Dave DDS
Betsy

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

ROUTING - REQUEST

Please
☑ READ
☐ HANDLE
☐ APPROVE
and
☐ FORWARD
☐ RETURN
☐ KEEP OR DISCARD
☐ REVIEW WITH ME

To Betsy/Tom Hoyt
Return to Twylah

Date _____ From _____

UNITE
M
Camp Le

MEMORANDUM FOR THE COMMAN
CHIEF

Subj: RENEWAL OF SEWAGE
CAROLINA

Ref: (a) Mtg btwn Messrs. Wakild, Howard & Bush, NCDEM, and Messrs. Cone, Johnson, and Alexander, MCB on 13 Jan 86

1. N. C. Division of Environmental Management (NCDEM) has issued draft permits for seven sewage plants which sharply changes the effluent limits for plants discharging into New River. Once adopted, these effluent limits will increase plant operating and laboratory costs and may require R-2/MCON-sized projects to upgrade treatment plants.

2. State personnel believe New River water quality has deteriorated enough to warrant a recent moratorium on allowing new sewage plant discharges into streams of the Jacksonville area.

3. Issues related to permit renewal were reviewed during the referenced meeting held Monday in Wilmington. The next step will be to forward our concerns to the Raleigh offices. With LANTDIV assistance, we are examining the methods used to set the permit limits and will discuss these limits with state personnel at a meeting on 28 January. A follow-up meeting with Wilmington staff will likely be needed to negotiate final permit limits and time frames for compliance. State personnel recommended MCB proceed now toward more detailed monitoring of the Camp Geiger and Hadnot Point plants to compare with proposed permit limits.

4. In view of the potential implications, I have discussed these permit negotiations with the Staff Judge Advocate and requested his assistance and participation. The Staff Judge Advocate will have a staff member present at all meetings with State personnel. We will update you on these permit renewal issues following the 28 January meeting.

Very respectfully,

R. A. TIEBOUT
AC/S, Facilities

Copy to:
SJA
MAIN
NREAD
EnvEngr

SKQ Dave DDS
Betsy EB

UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, N.C. 28542-5001

6280/4
FAC
JAN 21 1986

MEMORANDUM FOR THE COMMANDING GENERAL
CHIEF OF STAFF

Subj: RENEWAL OF SEWAGE DISCHARGE PERMITS BY STATE OF NORTH CAROLINA

Ref: (a) Mtg btwn Messrs. Wakild, Howard & Bush, NCDEM, and Messrs. Cone, Johnson, and Alexander, MCB on 13 Jan 86

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R. A. TIEBOUT
AC/S, Facilities

Copy to:
SJA
MAIN
NREAD
EnvEngr

File - 113451

REPORT OF SANITARY SURVEY

BEAR CREEK AREA

AREA D-1

MARCH 1982 - JUNE 1983

AUGUST 1983

AREA D-1

Preface

Total Acres.....700.

Prohibited Acres.....70.

Oyster Production.....Fair.

Clam Production.....Fair.

Commercial Value.....Fair.

Recommended Changes.....Closed 45 acres.

REPORT OF SANITARY SURVEY

BEAR CREEK AREA

AREA D-1

By

SHELLFISH SANITATION PROGRAM
NORTH CAROLINA DIVISION OF HEALTH SERVICES

I. INTRODUCTION

Area D-1 is composed of the waters of Saunders Creek, Bear Creek, and all waters between Beacon #55 and and Beacon #59 in the ICWW. Bear Inlet and all creeks and marshes between the Inlet and the community of Bear Creek are included in the area. (See Exhibit I for area map.)

This is a small area and is flushed primarily by the tidal waters of Bear Inlet. Browns Inlet and New River Inlet also effect the western most section of this area.

Oysters and clams grow well throughout the area. Most of the oysters are utilized locally, while clams are shipped to markets outside of North Carolina.

The western section of the area is within the military reservation at Camp Lejeune and contains no permanent population. The entire population of the area is approximately 1000.

II. SHORELINE SURVEY OF SOURCES OF POLLUTION

A comprehensive shoreline survey of Area D-1 was begun on November 8, 1982, and completed on December 13, 1982. Ralph Johnson of the Shellfish Sanitation staff conducted the survey.

Area D-1 is located in Onslow County. The Sanitarian Supervisor for the Environmental Health Section of the Onslow County Health Department, Mr.

Richard Koonce, was notified in advance about the pending survey. Mr. Koonce agreed that the health department would do all the follow up necessary to correct the violations found in the area. A copy of the Notice of Violation written was hand delivered to the health department. A small portion of the southwestern edge of Area D-1 is located within the boundaries of Camp Lejeune (United States Marine Corps). The officials at the base were not notified about the pending survey. Recently (October 1982) Area C-4 (adjacent to Area D-1) was surveyed and information necessary for the Area D-1 survey was obtained.

During the survey all accessible residences, businesses, and places of public assembly adjacent to or in close proximity to estuarine waters were visited. All places in which people were found were inspected for sewage disposal malfunctions or violations. Notices of Violations were issued in cases where malfunctions or violations were found. A total of 91 visits were made with 53 inspections being conducted. (See Exhibit III for the one Notice of Violation issued.)

Area D-1 has a multitude of different soil classifications. According to the Barrier Islands publication of the United States Department of Agriculture, Soils Conservation Service and information from the 1978 comprehensive survey report, these soils have slight to severe limitations for the installation of conventional septic tank systems. These are general soil classifications. Independent lot evaluations by qualified health department sanitarians are essential before allowing the installation of conventional and/or alternate septic tank systems.

In general the route followed in the survey is the same route covered in the 1978 comprehensive survey. However, the area visited for physical inspectional purposes has been reduced. Visits and inspections were conducted only on the

land area contiguous to estuarine waters. The exception to this is Camp Lejeune. A comprehensive inspection (visual or physical) on the base is impractical. First, Camp Lejeune has on-going training programs. Secondly, the land area is undeveloped and used only for training purposes. The survey started at the intersection of County Road (SR) #1503 and S.R. #1507. This starting point parallels just northeast of Channel Marker #55 of the Intracoastal Waterway (ICWW) and water sampling Station #17 of Area D-1. The starting point overlaps the south western water sampling station boundary of Area D-2. From the starting point, the survey progressed in a southwesterly direction along the north, northwestern boundary of the ICWW. All accessible roads, streets, driveways, and dirt paths contiguous to the ICWW and estuarine waters associated with the ICWW were checked. See Exhibit II for the mapped route covered in the survey.

Area D-1 is located in Swansboro Township of Onslow County. The township had a 1980 population of 23,380. The majority of this population is not located in Area D-1. Three hundred and five (305) inspections were conducted during the 1978 comprehensive survey. This figure multiplied by 2.75 (population per household in the 1980 census for Onslow County) equals 838.75. A very small amount of development has occurred since the last comprehensive survey in 1978. Some of the houses located in the area are weekend or summer residences. It appears that the permanent population of the area at this time is less than 1000.

The following is an informational list of a marina-type dock and a public-type boat landing(boat ramp and dock).

(1) Uniflite (yacht manufacturer)

(A) Location - end of S.R.#1507 on Goose Creek adjacent to the ICWW

(B) Sewage system - large septic tank system

(C) Wet slips - 5

(D) Boats - none permanent

(E) Boats with marine heads - The company docks boats for repairs. These boats do have marine heads. Supposedly these boats are not occupied during the dockage.

(F) Service - rail for repair service

(G) Pump out service - none

(H) Camp site - Four (4) campers are located behind the main buildings adjacent to Goose Creek - occupancy is supposedly intermittent - no evidence of sewage dumping was observed. However, no external sewage disposal system of any kind has been provided for these campers.

(I) Chemical usage - acetone and methyl ethyl ketone solvent

(2) Willis Landing - (private boat ramp and dockage)

(A) Location - end of S.R. #1505 on Bear Creek

(B) Wet slips - general dockage

(C) Boats - variable

(D) Boats with marine heads - none - Note: During the last comprehensive survey (1978) a houseboat was docked at the landing. The boat did not have a United States Coast Guard (USCG) approved sanitation device for sewage disposal. Since the last comprehensive survey the boat was moved to the White Oak River (Area D-3) and moored in the river north of the Swansboro Causeway. The boat was used as a floating guard station to protect clam leases in the river. It should be noted that this section of the White Oak River has been and is open to the harvest of shellfish. Recently the boat was moved from the White Oak River and is now moored on the Cape Fear River at Cape Fear Technical Institute.

(E) Service - boat ramp

(F) Pump out service - none

(See Exhibit IV for the mapped locations.)

A few private docks are scattered through the area.

Counts of domestic pets and small concentrations of household farm-type animals have been dropped from the shoreline survey report. However, counts on large concentrations of animals or farm-type animals have been continued. These listings can be found in the file copy of the shoreline survey report.

Area D-1 has only one closure for the harvest of shellfish. This closure covers the upper reaches of Bear Creek and inclues Mill Creek. Drainage for the headwaters of Bear Creek north of S.R. #1503 is basically under developed. Two mobile home parks are located on the east side of the creek adjacent to S.R. #1503. Both of these sites were inspected and no major domestic sewage problems were observed. One Notice of Violation (see Exhibit III) was issued for washing machine waste. Very few homes are located adjacent to the creek on the east side from Bell's Mobile Home Park (south side of S.R. #1503) south to the Willis Landing closure line. No sewage violations or malfunctions were found in conjunction with these homes. All the land bordering the creek on the west side is undeveloped and under control of Camp Lejeune (USMC). Mill Creek is also located within the confines of Camp Lejeune. Mill Creek is surrounded by undeveloped (used for training purposes only) drainage. No physical evidence was found that malfunctioning septic tank systems are a contributing factor for any elevated fecal counts in the closure. During periods of heavy rain, the two trailerparks located adjacent to S.R. #1503 could be exceptions to this physical evidence.

Area D-1 has one possible source for chemical pollution from industrial waste. Uniflite (yacht manufacturer and repair), located at the end of S.R. # 1507 on Goose Creek (boundary of Aread D-1 and D-2), uses acetone, methyl

ethyl ketone, and other ingredients in its industrial processes. Chemical controls used on agricultural crops, lawns, and gardens in the area also represent possible sources for chemical contamination. Chemical usage or storage on Camp Lejeune is an unknown factor. No on-site sources for radiological pollution were found in the area. Here again, Camp Lejeune represents an unknown factor.

Onslow County has a green box collection system for the collection and disposal of solid waste. No county regulated landfills are located in the area. A large trash dump was observed in the rear of Bell's Mobile Home Park, located on S.R. #1503. The Onslow County Health Department was notified about the dump.

The vegetation found in Area D-1 in general is consistent with vegetation found in southeastern North Carolina.

In conclusion, Area D-1 drains a semi-rural section of the coast. Geographically, the area has the potential for further development. Onslow County does not have an overall county zoning ordinance. However, subdivision development is subject to county approval. The barrier islands located within the area's boundaries are undeveloped. Individual septic tank systems are the predominant means for domestic sewage disposal. No sewage treatment plants are located in the area. Run-off and its ingredients generated by wildlife, domestic pets, farm-type pets, residential development, business development, and agricultural practices undoubtedly are detrimental to the overall water quality of the estuarine environment. Future development (uncontrolled) will only enhance the problems of water quality. The next survey (spot-check) scheduled for 1984 should emphasize the amount, type, and location of new development in the area.

III. EVALUATIONS OF HYDROGRAPHIC FACTORS RESPONSIBLE FOR THE SPREAD OF POLLUTION

Drogue studies in the vicinity of Stations 8 and 9 near the junction of Bear Creek and the ICWW indicate that, under normal conditions, falling waters from the upper reaches of Bear Creek travel west in the ICWW and are influenced more by Brown and New River Inlets than by Bear Inlet, located on the eastern end of the area. Salinities throughout most of the area average between 25-34 ppt, indicating little influence from fresh water run-off.

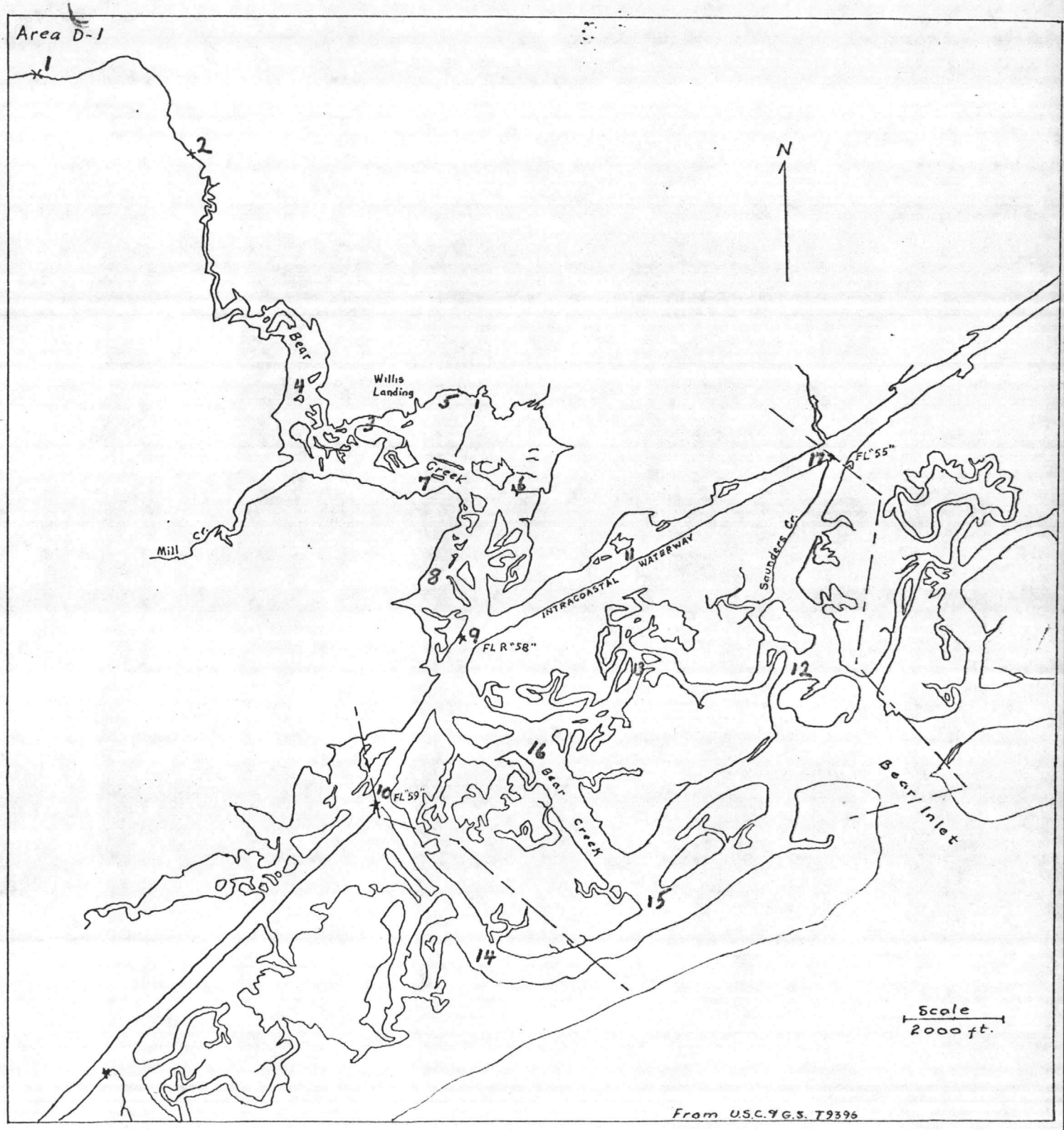
IV. BACTERIOLOGICAL SURVEY OF SHELLFISH GROWING WATERS

The bacteriological survey was begun in March, 1982, and concluded in June, 1983. During the survey, 176 water samples were collected from 15 sampling stations. (See Exhibit I for station locations.) Water quality remains good throughout the area with the exception of upper Bear Creek. Stations #3 and #4 have MPN medians of 15.5 and 30, respectively. These stations also exceed the 10% rule. (See Exhibit V for bacteriological results and MPN medians.)

V. SUMMARY AND RESULTANT AREA CLASSIFICATION

The bacteriological water quality in upper Bear Creek has shown some deterioration during this survey. Stations #3 and #4 have fecal medians above the limit. It is, therefore, recommended that an additional 45 acres be closed to shellfishing. (See Exhibit VI for proclamation and closed area map.)

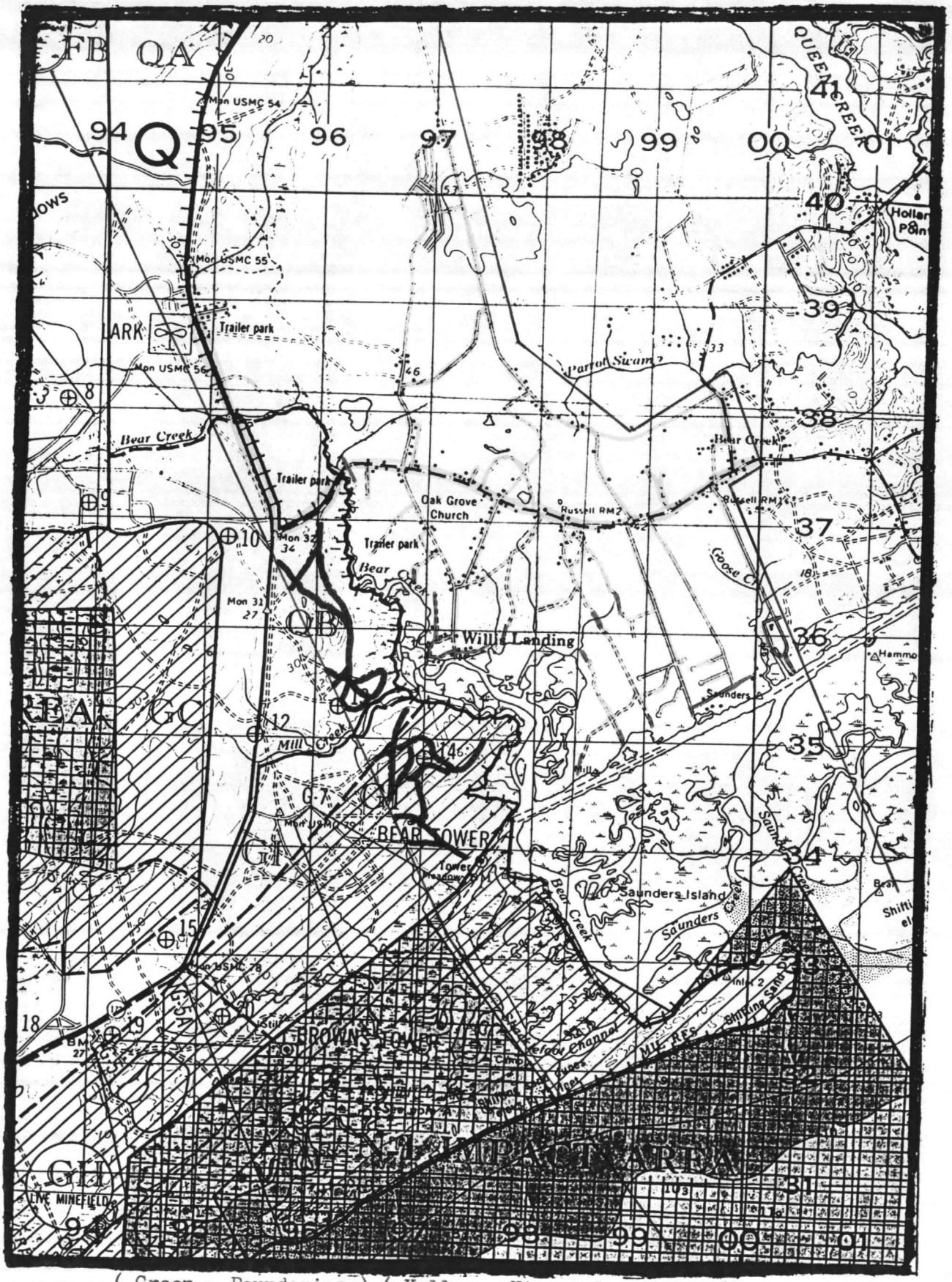
EXHIBIT I


Area D-1
N
Bear
Willis Landing
Creek
Mill Cr.
INTRACOASTAL WATERWAY
Scunders Cr.
FL "55"
FL R "58"
FL "59"
Bear Creek
Bear Inlet
Scale
2000 ft.
From U.S.C.&G.S. T9396

SHORELINE SURVEY ROUTE

EXHIBIT II

AREA D - 1



(Green - Boundaries) (Yellow - Visual Inspection)
(Red - Physical Inspection) (Blue - Camp Lejeune)

EXHIBIT III

SHORELINE SURVEY DATA

XXXXXX Area D - 1 COUNTY Onslow DATE

No.	~~xxxx~~ Date	Owner	Tenant	Location	Violation	Date Corrected
1	11-10-82	Mr. Linzey Bell		Rt.#1 , Box 346 A Hubert,N.C. 28539	Repair washing machine waste system	
					Ralph L. Johnson	
					January 6,1983	

Total Violations 1

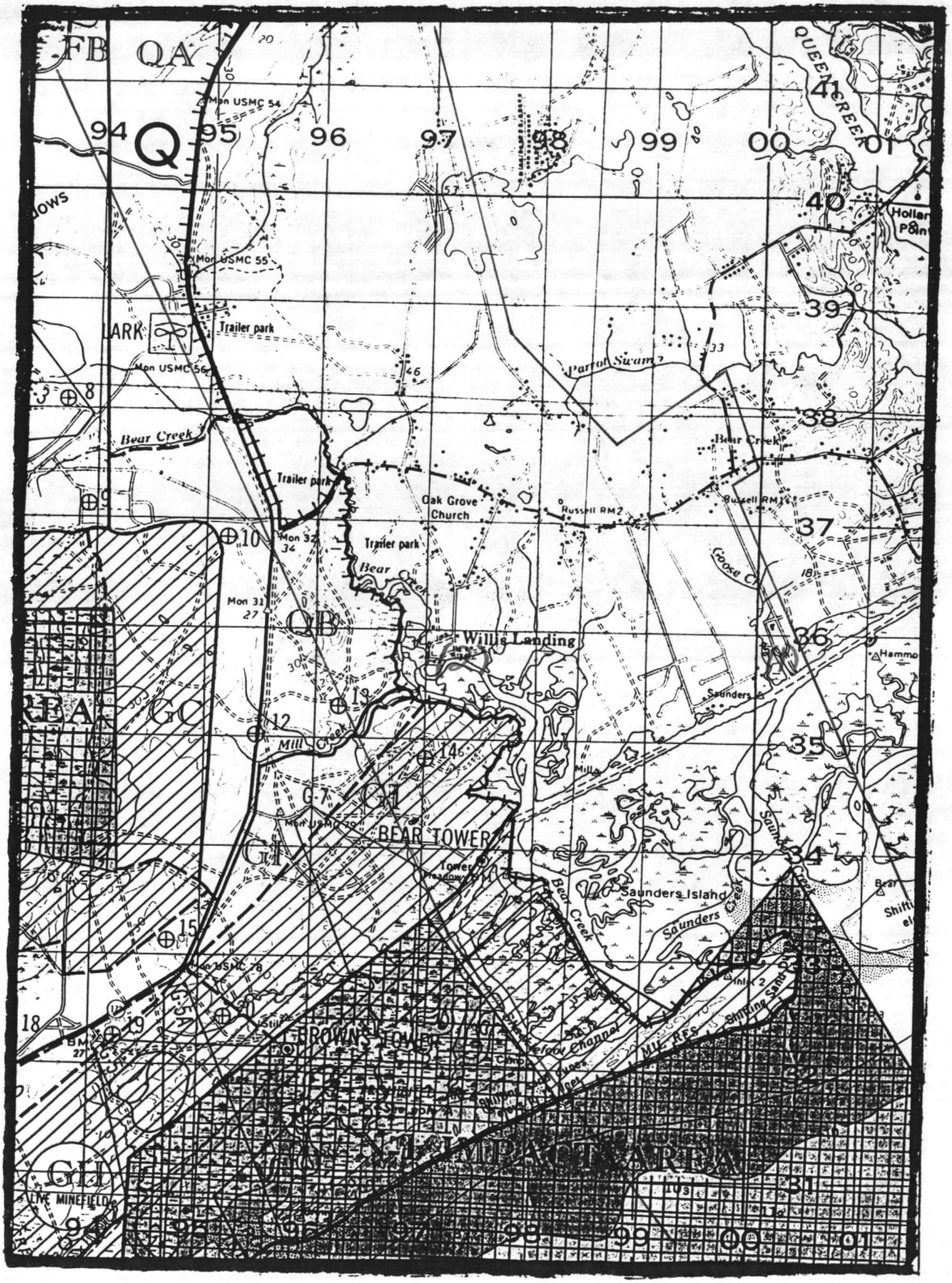
Cumulative Total Corrections

Ralph L. Johnson
Surveyors

EXHIBIT IV

MARINA - TYPE DOCK AND A PUBLIC - TYPE BOAT LANDING

Area D - 1



SH-1

EXHIBIT V

AREA D-1

STATION NOS.	3/2/82	4/6/82	5/5/82	6/17/82	7/7/82	8/12/82	12/29/82	1/13/82	2/2/83	5/3/83	5/23/83	6/23/83		Med.
1														
2														
3	350	49	4.5	5.6	4.5	23	17	2.0	4.0	350	49	14		15.5
4	240	46	2.0	49	11	27	140	11	21	280	33	17		30
5	7.8	4.5	4.5	2.0	<1.8	11	22	7.8	7.8	79	6.8	2.0		7.3
6	17	4.5	4.5	2.0	<1.8	11	7.8	33	2.0	110	7.8	13		7.8
7	170	22	<1.8	11	<1.8	7.8	33	7.8	2.0	33	6.8	17		9.4
8	79	17	4.5	4.5	2.0	7.8	7.8	7.8	6.8	17	6.8	7.8		7.8
9	79	17	4.5	1.8	4.0	4.5	4.5	4.5	2.0	17	4.5	<1.8		4.5
10	13	33	<1.8	2.0	2.0	<1.8	11	<1.8	4.0	2.0	2.0	11		2.0
11	2.0	<1.8	1.8	2.0	<1.8	4.5	4.0	<1.8	4.0	7.8	4.5	2.0		2.0
12	11	4.5	<1.8	<1.8	<1.8	<1.8	7.8	<1.8	4.5	<1.8	4.5	13		3.2
13	17	<1.8	<1.8	<1.8		23	4.5	4.5	2.0	4.5	<1.8	<1.8		2.0
14	7.8	11	7.8	2.0		2.0	4.5	<1.8	2.0	17	<1.8	<1.8		3.3
15	6.1	1.8	<1.8	<1.8		1.8	4.5	1.8	7.8	13	4.5	1.8		1.8
16	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	7.8	<1.8	<1.8		2.0
17	11	2.0	<1.8	4.0	2.0	33	4.5	4.5	2.0	<1.8	13	11		4.3

EXHIBIT VI

PA-1-83/84

North Carolina Department of Natural Resources & Community Development

James B. Hunt, Jr., Governor

Joseph W. Grimsley, Secretary

DIVISION OF MARINE FISHERIES

Robert K. Mahood
Director

Telephone 919 726-7021

PROCLAMATION

RE: SHELLFISH POLLUTED AREA

By virtue of the authority vested in me as Secretary of the North Carolina Department of Natural Resources and Community Development, and upon the recommendation of Robert K. Mahood, Director, Division of Marine Fisheries, and Dr. Ronald H. Levine, Director, Division of Health Services, North Carolina Department of Human Resources, it is hereby announced that the following changes in shellfish harvesting areas will take effect immediately:

No person shall take or attempt to take, any oysters or clams or possess, sell or offer for sale any oysters or clams taken from the following polluted area:

ONSLOW COUNTY - Bear Creek

All those waters upstream from a line drawn across the creek beginning at a point on the north shore at 34° 38' 42" N - 77° 12' 33" W; thence to the south shore at 34° 38' 27" N - 77° 12' 40" W.

NOTES: [1] This proclamation is issued under the authority of G. S. 113-182 and N. C. Marine Fisheries Regulation 15 NCAC 3B .1101.

[2] This action amends N. C. Fisheries Regulation 15 NCAC 3B .1111 (22), and closes approximately 45 additional acres.

[3] Shaded areas on map indicate areas closed to shellfishing.

BY AUTHORITY OF THE SECRETARY OF THE DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT.

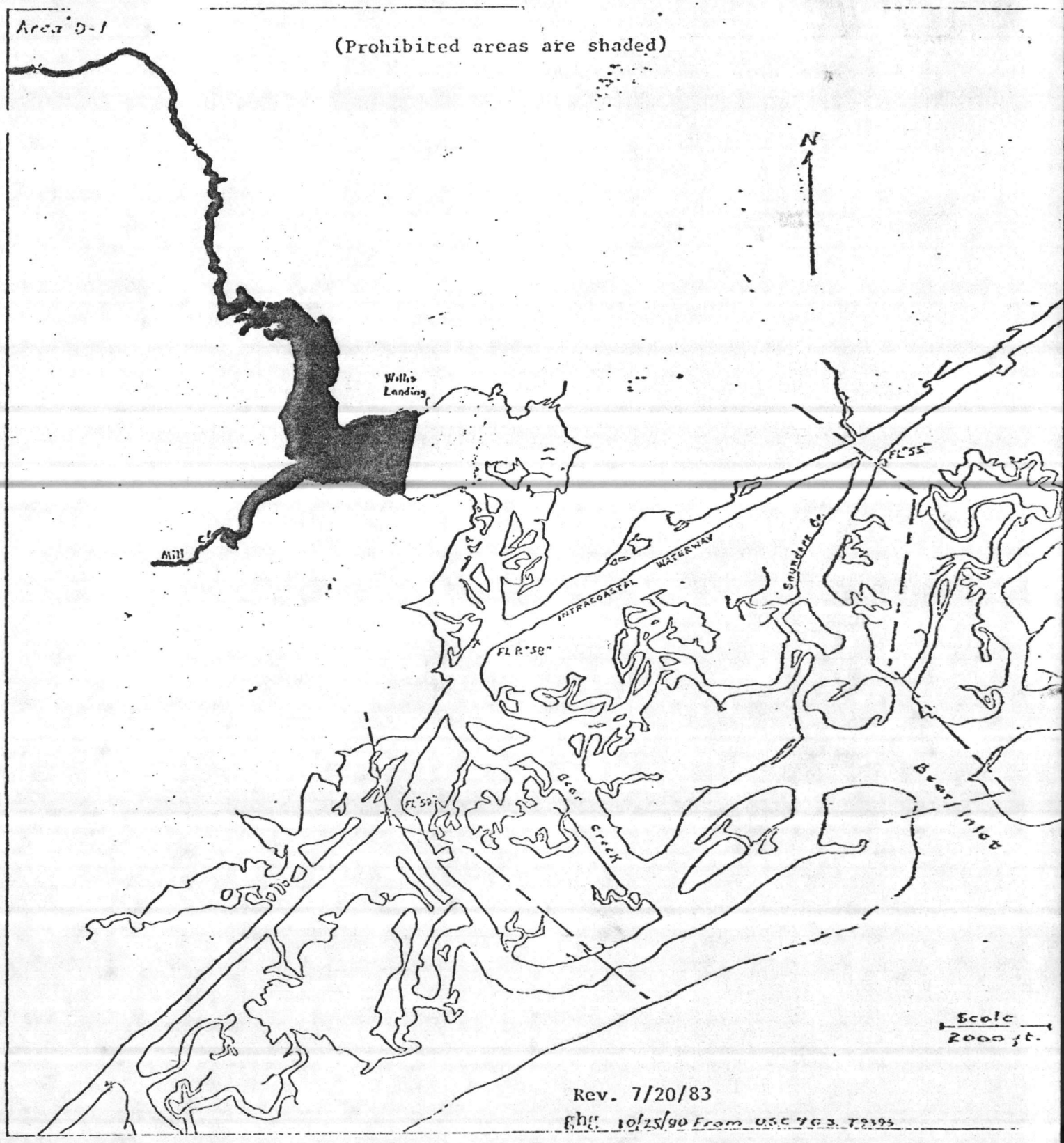
BY: Robert K. Mahood

Robert K. Mahood, Director
Division of Marine Fisheries

July 20, 1983
5:00 P. M.

PA-1-83/84

/mjr



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BEAR CREEK AREA

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