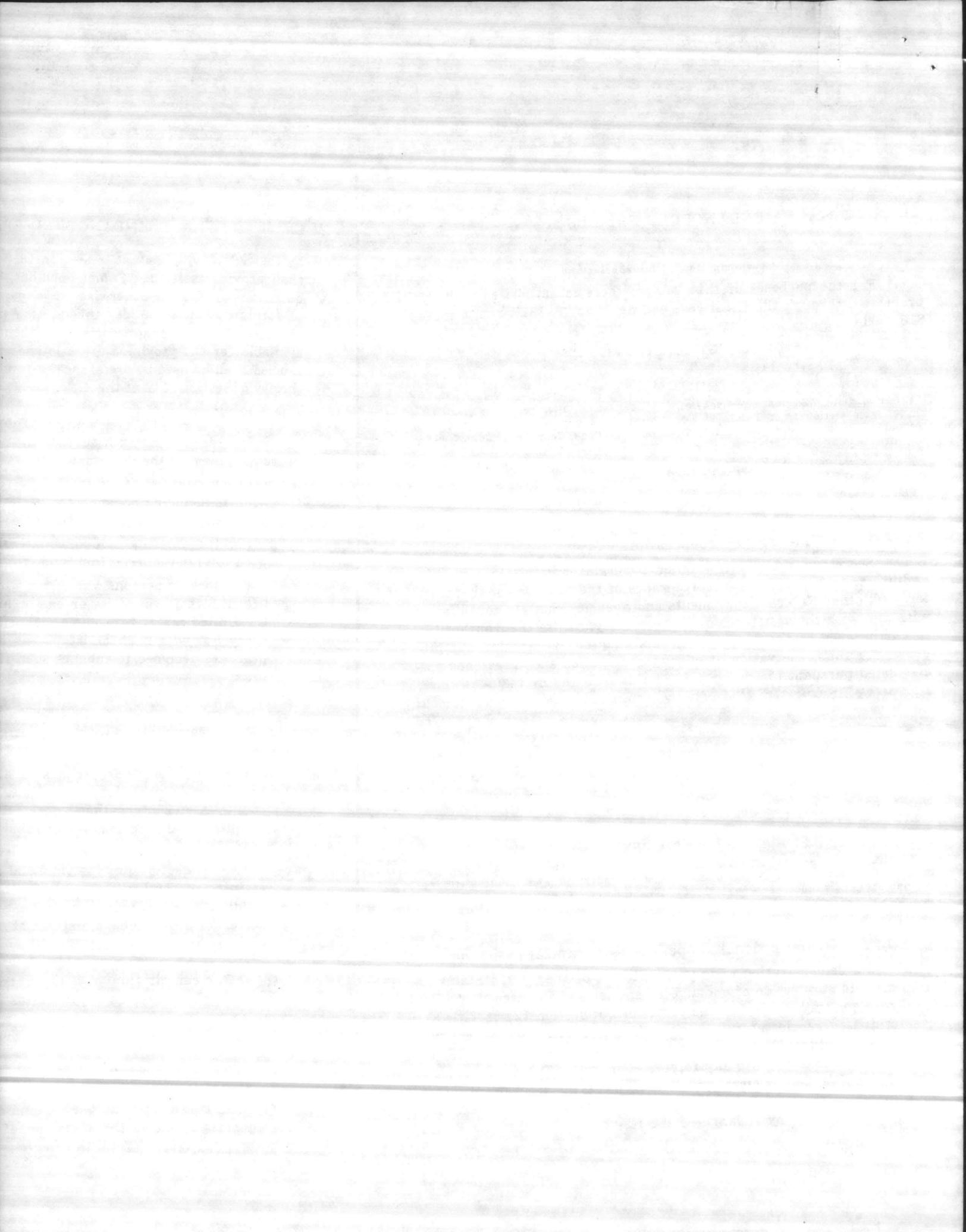
(2) conduct or provide financial assistance for the training of foreign personnel, in the field of wildlife, or plant management, research, or other purposes to render professional assistance abroad.

Investigation

(d) After consultation with the Secretary, the Secretary of the Treasury, as appropriate, may cause to be conducted such law enforcement or other investigation or research abroad as he deems necessary to carry out the purposes of this chapter.

Convention Implement

(e) The President is authorized and directed to cause appropriate agencies to act as the Management



11000
EOD
13 Jul 84

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: CONSTRUCTION OF OBSERVATION POST, POINT GILLETTE

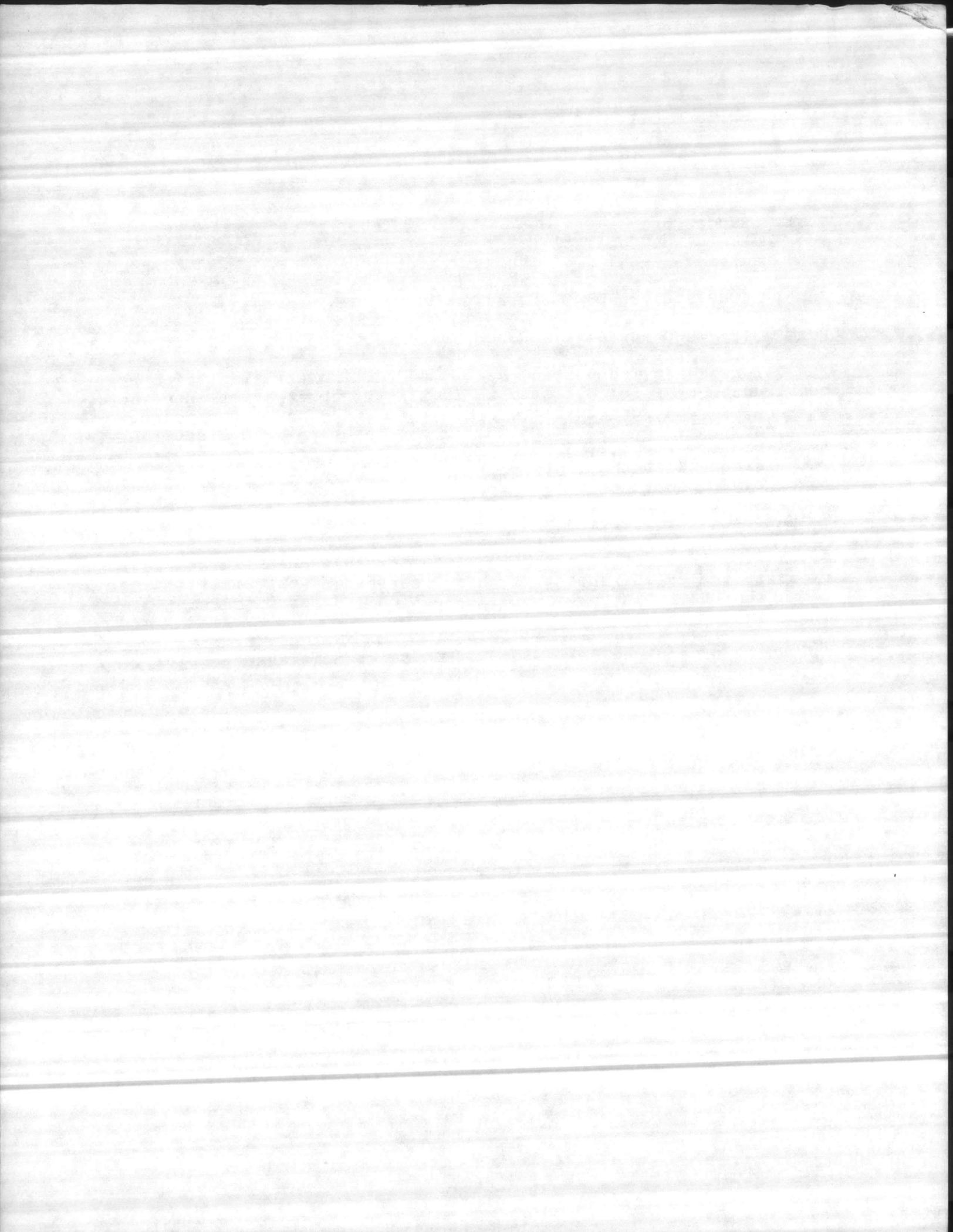
Ref: (a) RCO ltr RCTL/HBR/vec over 11000 dtd 1 May 84

1. Reference (a) requested that a 100 foot observation tower be constructed at Point Gillette to facilitate observation into the K-2 Impact Area for artillery firing and for close air support. OP-4 currently located at GS 921333 has not been used since the 1960's to observe firing into the G-10 Impact Area because of interference with the Engineer Range G-4. Inspection of the tower by 2D Combat Engineers report that the steel structure of the tower is sound, needing only some bolts and nuts replaced to be put back into service.

2. In the interest of reducing costs for reference (a) and to expedite the establishment of this Observation Post, it is requested that this tower be disassembled and moved to Point Gillette for reassembly.

3. Point of contact is: MSgt MOSES, Range Maintenance Chief, ext. 5211/3542.

T. B. HOWARD





UNITED STATES MARINE CORPS

Range Control
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
RCTL/HBR/vec
11000
1 May 1984

From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: Construction of Observation Post

Ref: (a) - CO, 10th Marines ltr 51/WAH/dmo over 5100 dtd 5Apr84
(b) - MCO 3570.1A

Encl: (1) Map Showing Observation Post Construction Site
(2) PEA for Observation Post, Point Gillette

1. Reference (a) requested that a one hundred foot observation tower be erected at horizontal point GILLETTE, vicinity of Grid 807313. Such construction would facilitate conducting of artillery fires into the K-2 Impact Area, allowing for better observation and safer control of the range to include that portion of New River subject to overflight of projectiles.

2. In accordance with references (a) and (b), and in order to meet the training requirements of tenant commands at Camp Lejeune, it is requested that a one hundred foot observation tower be erected at point GILLETTE.

3. In order to accomplish this project, the following actions must be undertaken:

a. Clearing of trees and vegetation for an access road from Highway 172 to the tower site.

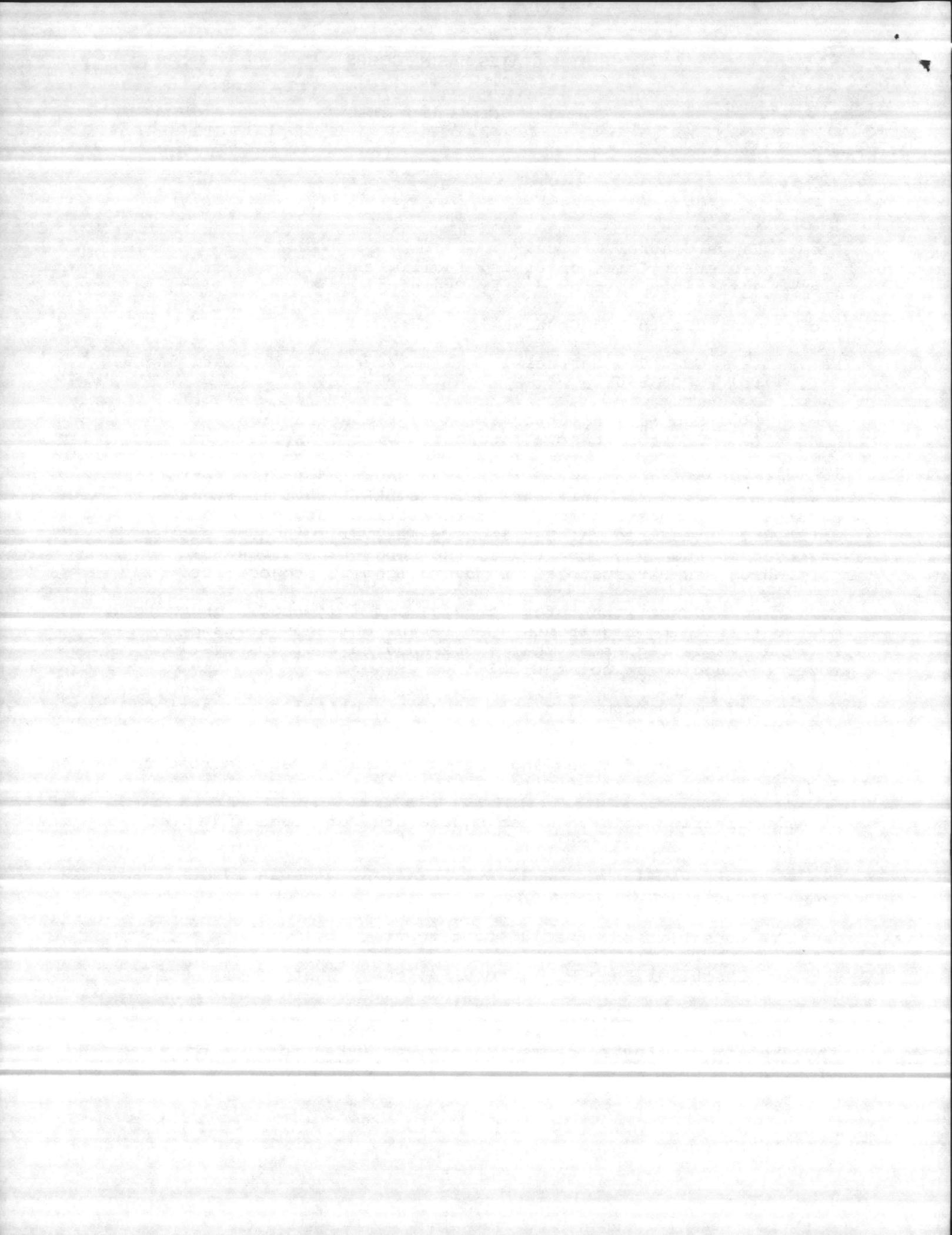
b. Clearing of a 75 meter square area of trees and vegetation for the tower site.

c. Construction of an access road from Highway 172 to the tower site.

d. Construction of a 100 foot tower.

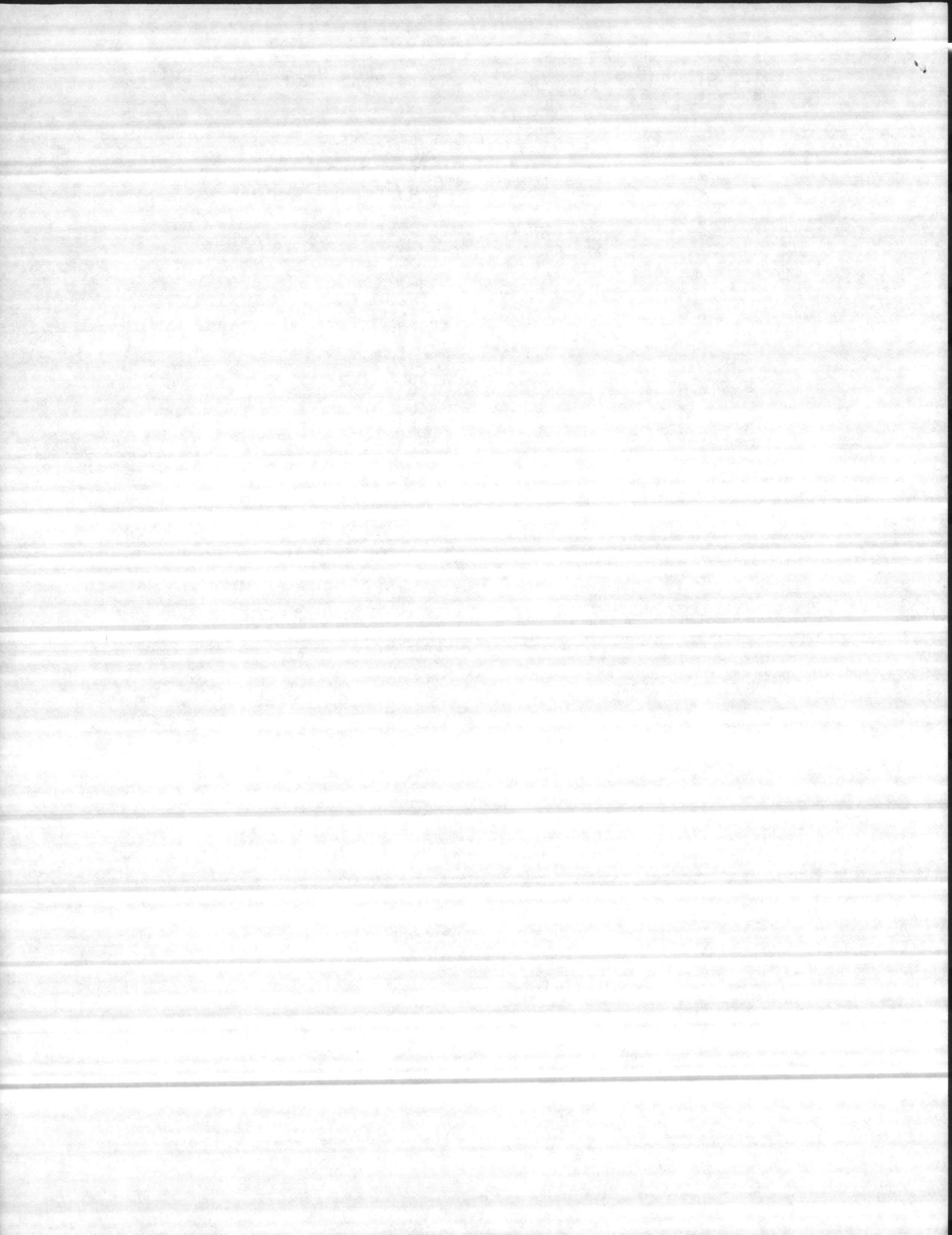
e. Installation of telephone service to the tower.

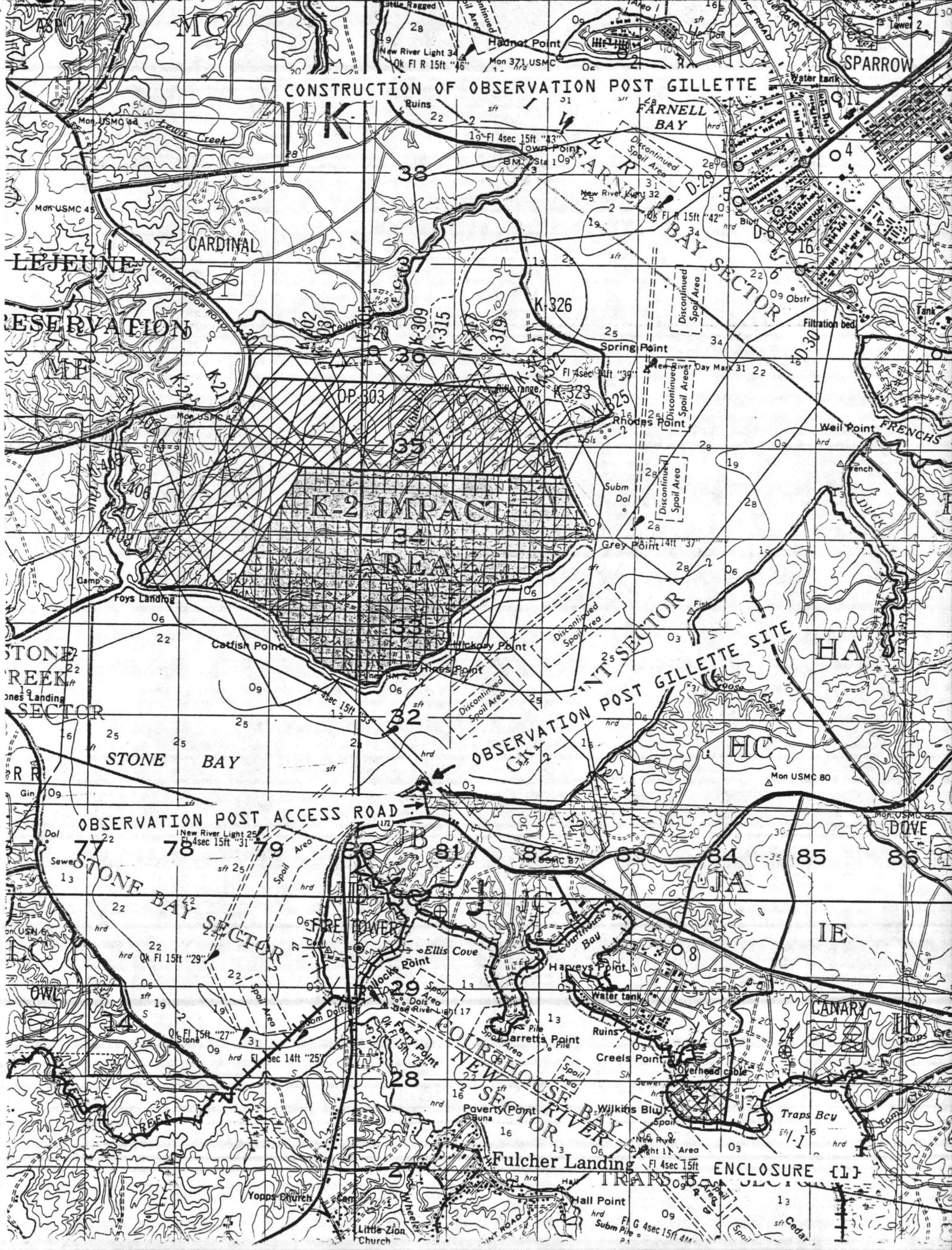
4. The total area to be cleared is shown in enclosure (1) and will have no significant environmental impact. Enclosure (2) is the Preliminary Environmental Assessment (PEA) for the proposed observation post.



5. Point of contact is: MSgt MOSES, Range Maintenance Chief,
phone extension 5211/3542.

H. B. Redmond Jr.
H. B. REDMOND, JR.





CONSTRUCTION OF OBSERVATION POST GILLETTE

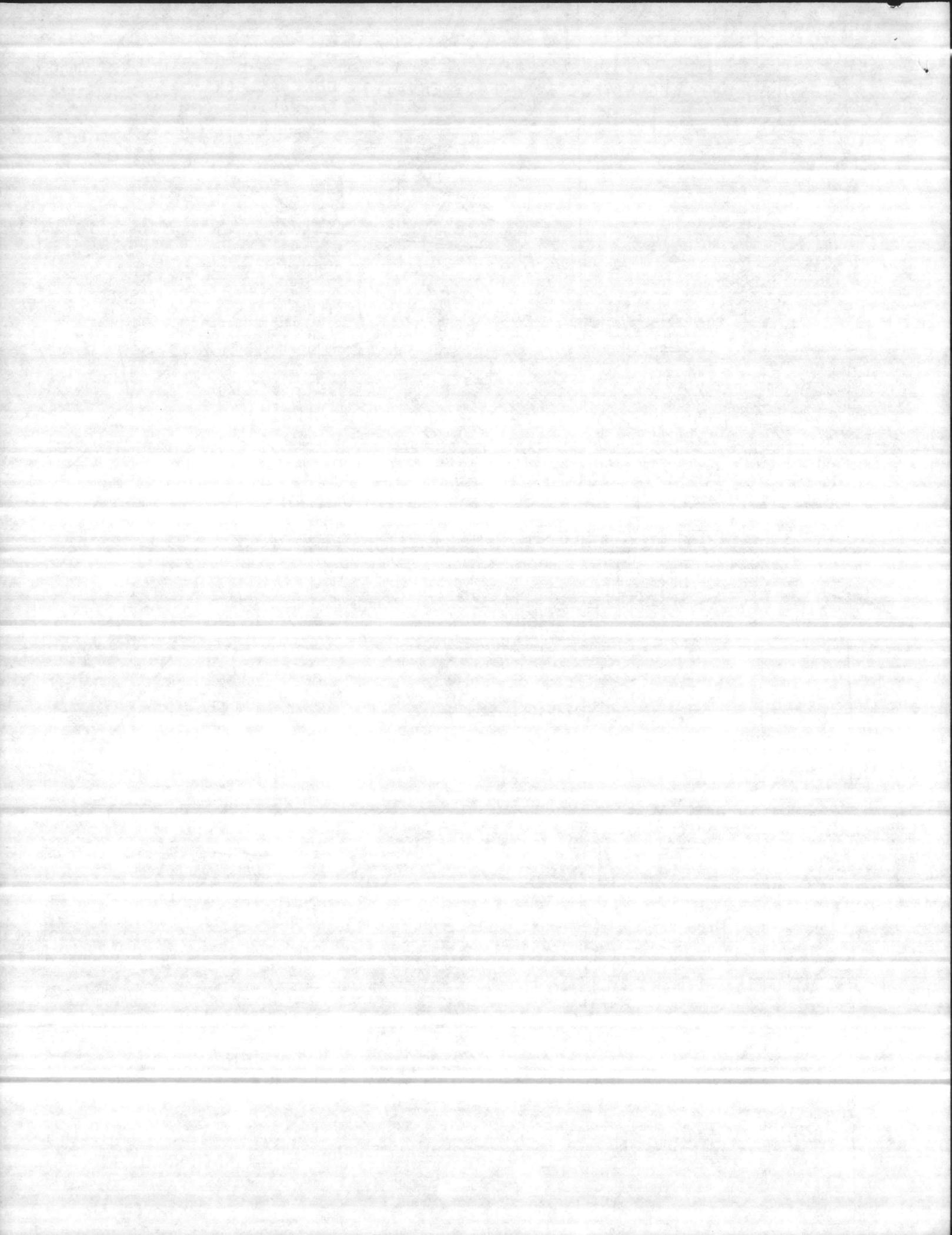
OP 303
K-2 IMPACT AREA

OBSERVATION POST GILLETTE SITE

OBSERVATION POST ACCESS ROAD

COURTHOUSE BAY SECTOR

ENCLOSURE [1]

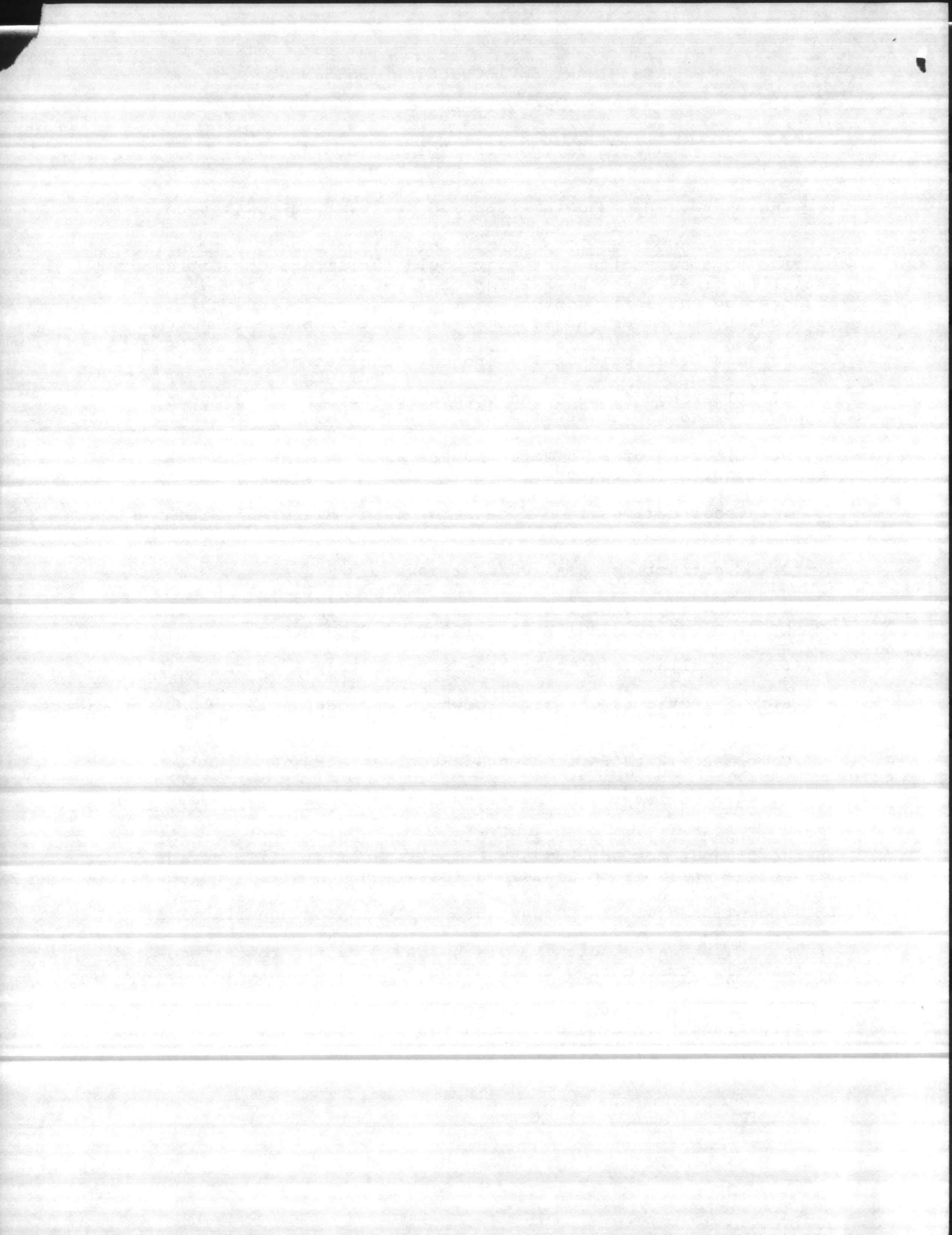


PRELIMINARY ENVIRONMENTAL ASSESSMENT

- FOR

OBSERVATION POST POINT GILLETTE

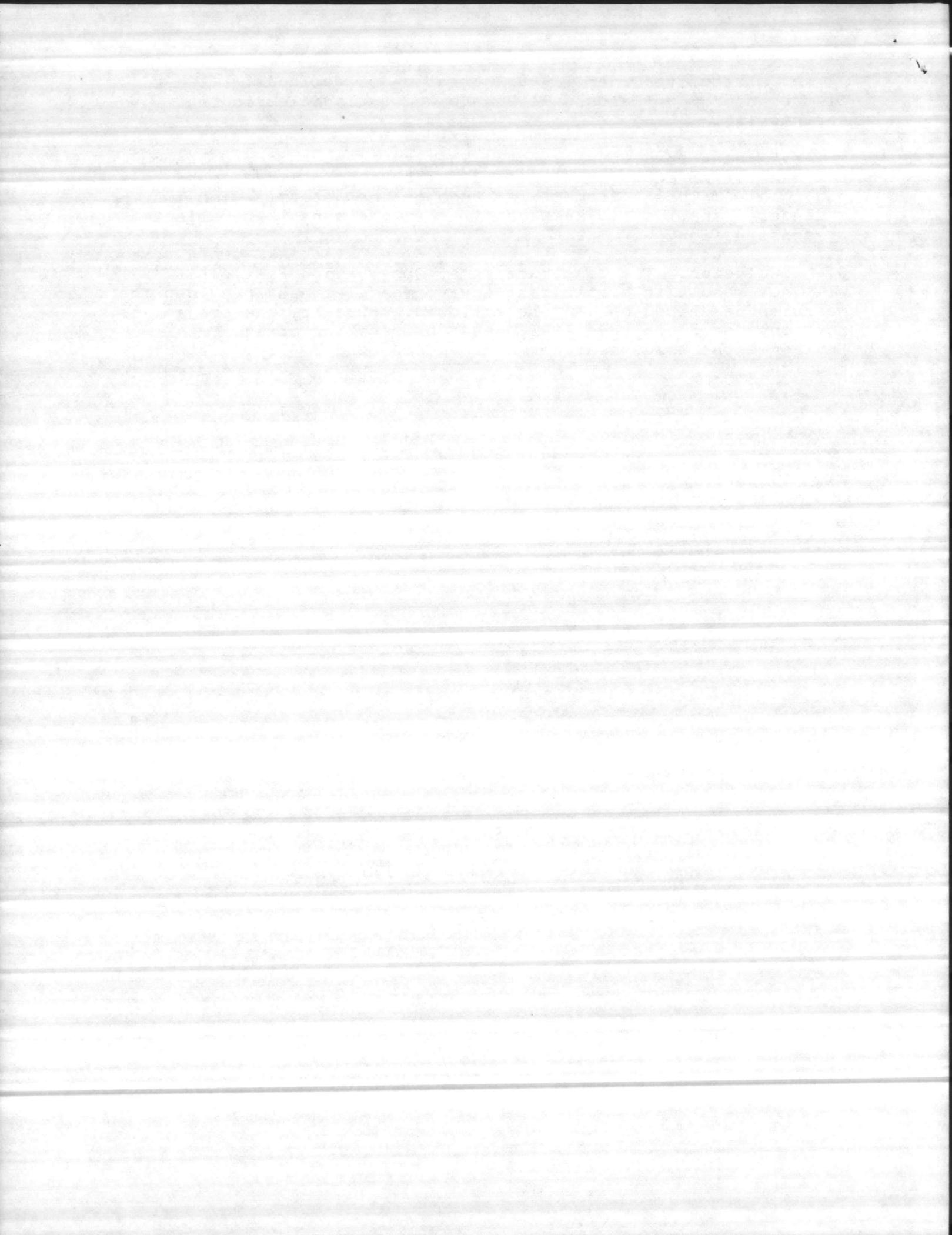
1. Enclosure. Map showing proposed observation tower site.
2. Purpose and Need. The purpose of this proposed action is to provide an observation post that would facilitate conducting of artillery fires into the K-2 Impact Area allowing for better observation and safer control of the range to include that portion of New River subject to overflight of projectiles.
3. Project Description. The project consists of:
 - a. Clearing of trees and vegetation for an access road from Highway 172 to the tower site.
 - b. Clearing of a 75 meter square area of trees and vegetation for the tower site.
 - c. Construction of an access road from Highway 172 to the tower site.
 - d. Construction of a 100 foot tower.
 - e. Landscaping of the area to establish permanent grasses for erosion control and to facilitate maintenance.
 - f. Installation of telephone service to the tower.
4. Site Selection. The site shown in enclosure (1) allows for the best visibility and control of firing.
5. Compliance With Environmental Requirements
 - a. Air quality: No emissions are anticipated.
 - b. Land Quality: Erosion control measures will be included in the project design. Construction management will provide preventive measures to contain all sediment on site. Reseeding of disturbed areas and vegetative cover on the cleared area will be accomplished within 30 days of completion of construction.
 - c. Clean Water Act: No discharge of wastes to surface waters will occur during development or subsequent use.
 - d. National Historic Preservation Act: No significant cultural resources are located on the project site.



e. Executive Order 11990 Protection of Wetlands:
Disturbance of wetlands will be avoided during clearing and earthmoving.

f. Endangered Species Act: The impact of this project on the habitat of endangered species has been determined to be negligible. This statement is based on the determination that no endangered species are known to live in the area to be affected by construction.

6. Conclusion. The construction of Observation Post GILLETTE will not result in significant environmental impact provided the measures described herein are followed. Further, the project is not considered controversial, thus, preparation of an Environmental Assessment per Marine Corps Order 6280.5 is not required.



CONSTRUCTION OF OBSERVATION POST GILLETTE



FARNELL BAY

LEJEUNE
RESERVATION

CARDINAL

K-2 IMPACT

STONE
CREEK
SECTOR

STONE BAY

OBSERVATION POST GILLETTE SITE

OBSERVATION POST ACCESS ROAD

STONE BAY SECTOR

NEW HOUSE BAY SECTOR

CANARY

Fulcher Landing

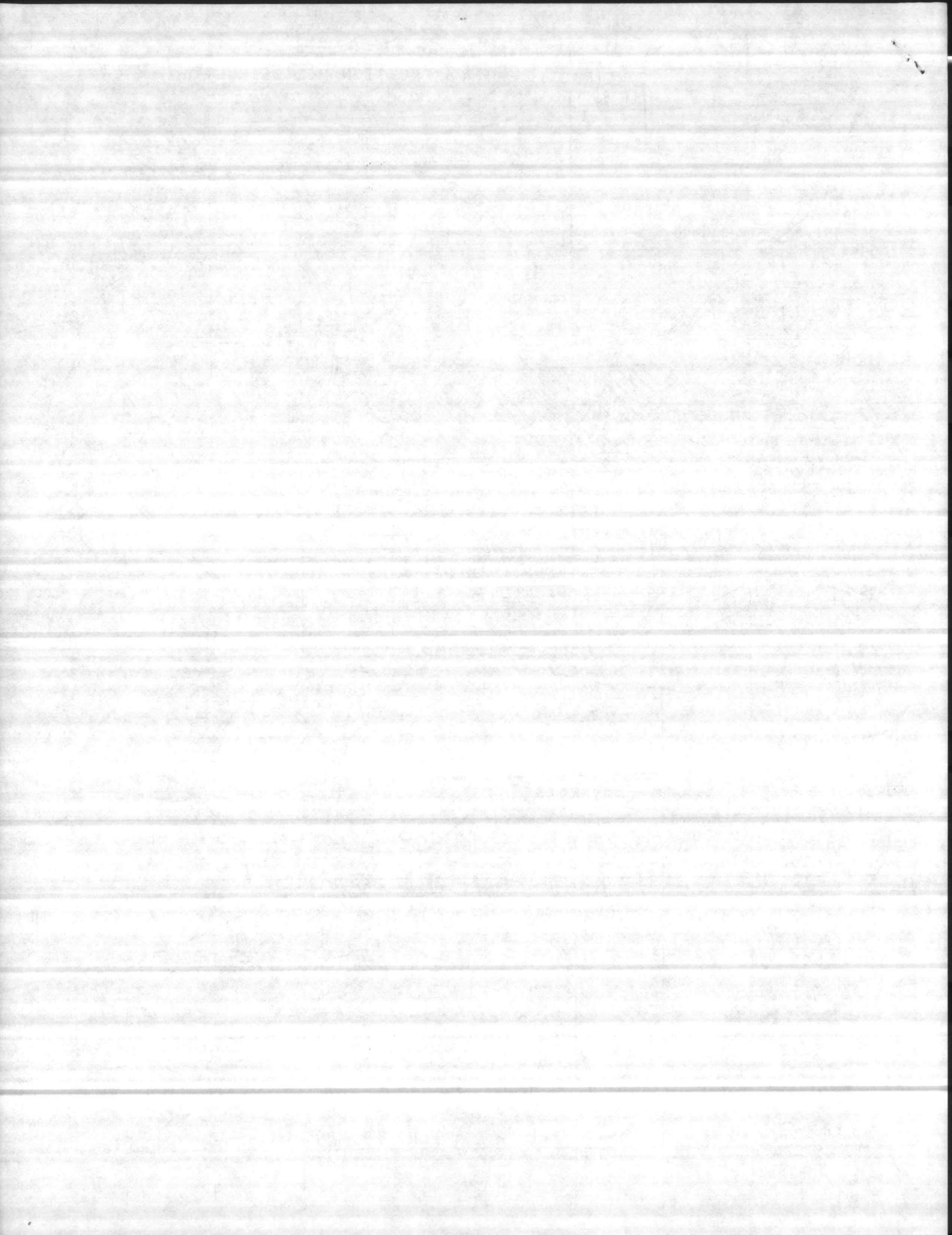
ENCLOSURE (1)

Yoppa Church

Little Zion Church

Hall Point

Traps Bcy



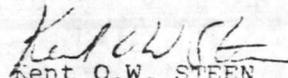


UNITED STATES MARINE CORPS
10th Marines, 2d Marine Division, FMF
Camp Lejeune, North Carolina 28542

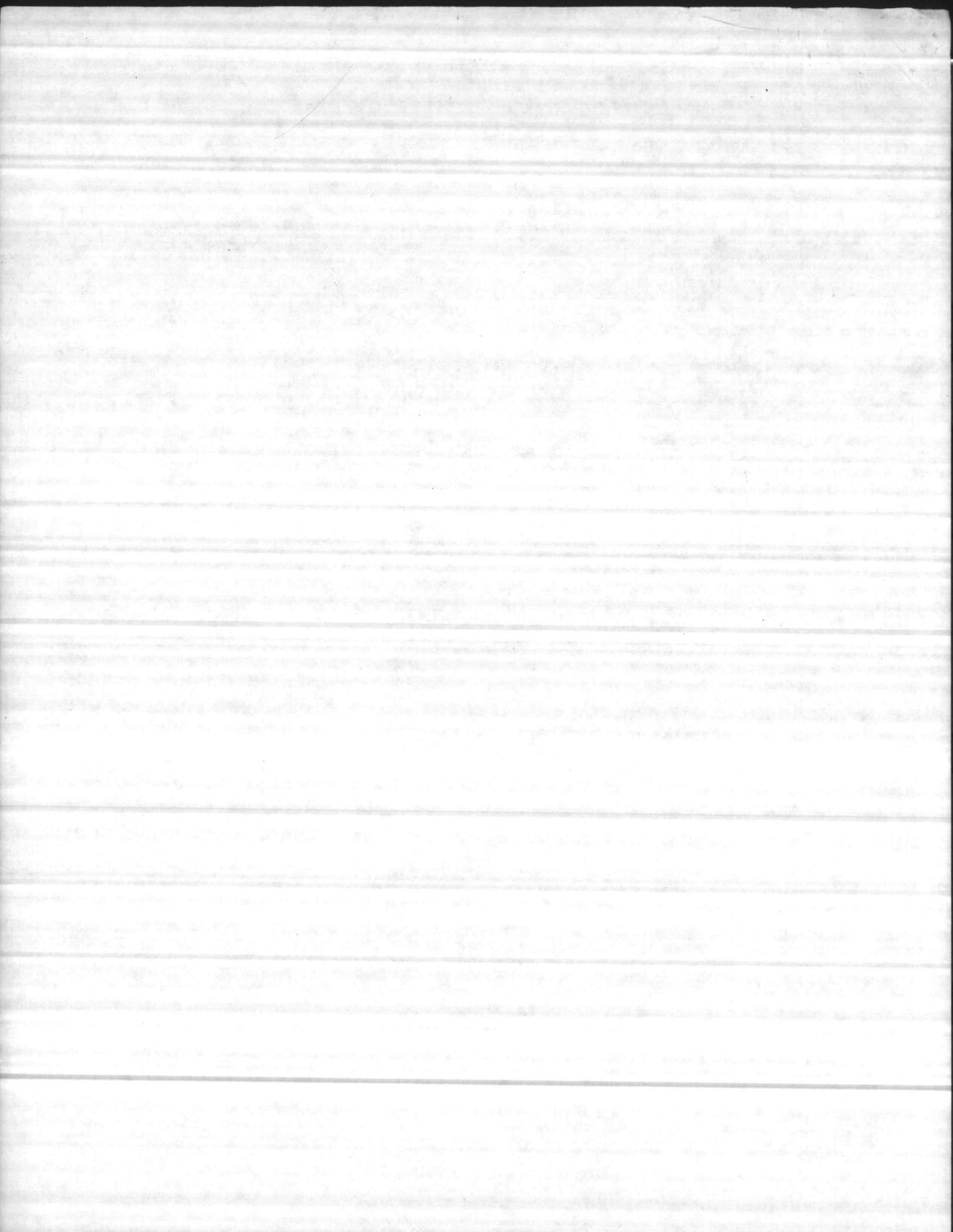
IN REPLY REFER TO
51/WAH/dmc
5100
5 Apr 1984

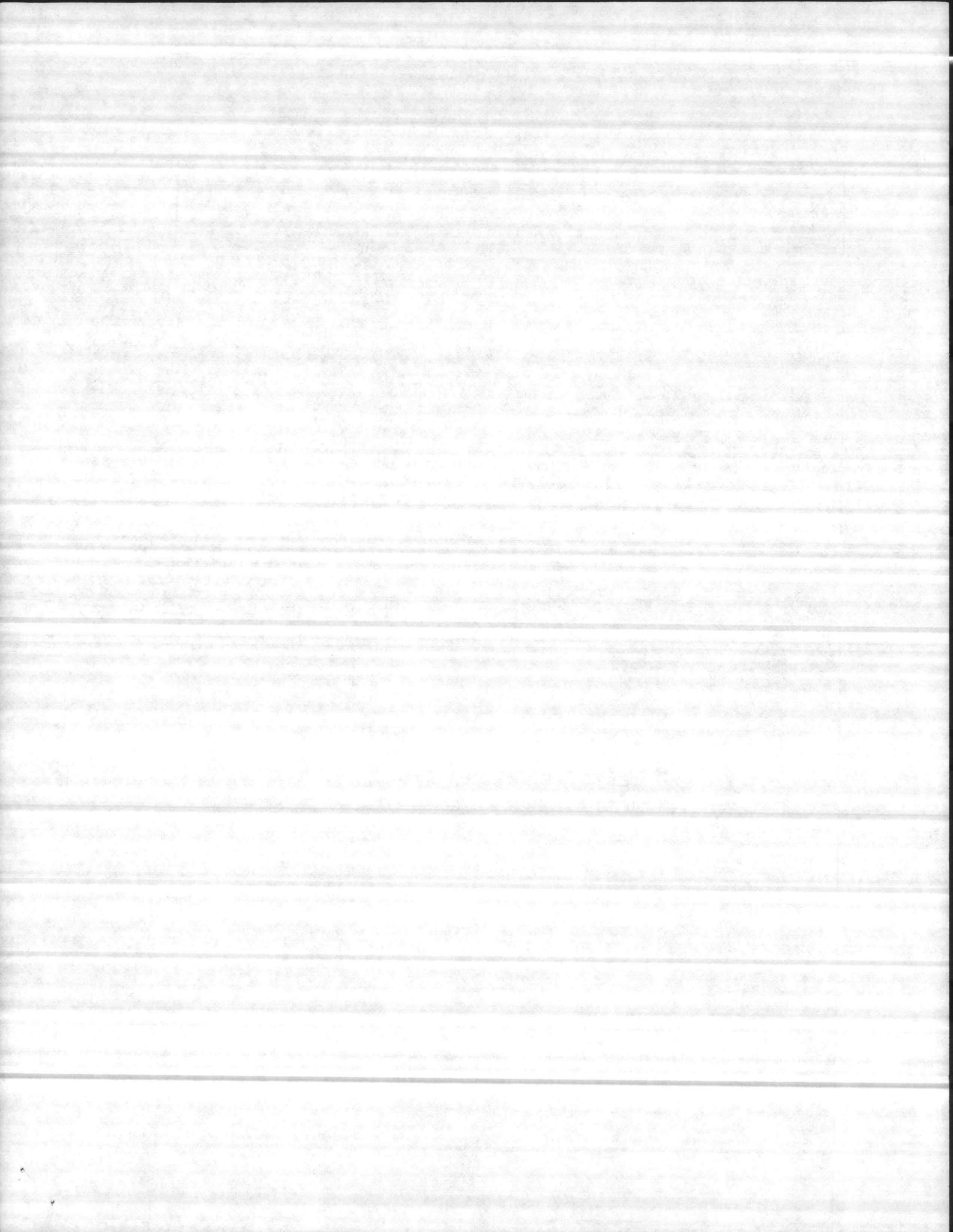
From: Commanding Officer
To: Commanding General, Marine Corps Base, Camp Lejeune North Carolina
(Attn: G-3T)
Via: Commanding General, 2d Marine Division, FMF (Attn: G-4)
Subj: Construction of Observation Post.
Ref: (a) CONV between Colonel McELROY (G-3, MCB) and Lieutenant Colonel STEEN
(XC, 10th Mar) on 5 Apr 1984.

1. In accordance with the reference, it is requested a one hundred foot observation tower be erected at horizontal control point GILLETTE, vicinity of grid 807313. Such construction would facilitate conducting of artillery fires into the K-2 Impact Area, allowing for better observation and safer control of the range to include that portion of New River subject to overflight of projectiles.
2. Point of contact for this headquarters is Captain HAMILTON, extension 1640 or 5527.


Kent O.W. STEEN
by direction

Copies to: G-3T, MCB
Range Control, MCB



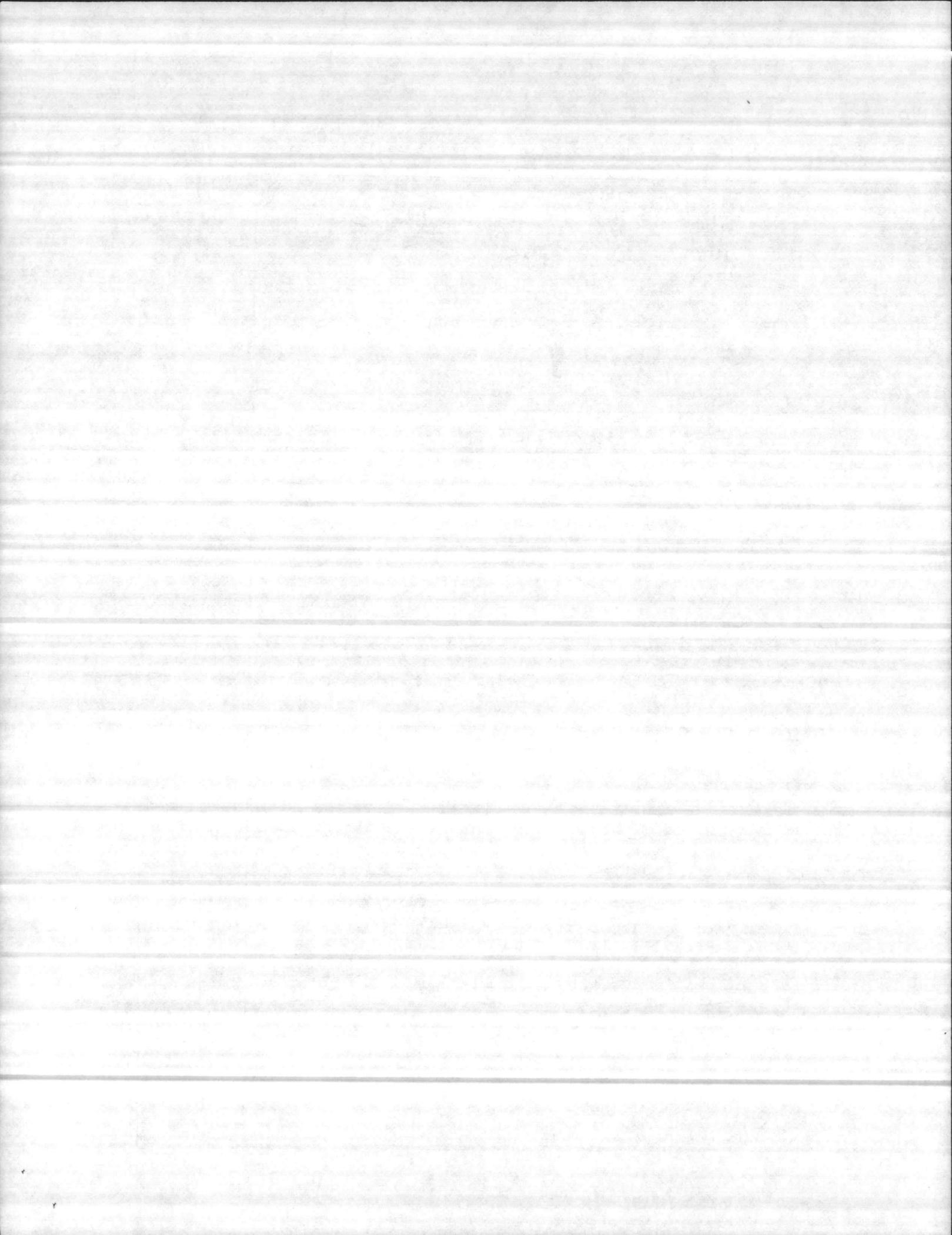




325,000
FEET

is sheet 1.5)

RESERVE VATION



K-2 Soils Whitehurst Creek

	Erosion	Erosion
① BmB (Baymeade) Slight	Moderate	Moderate
② MaC (Maryn) Slight	(Moderate)	(Wet Severe)
③ Mk (Mackalee) Severe		Severe

Mill Creek

① AnB (Alpin) Slight	Moderate	
② BmB (Baymeade) Slight	Moderate	
③ KuB (Kureb)		
④ MaC (Maryn) Slight	(Moderate)	(Not Severe)
⑤ Ln (Leon)		
⑥ Mk (Mackalee) Severe		Severe Erosion
⑦ NoB (Norfolk) (Slight) (Moderate)	(Moderate)	(Wet Severe)
⑧ On (Onslow) (Slight) (Severe)	(Moderate)	(Wet Severe)

Shedline New River

① BmB (Baymeade) Slight	Moderate	
② Bo (Bohicket) Severe	Severe (rattling)	
③ MaC (Maryn) Slight	(Moderate)	(Severe)
④ Mk (Mackalee) Severe		Severe (rattling)

Soils in Recently Cleared Areas of the G-10 Impact Area

① KuB (Kureb) Moderate	Moderate	Erosion
② Ln (Leon) Moderate	Moderate	Severe
③ Mu (Marville) Severe		(rattling) Severe

Soils in recently cleared Area of the G-C

① KuB (Kureb) Moderate	Moderate SANDY	Moderate (Erosion)
② Ln (Leon) Moderate	Moderate	Severe (large Deep holes)
③ Pa (Pactows) Slight		Severe (erosion)
④ WaB (Wando) Slight		(Moderate erosion)

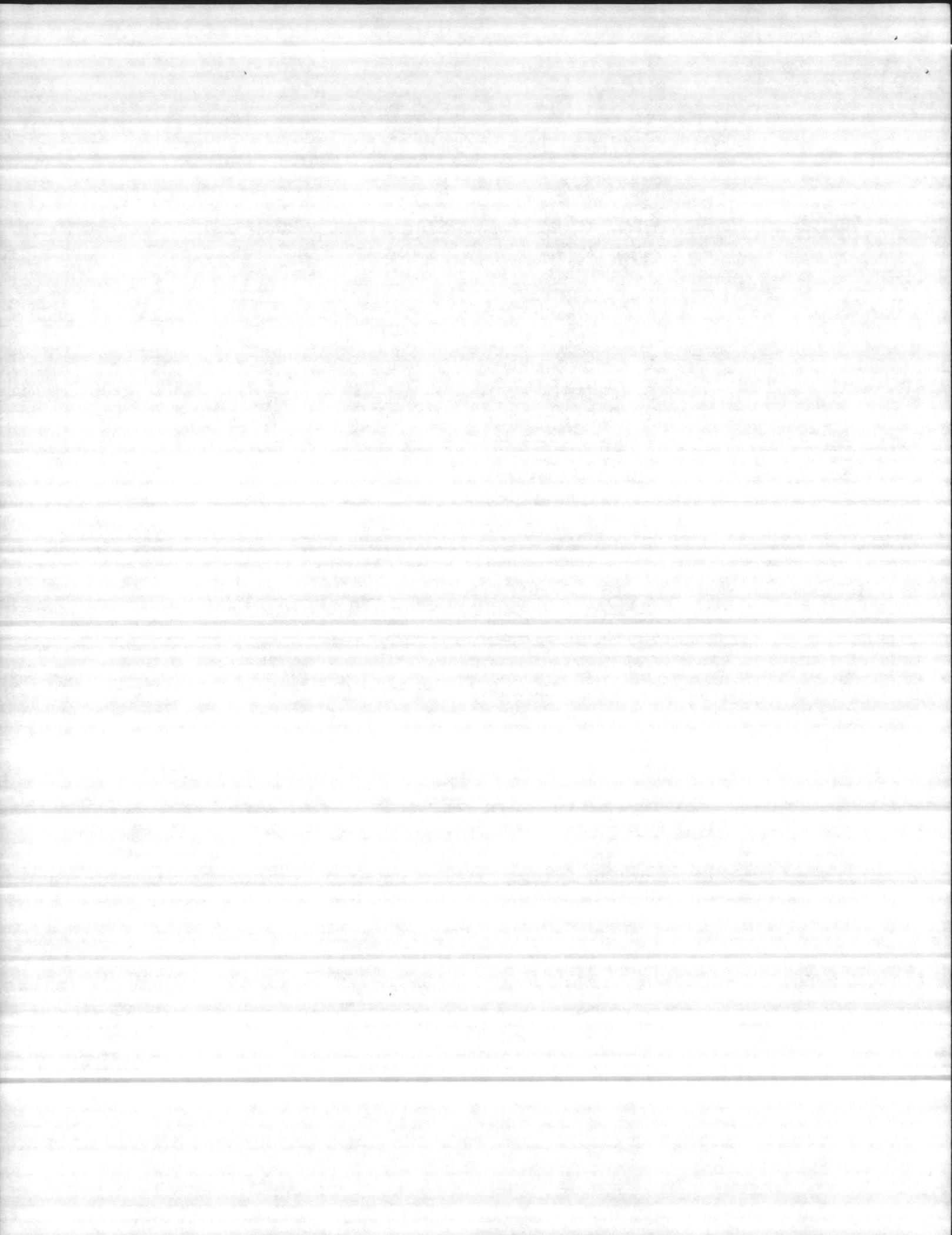


TABLE A--OFF ROAD MANEUVERS--LIMITATIONS OF SOILS FOR TRAVERSE BY:

Soil name and map symbol	: Track and heavy wheeled vehicles	: Light wheeled vehicles	: Foot traffic
Alpin:			
AnB-----	Slight:	Severe:	Moderate:
		too sandy,	too sandy.
		(poor traction)	
Baymeade:			
BaB, BmB-----	Slight:	Moderate:	Moderate:
		too sandy,	too sandy.
		(poor traction)	
Bohicket:			
Bo-----	Severe:	Severe:	Severe:
	floods, wetness,	floods, wetness,	floods, wetness,
	low strength.	low strength.	too clayey.
Corolla:			
Co-----	Moderate:	Moderate:	Severe:
	wetness,	too sandy,	too sandy.
	too sandy.	wetness.	
Craven:			
CrB, CrC-----	(Dry) Slight:	(Dry) Slight:	(Dry) Slight:
	(Wet) Severe:	(Wet) Severe:	(Wet) Moderate slight.
	low strength,	low strength,	poor traction
	too clayey.	too clayey.	
Croatian:			
Ct-----	Severe:	Severe:	Severe:
	wetness, ponding,	wetness, ponding,	wetness, ponding,
	excess humus,	excess humus,	excess humus.
	low strength.	low strength.	
Dorovan:			
Da-----	Severe:	Severe:	Severe:
	wetness, floods,	wetness, floods.	wetness, ponding,
	excess humus,	excess humus,	excess humus.
	low strength.	low strength.	
Duckston:			
Dc-----	Moderate:	Moderate:	Severe:
	wetness, floods.	wetness, floods.	wetness, floods.

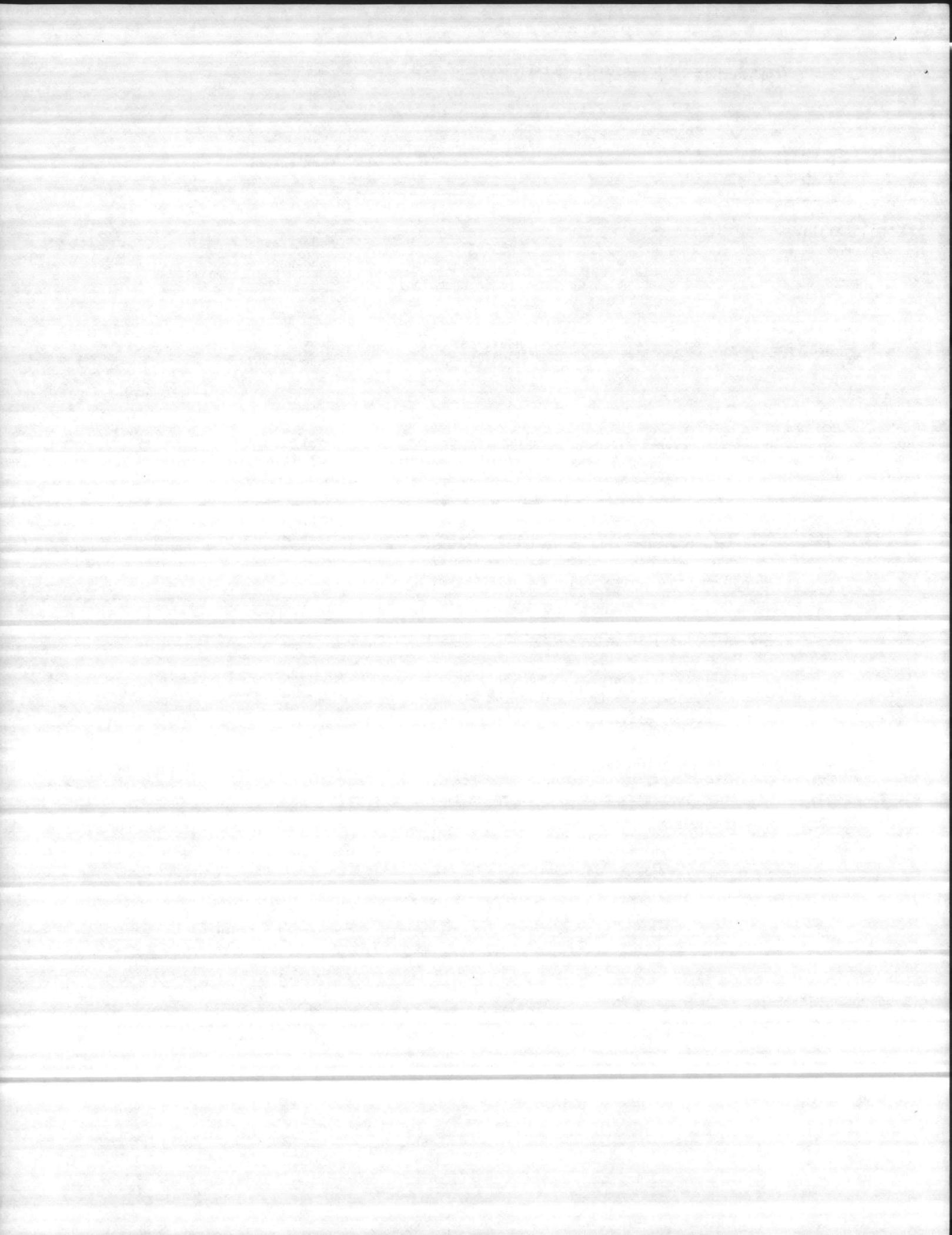


TABLE A--OFF ROAD MANEUVERS--LIMITATIONS OF SOILS FOR TRAVERSE BY

Soil name and map symbol	: Track and heavy wheeled vehicles	: Light wheeled vehicles	: Foot traffic
Foreston:			
FoA-----	(Dry) Slight:	(Dry) Slight:	(Dry) Slight:
	(Wet) Slight:	(Wet) Moderate: excess fines.	(Wet) Slight:
Goldsboro:			
CoA, CpB-----	(Dry) Slight:	(Dry) Slight:	(Dry) Slight:
	(Wet) Severe: excess fines, (lower bearing strength).	(Wet) Severe: excess fines, (lower bearing strength).	(Wet) Slight:
Kureb:			
KuB-----	Moderate: too sandy, (poor traction).	Severe: too sandy, (poor traction).	Severe: too sandy, (poor traction).
Lafitte:			
La-----	Severe: wetness, floods, excess humus, low strength.	Severe: wetness, floods, excess humus, low strength.	Severe: wetness, floods, excess humus.
Lenoir:			
Le-----	Severe: wetness, too clayey, low strength.	Severe: wetness, too clayey, low strength.	Moderate: wetness, ponding.
Leon:			
Ln-----	Moderate: too sandy, wetness.	Severe: too sandy, wetness.	Moderate: wetness, too sandy.
Lynchburg:			
Ly-----	Moderate: wetness, excess fines.	Severe: wetness, excess fines.	Moderate: wetness.
Marvyn:			
MaC-----	Slight:	Slight:	Slight:

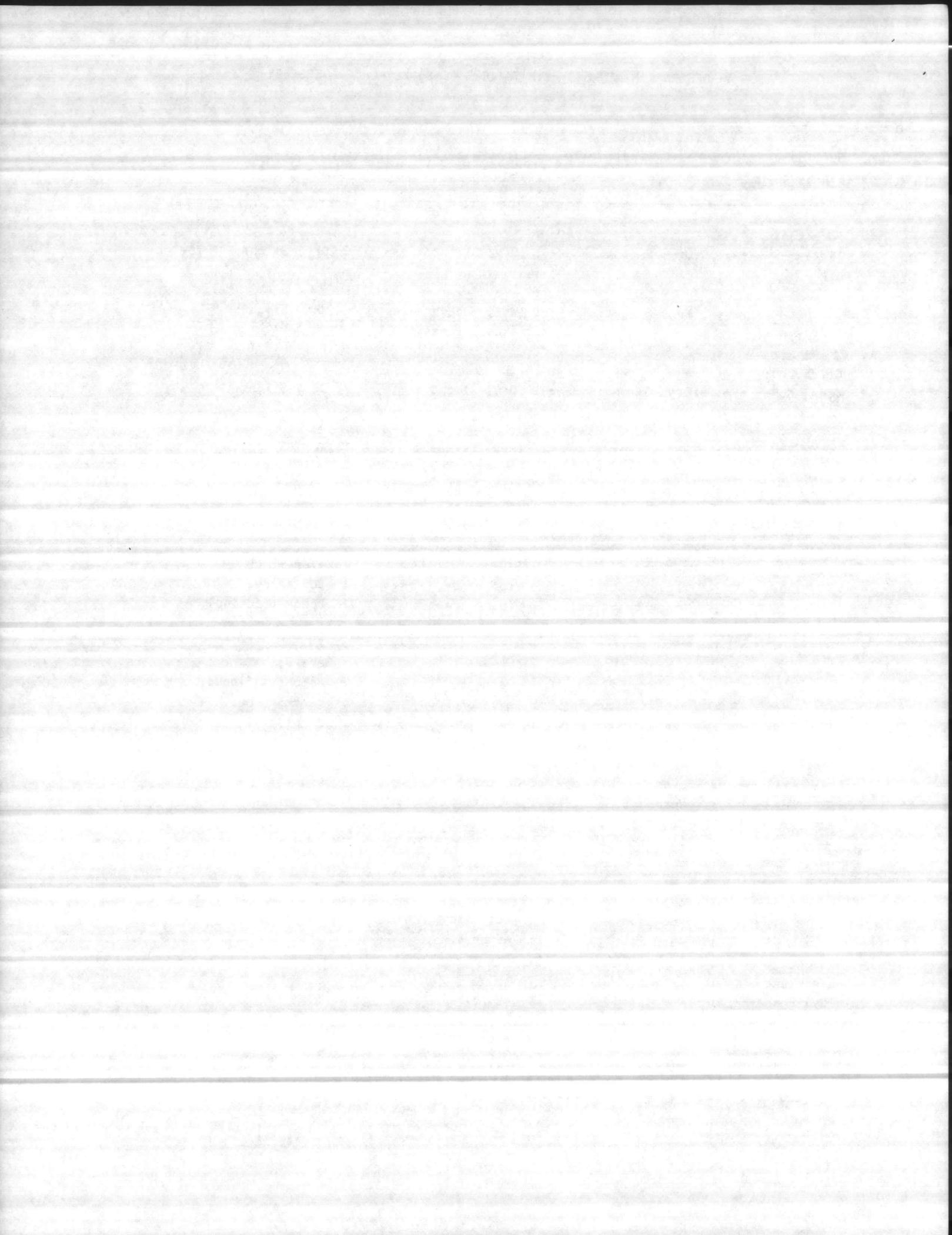


TABLE A--OFF ROAD MANEUVERS--LIMITATIONS OF SOILS FOR TRAVERSE BY

Soil name and map symbol	Track and heavy wheeled vehicles	Light wheeled vehicles	Foot Traffic
Muckalee:			
Mk-----	Severe: floods, wetness, low strength.	Severe: floods, wetness, low strength.	Severe: floods, wetness.
Murville:			
Mu-----	Severe: wetness, ponding, excess humus.	Severe: wetness, ponding, excess humus.	Severe: wetness, ponding, very dense vegetation.
Newhan:			
NeE, NfC-----	Severe: too sandy (poor traction), slopes.	Severe: too sandy (poor traction), slopes.	Severe: too sandy.
Norfolk:			
NoA, NoB-----	(Dry) Slight: excess fines (lower bearing strength).	(Dry) Slight: excess fines (lower bearing strength).	(Dry) Slight: (Wet) Slight: excess fines (lower bearing strength).
Onslow:			
On-----	(Dry) Slight: excess fines (lower bearing strength).	(Dry) Slight: excess fines (lower bearing strength).	(Dry) Slight: (Wet) Slight: excess fines (lower bearing strength).
Pactolus:			
Pa-----	Slight:	Severe: too sandy (poor traction).	Moderate: too sandy.
Pantego:			
Pn-----	Severe: wetness, ponding, excess humus.	Severe: wetness, ponding, excess humus.	Severe: wetness, ponding, excess, humus, dense vegetation.

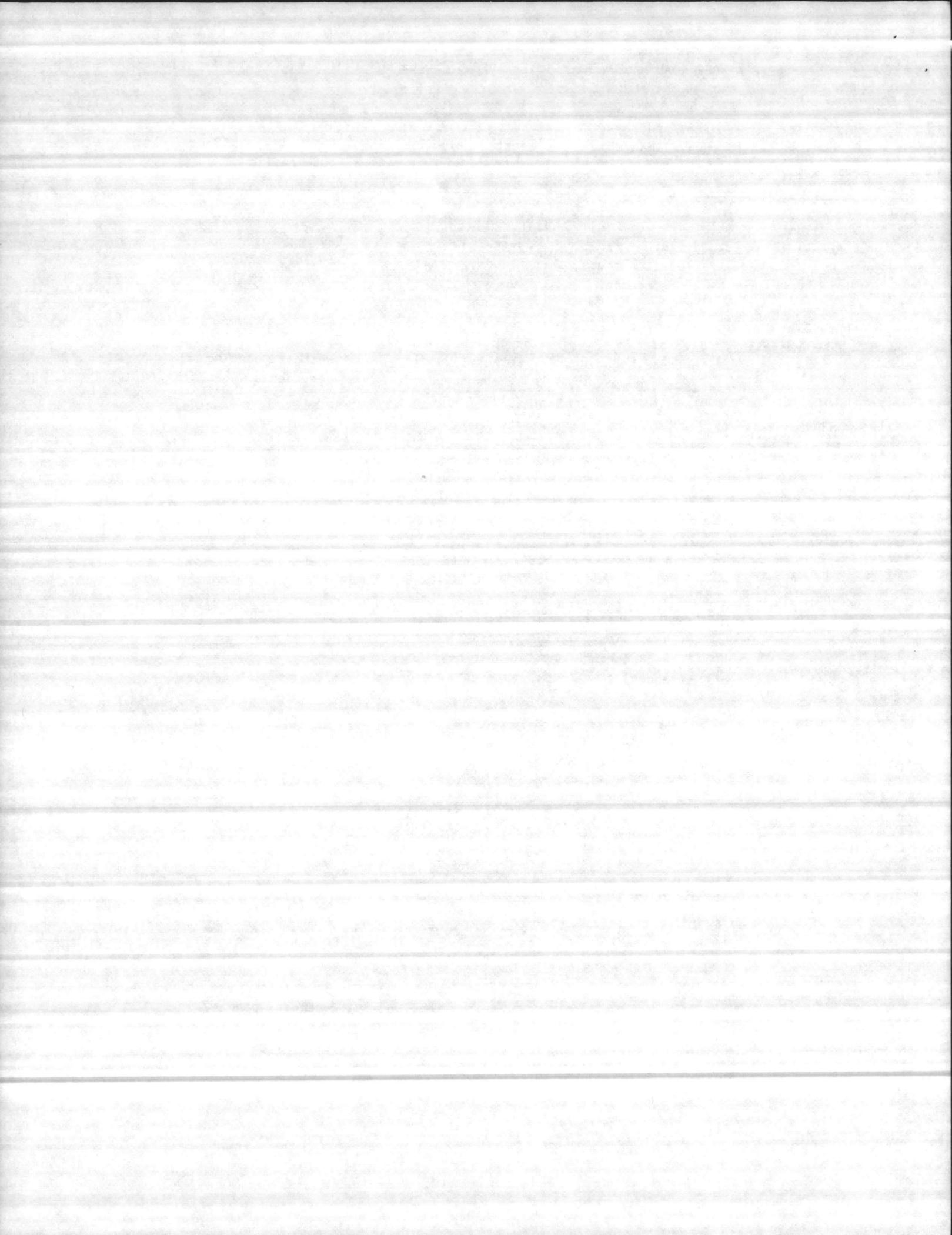


TABLE A--OFF ROAD MANEUVERS--LIMITATIONS OF SOILS FOR TRAVERSE BY

Soil name and map symbol	Track and heavy wheeled vehicles	Light wheeled vehicles	Foot traffic
Pits*: Pt-----			
Rains: Ra-----	Severe: wetness, ponding, excess fines.	Severe: wetness, ponding, excess fines.	Severe: wetness, ponding.
Stallings: St-----	Slight:-----	Moderate: wetness, excess fines.	Moderate: wetness.
Torhunta: To-----	Severe: wetness, ponding.	Severe: wetness, ponding.	Severe: wetness, ponding.
Udorthents*: Ud-----			
Urban*: Ur-----			
Wando: WaB-----	Slight:-----	Severe: too sandy (poor traction).	Moderate: too sandy.
Woodington: Wo-----	Moderate: wetness, ponding.	Severe: wetness, ponding.	Severe: wetness, ponding.
Yaupon: YaA-----	Moderate: wetness, low strength.	Severe: wetness, low strength.	Moderate: wetness.

*These units were not rated for any use and require on-site investigations.
Refer to mapping unit descriptions for more detailed information.

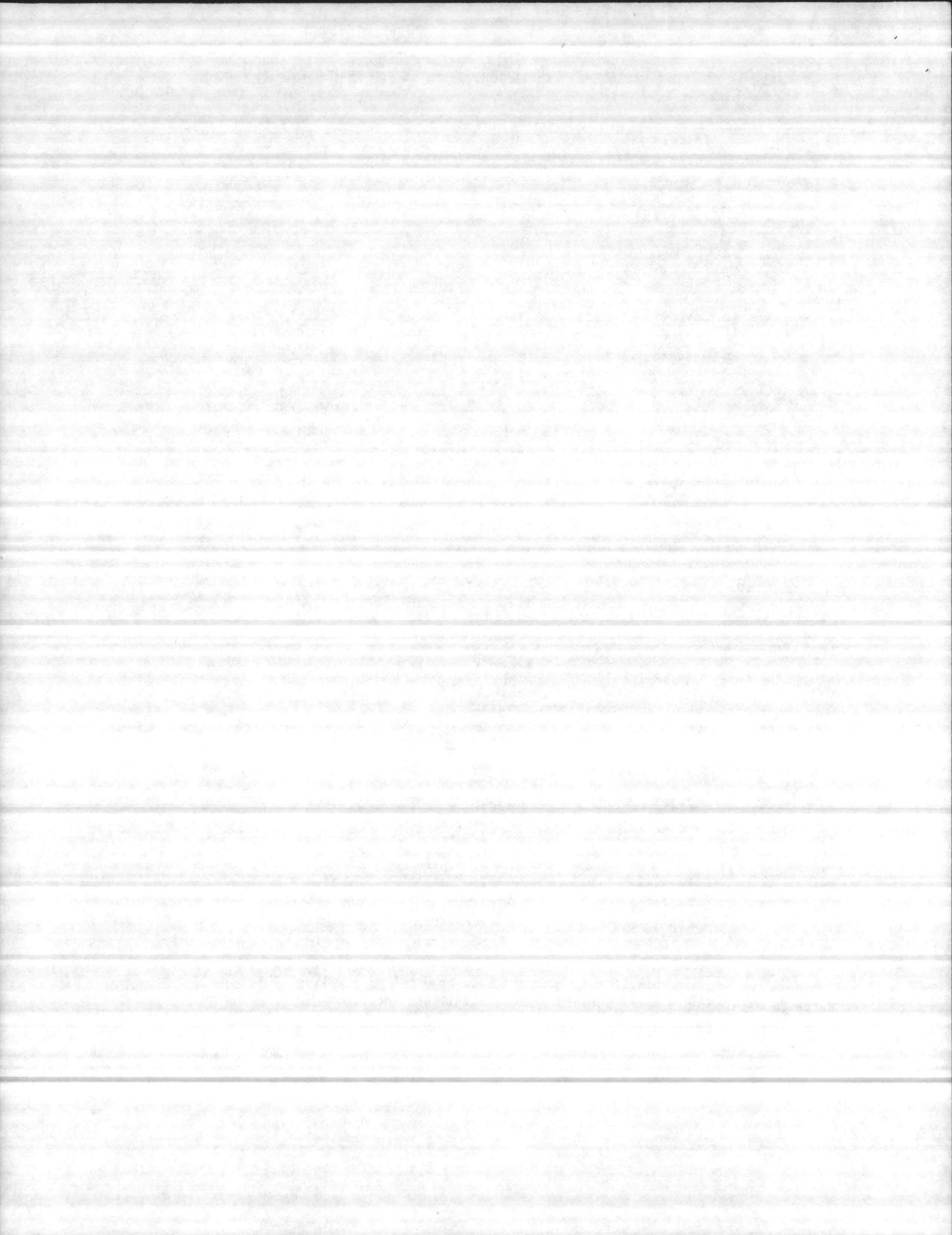


TABLE B--OFF ROAD MANEUVERS - LIMITATIONS OF SOILS FOR BIVOUAC SITES

Soil name and map symbol	Temporary tent sites	Temporary on-site waste disposal	Temporary shallow excavations	Temporary recreation area
Alpin:				<i>Moderate:</i>
AnB-----	Slight:	Slight:	Moderate: cutbanks cave.	Severe: too sandy.
Baymeade:				
BaB, EmB-----	Slight:	Slight:	Moderate: cutbanks cave.	Moderate: too sandy.
Bohicket:				
Bo-----	Severe: floods, wetness, too clayey.	Severe: floods, wetness, percs slowly.	Severe: floods, wetness.	Severe: floods, wetness.
Corolla:				
Co-----	Slight:	Severe: wetness.	Moderate: wetness, [cutbanks cave.]	Moderate: too sandy.
Craven:				
CrB, CrC-----	Slight:	Moderate: wetness, percs slowly.	Moderate: Slight: wetness.	Slight:
Croatan:				
Ct-----	Severe: excess humus, wetness, ponding.	Severe: wetness, ponding, excess humus.	Severe: wetness, ponding	Severe: excess humus, wetness, ponding.
Dorovan:				
Da-----	Severe: floods, excess humus, wetness.	Severe: wetness, floods, excess humus.	Severe: floods, wetness.	Severe: excess humus, floods, wetness.
Duckston:				
Dc-----	Severe: floods, wetness.	Severe: wetness, floods.	Severe: floods, wetness, (cutbanks cave,)	Moderate: floods, wetness, too sandy.

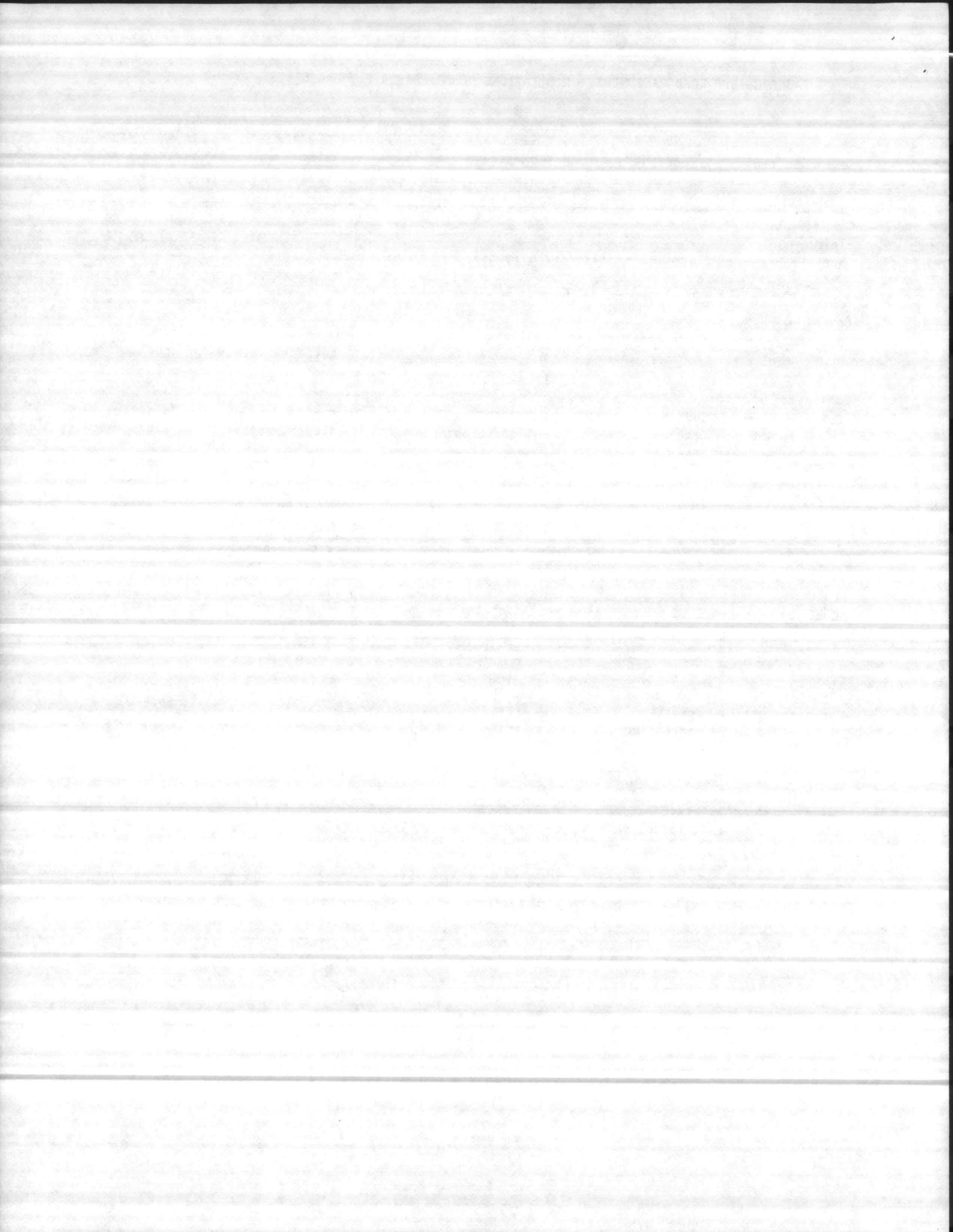


TABLE B--OFF ROAD MANEUVERS - LIMITATIONS OF SOILS FOR BIVOUAC SITES

Soil name and map symbol	Temporary tent sites	Temporary on-site waste disposal	Temporary shallow excavations	Temporary recreation area
Foreston:				
FoA-----	Slight:	Moderate: wetness.	Moderate: cutbanks cave.	Slight:
Goldsboro:			<i>Moderate:</i>	
GoA, GpB-----	Slight:	Moderate: wetness.	Slight: <i>wetness.</i>	Slight:
Kureb:				
KuB-----	Slight:	Slight:	Severe: cutbanks cave.	Severe: too sandy.
Lafitte:				
La-----	Severe: floods, wetness, excess humus.	Severe: floods, wetness, excess humus.	Severe: floods, wetness, excess humus.	Severe: floods, wetness, excess humus.
Lenoir:				
Le-----	Severe: wetness.	Severe: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.
Leon:				
Ln-----	Moderate: wetness.	Severe: wetness, hard pan.	Severe: wetness, cutbanks cave , hardpan.	Moderate: wetness, too sandy.
Lynchburg:				
Ly-----	Severe: wetness, dense vegetation.	Severe: wetness.	Moderate: wetness.	Moderate: wetness, dense vegetation.
Marvyn:				
MaC-----	Moderate: slope.	Slight:	Slight:	Moderate: slope.
Muckalee:				
Mk-----	Severe: floods, wetness, dense vegetation.	Severe: floods, wetness.	Severe: floods, wetness, <i>cutbanks cave.</i>	Severe: floods, wetness, dense vegetation.
Murville:				
Mu-----	Severe: wetness, ponding, excess humus, dense vegetation.	Severe: excess humus, wetness, ponding.	Severe: wetness, <i>ponding</i> , <i>cutbanks cave.</i>	Severe: wetness, ponding, dense vegetation.

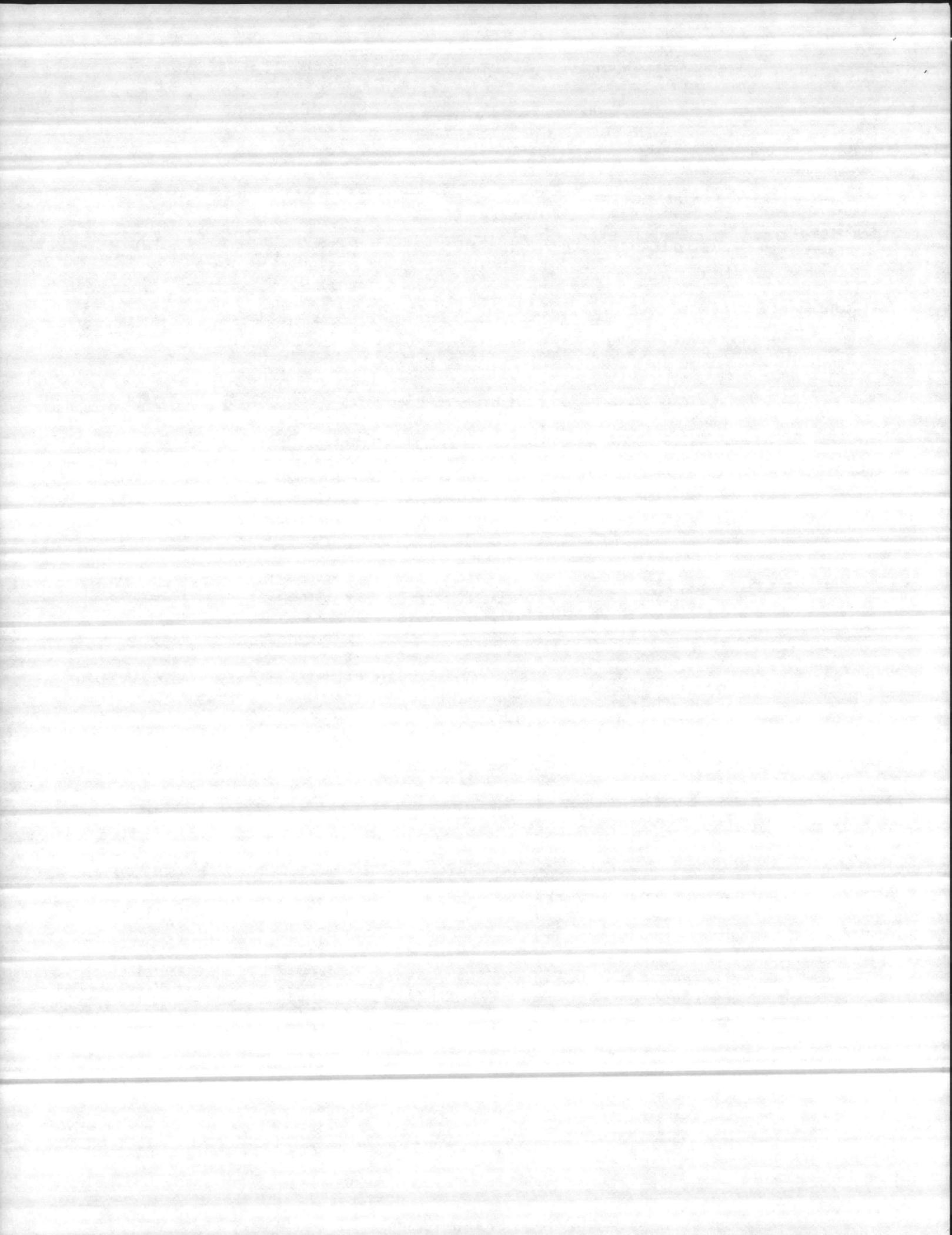


TABLE B--OFF ROAD MANEUVERS - LIMITATIONS OF SOILS FOR BIVOUAC SITES

Soil name and map symbol	Temporary tent sites	Temporary on-site waste disposal	Temporary shallow excavations	Temporary recreation area
Newhan: NeE, NfC-----	Severe: slope.	Severe: slope.	Severe: cutbanks cave.	Severe: too sandy, slope.
Norfolk: NoA, NoB-----	Slight:-----	Slight:-----	Slight:-----	Slight:
Onslow: On-----	Slight:-----	Moderate: wetness.	Moderate: Slight wetness.	Slight:
Pactolus: Pa-----	Slight:-----	Moderate: wetness.	Moderate: cutbanks cave, wetness.	Slight:
Pantego: Pn-----	Severe: wetness, ponding, dense vegetation.	Severe: wetness, ponding.	Severe: wetness, ponding.	Severe: wetness, ponding, dense vegetation.
Pits: Pt----- (See map unit):				
Rains: Ra-----	Severe: wetness, ponding, dense vegetation.	Severe: wetness, ponding.	Severe: wetness, ponding.	Moderate: wetness, ponding, dense vegetation.
Stallings: St-----	Moderate: wetness, dense vegetation.	Severe: wetness.	Moderate: wetness, cutbanks cave.	Moderate: wetness, dense vegetation.
Torhunta: To-----	Severe: wetness, ponding, dense vegetation.	Severe: wetness, ponding.	Severe: wetness, ponding, cutbanks cave.	Severe: wetness, ponding, dense vegetation.
Udorthents: Ud----- (See map unit):				
Urban: Ur----- (See map unit):				

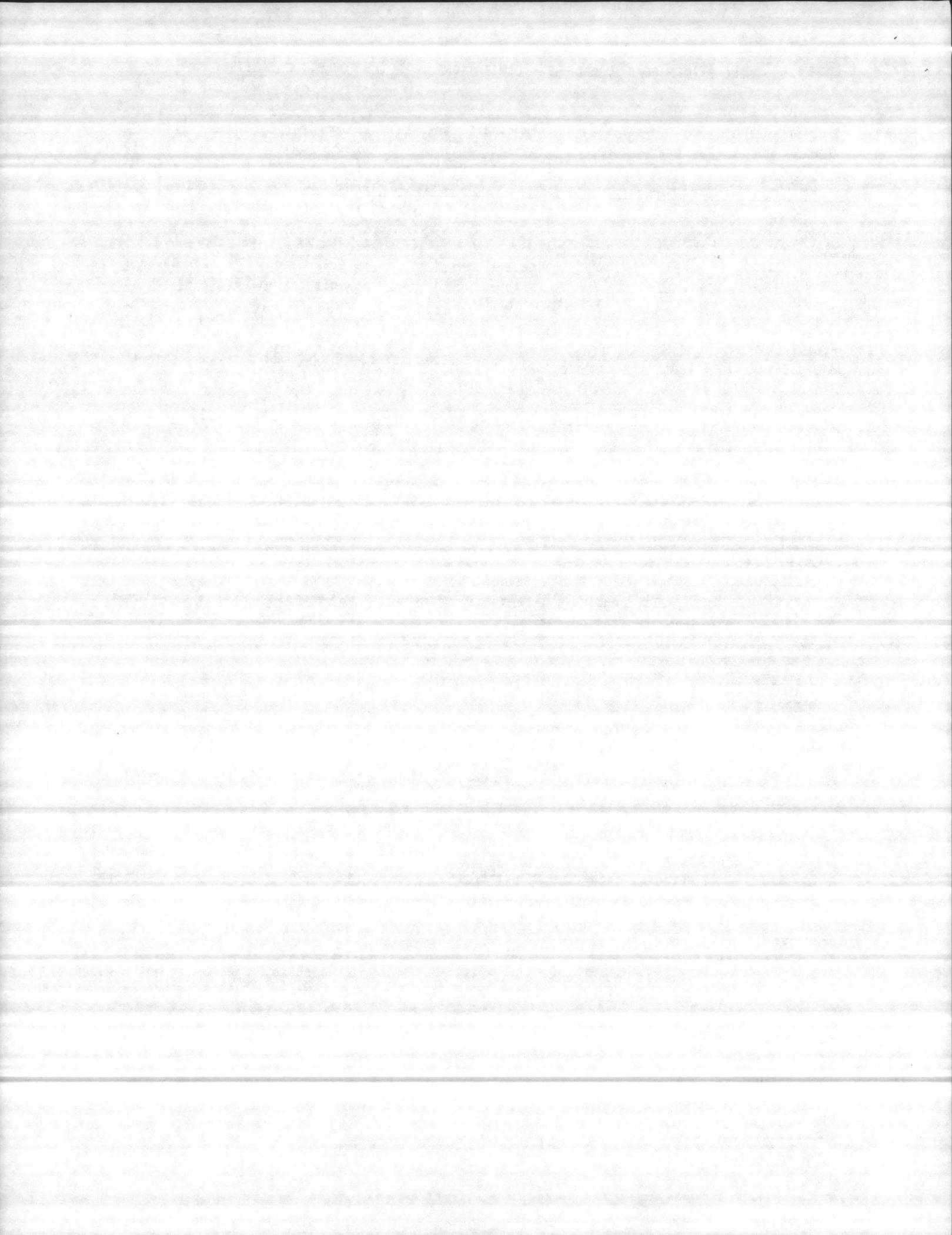


TABLE B--OFF ROAD MANEUVERS - LIMITATIONS OF SOILS FOR BIVOUAC SITES

Soil name and map symbol	Temporary tent sites	Temporary on-site waste disposal	Temporary shallow excavations	Temporary recreation area
Wando:				Moderate:
WaB-----	Slight:-----	Slight:-----	Moderate: cutbanks cave.	Severe: too sandy.
Woodington:				
Wo-----	Severe: wetness, dense vegetation.	Severe: wetness.	Severe: wetness, cutbanks cave.	Moderate: wetness, dense vegetation.
Yaupon:				
YaA-----	Moderate: wetness, dense vegetation.	Severe: percs slowly, wetness.	Severe: too clayey, wetness.	Moderate: too clayey, wetness, dense vegetation.

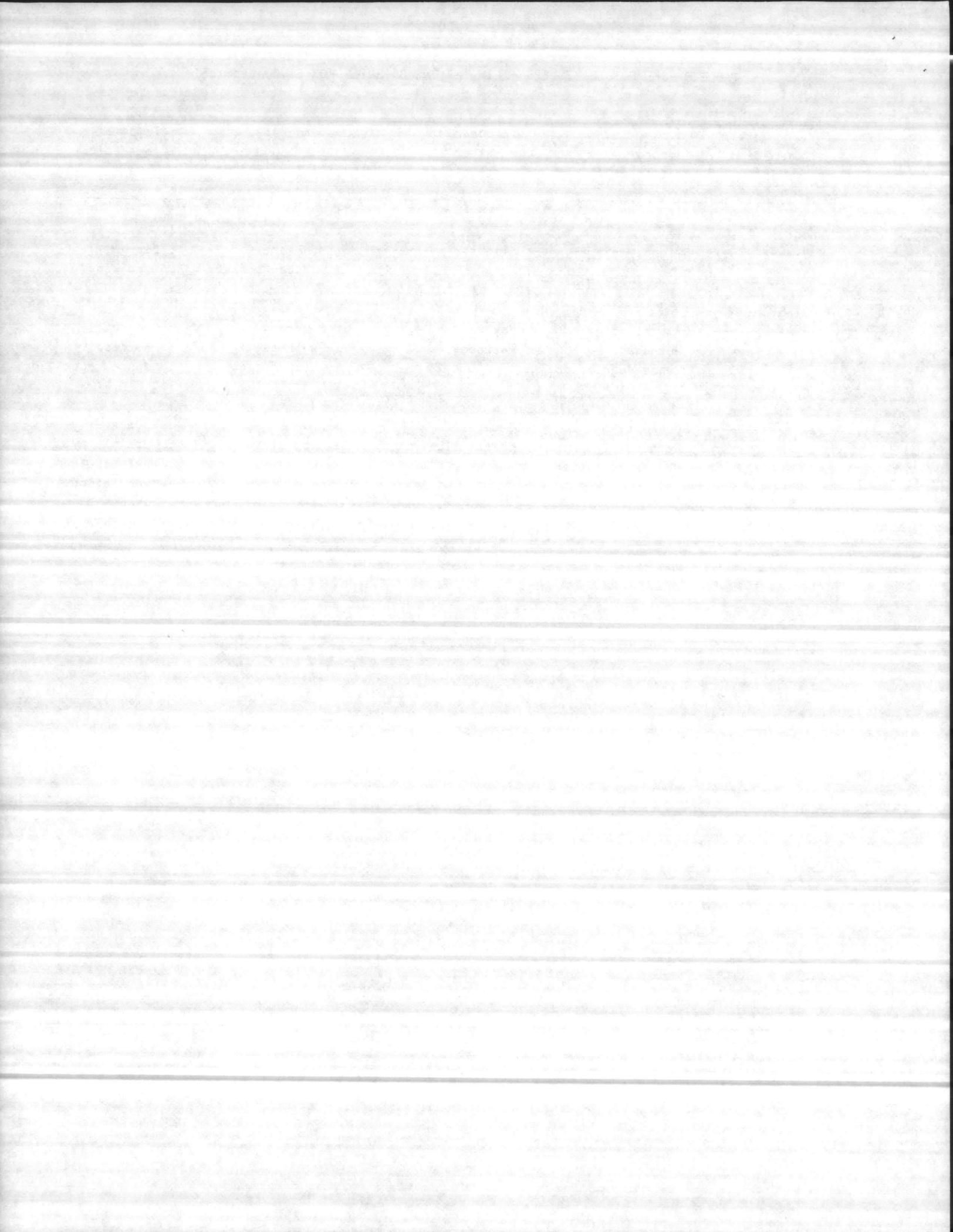


TABLE C--OFF ROAD MANEUVERS--POSSIBLE DAMAGE TO SOILS AND VEGETATION

-----Soils-----		-----Vegetation-----		
Soil name and map symbol	Track and heavy wheeled vehicles	Light wheeled vehicles	Track and heavy wheeled vehicles	Light wheeled vehicles
Alpin:				
AnB-----	Moderate: : large deep holes, : erosion in trails.	Slight:-----	Moderate: : crushes sparse : woody vegetation.	Moderate: : bends sparse : woody vegetation.
Baymeade:				
BaB, BmB-----	Moderate: : large deep holes, : erosion in trails, : compaction.	Slight:-----	Moderate: : crushes sparse : woody vegetation.	Moderate: : bends sparse : woody vegetation.
Bohicket:				
Bo-----	Severe: : deep rutting.	Severe: : deep rutting.	Severe: : crushes grassy : vegetation, : breaks roots : in ruts.	Severe: : bends grassy : vegetation, : breaks roots : in ruts.
Corolla:				
Co-----	Moderate: : large deep holes.	Slight:-----	Severe: : crushes sparse : woody vegetation.	Moderate: : bends sparse : woody vegetation.
Craven:				
CrB, CrC-----	(Dry) Moderate: : compaction. (Wet) Severe: : rutting, : erosion in ruts, : compaction.	(Dry) Moderate: : compaction. (Wet) Severe: : rutting, : erosion in ruts, : compaction.	Severe: : crushes woody : vegetation and : breaks roots in : ruts.	Moderate: : bends woody : vegetation and : breaks roots in : ruts.
Croatian:				
Ct-----	Severe: : deep rutting.	Severe: : deep rutting.	Severe: : crushes very : dense woody : vegetation, : breaks roots in : ruts.	Moderate: : bends very dense : woody vegetation, : breaks roots in : ruts.
Dorovan:				
Da-----	Severe: : deep rutting.	Severe: : deep rutting.	Severe: : crushes very : dense woody : vegetation, : breaks roots in : ruts.	Moderate: : bends very dense : woody vegetation, : breaks roots in : ruts.

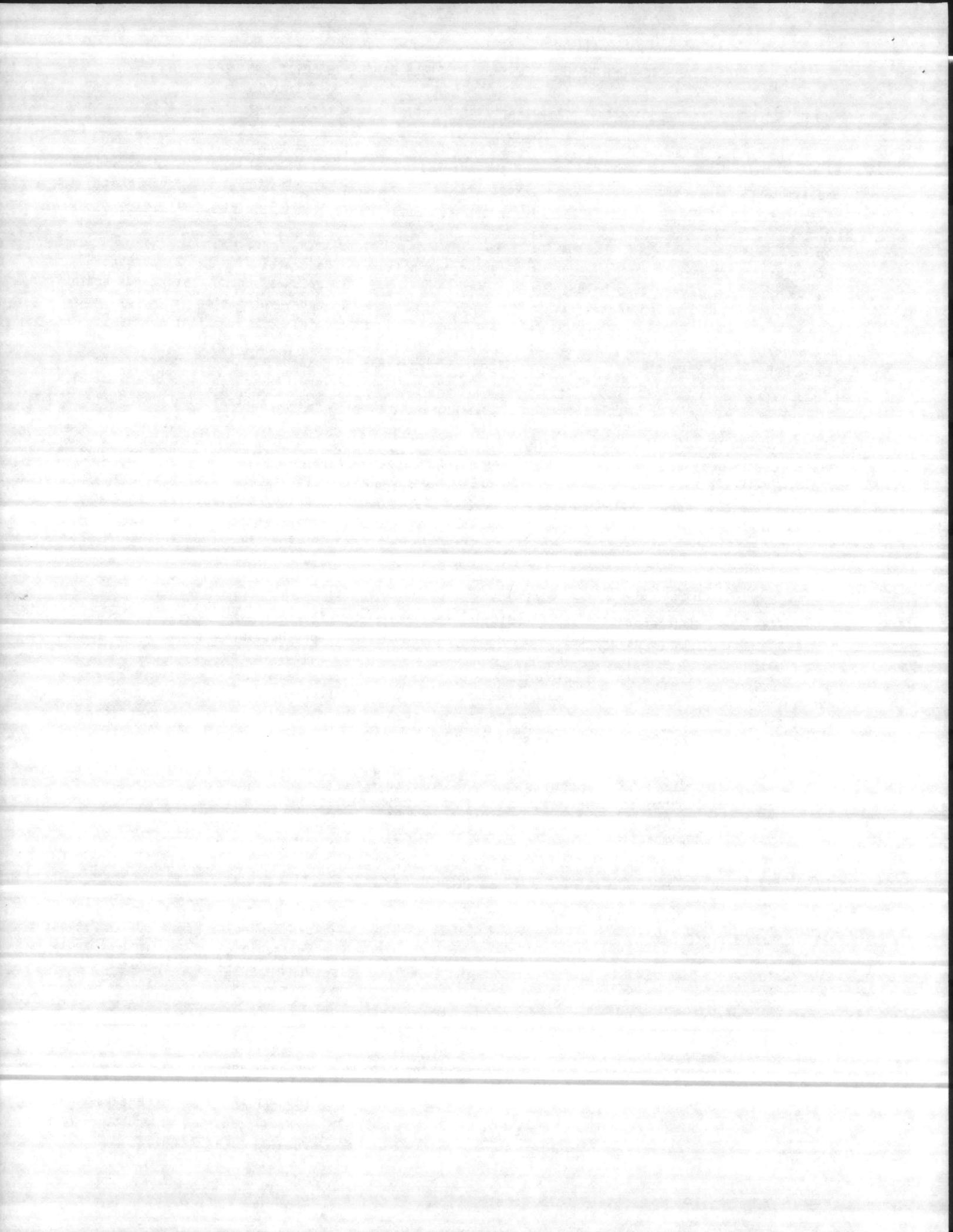


TABLE C--OFF ROAD MANEUVERS--POSSIBLE DAMAGE TO SOILS AND VEGETATION

-----Soils-----		-----Vegetation-----		
Soil name and map symbol	Track and heavy wheeled vehicles	Light wheeled vehicles	Track and heavy wheeled vehicles	Light wheeled vehicles
Duckston:				
Dc-----	Moderate: : large holes.	Slight:-----	Moderate: : crushes grassy : vegetation.	Moderate: : bends grassy : vegetation.
Foreston:				
FoA-----	(Dry) Moderate: : compaction. : (Wet) Moderate: : rutting, : erosion in ruts, : compaction.	(Dry) Moderate: : compaction. : (Wet) Moderate: : rutting, : erosion in ruts, : compaction.	Severe: : crushes woody : vegetation.	Moderate: : bends woody : vegetation.
Goldsboro:				
GoA, GpB-----	(Dry) Moderate: : compaction. : (Wet) Severe: : rutting, : erosion in ruts, : compaction.	(Dry) Moderate: : compaction. : (Wet) Severe: : rutting, : erosion in ruts, : compaction.	Severe: : crushes woody : vegetation, : breaks roots in : ruts.	Moderate: : bends woody : vegetation, : breaks roots in : ruts.
Kureb:				
KuB-----	Moderate: : large deep holes, : erosion in trails.	Slight:-----	Slight:-----	Slight:
Lafitte:				
La-----	Severe: : deep rutting.	Severe: : deep rutting.	Severe: : crushes grassy : vegetation, : breaks roots in : ruts.	Moderate: : bends grassy : vegetation, : breaks roots in : ruts.
Lenoir:				
Le-----	Severe: : deep rutting.	Severe: : deep rutting.	Severe: : crushes grass.	Moderate: : crushes grass.
*Limited extent: only located in: airfield area. :				
Leon:				
Ln-----	Severe: : large deep holes.	Severe: : large deep holes.	Severe: : crushes sparse : grassy vegetation.	Moderate: : crushes sparse : grassy vegetation.

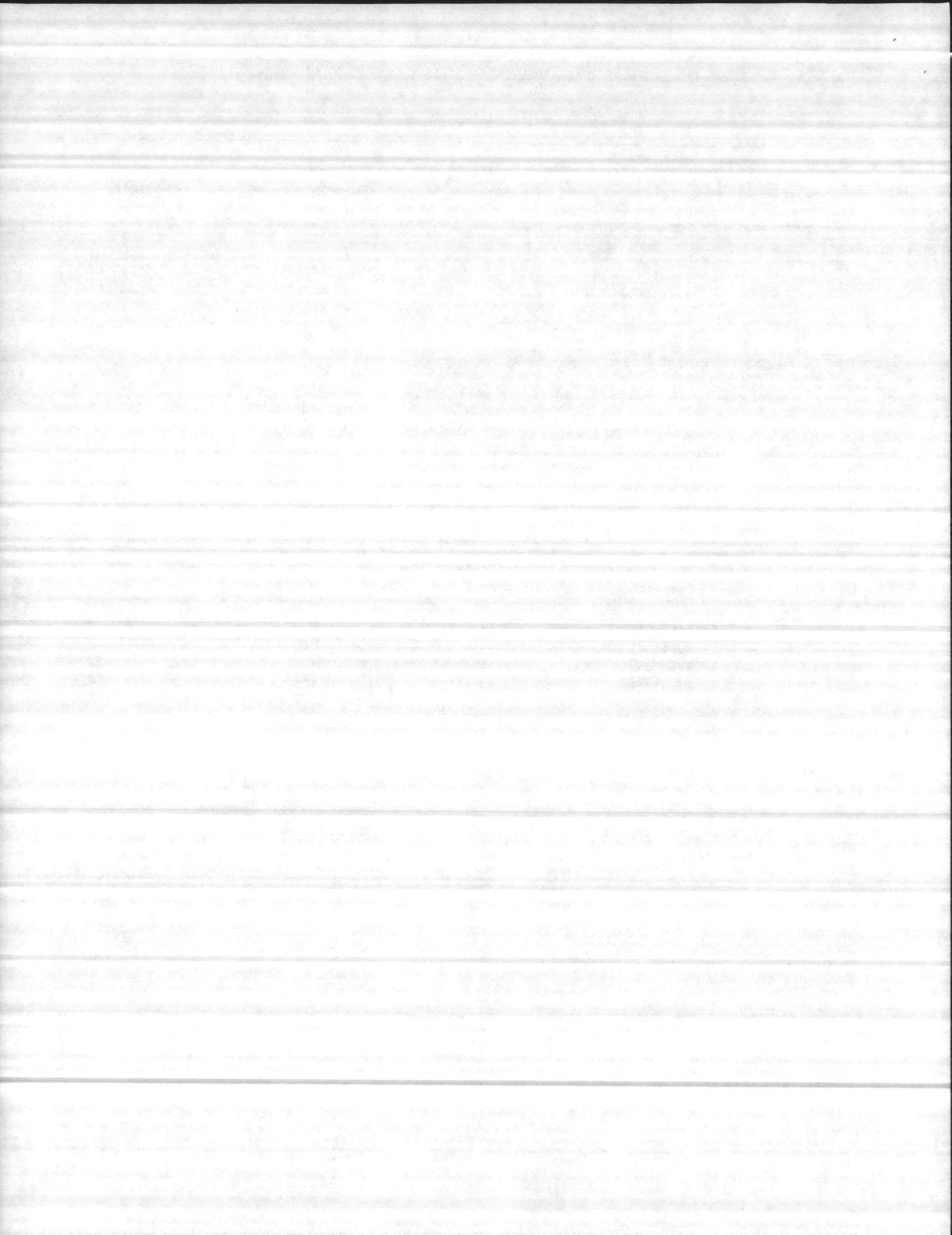


TABLE C--OFF ROAD MANEUVERS--POSSIBLE DAMAGE TO SOILS AND VEGETATION

-----Soils-----		-----Vegetation-----		
Soil name and map symbol	Track and heavy wheeled vehicles	Light wheeled vehicles	Track and heavy wheeled vehicles	Light wheeled vehicles
Lynchburg:				
Ly-----	Severe: rutting, compaction.	Severe: rutting, compaction.	Severe: crushes dense woody vegetation, breaks roots in ruts.	Moderate: bends dense woody vegetation, breaks roots in ruts.
Marvyn:				
MaC-----	(Dry) Moderate: compaction. (Wet) Severe: rutting, gulying in ruts, compaction.	(Dry) Moderate: compaction. (Wet) Severe: rutting, gulying in ruts, compaction.	Severe: crushes woody vegetation, breaks roots in ruts.	Moderate: bends woody vegetation, breaks roots in ruts.
Muckalee:				
Mk-----	Severe: deep rutting.	Severe: deep rutting.	Severe: crushes dense woody vegetation, breaks roots in ruts.	Moderate: bends woody vegetation, breaks roots in ruts.
Murville:				
Mu-----	Severe: deep rutting.	Severe: deep rutting.	Severe: crushes very dense woody vegetation.	Severe: breaks vegetation and roots in ruts.
Newhan:				
NeE, NfC-----	Severe: increases wind erosion.	Slight:-----	Slight:-----	Slight:
Norfolk:				
NoA, NoB-----	(Dry) Moderate: compaction. (Wet) Severe: deep rutting, erosion in ruts, compaction.	(Dry) Moderate: compaction. (Wet) Severe: deep rutting, erosion in ruts, compaction.	Severe: crushes woody vegetation, breaks roots in ruts.	Moderate: bends woody vegetation, breaks roots in ruts.

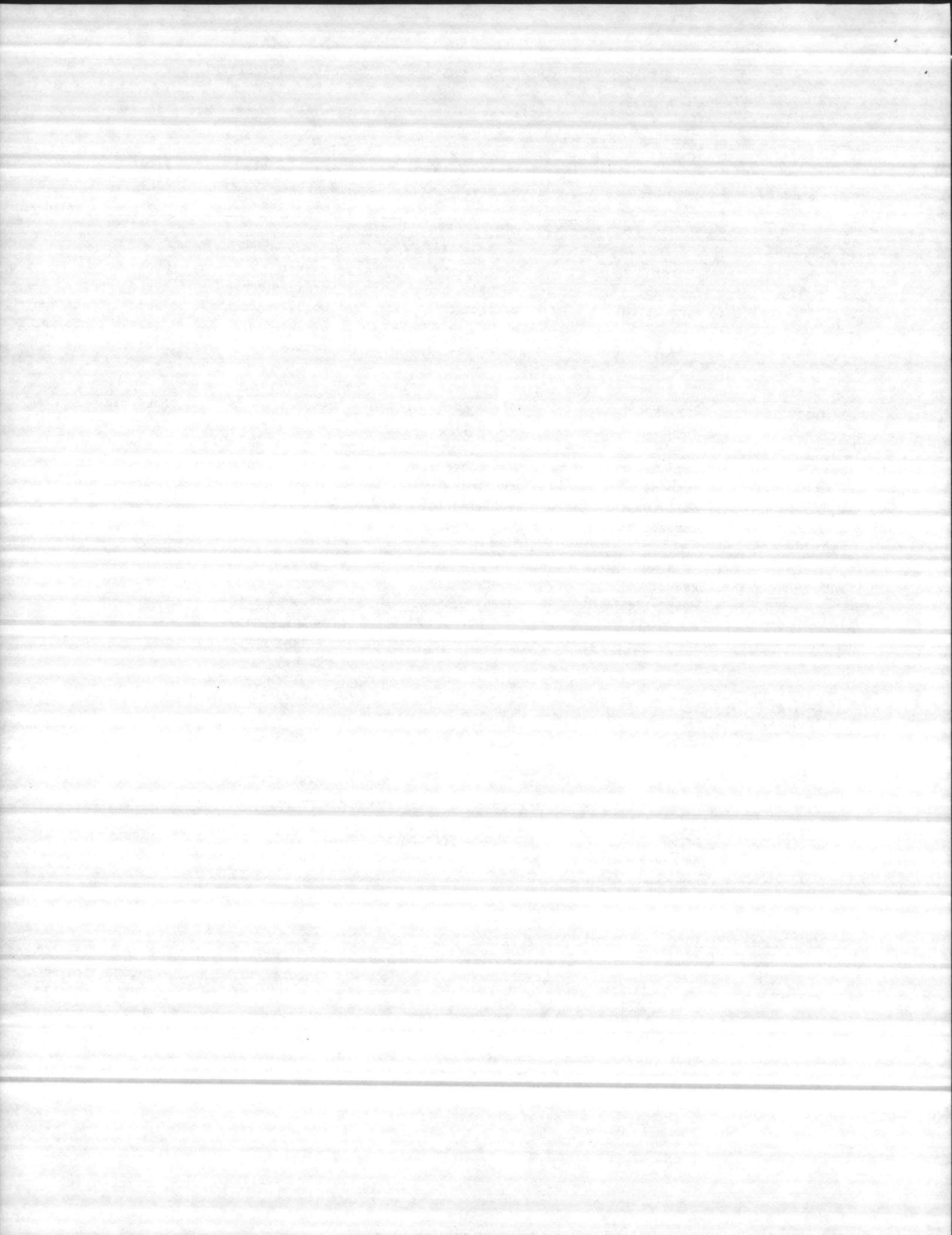


TABLE C--OFF ROAD MANEUVERS--POSSIBLE DAMAGE TO SOILS AND VEGETATION

-----Soils-----		-----Vegetation-----		
Soil name and map symbol	: Track and heavy wheeled vehicles	: Light wheeled vehicles	: Track and heavy wheeled vehicles	: Light wheeled vehicles
Onslow:				
On-----	: (Dry) Moderate: compaction.	: (Dry) Moderate: compaction.	: Severe: crushes woody vegetation,	: Moderate: bends woody vegetation,
	: (Wet) Severe: rutting, compaction.	: (Wet) Severe: rutting, compaction.	: breaks roots in ruts.	: breaks roots in ruts.
Pactolus:				
Pa-----	: Severe: large deep holes, erosion in trails.	: Slight:-----	: Severe: crushes woody vegetation,	: Moderate: bends woody vegetation,
			: breaks roots in ruts.	: breaks roots in ruts.
Pantego:				
Pn-----	: Severe: deep rutting.	: Severe: deep rutting.	: Severe: crushes dense woody vegetation,	: Severe: bends dense woody vegetation,
			: breaks roots in ruts.	: breaks roots in ruts.
Pits:				
Pt-----				
(See map unit)				
Rains				
Ra-----	: Severe: deep rutting.	: Severe: deep rutting.	: Severe: crushes dense woody vegetation,	: Moderate: bends dense woody vegetation,
			: breaks roots in ruts.	: breaks roots in ruts.
Stallings:				
St-----	: Severe: rutting, compaction.	: Severe: rutting, compaction.	: Severe: crushes dense woody vegetation,	: Moderate: bends dense woody vegetation,
			: breaks roots in ruts.	: breaks roots in ruts.
Torhunta:				
To-----	: Severe: deep rutting.	: Severe: deep rutting.	: Severe: crushes dense woody vegetation,	: Severe: bends dense woody vegetation,
			: breaks roots in ruts.	: breaks roots in ruts.

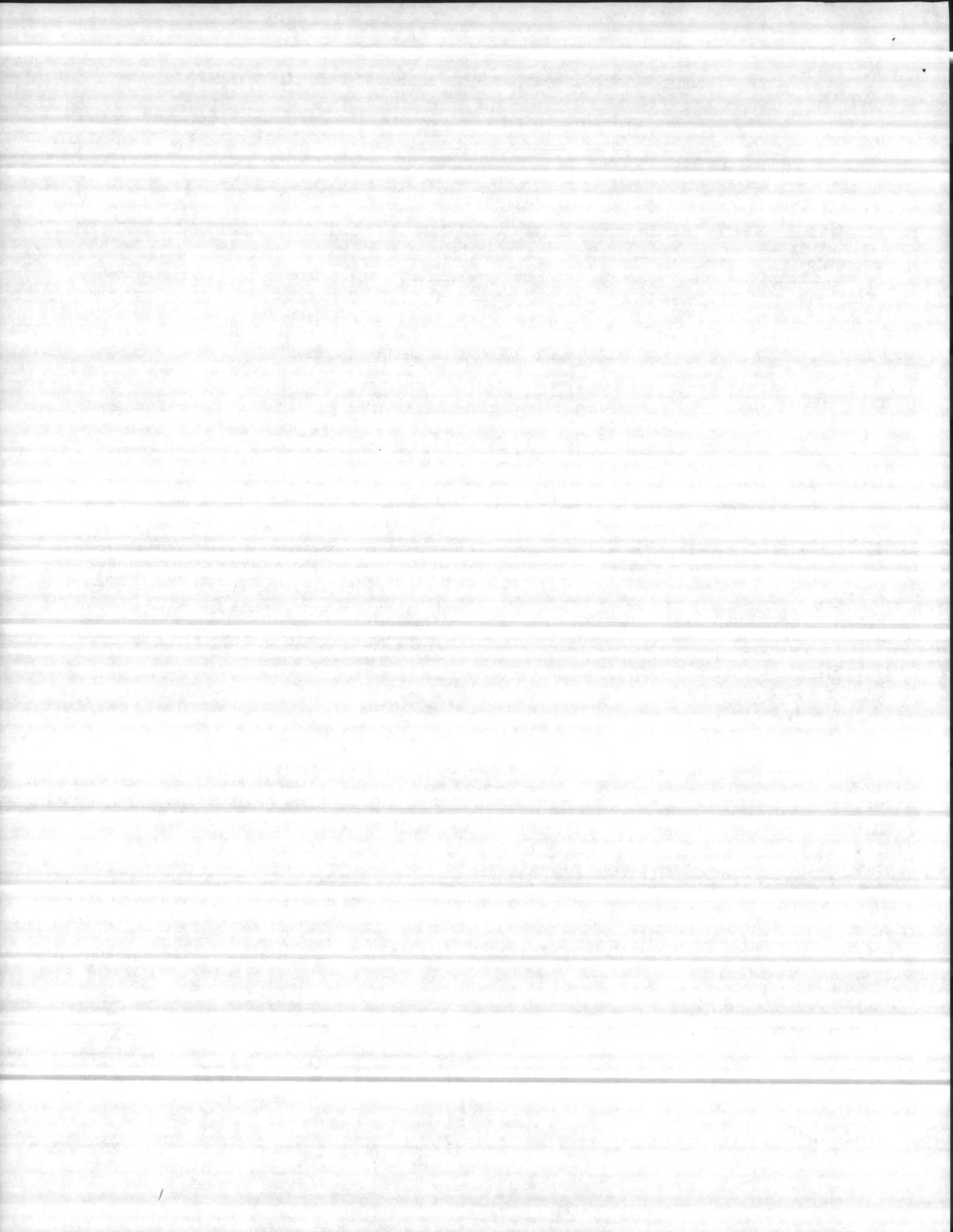


TABLE C--OFF ROAD MANEUVERS--POSSIBLE DAMAGE TO SOILS AND VEGETATION

-----Soils-----		-----Vegetation-----		
Soil name and map symbol	Track and heavy wheeled vehicles	Light wheeled vehicles	Track and heavy wheeled vehicles	Light wheeled vehicles
Udorthents:				
Ud-----				
(See map unit)				
Urban:				
Ur-----				
(See map unit)				
Wando:				
WaB-----	Moderate:	Slight:	Slight:	Slight:
	large deep holes,			
	erosion in trails.			
Woodington:				
Wo-----	Severe:	Severe:	Severe:	Moderate:
	deep rutting:	deep rutting:	crushes dense	bends dense
			woody vegetation,	woody vegetation,
			breaks roots in	breaks roots in
			ruts.	ruts.
Yaupon:				
YaA-----	(Dry) Moderate:	(Dry) Moderate:	Severe:	Moderate:
	compaction.	compaction.	crushes dense	bends dense
			woody vegetation,	woody vegetation,
	(Wet) Severe:	(Wet) Severe:	breaks roots in	breaks roots in
	deep rutting,	deep rutting,	ruts.	ruts.
	erosion in ruts,	erosion in ruts,		
	compaction.	compaction.		

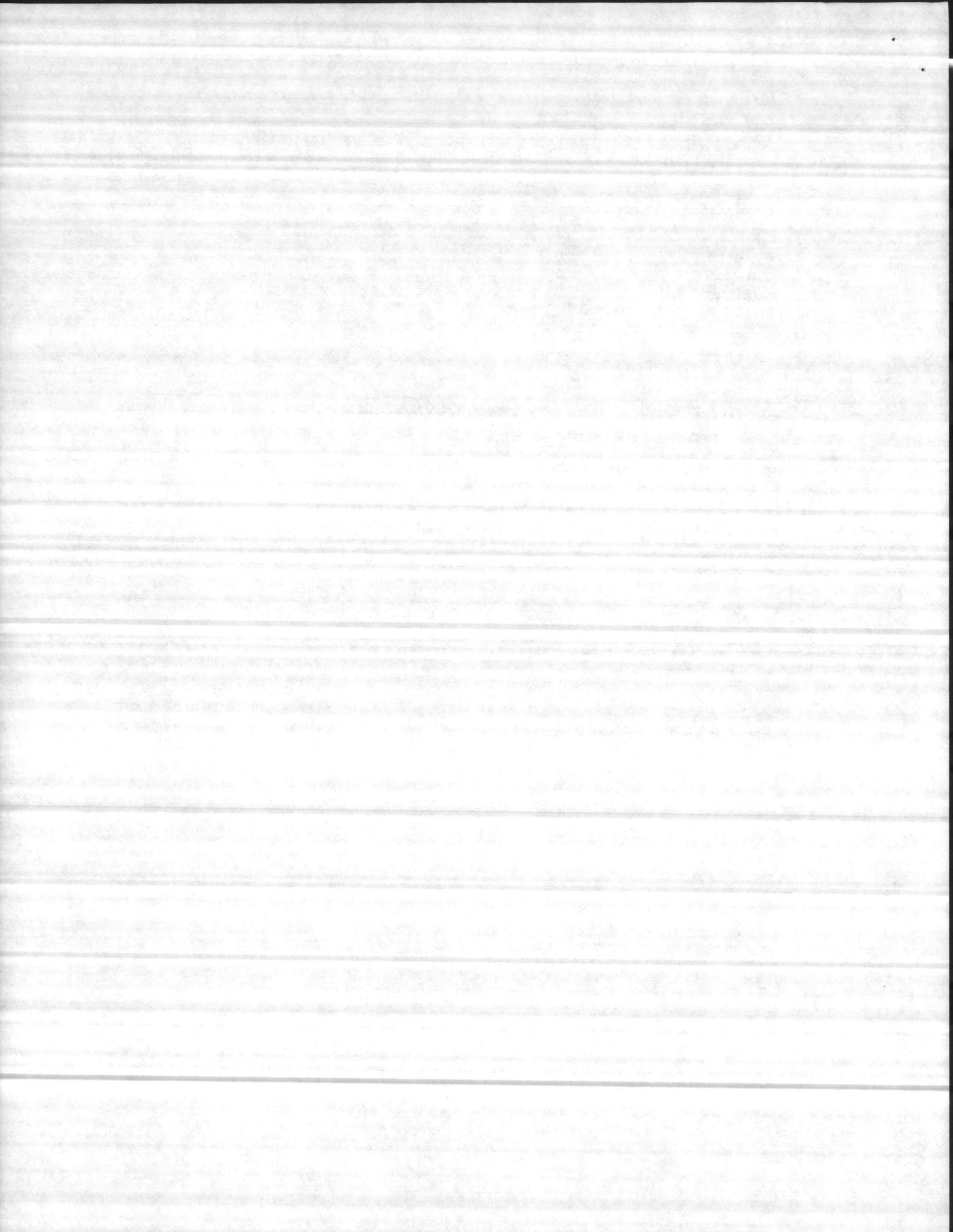


TABLE K.--SOIL AND WATER FEATURES

("Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol means less than; means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Soil name and map symbol	Hydrologic group	Flooding			High water table		Risk of corrosion		
		Frequency	Duration	Months	Depth	Kind	Months	Uncoated steel	Concrete
AnB----- Alpin	A	:None-----	---	---	: 6.0	---	---	:Low-----	:High.
BaB----- Baymeade	A	:None-----	---	---	:4.0-5.0:	Apparent:	Dec-Apr:	:Low-----	:Moderate
BmB*----- Baymeade	A	:None-----	---	---	:4.0-5.0:	Apparent:	Dec-Apr:	:Low-----	:Moderate
Urban land.									
Bo----- Bohicket	D	:Frequent----	:Very brief:	Jan-Dec	: +3-0	:Apparent:	Jan-Dec:	:High-----	:High.
Co----- Corolla	D	:Rare-----	---	---	:1.5-3.0:	Apparent:	Nov-May:	:Low-----	:Low.
CrB, CrC----- Craven	C	:None-----	---	---	:2.0-3.0:	Apparent:	Dec-Apr:	:High-----	:High.
Ct----- Croatan	D	:Rare-----	---	---	: 0-1.0:	Apparent:	Dec-May:	:High-----	:High.
Da----- Dorovan	D	:Frequent----	:Very long	Jan-Dec	: +1-0.5:	Apparent:	Jan-Dec:	:High-----	:High.
Dc----- Duckston	D	:Frequent----	:Brief-----	Jan-Dec	:1.0-2.0:	Apparent:	Jan-Dec:	:Low-----	:Low.
FoA----- Foreston	C	:None-----	---	---	:2.5-3.5:	Apparent:	Dec-Apr:	:Moderate	:High.
GoA----- Goldsboro	B	:None-----	---	---	:2.0-3.0:	Apparent:	Dec-Apr:	:Moderate	:High.

See footnote at end of table.

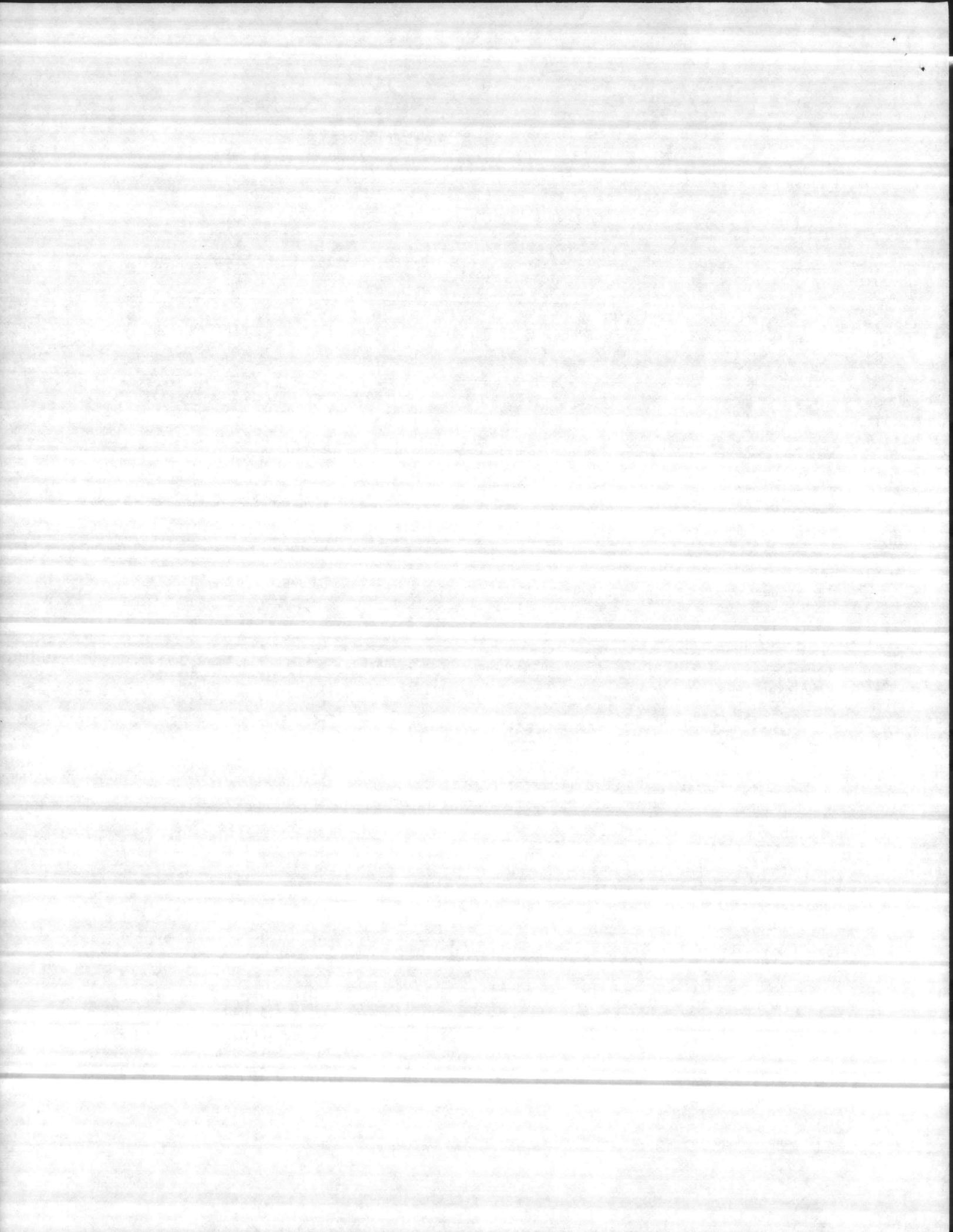


TABLE K.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table		Risk of corrosion		
		Frequency	Duration	Months	Depth	Kind	Months	Uncoated steel	Concrete
					Ft				
GpB* Goldsboro	B	None	---	---	2.0-3.0	Apparent	Dec-Apr	Moderate	High.
Urban land.									
KuB Kureb	A	None	---	---	6.0	---	---	Low	Low.
La Lafitte	D	Frequent	Brief to long.	Jan-Dec	+1-0.5	Apparent	Jan-Dec	High	Moderate
Le Lenoir	D	None	---	---	1.0-2.5	Apparent	Dec-May	High	High.
Ln Leon	D	None	---	---	0-1.0	Apparent	Jun-Feb	High	High.
Ly Lynchburg	C	None	---	---	0.5-1.5	Apparent	Nov-Apr	High	High.
MaC Marvyn	B	None	---	---	6.0	---	---	Moderate	High.
Mk Muckalee	D	Frequent	Brief	Nov-Apr	0.5-1.5	Apparent	Dec-Mar	High	Moderate
Mu Murville	D	None	---	---	0-1.0	Apparent	Nov-May	High	Moderate
NeE, NfC Newhan	A	Rare	---	---	6.0	---	---	High	Low.
NoA, NoB Norfolk	B	None	---	---	4.0-6.0	Apparent	Jan-Mar	Moderate	High.
On Onslow	B	None	---	---	1.5-3.0	Apparent	Dec-Apr	High	High.
Pa Pactolus	C	None	---	---	1.5-3.0	Apparent	Dec-Apr	Low	High.

See footnote at end of table.

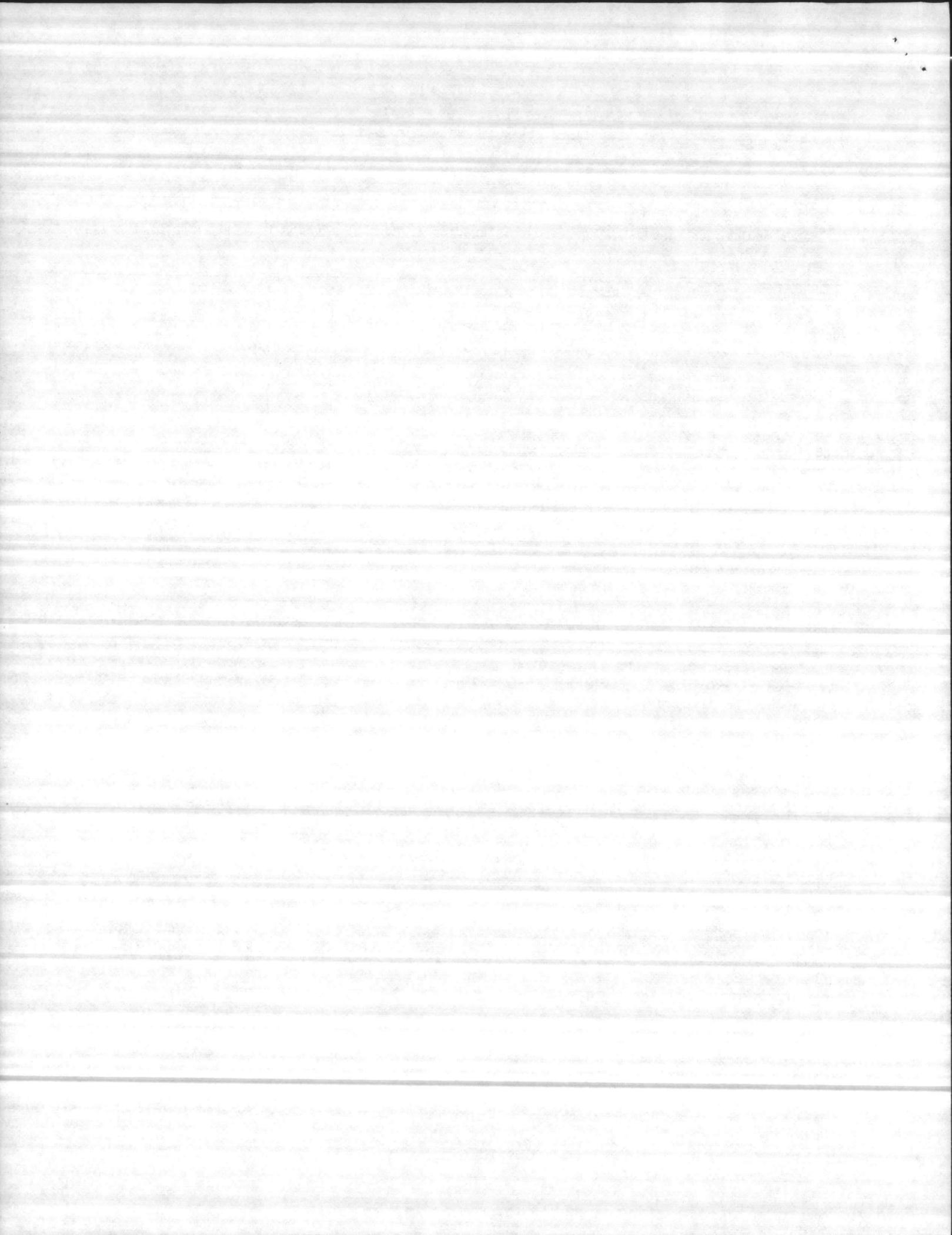
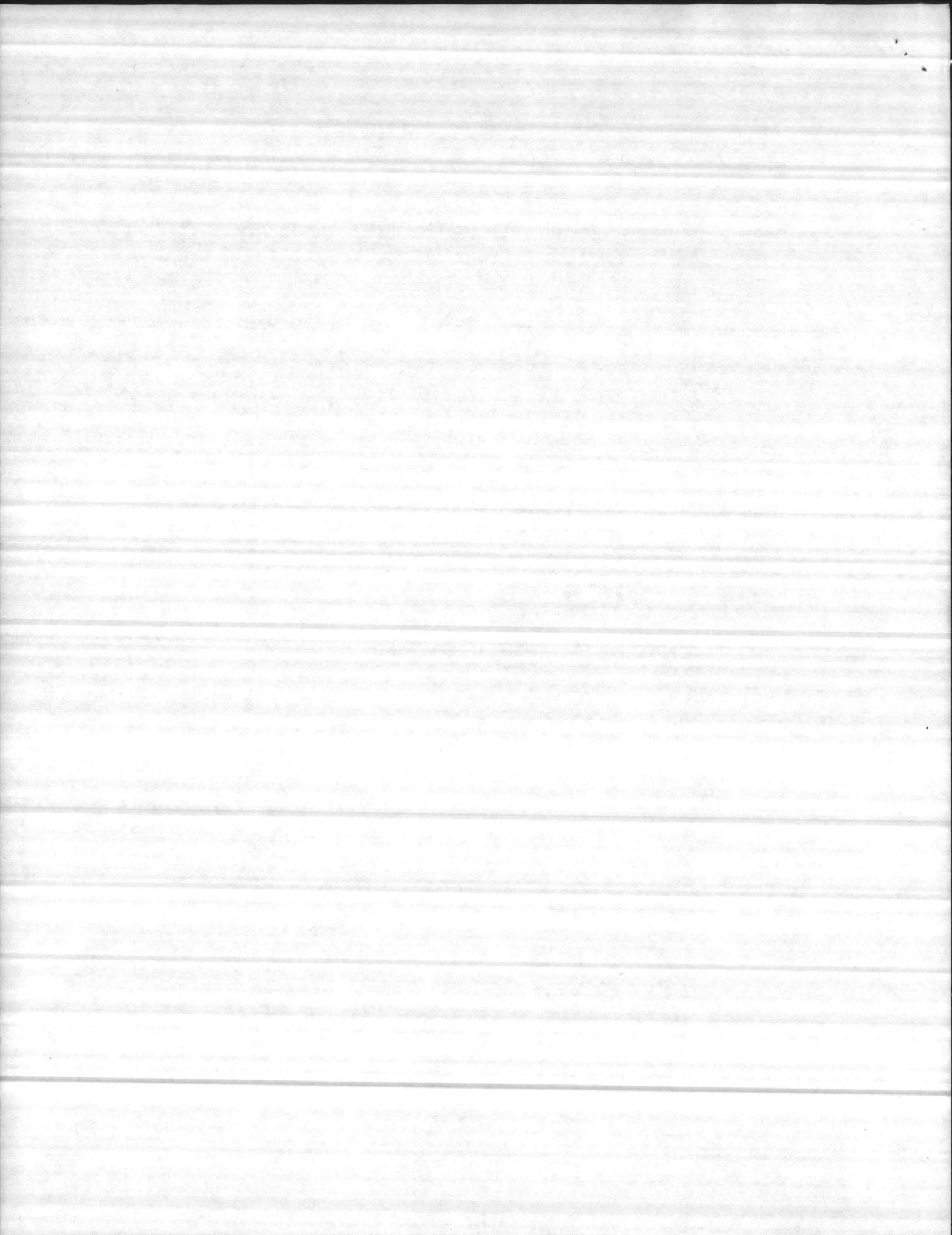


TABLE K.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Uncoated steel	Concrete
					Ft				
Pn----- Pantego	D	None			0-1.5	Apparent	Dec-May	High	High
Ra----- Rains	D	None			0-1.0	Apparent	Nov-Apr	High	High
St----- Stallings	C	None			1.0-2.5	Apparent	Dec-Apr	High	High
To----- Torhunta	C	None			0.5-1.5	Apparent	Dec-May	High	High
WaB----- Wando	A	None			4.0-6.0	Apparent	Jan-Mar	Low	Moderate
Wo----- Woodington	D	None			0.5-1.0	Apparent	Dec-May	High	High
YaA----- Yaupon	D	None			2.0-4.0	Apparent	Dec-Mar	High	Moderate

* See description of the map unit for composition and behavior characteristics of the map unit.



11000
EOD
13 Jul 84

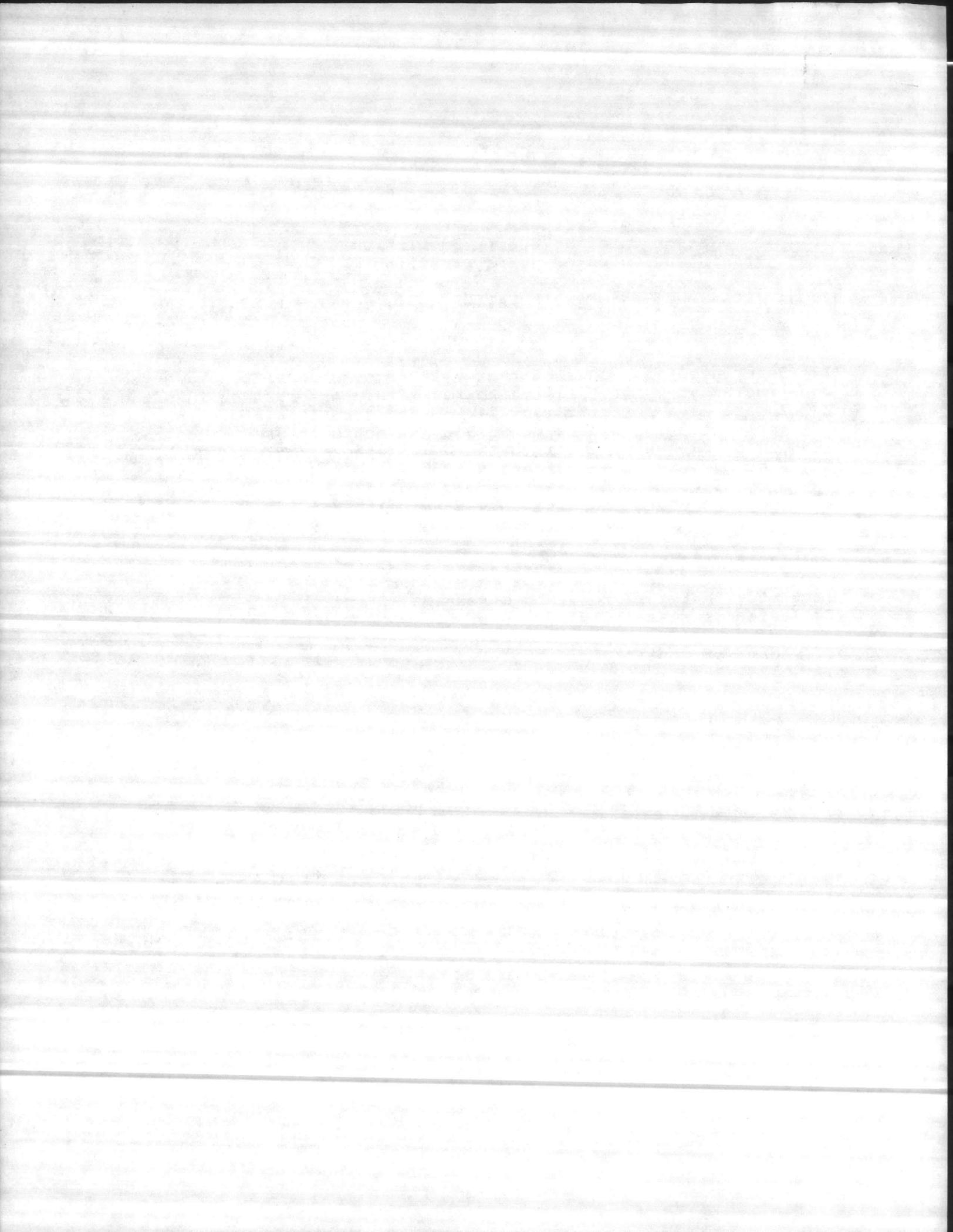
From: Range Control Officer
To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: CONSTRUCTION OF OBSERVATION POST, POINT GILLETTE

Ref: (a) RCO ltr RCTL/HBR/vec over 11000 dtd 1 May 84

1. Reference (a) requested that a 100 foot observation tower be constructed at Point Gillette to facilitate observation into the K-2 Impact Area for artillery firing and for close air support. OP-4 currently located at GS 921333 has not been used since the 1960's to observe firing into the G-10 Impact Area because of interference with the Engineer Range G-4. Inspection of the tower by 2D Combat Engineers report that the steel structure of the tower is sound, needing only some bolts and nuts replaced to be put back into service.
2. In the interest of reducing costs for reference (a) and to expedite the establishment of this Observation Post, it is requested that this tower be disassembled and moved to Point Gillette for reassembly.
3. Point of contact is: MSgt MOSES, Range Maintenance Chief, ext. 5211/3542.

T. B. HOWARD





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/4
NREAD
23 July 1984

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 Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

Ref: (a) AC/S FAC memo 5420/2 FAC of 18 July 1984

Encl: (1) Comments on Proposed K-2 Impact Area/Drainage and
Clearing
(2) Comments on Tracked Vehicle Trail
(3) Comments on LAV Operations in Hoffman Forest
(4) Comments on LZ Bluebird Repair Project

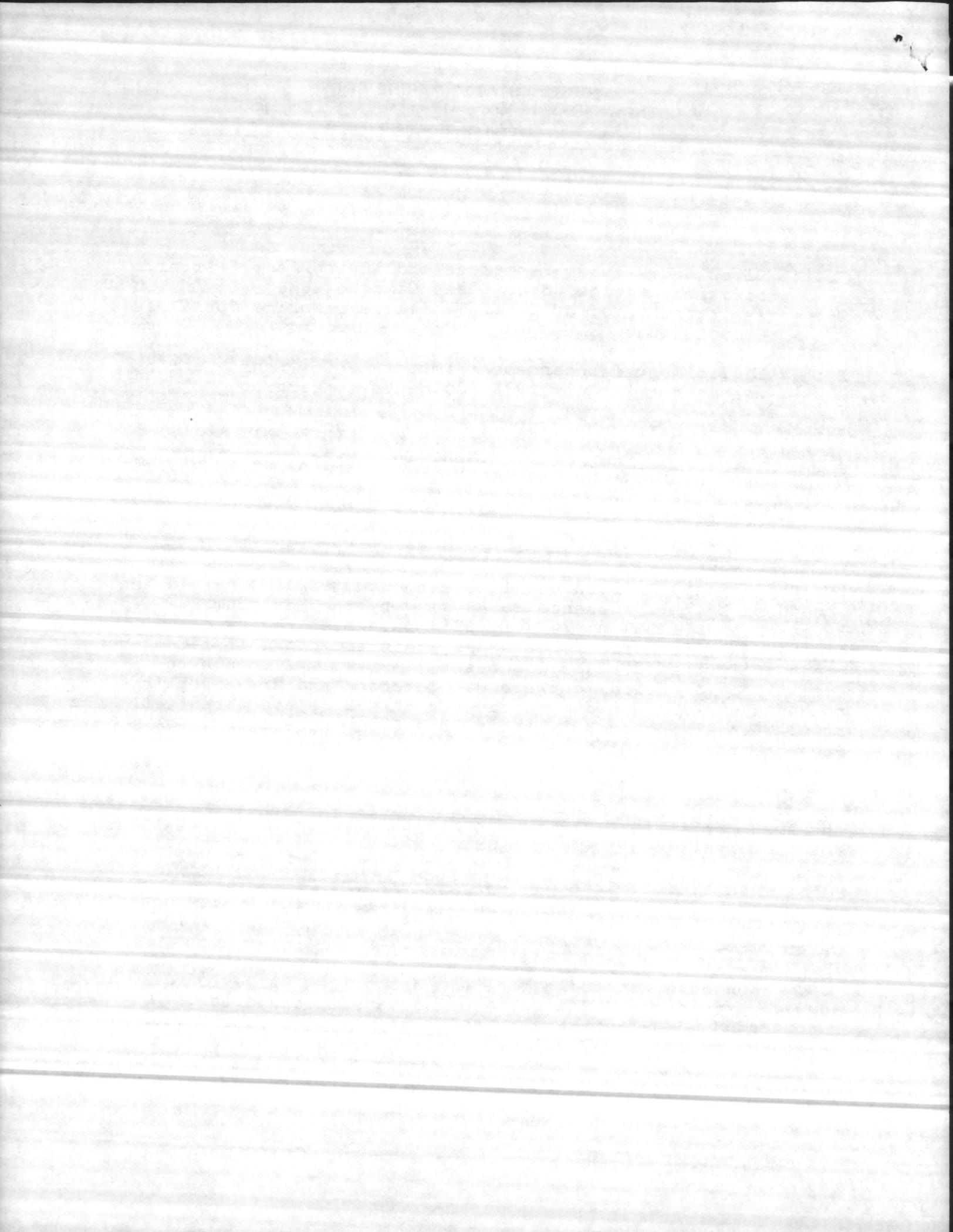
1. Preliminary Environmental Assessments (PEA) furnished and scheduled by the reference for review by the Environmental Impact Review Board (EIRB) on 24 July 1984 have been reviewed and discussed by members of the NREAD staff and comments/recommendations are provided as enclosures (1) - (4). Although there are some minor variations between Mr. Peterson and Mr. Sharpe's comments our conclusion relative to the PEA's are essentially the same. Pertaining to K-2 Impact Area Clearing and Drainage Project, the following issues are not addressed or are not adequately addressed or there are inaccurate statements, i.e.:

a. There are endangered species (Red-Cockaded Woodpeckers and American Alligators) in the proposed project area requiring formal consultation with the US Fish and Wildlife Service.

b. Whitehurst Creek and Mill Creek are classified by state as primary nursery area. These areas will probably be impacted by the clearing and drainage of K-2 due to accelerated fresh-water flow.

c. The Base Archaeological and Historical Survey of 1981 showed part of the K-2 area as being sensitive and it is recommended consultation with the state Archives and History personnel be completed before clearing and drainage work begins.

d. Drainage of K-2 area wetlands requires review by the Army Corps of Engineers before work begins.



Subj: Environmental Enhancement/Impact Review Board Meeting
Agenda for 24 July 1984; comments concerning

e. File a Federal Consistency Statement with the NC Office of Coastal Management.

f. Submittal of a sedimentation control plan to the state prior to beginning the work in the K-2.

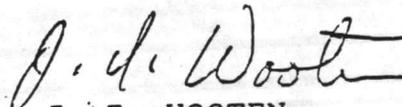
g. In my opinion, outside agencies may consider the K-2 project a major federal action because of impacts on endangered species, wetlands, primary nursery areas and archaeological and historical resources. In my opinion an Environmental Assessment (EA) is required by Headquarters Marine Corps because of both the environmental impact and the potential for controversy.

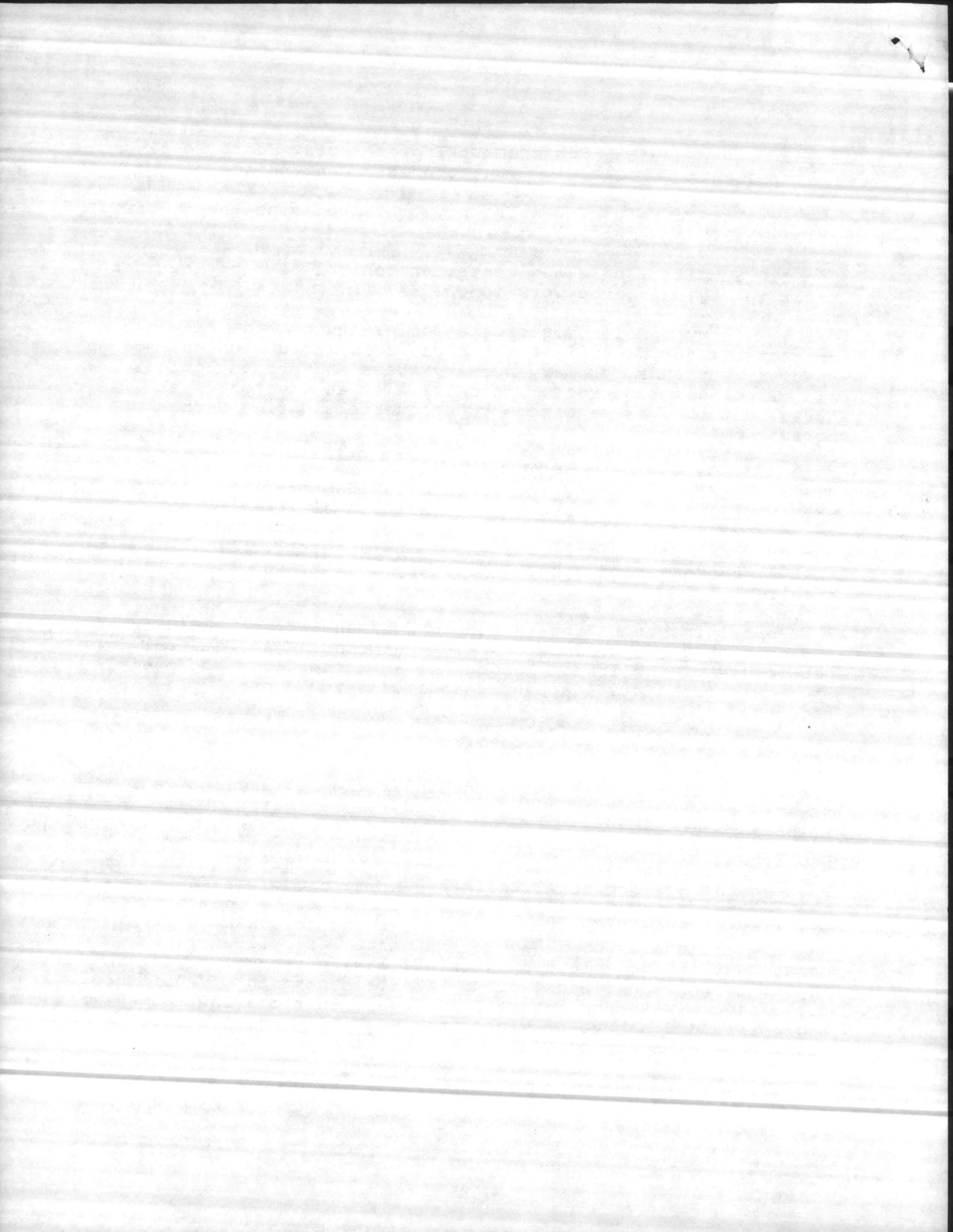
2. The reference gives the Director, NREAD credit for preparing the PEA for the construction of track vehicle trail from Rhodes Point to TLZ Cardinal. NREAD provided information for the PEA but did not prepare the document. It is this Division's position that a sedimentation control plan approved by the state is required.

3. Pertaining to LAV operation in Hoffman Forest, NREAD is of the opinion there will be conflict between LAV and general public use of the area. Headquarters Marine Corps approved EA is required. A state approved sedimentation control plan is required.

4. Pertaining to LZ Bluebird repair, it is recommended base consult with the State Department of Archives and History pertaining to possible artifacts under the matting, as well as adjacent areas. A state approved sedimentation control plan is required.

5. Earlier this year I discussed conflicts that were arising between the Environmental Engineer and me and my staff with you. Also, I expressed concern about some of the comments I was hearing from LtCol Cummings pertaining to NREAD matters and how the base should handle the matter as related to management and consultation with off base personnel. Pertaining to paragraphs 3 and 4 of Mr. Sharpe's portion of enclosure (1), I agree with Mr. Sharpe's statement that the Environmental Engineer and SJA have provided inaccurate information which has the base in a potentially embarrassing position.


J. I. WOOTEN





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

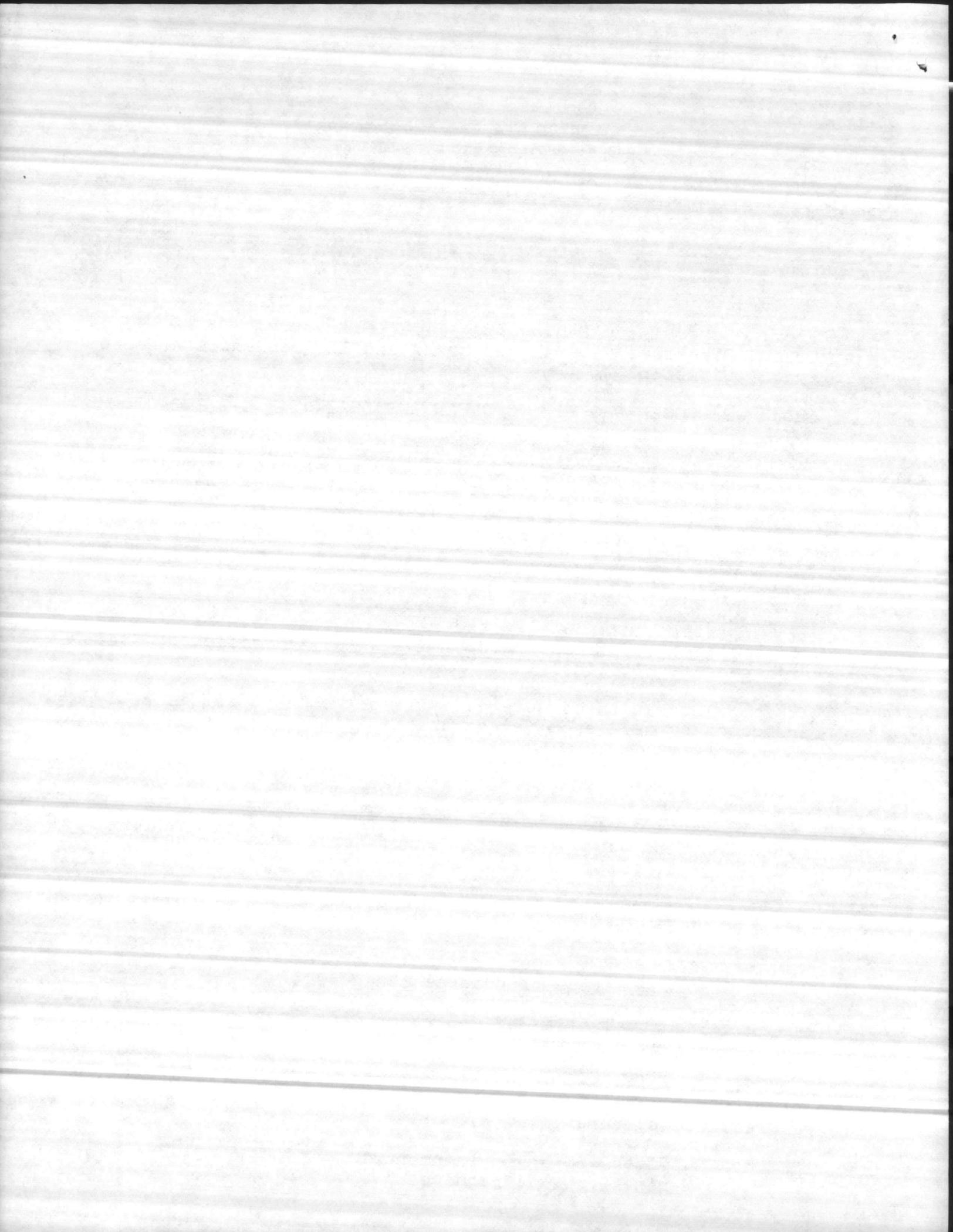
IN REPLY REFER TO:
11000/5
NREAD
23 July 1984

From: Supervisory Ecologist
To: Director, Natural Resources and Environmental Affairs
Division

Subj: PROPOSED PROJECT TO CLEAR AND DRAIN THE K-2 IMPACT AREA

Ref: (a) Executive Order 11990
(b) NCAC Title 15, Chap 4, Sedimentation Control
(c) Endangered Species Act of 1973 as Amended
(d) MCO P11000.8B
(e) Chairman, EIRB ltr 5420/2 FAC of 18 July 1984

1. The subject project has the following significant environmental impact:
 - a. Will cause accelerated rates of discharge of freshwater and sediment to primary nursery areas (as identified by State fisheries regulations).
 - b. Alteration of several types of wetlands specifically protected by reference (a) by channelization/drainage.
 - c. Affects the habitat of the endangered species, *Dendrocopos Borealis* (Red-Cockaded Woodpecker).
 - d. May affect the endangered species *Dionaea Muscipula* (Venus Fly Trap); several species of *Sarracenia* (Pitcher Plants), and alligator *mississippiensis* (American Alligator).
2. The subject project requires implementation of the following procedural requirements:
 - a. Filing of a Federal Consistency Determination with the North Carolina Office of Coastal Management.
 - b. Submittal of a Sedimentation Control Plan required by reference (b).
 - c. Consultation with United States Fish and Wildlife Service (USFWS) and North Carolina Wildlife Resources Commission as required by reference (c).
 - d. Submittal of an Environmental Assessment (EA) to Headquarters Marine Corps as required by reference (d).

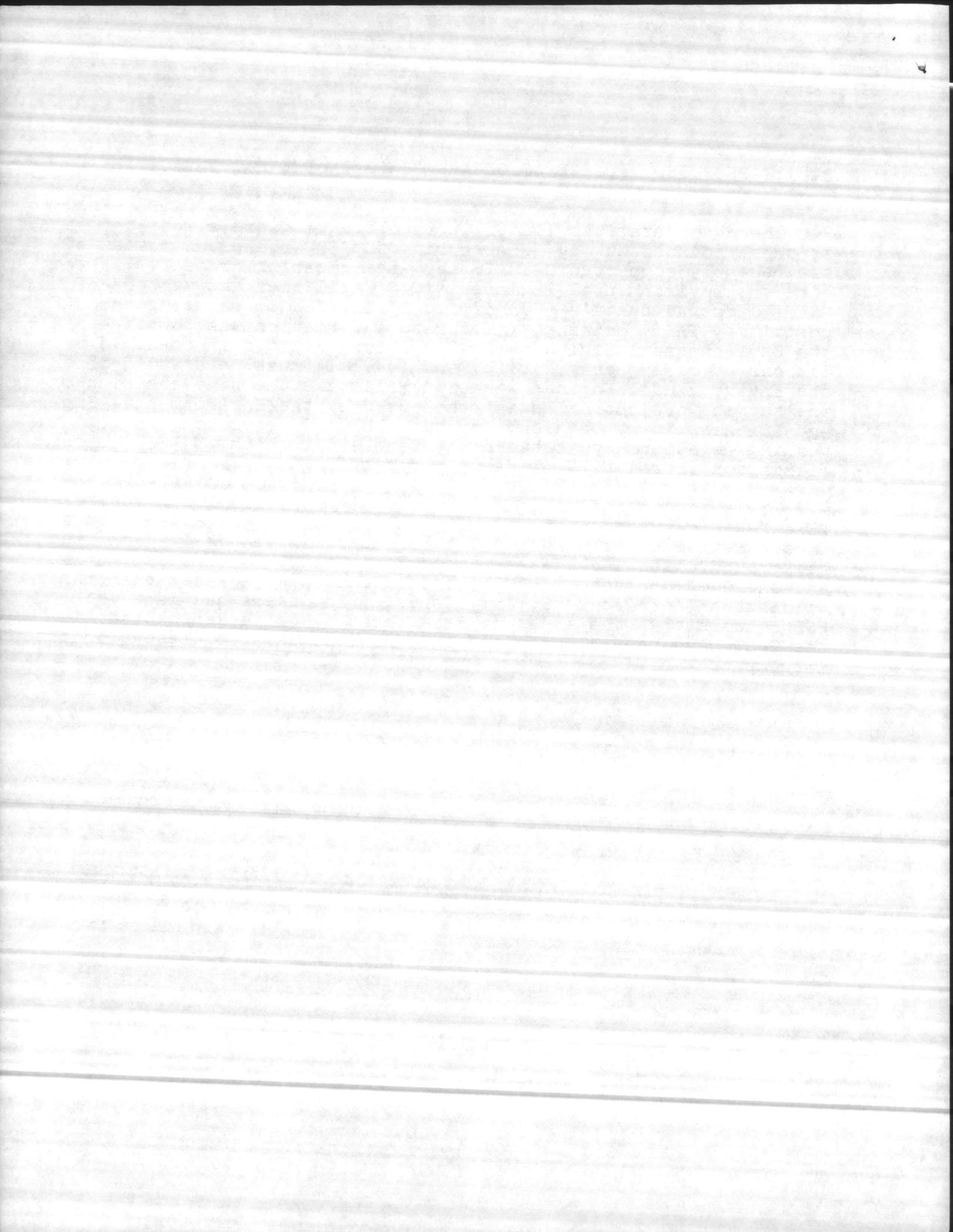


Subj: PROPOSED PROJECT TO CLEAR AND DRAIN THE K-2 IMPACT AREA

3. The considerations listed in the foregoing are almost the same as those pointed out by NREAD during the Environmental review of the recently completed G-10 Impact Area clearing project. At that time the Environmental Engineer, AC/S Facilities and members of the Staff Judge Advocate's (SJA) office cooperated in refuting the NREAD position. In my opinion, inaccurate information was provided by the Environmental Engineer and SJA which resulted in possible violations of references (a), (b) and (c). It must be assumed that the Environmental Engineer and SJA will take the same position on the subject project. The approach used by the Environmental Engineer and SJA has, in my opinion, seriously harmed previously excellent working relationships between the Base and both the USFWS and the Wilmington District, U. S. Army Corps of Engineers.

4. It is recommended that K-2 Impact Clearing and Drainage Project PEA provided by reference (c) not be put before the Environmental Impact Review Board unless the board members are provided thorough background which includes all of NREAD's comments on both the K-2 and the G-10 project. The Board should also be advised that the Wilmington District U. S. Army Corps of Engineers has made the USFWS aware that the areas of Red-Cockaded Woodpecker habitat in the G-10 have been cleared and that habitat is also present in the K-2 Impact Area.

D. D. SHARPE





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:
11015/1A
NREAD
23 July 1984

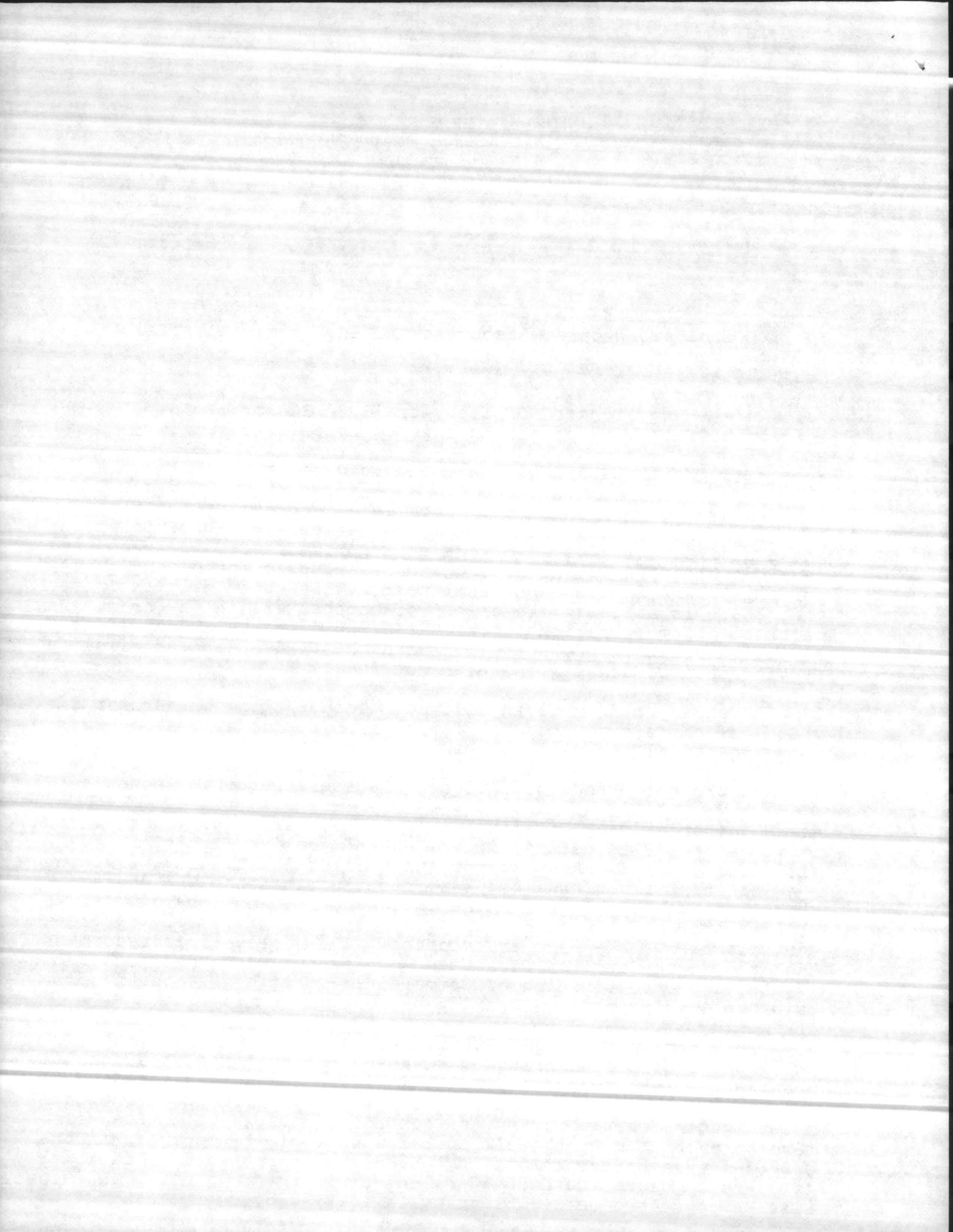
From: Base Wildlife Manager
To: Director, Natural Resources and Environmental Affairs
Division
Subj: Clearing K-2 Impact Area

Ref: (a) Range Control Officer ltr 11000 EOB of 11 July 1984
(b) Section 7 of the Endangered Species Act of 1973

Encl: (1) North Carolina Fisheries' Regulations

1. The amended preliminary environmental assessment contained in reference (a) has been reviewed as requested. Five previously unknown active cavity trees of the endangered Red-Cockaded Woodpecker have been located in the area which is proposed for clearing according to the Environmental Engineer. This apparently indicates that there is at least one colony of woodpeckers in the area. Any major clearing operation in this area would create a "may affect" situation requiring consultation with the U. S. Fish and Wildlife Service in accordance with reference (b).
2. The endangered American Alligator occurs along Whitehurst Creek which is in the area proposed for clearing. The alligator nests above the tidal zone well within the fire-line along the creek. Clearing the area would also create a "may affect" situation relative to the occurrence of alligators thereby requiring consultation.
3. Whitehurst Creek is a protected nursery area for young finfish and crustaceans as defined in the North Carolina Fisheries Regulations for coastal waters as contained in enclosure (1). Draining the wetlands of the area proposed for clearing into Whitehurst Creek and channelization of the creek would change the salinity of the water. This would impact on the productivity of the creek for saltwater fishes and crustaceans. Therefore, it is recommended that the North Carolina Department of Natural Resources and Community Development, Division of Commercial Fisheries, be contacted prior to initiating the clearing project.
4. The shorelines along Whitehurst Creek and New River proper where the proposed clearing is planned is identified as a sensitive area in the 1981 Archaeological and Historical Survey for Camp Lejeune. It is recommended that Dr. Thomas Loftfield, principal investigator for the survey, be contacted for expert advice relative to protecting archaeological and historical resources in the proposed area before initiating the clearing project. Additionally, it is recommended the North Carolina Division of Archives and History also be consulted before clearing is initiated.

C. D. Peterson



1403 MAPS AND MARKING

(a) The division of marine fisheries shall prepare detailed maps or charts showing all primary nursery areas. Such maps or charts will be available for inspection at the division of marine fisheries' office, Morehead City.

(b) As a courtesy to the fishing public the division of marine fisheries will mark the downstream boundary of each primary nursery area with signs insofar as may be practicable. No unauthorized removal or relocation of any such marker or sign shall have the effect of changing the classification of any body of water or portion thereof, nor shall any such unauthorized removal or relocation or the absence of any marker or sign affect the applicability of any regulation pertaining to any such body of water or portion thereof.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977.

1404 VIOLATION TO USE SPECIFIC NETS AND DREDGES

It shall be unlawful to use or attempt to use any trawl net, long haul seine, swipe net, or dredge for the purpose of taking any marine fishes in any of the primary nursery areas described in 15 NCAC-3B .1405.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977; Amended Eff. January 1, 1983.

1405 DESCRIPTIVE BOUNDARIES: PRIMARY NURSERY AREAS

Page 92 3B/.1405

- W; running 219° (M) to a point on the west shore 34° 35' 17" N — 77° 23' 34" W;
- (F) Everetta Creek, south of a line beginning at a point on the east shore 34° 34' 13" N — 77° 24' 44" W; running 273° (M) to a point on the west shore 34° 34' 12" N — 77° 24' 49" W;
- (G) Stone's Creek, southwest of a line beginning at a point on the southeast shore 34° 35' 36" N — 77° 25' 51" W; running 301° (M) to a point on the northwest shore 34° 36' 37" N — 77° 25' 52" W;
- (H) Muddy Creek, north of a line beginning at a point on the west shore 34° 36' 52" N — 77° 25' 33" W; running 087° (M) to a point on the east shore 34° 36' 52" N — 77° 25' 37" W;
- (I) Mill Creek, north of a line beginning at a point on the west shore 34° 37' 13" N — 77° 25' 44" W; running 109° (M) to a point on the east shore 34° 37' 11" N — 77° 25' 37" W;
- (J) Whitehurst Creek, west and south of a line beginning at a point on the south shore 34° 38' 04" N — 77° 22' 37" W; running 280° (M) to a point on the north shore 34° 38' 04" N — 77° 22' 38" W;
- (K) Town Creek, west of a line beginning at a point on the south shore 34° 39' 36" N — 77° 23' 06" W; running 007° (M) to a point on the north shore 34° 39' 37" N — 77° 23' 06" W;
- (L) Lewis Creek, southwest of a line beginning at a point on the southeast shore 34° 40' 54" N — 77° 24' 30" W; running 301° (M) to a point on the northwest shore 34° 40' 55" N — 77° 24' 32" W;
- (M) Northeast Creek, east of a line beginning at a point on the south shore 34° 43' 23" N — 77° 23' 35" W; running 316° (M) to a point at the mouth of Scale's Creek 34° 43' 46" N — 77° 24' 06" W;
- (N) Southwest Creek, southwest of a line beginning at a point on the east shore 34° 41' 30" N — 77° 25' 20" W; running 328° (M) to a point on the north shore 34° 41' 52" N — 77° 25' 40" W;
- (O) Upper New River, north of a line beginning at a point on Mumford Point 34° 43' 17" N — 77° 25' 00" W; running 271° (M) through beacon #53 to a point on the west shore 34° 43' 14" N — 77° 25' 49" W;

3B/.1402-1405 F

1402 NURSERY AREAS DEFINED

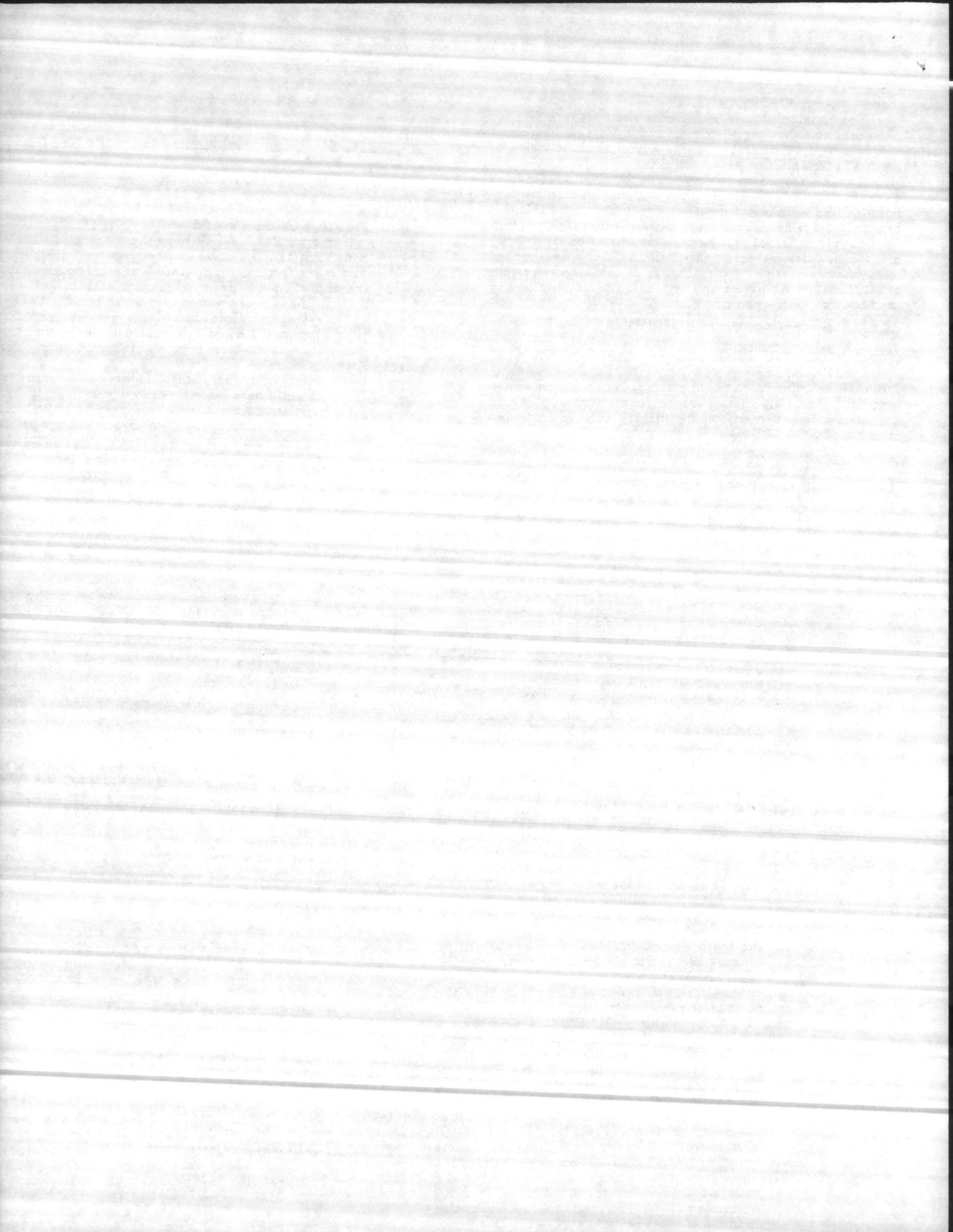
Nursery areas are defined as those areas, in which factors such as food, cover, bottom type, salinity, temperature and other factors, young finfish and crustaceans spend the major portion of their initial growing season:

- (1) Primary nursery areas are those areas in the estuarine system where initial post-larval development takes place. These areas are usually located in the uppermost portion of a system where populations are uniformly very young juveniles.
- (2) Secondary nursery areas are those areas in the estuarine system where later juvenile development takes place. Populations are usually composed of developing juveniles of similar size which have migrated from an upstream primary nursery area to the secondary nursery area located in the middle portion of the estuarine system.

History Note: Statutory Authority G.S. 113-134; 113-182; 143B-286; Eff. November 1, 1977.

3B/.1405 Pa

- (C) Unnamed creek, east of a line beginning at a point on the south shore 34° 41' 00" N — 77° 09' 44" W; running 337° (M) to a point on the north shore 34° 41' 08" N — 77° 09' 44" W;
- (7) Bear Creek, west of Willis Landing.
- (m) New River Area
- (1) Salliers Bay area, all waters north and northwesterly of the IWW beginning at a point on Cedar Point 34° 08" N — 77° 20' 26" W to beacon #53 34° 37' 56" N — 77° 12' 20" W including Howard Bay, Mile Hammock, Salliers Bay, and Freeman Creek;
 - (2) New River Inlet area (including Hellgate Creek, Ward's Channel), all waters south of the IWW beginning at a point on beacon #65 34° 32' 39" N — 77° 19' 03" W to beacon #66 34° 31' 03" N — 77° 22' 18" W, excluding the mouth of the New River Inlet Channel;
 - (3) New River:
 - (A) Trap's Bay, northeast of a line beginning at a point on the east shore 34° 33' 47" N — 77° 20' 57" W running 317° (M) to a point on the west shore 34° 34' 10" N — 77° 20' 57" W;
 - (B) Courthouse Bay:
 - (i) Tributary of Courthouse Bay, southeast of a line beginning at a point on Harvey's Point 34° 59" N — 77° 22' 23" W; running 066° (M) to a point on the east shore 34° 35' 05" N — 77° 11" W;
 - (ii) Tributary of Courthouse Bay, northwest of a line beginning at a point on the west shore 34° 35' 05" N — 77° 22' 40" W; running 057° (M) to a point on the east shore 34° 35' 10" N — 77° 31" W;
 - (iii) Rufus Creek, east of a line beginning at a point on Wilken's Bluff 34° 34' 25" N — 77° 21' 41" W; running 002° (M) to a point on the north shore 34° 34' 34" N — 77° 21' 41" W;
- (C) Wheeler Creek, south of a line beginning at a point on Poverty Point 34° 34' 06" N — 77° 23' 31" W; running 267° (M) to a point on the west shore 34° 03' N — 77° 23' 23" W;
- (D) Fannie Creek, west of a line beginning at a point on the south shore 34° 34' 07" N — 77° 23' 23" W;





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:
11000/2
NREAD
24 July 1984

From: Base Forester
To: Director, Natural Resources and Environmental Affairs
Division
Subj: PEA FOR IMPROVEMENTS OF K-2 IMPACT AREA; COMMENTS ON
Ref: (a) EQDO ltr 11000 EOD of 11 July 1984
(b) Mtg btwn AC/S FAC; DAC/S FAC; ROICC/PWO; TFO; EQDO;
EnvEngr; Dir NREAD, and AsstBase Forester on
17 July 1984

1. The clearing of large acreage in the K-2 Impact Area as addressed in reference (a) and discussed during reference (b) generated significant interest from some local timber procurement personnel. However, the possibility of metal contamination in the timber, and hazardous ground conditions for harvesting equipment and personnel has resulted in a greatly lowered level of interest than would be expected from uncontaminated timber.

2. If maximum effort to clearcut an area of 1,000 acres is undertaken by a major contractor, it is estimated that approximately two months would be needed to harvest the area under the most ideal circumstances. Poor weather, suppressed timber markets, equipment breakdown or accidents at the logging site or at the mill would increase the time required for the completion of the job.

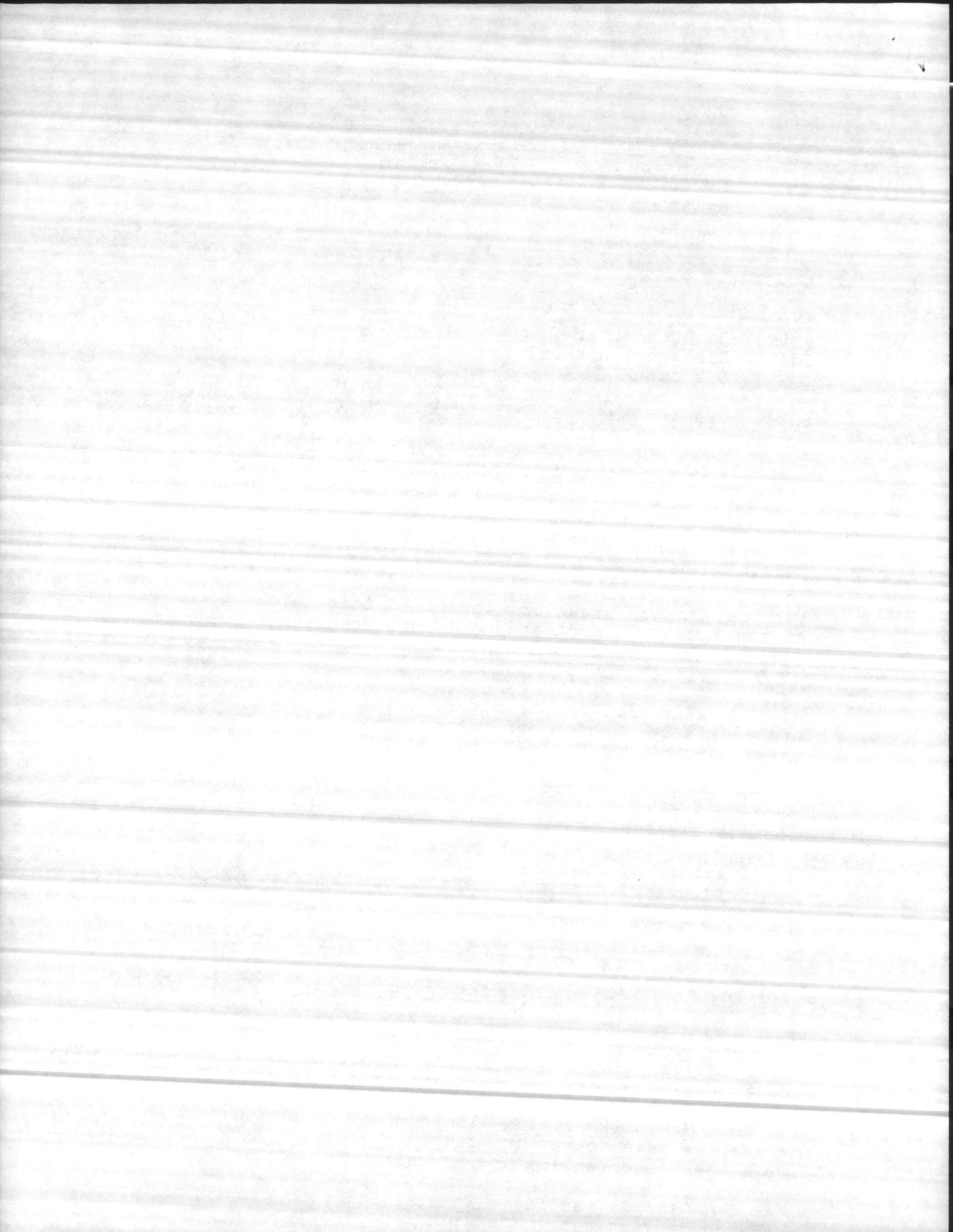
3. Interest by some representatives has been high, while others wanted more information, and others expressed no interest because of the possibility of metal contaminated timber and hazardous ground conditions from unexploded ordnance. Interest is noted as follows:

a. Federal Paper Woodlands Division - Official company policy is to avoid metal contaminated timber.

b. Squires Timber Company - Procurement personnel indicate that they are interested in the proposed timber salvage provided that primary purchasers will accept the timber.

c. Hinson Pulpwood - The company is interested in possible timber salvage operations but is concerned about mill acceptance or quotas interrupting the harvest.

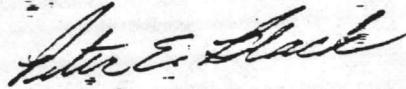
d. Georgia Pacific - The initial response to the proposed salvage harvest was guarded; however, after further assessment



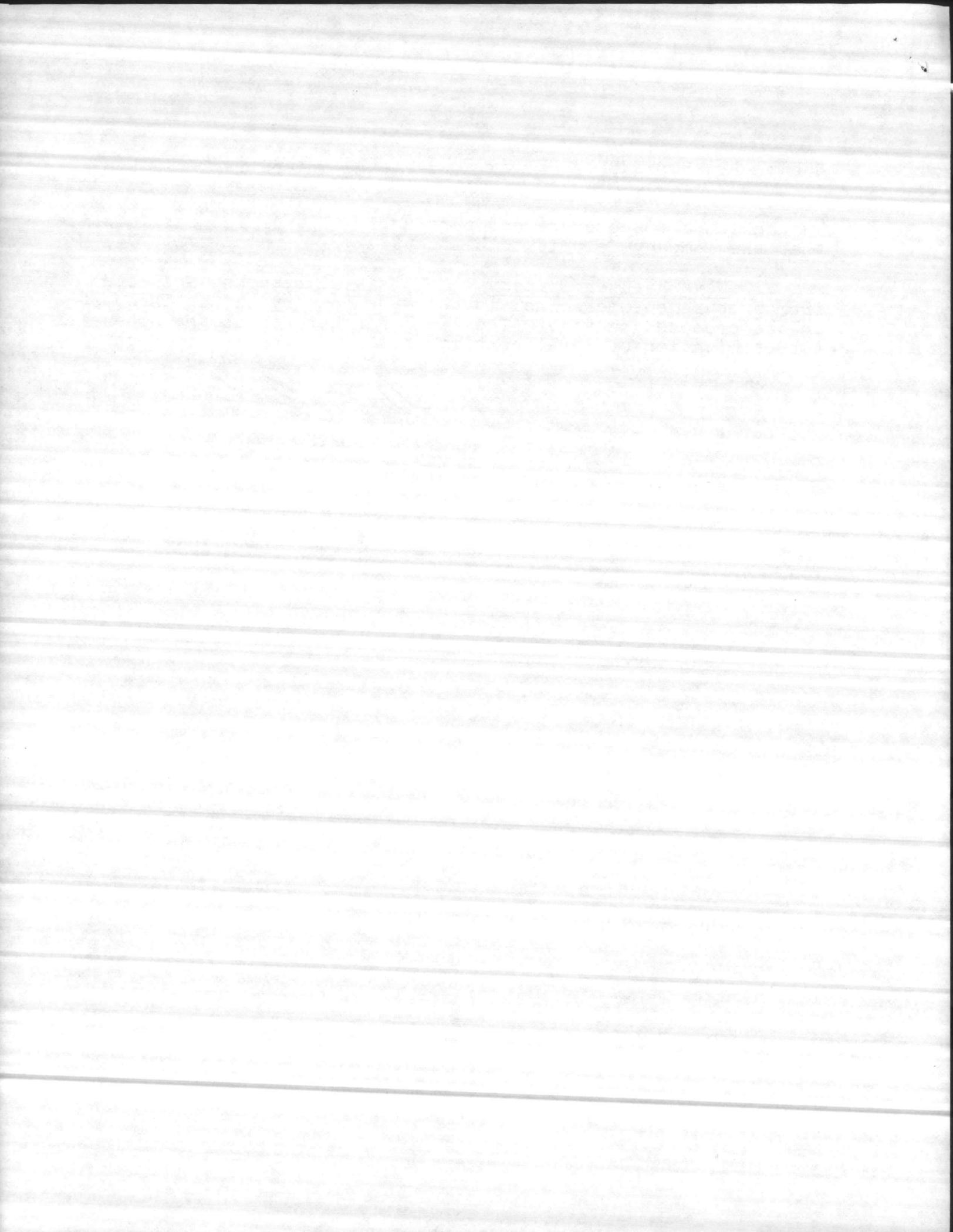
Subj: PEA FOR IMPROVEMENTS OF K-2 IMPACT AREA; COMMENTS ON

by the company's procurement personnel, this office was informed that the company felt it to be too risky.

e. Weyerhaeuser Company - The initial response solicited from procurement personnel is that the company may be interested in the proposed salvage. They will further assess the potential for utilization of metal contaminated timber and contact this office.



P. E. BLACK





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
11000/5
NREAD
23 Jul 1984

From: Supervisory Ecologist
To: Director, Natural Resources and Environmental Division
Subj: CONSTRUCTION OF TRACKED VEHICLE TRAIL FROM RHODES POINT TO
TLZ CARDINAL; PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) OF
Ref: (a) Chairman, EIRB ltr 5420/2 FAC 18 Jul 1984
(b) SJA ltr 5800 CLO 5 Jul 1984
(c) Director, NREAD ltr 5200 NREAD 20 Jun 1984
(d) Director, NREAD ltr 11000/5 NREAD 20 Jun 1984
(e) MCO.P11000.8B

1. The subject Preliminary Environmental Assessment (PEA) has been reviewed per your request and the following comments are provided. It should be noted that current base guidelines were not followed in the PEA format.
2. The title page of the subject PEA as provided by reference (a) is misleading. Natural Resources and Environmental Affairs Division (NREAD) has not prepared a PEA of the subject action. The subject document was not compiled by NREAD. NREAD comments incorporated into the subject document address only the section of new trail east of grid coordinates 802362.
3. Engineering support is recommended to design road bed, associated ditches and culverts, and erosion control structures. It should be noted that Staff Judge Advocate (SJA) opinion contained in reference (b) conflict with paragraph 2 of reference (c). Ref (c) is incorporated into the subject PEA. It is my opinion that submittal of a sediment control plan for the subject project to the State as discussed in reference (d) is required.
4. Provided that the sedimentation control requirements identified in reference (c) are satisfied, this project appears to meet the criteria contained in reference (e) for a categorically excluded action (i.e. submittal of an EA to Headquarters Marine Corps is not required).

D. D. Sharpe
D. D. SHARPE

