



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

T-1101512

IN REPLY REFER TO

August 2, 1984

Planning Division

Mr. Jack T. Brawner  
Regional Director  
National Marine Fisheries Service  
9450 Koger Boulevard  
St. Petersburg, Florida 33702

Dear Mr. Brawner:

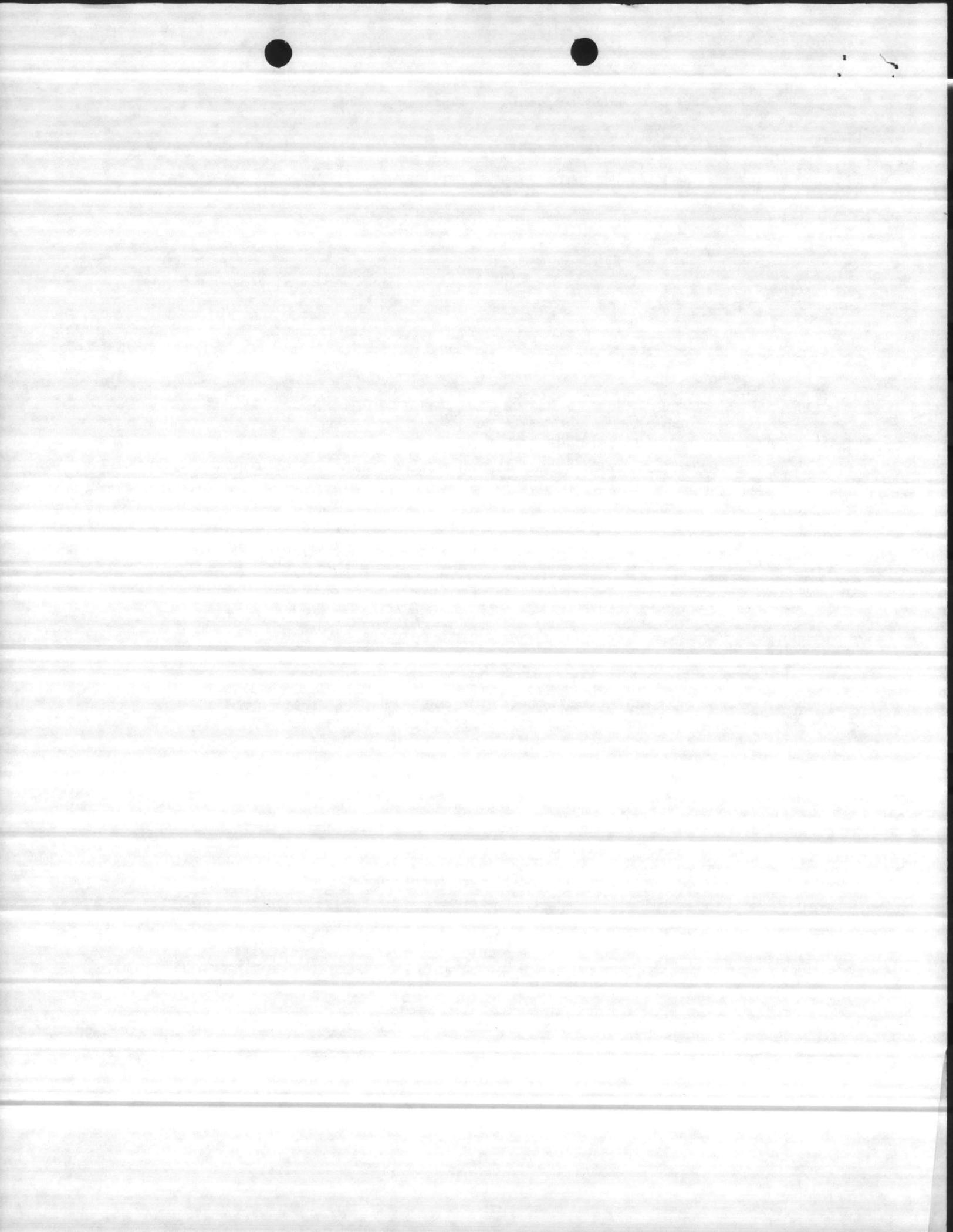
Enclosed is a Biological Assessment of the Impacts of the New River - Landing Craft (LCM-8) Access Channels, Marine Corps Base, Camp Lejeune, North Carolina on Threatened and Endangered Species. This document was prepared by the Wilmington District, Corps of Engineers for the Marine Corps Base, Camp Lejeune. All species which were furnished by your office by telephone on June 19, 1984, have been considered and a no-effect determination has been reached.

If you have any question on the assessment, please contact Mr. John Baden of my Environmental Analysis Section at FTS 671-4754.

Sincerely,

Wayne A. Hanson  
Colonel, Corps of Engineers  
District Engineer

Enclosure



BIOLOGICAL ASSESSMENT OF  
ENDANGERED AND THREATENED  
SPECIES FOR THE  
NEW RIVER - LANDING CRAFT  
(LCM-8) ACCESS CHANNELS PROJECT  
MARINE CORPS BASE, CAMP LEJEUNE  
NORTH CAROLINA

JULY 1984



## PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed action, the establishment of an access channel for landing craft across the New River, is to provide additional amphibious training capabilities at the Marine Corps Base, Camp Lejeune, North Carolina. The Marine Corps amphibious mission requires prime movers of artillery pieces and various support vans and tracked vehicles be trained/proficient in loading and unloading operations on landing craft (specifically LCM-8 land craft). Further, the proposed channel across the New River will facilitate tracked vehicle access to the western sector (on the west side of the New River) of Camp Lejeune's training facilities. Presently limited road and bridge capacities restrict tracked vehicle access to the western sectors. The increased emphasis on mechanized infantry operations combined with future mechanized equipment acquisitions necessitate maximum use of the Camp Lejeune training areas.

## DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of the establishment of a landing craft access channel crossing the New River between Weil and Rhodes Points located within the Marine Corps Base, Camp Lejeune, North Carolina (Onslow County) (figures 1 and 2). The bottom width of the proposed channel will be 100 feet, the project depth will be 6 feet below mean low water (m.l.w.)(figure 3).

Construction of the proposed channel involves the removal by hydraulic pipeline dredge of fine sand, silt, and clay sediments (characteristics of material to be dredged based on U. S. Army Corps of Engineers (1976)) lying above the plane of 6 feet below m.l.w. (plus 2 feet overdepth). Hydrographic surveys made during July 1984 indicate that initial channel dredging will only be required immediate to the river shore. Specifically and as shown in figure 3, 2,200 feet of channel divided as 1,200 feet extending from Weil Point and 1,000 feet extending from Rhodes Point will be dredged to 6 feet below m.l.w. (plus 2 feet overdepth). The dredged channel bank will have approximately a 3H:1V slope (figure 3). The estimated quantity of material to be dredged is 38,000 cubic yards, 27,000 cubic yards at the Weil Point side of the river and 11,000 cubic yards at the Rhodes Point side.

The dredged material will be disposed of in diked upland disposal areas. Two disposal areas, one being 4.0 acres on Weil Point and the other being 2.5 acres on Rhodes Point, are proposed and shown on figure 4. The Weil Point disposal area which is presently immature pine plantation will be cleared and grubbed. The proposed Rhodes Point disposal area is a field with scattered young pines. Accordingly, little clearing will be necessary in connection with the Rhodes Point site. The disposal area dikes, 4 feet high at Rhodes Point and 7 feet high at Weil Point will be built from materials pushed up from within the proposed disposal areas.



Effluent from the proposed disposal areas will be controlled by outlet weirs, piped through the containment dike, and then released to flow overland following existing natural drainage (as shown on figure 4) to the New River. A riprap, rock, or rubble splash area will be used at the terminal end of the effluent pipes to control erosion.

The work is scheduled to begin in October 1984 and will require approximately 30 days to complete.

The frequency and the amount of dredging which will be required to maintain the proposed channel is not known, however, based on the history of maintenance dredging in the 10 ft. x 90 ft. Atlantic Intracoastal Waterway New River Side Channel to Jacksonville which crosses the project area, frequent maintenance is not expected (U. S. Army Corps of Engineers, 1976).

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U. S. Army Corps of Engineers, 1976. Final Environmental Statement, Maintenance of Atlantic Intracoastal Waterway Side Channels, North Carolina



## SPECIES TO BE CONSIDERED

Informal consultation under Section 7(c) of the Endangered Species Act, as amended, was initiated with National Marine Fisheries Service (NMF) by telephone on June 19, 1984. The following list of endangered and threatened species was provided for consideration by the NMF.

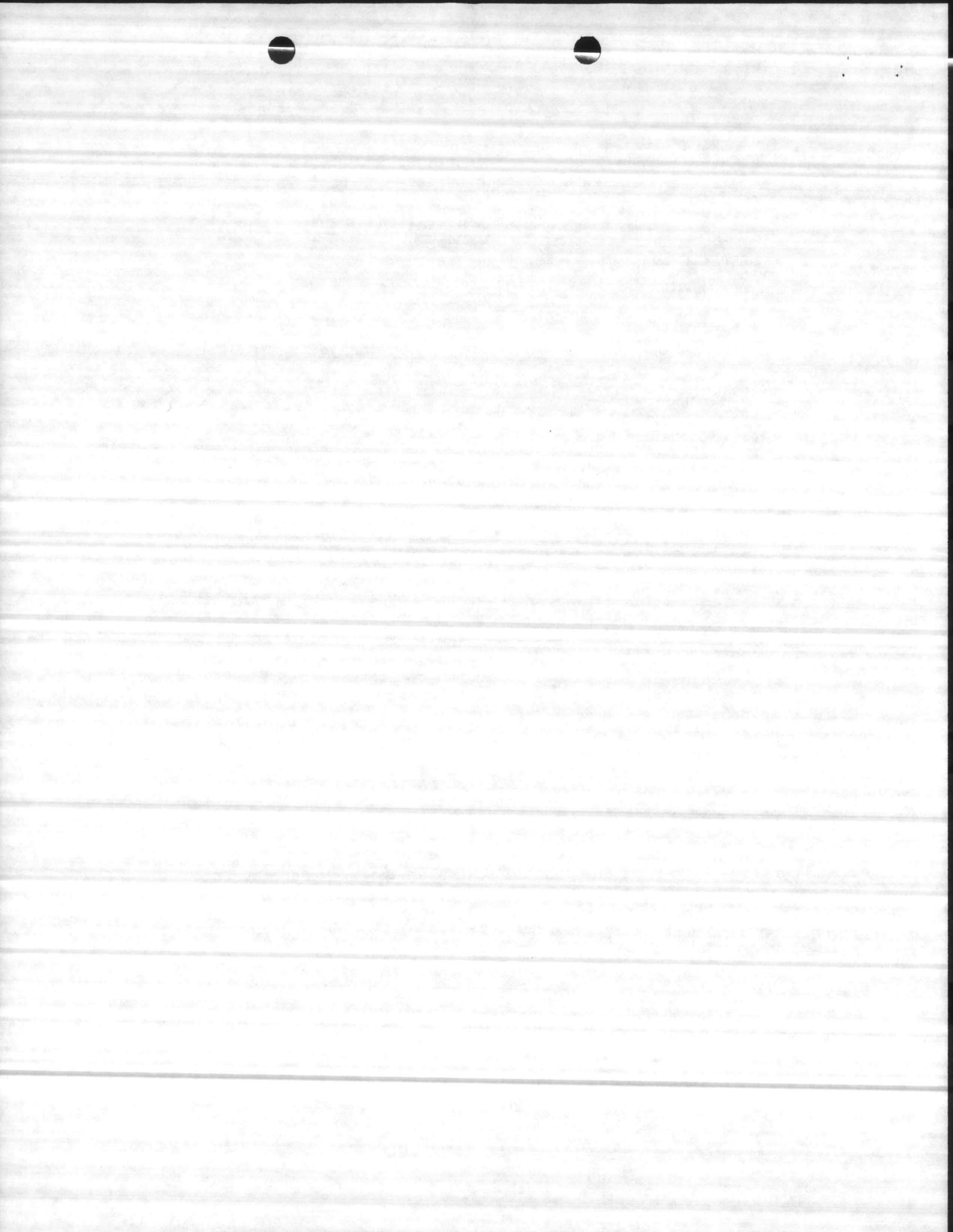
1. Loggerhead Sea Turtle (Caretta caretta)
2. Green Sea Turtle (Cheilonia mydas)
3. Kemp's Ridley Sea Turtle (Lepidochelys kempii)

## STUDY METHOD

Field surveys by Corps of Engineers biologists have been conducted in the project area to determine the overall impacts of the project on both human and natural environment. Also, data which were provided by informed individuals made possible this assessment of project impacts on endangered and threatened species.

Loggerhead Sea Turtle, (threatened); Green Sea Turtle (threatened; and Kemp's Ridley Sea Turtle (endangered).

These sea turtles are treated as a group as they all utilize similar habitats. All of them occur offshore or in estuarine situations in North Carolina, but only the loggerhead nest regularly in North Carolina. Sea turtles occur in the higher salinity reaches of the New River (from the Sneads Ferry bridge to the ocean). Records of loggerhead sea turtles in waters of lower salinity (Rhodes and Weil Points area) have occurred, but all the animals were stranded. These sea turtles feed principally on invertebrates, marine algae, rooted plants, and fish. The main reasons for their decline include overexploitation by man, loss of suitable beaches for nesting, and drowning caused by inadvertent capture in fishing nets. Food supply for the sea turtles should remain high in the area as only a minor amount would be affected by dredging in comparison to the total available in the New River area. The project will not affect any nesting beaches or cause increased taking of sea turtles by fishing nets. Since the dredging is scheduled to take place during October and November (period of low activity of sea turtles in North Carolina) in waters of low salinities, and since there is a lack of records of occurrence in project area of the New River, the proposed action is not expected to affect the sea turtles.



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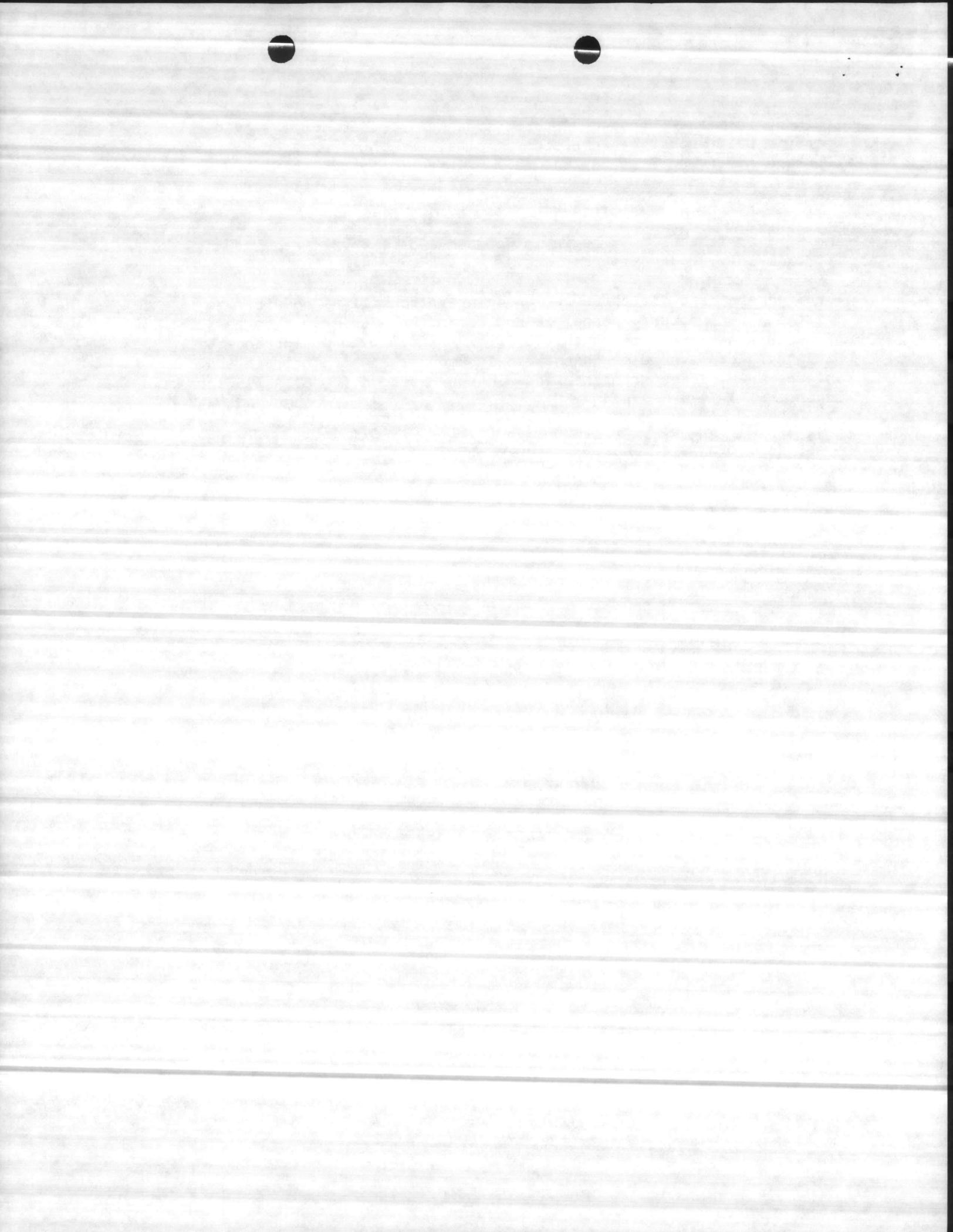


Effluent from the proposed disposal areas will be controlled by outlet weirs, piped through the containment dike, and then released to flow overland following existing natural drainage (as shown on figure 4) to the New River. A riprap, rock, or rubble splash area will be used at the terminal end of the effluent pipes to control erosion.

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## SPECIES TO BE CONSIDERED

Informal consultation under Section 7(c) of the Endangered Species Act, as amended, was initiated with the U. S. Fish and Wildlife Service (FWS) by telephone contact on June 19, 1984. The FWS provided the following list of endangered species to be considered:

1. American Alligator (Alligator mississippiensis) - (Endangered)
2. Red-cockaded Woodpecker (Picoides borealis) - (Endangered)

## STUDY METHODS

A survey was made for these species within the areas to be effected by project construction. The results of these surveys plus data which were provided by informed individuals, made possible this assessment of project impacts on endangered species.

American Alligator (endangered). This species reaches the northern extent of its range in the Albemarle Sound region. It occurs in coastal rivers, marshes, and estuaries in the State, although it seems to reproduce most favorably in situations where there is a relatively stable water level. Alligators are found throughout Camp Lejeune in its streams and marshes. The average home range of an adult is 3,162 acres for males and 21 acres for females. The alligator feeds on a wide variety of mammals, reptiles, amphibians, birds, fish, and crustaceans. Nesting occurs in late spring or early summer.

The dredging of New River is not expected to directly impact the species due to the alligator's mobility. The slow moving cutterhead of a dredge should be easily avoided by the alligator. The two disposal sites are upland sites in areas which, due to their distance from the water, would not be used by the alligators for nesting. Food supply for the alligator should remain high in the area as only a minor amount would be affected by dredging in comparison to the total available for the New River area. Therefore, it has been determined that the project will not affect the alligator.

### Red-cockaded Woodpecker (endangered)

This species is found on Camp Lejeune. The red-cockaded requires open pine stands. Disposal of dredged material will take place on two disturbed upland sites which do not have the species requisite, open pine forest habitat. The project, therefore, will not affect the red-cockaded woodpeckers.



CONCLUSIONS

This biological assessment has determined the impact of the proposed maintenance dredging and ocean disposal of dredged material on threatened and endangered species which may occur in the project area. Factors which were analyzed in making this determination are as follows:

Geographic location of the project and distribution (ranges) of listed species;

Habitat types present in the project area;

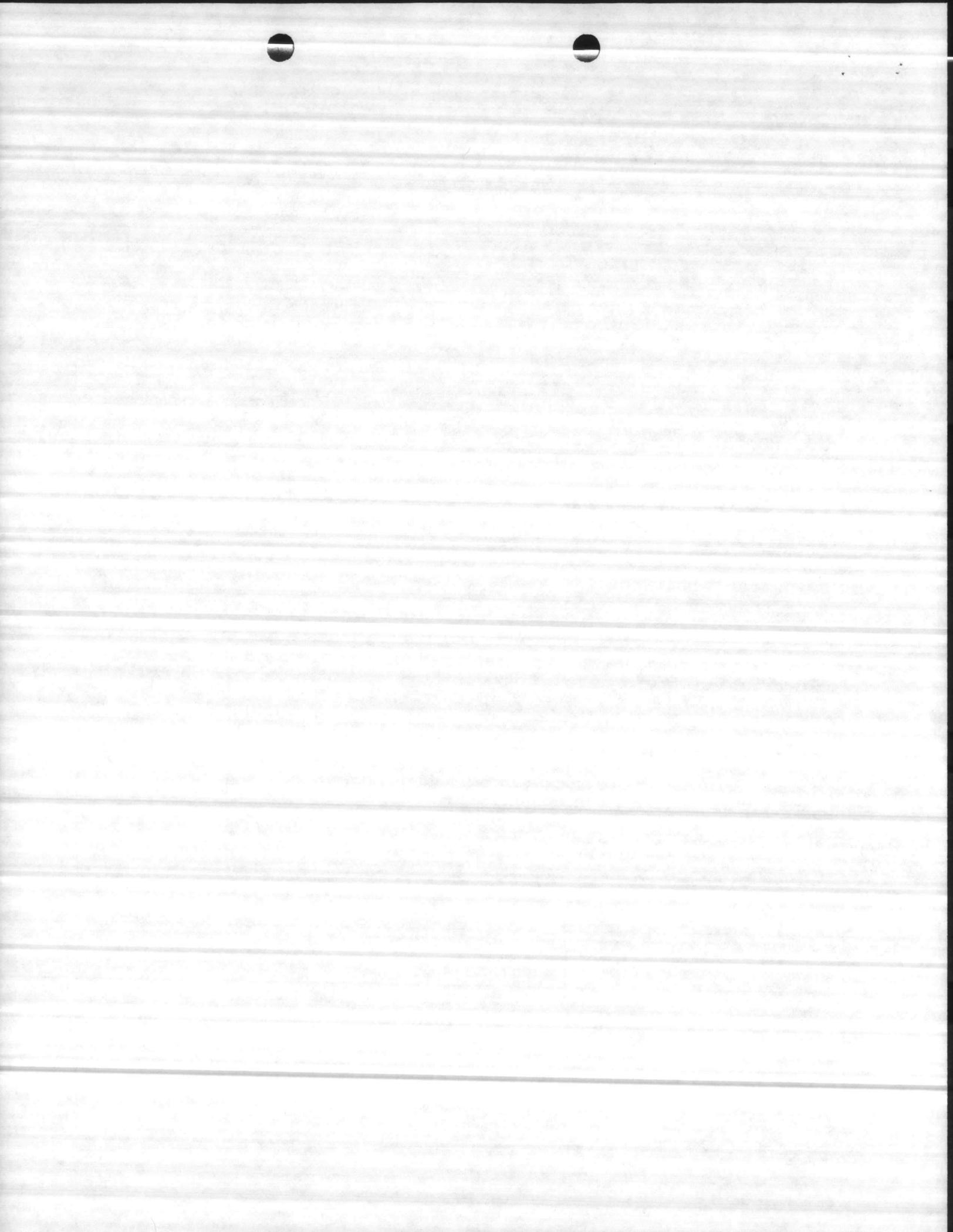
Types of environmental impacts created by the project;

Life history requirements and behavior of listed species.

Analysis of these factors has led to the conclusion that there will be no effect on the alligator or red-cockaded woodpecker.







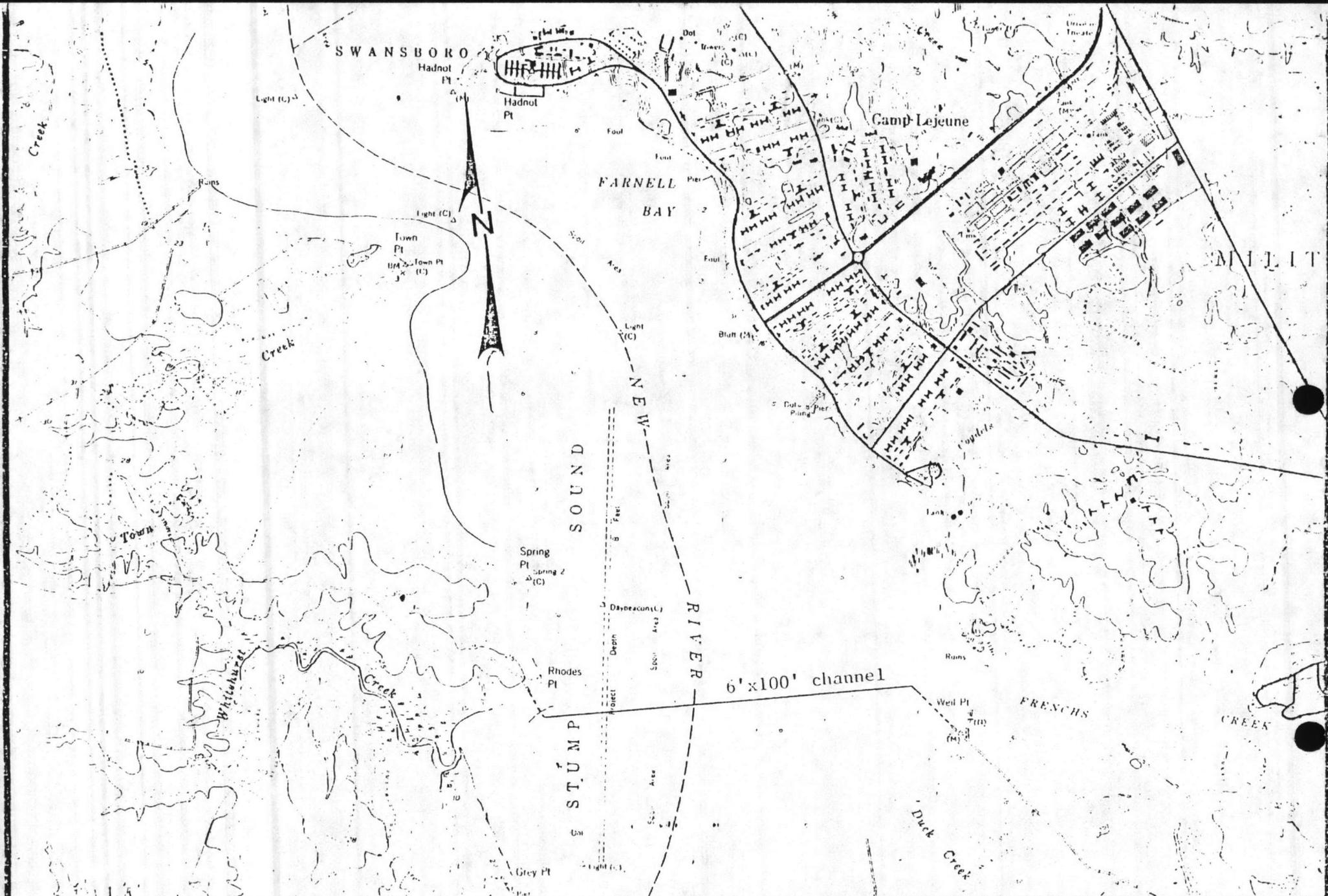
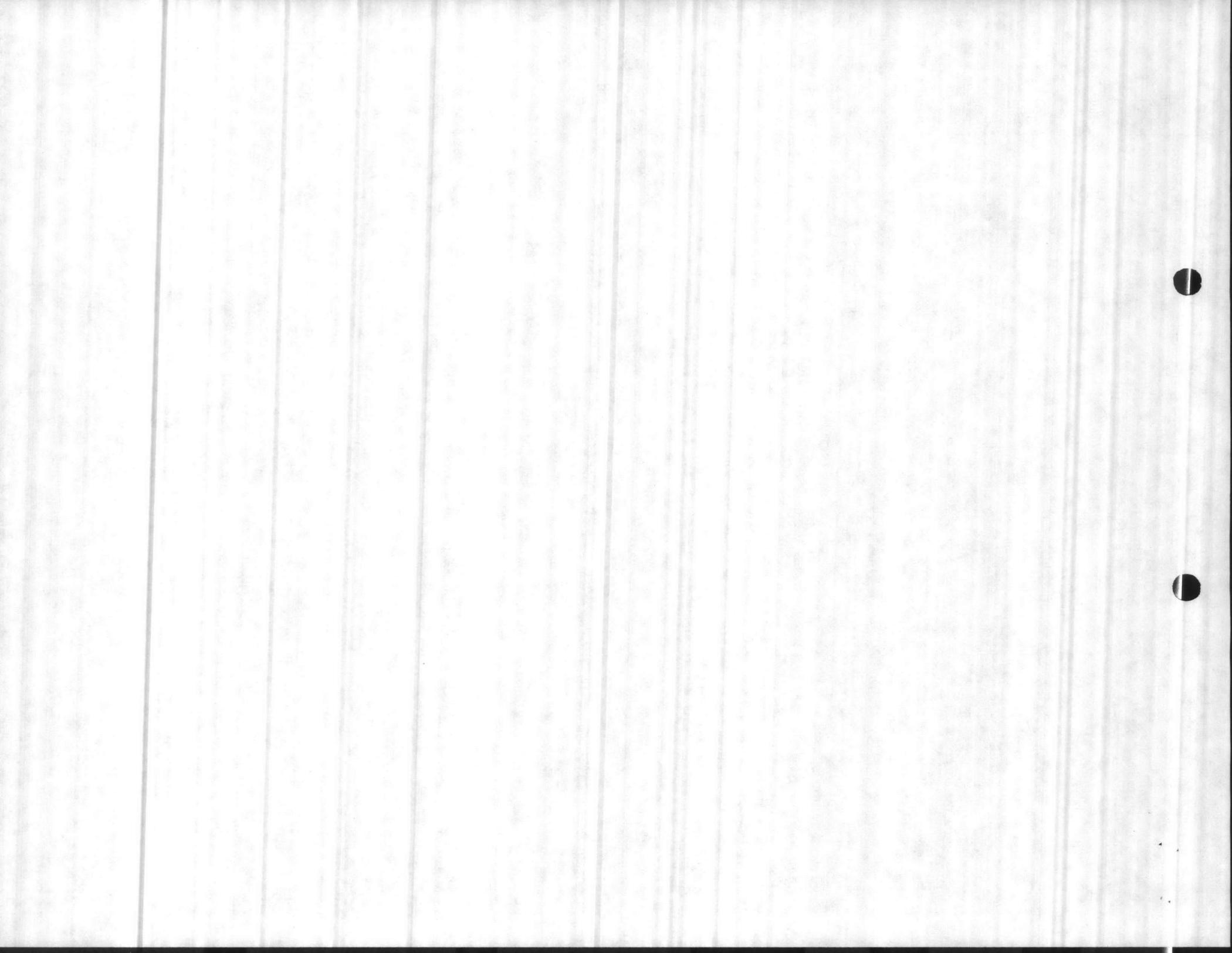


Figure 2. Proposed landing craft access channel. Channel reaches requiring initial construction dredging are shown as broken lines.

CONTOUR INTERVAL 5 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1949  
 DEPTH SOUNDINGS AND SOUNDINGS IN FEET - DATUM IS MEAN LOW WATER  
 SHIP-TO-SHIP REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE MEAN RANGE OF TIDE 2.2 FEET



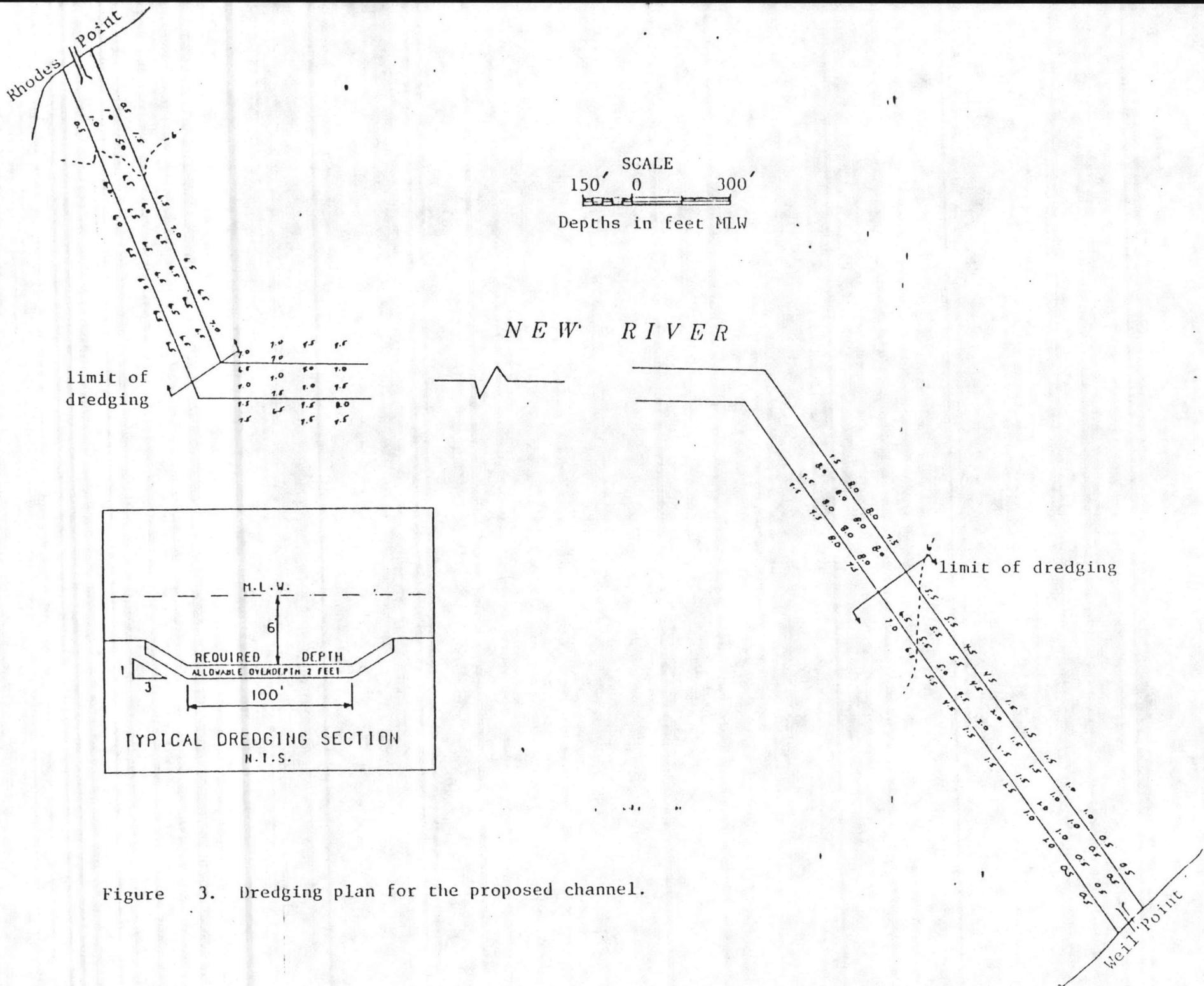


Figure 3. Dredging plan for the proposed channel.

Faint, illegible handwriting on lined paper, possibly bleed-through from the reverse side. The text is too light to transcribe accurately.



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WILMINGTON DISTRICT, CORPS OF ENGINEERS  
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WILMINGTON, NORTH CAROLINA 28402

IN REPLY REFER TO

August 3, 1984

Planning Division

Mr. Warren T. Parker, Field Supervisor  
Endangered Species Field Office  
U. S. Fish and Wildlife Service  
Room 224  
100 Otis Street  
Asheville, North Carolina 28801

Dear Mr. Parker:

Enclosed is a Biological Assessment of the Impacts of the New River - Landing Craft (LCM-8) Access Channels, Marine Corps Base, Camp Lejeune, North Carolina on Threatened and Endangered Species. This document was prepared by the Wilmington District, Corps of Engineers for the Marine Corps Base, Camp Lejeune. All species which were on the list which you provided to the district by telephone on June 19, 1984, have been considered and a no effect determination has been reached.

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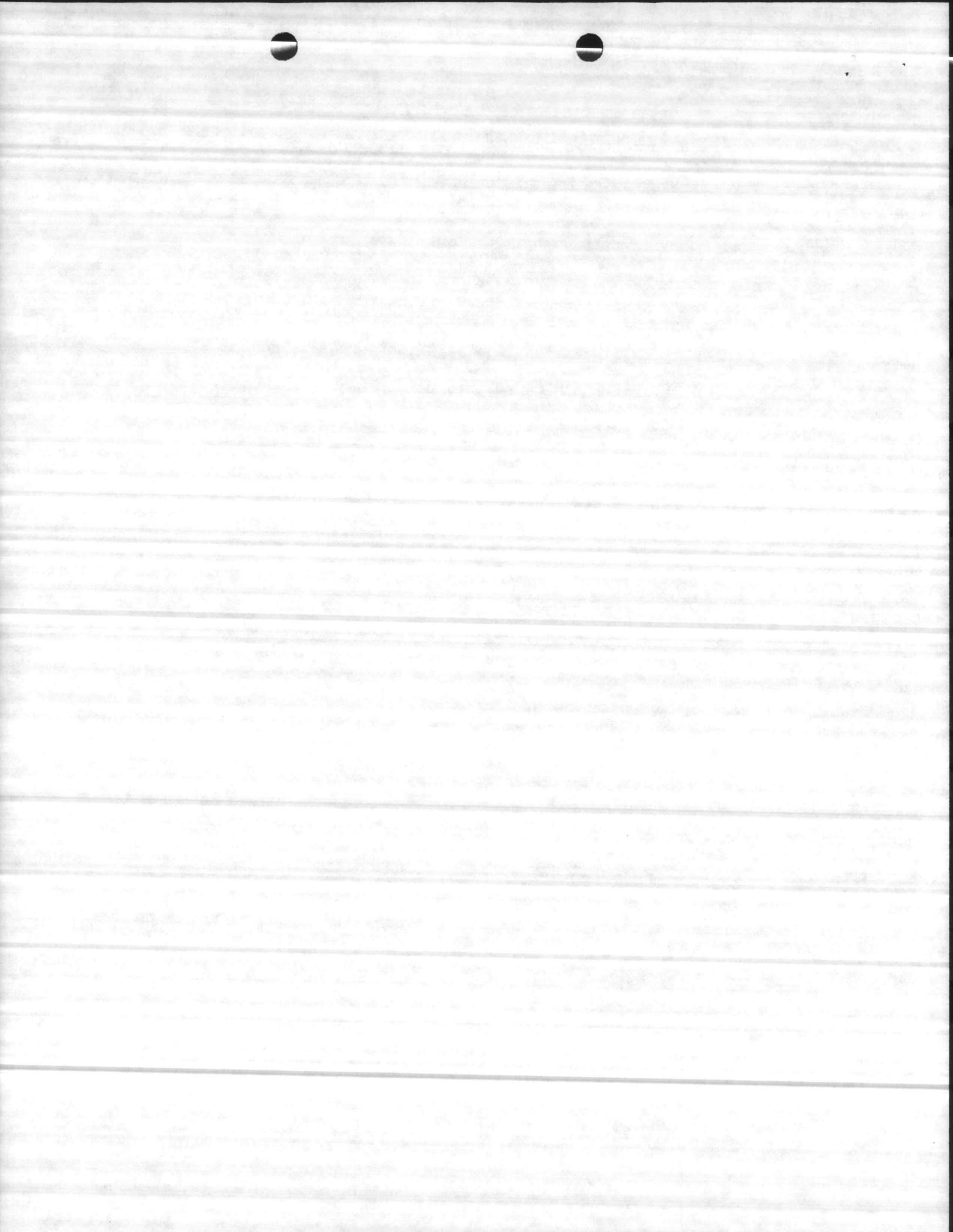
Types of environmental impacts created by the project;

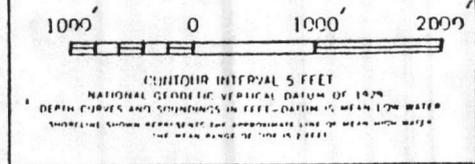
Time of the year when the work will be performed;

Seasonality of occupation of the area by listed species; and

Life history requirements and behavior of listed species.

Analysis of these factors has led to the conclusion that there will be no effect on the loggerhead sea turtle, green sea turtle, and Kemp's Ridley sea turtle.





Rhodes Point Disposal Area  
 Area - approximately 2.5 acres  
 Dike Elevation - 4 feet

Weil Point Disposal Area  
 Area - approximately 4.0 acres  
 Dike Elevation - 7 feet

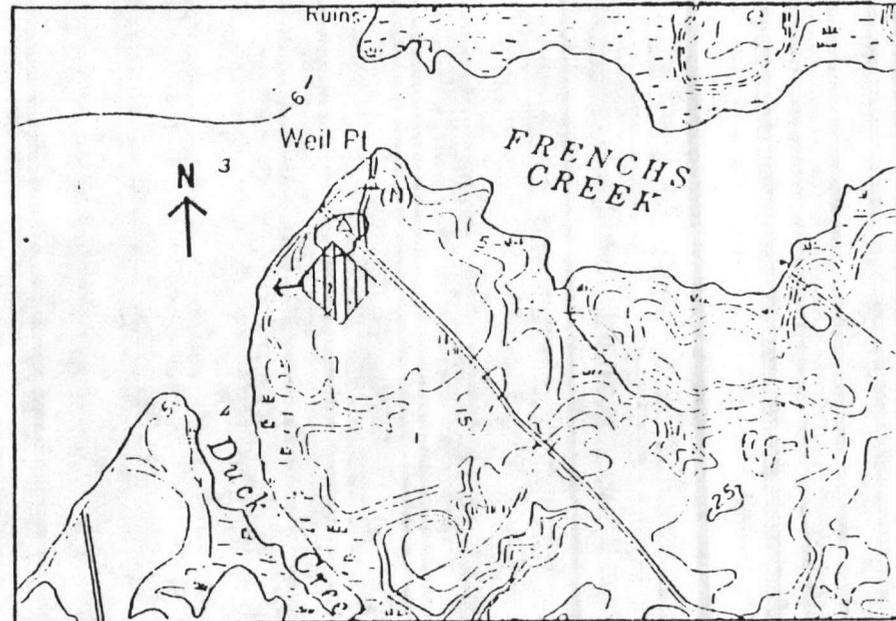
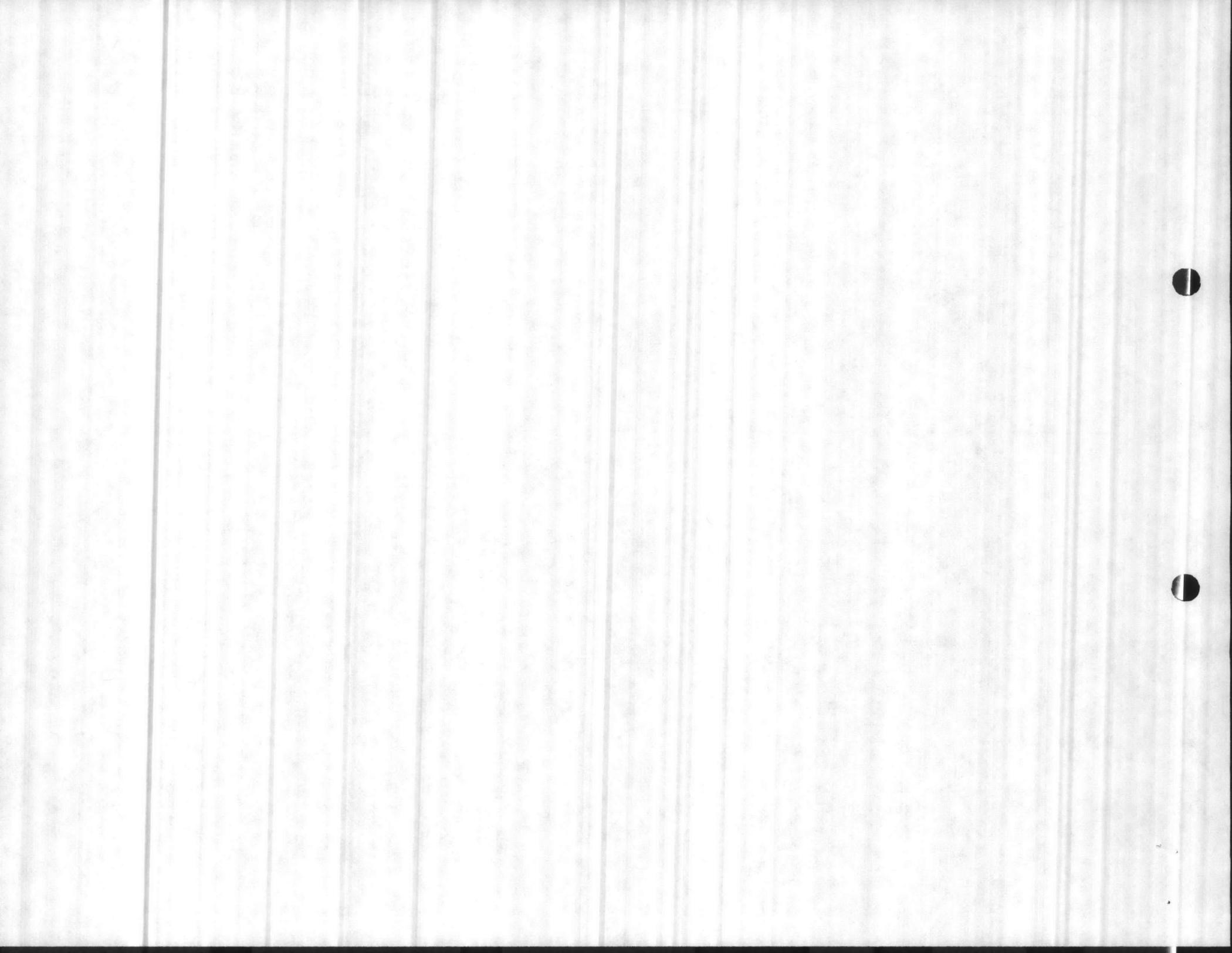


Figure 4. Proposed diked upland disposal areas. Arrows indicate natural drainage and direction of overland effluent flow.



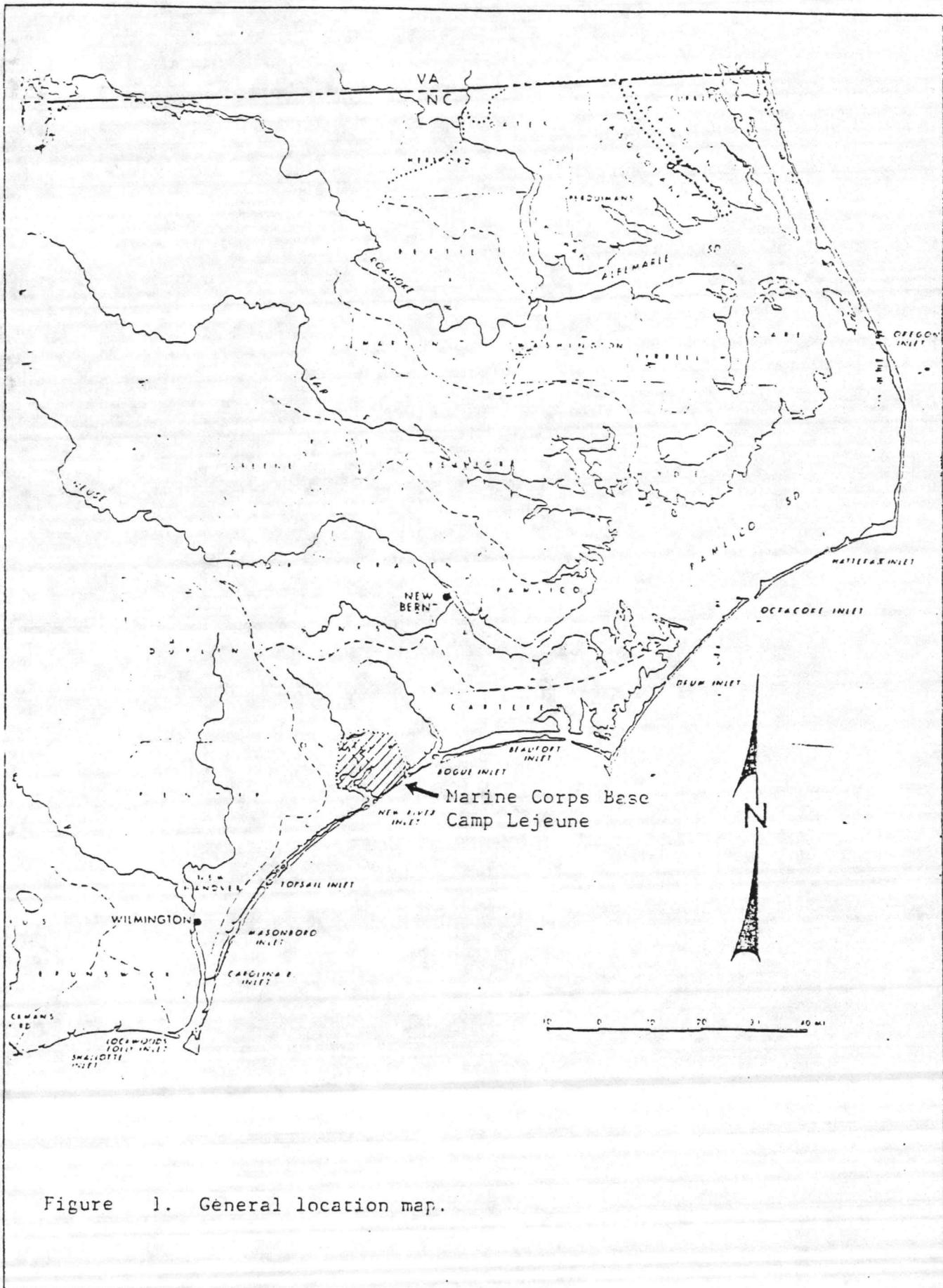
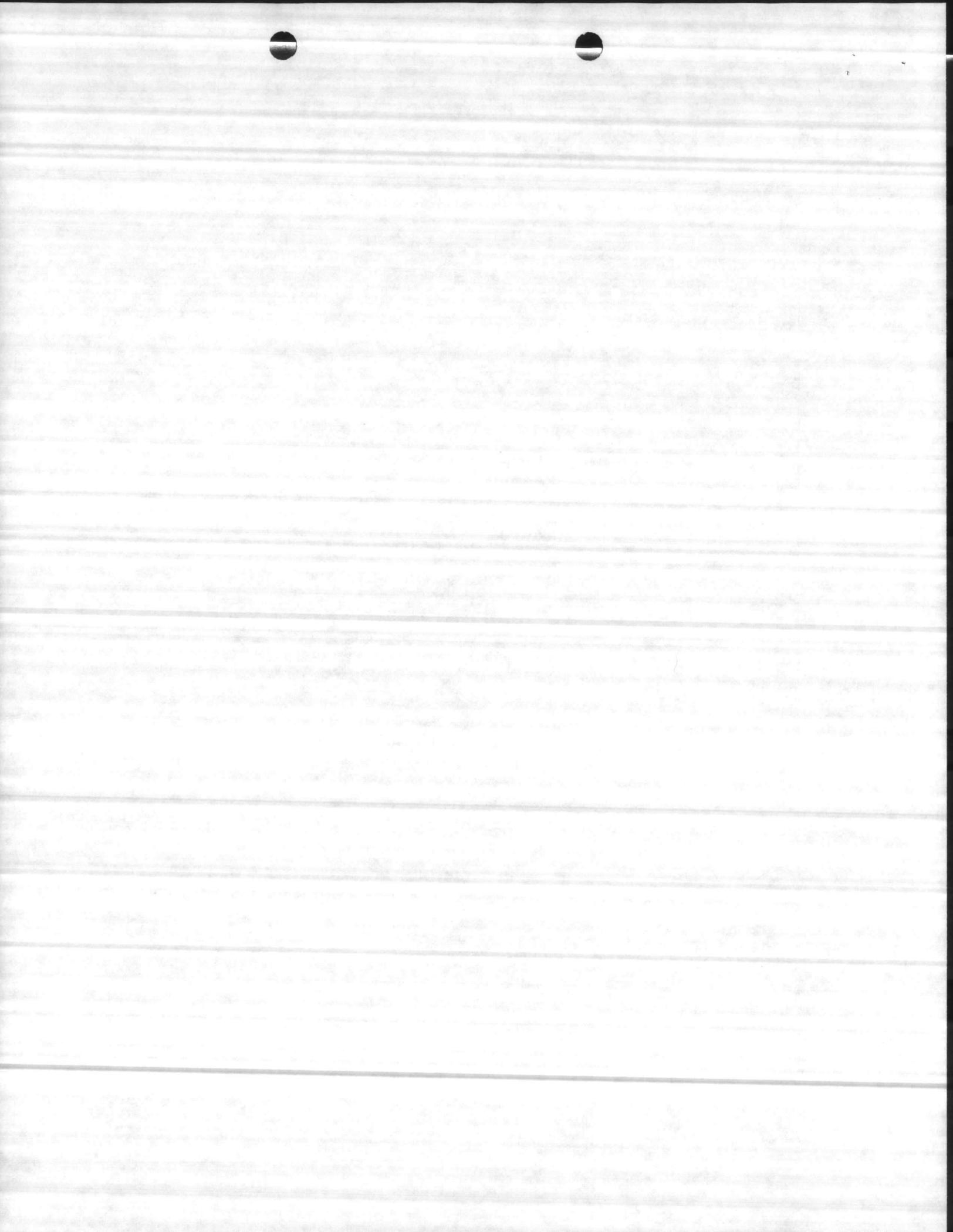


Figure 1. General location map.



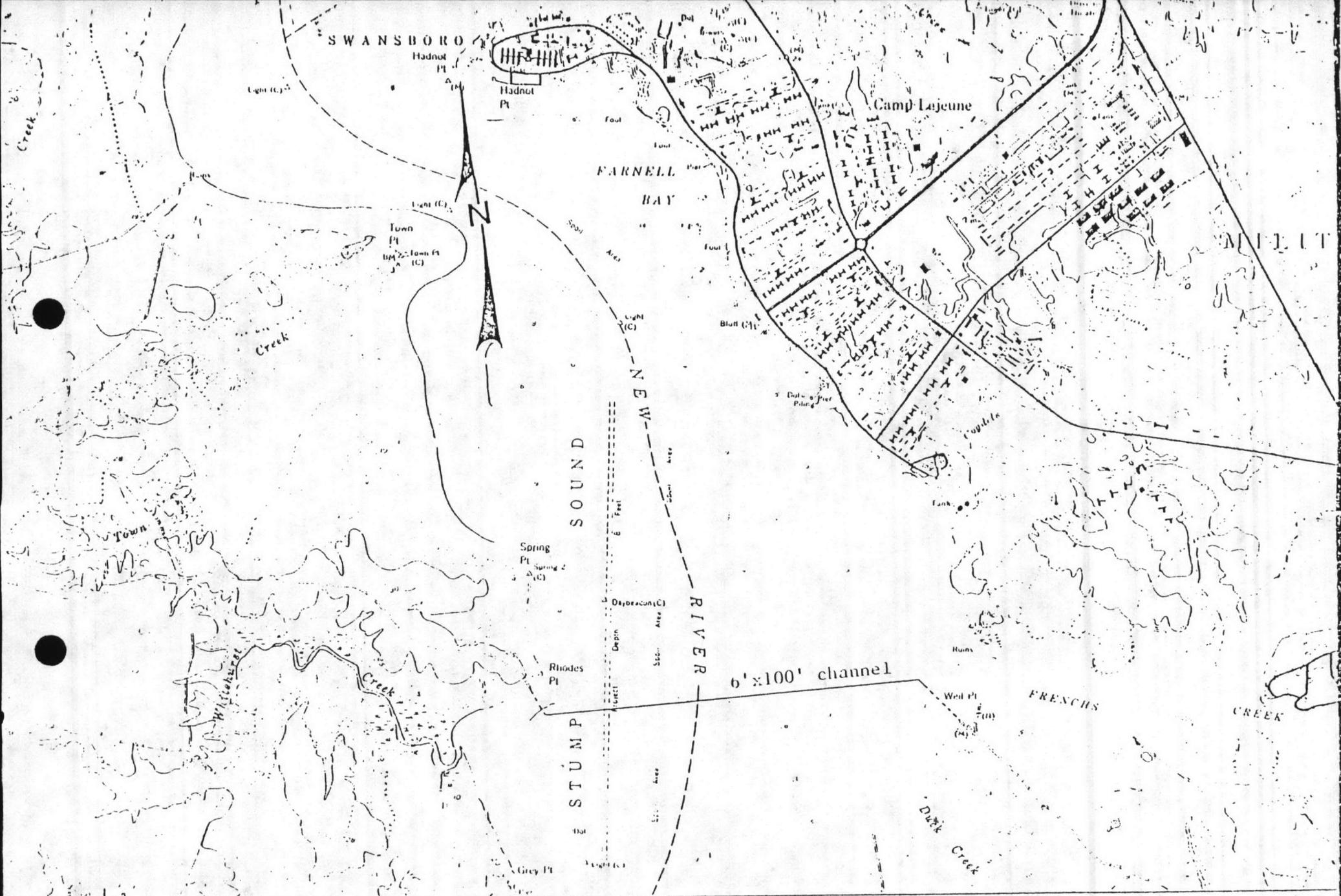
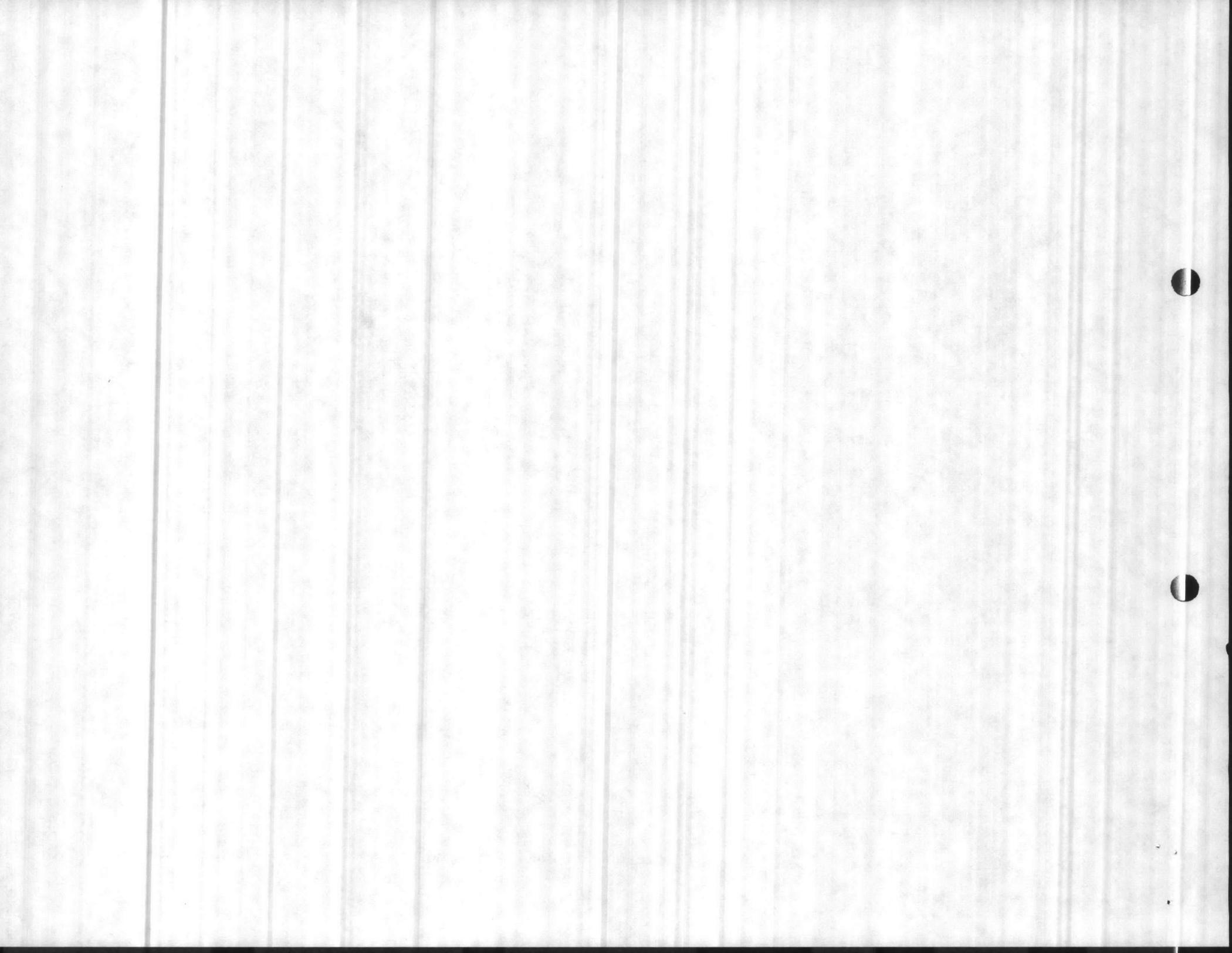


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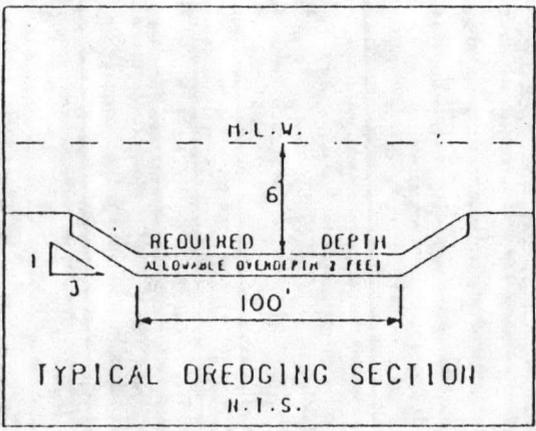
Rhodes Point

SCALE  
150' 0 300'  
Depths in feet MLW

limit of dredging

10	15	15
10	10	10
10	15	15
15	15	15
15	15	15

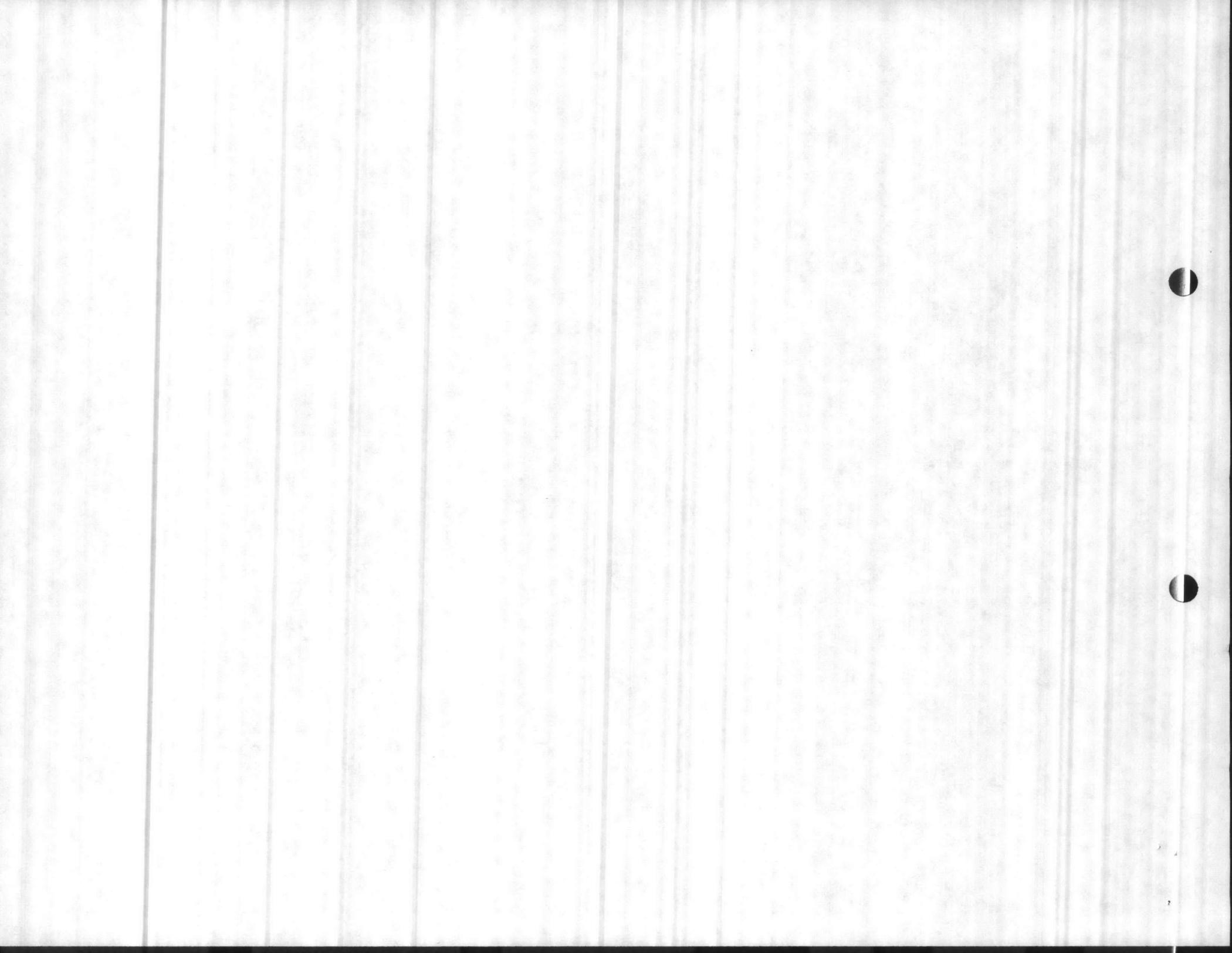
NEW RIVER

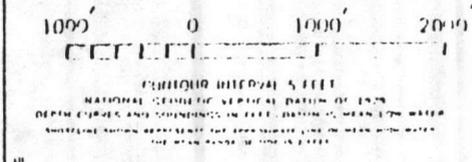


limit of dredging

THIRD TURN

Figure 3. Dredging plan for the proposed channel.





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 Area - approximately 4.0 acres  
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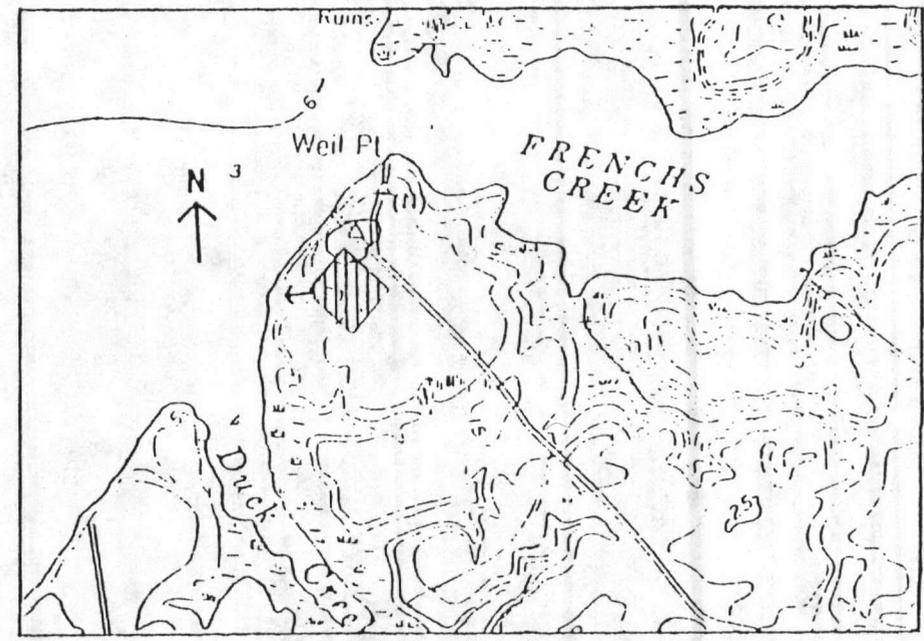


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