FILE FOLDER

DESCRIPTION ON TAB:

Camp Lejeune General

☒ **Outside/inside of actual folder did not contain hand written information**

☐ **Outside/inside of actual folder did contain hand written information**
***Scanned as next image**

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

United States Department of the Interior

FISH AND WILDLIFE SERVICE

P. O. Box 302
Cherokee, NC 28719

October 14, 1981

Mr. Charles Peterson
Base Wildlife Manager
Natural Resources & Environmental Affairs Div.
Base Maintenance
Marine Corps Base
Camp Lejeune, NC 28542

By October 28, 1981, I will need to know the number of man-days of fishing that occurred on your facility between October 1, 1980, and September 30, 1981. Last year, I reported the man-days* for your station as follows:

FY '80

Oct.1-Dec.31	Jan.1-Mar.31	Apr.1-Jun.30	Jul.1-Sep.30	Total
				62,000

Please complete the following table for this year - FY '81:

Oct.1-Dec.31	Jan.1-Mar.31	Apr.1-Jun.30	Jul.1-Sep.30	Total
				55,800

Please return one copy to me, keep the other for your files.

Sincerely,

John L. Boaze

John L. Boaze
Project Leader

* 1 man-day = 1 fisherman visit

U.S. Fish & Wildlife Service
Fishery Resources

1980

Annual Project Report
Fishery Management Program

Camp Lejeune, U.S. Marine Corp
(Management Area)

Onslow County, North Carolina
(County and State)

By

Edward Crittenden
Fishery Management Biologist

1. Description of Area: Camp Lejeune is located on the coast in southeast North Carolina. It encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Appr. 80 miles of tidal water streams lace the station. Twenty one miles of marine shore and 11 freshwater ponds provide a variety of angling opportunities.
2. Year Fishery Management Began 1963
3. Total of Lakes, Ponds, Reservoirs on Management Area: No. 11 Acres 33.5
4. Total of Lakes, Ponds, Reservoirs Under Management: No. 11 Acres 33.5
5. Number of New Lakes, Ponds, Reservoirs Developed Since Last Report (To be included in Nos. 3 & 4) No. _____ Acres _____
6. Total Number of Streams on Management Area: No. ____ Miles 80 Acres _____
7. Total Number of Streams Managed: No. _____ Miles _____ Acres _____
8. Dates Visited: July 7 - July 11, 1980
9. Total Man-days Expended in Field on Management Area: 28
10. Total Man-days Fishing This Year: 62,000 Last Year: 63,100
11. Is Public Fishing Permitted? Yes
12. Persons Contacted (Names & Titles): Julian Wooten Director Natural Resources; Charles Peterson, Wildlife Manager; Fred Brown, Base Game Warden; Seth Evans, Ass't Game Warden; Gunnery Sgt. Johnson, Game Warden; Sgt. Pierre, Ass't Game Warden; Lt. Col. Young, Station S-4

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD			
Name of Lake, Pond or Stream	Acres/ Miles	Species Managed	Species	Number	Size (in.)	Date
Powerline Pond	2.0	LMB, RSF, BLG				
Cedar Point Pond	2.0	LMB, RSF, BLG				
Ward Pond	1.5	LMB, RSF, BLG				
Hickory Pond	5.5	LMB, RSF, BLG				
Mile Hammock	1.5	LMB, RSF, BLG				
Oak Pond	.5	CCF				
Courthouse Bay	1.5	LMB, RSF, BLG				
Prince Pond	0.5	CCF	CCF	500	5	
Hogpen Pond	0.5	CCF	CCF	500	5	
Henderson Pond	14.0	LMB, RSF, BLG				
Orde Pond	3.0	CCF, LMB, RSF, BLG				

CHEMICALS USED IN BIOLOGICAL CONTROL

Name of Lake, Pond or Stream	Chemical	Target	Pounds Active Ingredients	Surface Acres or Miles	Acre-feet Treated
Prince Pond	Fintrol	BLG & LMB	385 ml.	0.5 acre	1.52
Hogpen Pond	Fintrol	BLG & LMB	385 ml.	0.5 acre	1.64

INTRODUCTION

Camp Lejeune provides both freshwater and salt water fishing. There are eleven freshwater ponds containing 33.5 acres and large areas of salt water embayments contained within the military reservation. There are seven miles of beautiful beaches which provide recreation to swimmers, surf boarders, and surf fishermen.

Five of the eleven ponds were sampled with seines. These included Henderson Pond, Hickory Pond, Prince Pond, Hogpen Pond, and Magnum Pond at the nearby Marine Air Station.

The following ponds were visited and checked for phytoplankton bloom and other vegetation. These were Ward Pond, Courthouse Bay Pond, Powerline Pond, Mile Hammock Bay Pond and Cedar Point Pond. Few of the ponds checked contained phytoplankton blooms. Higher plant growth was prevalent in all the ponds checked.

A general recommendation for most of the ponds would be to deepen the ponds around the edges to an abrupt drop-off of two feet. Following this, treat the vegetation with approved chemicals. Immediately after, fertilizer and lime applications should be applied to maintain a phytoplankton bloom in which a white object goes out of sight at a depth greater than 20 inches.

The photocell went out on the chemical kit during the visit and we were not able to make determinations on several of the ponds. However, most of the ponds appeared to be on the acid side.

SUMMARY: Mile Hammock Pond

Mile Hammock Pond - 1.5 acres; plankton bloom - 18"

This pond contains a few scattered chumps of spatterdock, at present not enough to take up the nutrients needed to produce a bloom.

Actually now is the time to treat the spatterdock before it becomes too extensive. The few chumps could probably be removed with mechanical means.

This pond is deep enough around the edge to prevent most types of vegetation growth.

RECOMMENDATIONS: Mile Hammock Pond

1. Continue to allow fishing.

2. Remove the spatterdock before it begins to spread.

3. Initiate a fertilizer program.

SUMMARY: Powerline Pond

Powerline Pond - 1.5 acres; No bloom

This pond has no vegetation problem. It does not support a phytoplankton bloom. A fertilizer program should be initiated to produce a plankton bloom.

RECOMMENDATIONS: Powerline Pond

1. Continue to allow fishing.

2. Initiate a fertilizer program.

SUMMARY: Courthouse Bay Pond

Courthouse Bay Pond - 1.5 acres; Light bloom

This is a borrow pit type pond and is deepened close to shore. There is no vegetation problem. It contains leargmouth bass and bluegill. It supports a light bloom in which a whity object goes out of sight at a depth greater than 20 inches.

RECOMMENDATIONS: Courthouse Bay Pond

1. Continue fertilizer program.

2. Continue to allow fishing.

SUMMARY: Henderson Pond

Henderson Pond - 14 acres; pH - 8.6; Water temp. - 90°F; No bloom

This pond was constructed and stocked with bluegill during 1971. Following the stocking, the dam washed out. Repairs were made and it was stocked with bluegill again in December, 1971. Fingerling bass were added in June, 1972.

The small mesh seine results showed that a light hatch of bluegill fry were present as were young of the year bass. The large seine showed that the 3" - 5" bluegill count per haul were within the balanced range.

However, the pond contains an excessive growth of what appeared to be Pithophora (Green Algae). This was so extensive as to be a considerable nuisance to fishermen. A light growth of pennywort was also present in the pond.

RECOMMENDATIONS: Henderson Pond

1. Deepen pond around the edges.

2. Treat vegetation with an approved herbicide.

3. Following this initiate a fertilizer program to produce a phytoplankton bloom.

4. Continue to allow fishing.

SUMMARY: Hickory Pond

Hickory Pond - 3.5 acres; pH - 7.0; No bloom; Water temp. - 80°F

The pond was constructed in 1968 and had a history of losing water. It was re-filled in 1971 and has remained full since.

Seine samples taken with the large 56 seine showed that small largemouth bass were present. The small seine captured young of the year bluegill but no fry.

The pond contained an excessive amount of what appeared to be slender spikerush.

RECOMMENDATIONS: Hickory Pond

1. Deepen the pond around the edges.

2. Treat vegetation with approved herbicide.

3. Following the above recommendations, initiate a fertilizer program which should produce a phytoplankton bloom to shade out unwanted vegetation.

4. Continue to allow fishing.

The following ponds were looked at and some notes were made concerning them.

SUMMARY: Cedar Point Pond

Cedar Point Pond - 2.0 acres; No bloom

This needs to have the shoreline deepened to an abrupt drop-off of two feet. It contains an extensive growth of pennywort in the shallow water around its shoreline.

Vegetation control should be initiated and following this a fertilizer program should go into effect.

RECOMMENDATIONS: Cedar Point Pond

1. Follow the above recommendations.

2. Continue to allow fishing.

SUMMARY: Hogpen Pond

Hogpen Pond - 0.5 acre; No bloom; pH - 5.5; Water temp. - 80°F

This small pond was renovated in 1969 and for several years was managed as a "fed" channel catfish pond. The feeding program had to be abandoned after the pond became infested with bluegill and largemouth bass. The bluegill were eating the catfish food.

During the visit, seine samples were obtained and the pond was measured and overage depths were obtained. The seine samples showed that the pond contained only largemouth bass, bluegill, and mosquitofish.

This pond was then treated with Fintrol at a concentration of 10 ppb to eradicate the above fish populations. An experimental monafilament gill net was set overnight. No live fish were taken.

RECOMMENDATIONS: Hogpen Pond

1. Deepen edges of pond to an abrupt drop-off of two feet.

2. Treat vegetation with approved chemicals.

3. Initiate a lime and fertilizer program to maintain a pH of 6-8 and a phytoplankton bloom in which a white object goes out of sight at a depth greater than 20 inches.

4. Stock with channel catfish at the rate for a fertilized pond.

5. Fish have been ordered.

SUMMARY: Prince Pond

Prince Pond - 0.5 acre; pH - 5.5; Clear bloom

Like Hogpen Pond, this pond is badly in need of vegetation control. It also contained largemouth bass, bluegill, and mosquitofish.

It was also recommended in 1979 that this pond be treated with Fintrol. Hogpen Pond and Prince Pond are similar in size and condition. Prince was also a catfish pond stocked at the rate to be fed.

During the visit, the pond was measured and the water volume determined. It was treated with Fintrol at the rate of 10 ppb. A gill net was set overnight to determine the success of the treatment and to see if channel catfish were present. The net did not catch any live

fish and showed that no channel catfish were present. The treatment was considered a success.

RECOMMENDATIONS: Prince Pond

1. Same as Hogpen Pond

SUMMARY: Magnum Pond

Magnum Pond - 1.5 acres

This pond was in the process of being drawn down during our visit. The drawdown was in effect due to a car being found in the pond.

Seine samples were taken from the low pool of water remaining and showed the following species of fish were present: redear sunfish, bluegill, black crappie, redfin pickerel, and largemouth bass.

It was recommended that before the pond was filled to alter the control structure in order that water be taken from the bottom rather than draining surface water.

RECOMMENDATIONS: Magnum Pond

1. Fish will be ordered when the pond is filled.

Submitted by:

Edward Crittenden
Project Leader

Approved by:

William C. Hickling
Area Manager

United States Department of the Interior

FISH AND WILDLIFE SERVICE

P. O. BOX 302
CHEROKEE, NC 28719

September 5, 1979

Mr. Charles Peterson
Base Wildlife Manager
Natural Resources & Environmental Affairs Division
Base Maintenance
Marine Corps Base
Camp Lejeune, NC 28542

By September 30, 1979, I will need to know the number of man-days of fishing that occurred on your facility between October 1, 1978, and September 30, 1979. Last year, I reported the man-days for your station as follows:

FY '78	Oct.1-Dec.31	Jan.1-Mar.31	Apr.1-Jun.30	Jul.1-Sep.30
No. of man-days	2,950	2,950	27,500	27,500

Please complete the following table for this year:

FY '79	Oct.1-Dec.31	Jan.1-Mar.31	Apr.1-Jun.30	Jul.1-Sep.30
No. of man-days	2,400	3,200	28,500	29,000

Total 63,100

Please return one copy to me immediately, keep the other for your files.

Sincerely,

John L. Boaze

John L. Boaze
Project Leader

US FISH AND WILDLIFE SERVICE
DIVISION OF FISHERY SERVICES

Annual Project Report, 19 79
Fishery Management Program

Camp Lejeune, US Marine Corps
(Management Area)

Onslow County, North Carolina
Location (County and State)

BY

John L. Boaze
Fishery Management Biologist

1. Description of Area:
Camp Lejeune, located in southeast North Carolina, encompasses 174 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the station. Twenty one miles of marine shore and 10 fresh water ponds provide a variety of angling opportunities.

2. Year Fishery Management Began: 1963

3. Total of Lakes, Ponds, Reservoirs on Management Area: No. 10 Acres: 33.0

4. Total of Lakes, Ponds, Reservoirs under Management: No. 10 Acres: 33.0

5. Number of New Lakes, Ponds, Reservoirs Developed since last report (to be included in No's 3 + 4): No. _____ Acres: _____

6. Total Number of Streams on Management Area: No. _____ Miles: 80 Acres: _____

7. Total Number of Streams Managed: No. _____ Miles: _____ Acres: _____

8. Dates Visited: March 27, 1979

9. Total Man-days Expended per Management Area: 3

10. Total Man-days Fishing this Year: 63,100 Last Year: 60,900

11. Is Public Fishing Permitted? Yes

12. Persons Contacted (Names + Titles):
Mr. Charles Peterson, Wildlife Manager
Mr. Willie Bostic, Wildlife Technician

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB, RSF, BLG	LMB	100	1
Ward Pond	1.5	LMB, RSF, BLG			
Cedar Point Pond	2.0	LMB,RSF,BLG,CCF			
Hickory Pond	5.5	LMB,RSF,BLG,CCF			
Mile Hammock Bay Pond	1.5	LMB, RSF, BLG			
Courthouse Bay	1.5	LMB, RSF, BLG			
Prince Pond	1.0	CCF			
Hogpen Pond	1.0	CCF			
Henderson Pond	14.0	LMB, RSF, BLG	CCF	1400	4
Orde Pond	3.0	LMB,BLG,RSF,CCF			
NEW RIVER MARINE AIR STATION					
New River Pond	2.0	LMB, BLG, RSF			

CHEMICALS USED

No chemicals were used in fish or aquatic vegetation control.

Powerline Pond - 2 acres

This pond was drained, the shoreline deepened and restocked with bass and bluegill in 1978.

Recommendations:

1. Open to fishing in July 1980.
2. Establish a creel census on the pond when it is re-opened to fishing.

Henderson Pond - 14.0 acres

Henderson Pond was completed in 1971 and stocked with bass and bream. The dam washed out, was rebuilt, and the pond was restocked in December 1971. The pond was opened to fishing in 1974. Fishing pressure was heavy, but the success was poor. Some large bass and channel catfish were taken. Seine samples in June 1976 indicated very limited reproduction by bass and an overpopulation of bluegill. Renovation was recommended and carried out in 1976, and the pond was restocked. Sampling in July 1978 indicated that the bass had spawned, and the lake was opened to fishing at that time. In 1979 the pond was stocked with 1400 channel catfish fingerling to supplement the fishery.

Recommendations:

1. Continue fishing.
2. Establish a creel census to evaluate fishing pressure and harvest.

Prince Pond - 1.0 acre; Hogpen Pond 0 1.0 acre.

Both of these ponds were renovated in 1967 and are now managed for channel catfish. One thousand catfish are stocked annually and a feeding program is in effect. Seine sampling in 1978 and gill net sampling in 1979 indicated the presence of bass and bluegill in both ponds.

Recommendations:

1. Remove the bass and bluegill by use of Fintrol in the spring of 1980.
2. Establish a creel census on each pond to evaluate fishing pressure and harvest.

Creel Census

A creel census was designed and given to base personnel for use in 1979. However, lack of man-power prevented the implementation this year. Hopefully, the creel census will be carried out during the 1980 fishing season.

Submitted by:

John L. Boaze
Fishery Management Biologist
December 17, 1979

US FISH AND WILDLIFE SERVICE
DIVISION OF FISHERY SERVICES

Annual Project Report, 19 78
Fishery Management Program

Camp Lejeune,US Marine Corps
(Management Area)

Onslow County, North Carolina
Location (County and State)

BY

John L. Boaze
Fishery Management Biologist

1. Description of Area:
Camp Lejeune, located in southeast North Carolina, encompasses 174 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the station. Twenty one miles of marine shore and 10 fresh water ponds provide a variety of angling opportunities.

2. Year Fishery Management Began: 1963

3. Total of Lakes, Ponds, Reservoirs on Management Area: No. 10 Acres: 33.0

4. Total of Lakes, Ponds, Reservoirs under Management: No. 10 Acres: 33.0

5. Number of New Lakes, Ponds, Reservoirs Developed since last report (to be included in No's 3 + 4): No. _____ Acres: _____

6. Total Number of Streams on Management Area: No. _____ Miles: 80 Acres: _____

7. Total Number of Streams Managed: No. _____ Miles: _____ Acres: _____

8. Dates Visited: July 13 - 14, 1978

9. Total Man-days Expended per Management Area: 4

10. Total Man-days Fishing this Year: 60,900 Last Year: 66,000

11. Is Public Fishing Permitted? Yes

12. Persons Contacted (Names + Titles):
Mr. Charles Peterson, Wildlife Manager
Mr. Willie Bostic, Wildlife Technician
Staff Sergeant R. C. Gottshammer
Mr. Wendell Neal, Director, Natural Resource

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB, RSF, BLG	BLG/RSF	1,000	1
Ward Pond	1.5	LMB, RSF, BLG			
Cedar Point Pond	2.0	LMB, RSF, BLG, CCF	LMB	200	1
Hickory Pond	5.5	LMB, RSF, BLG, CCF	CCF	550	4
Mile Hammock Bay Pond	1.5	LMB, RSF, BLG			
Courthouse Bay	1.5	LMB, RSF, BLG			
Prince Pond	1.0	CCF	CCF	1,000	3
Hogpen Pond	1.0	CCF	CCF	1,000	3
Henderson Pond	14.0	LMB, RSF, BLG			
Orde Pond	3.0	LMB, BLG, RSF, CCF			
NEW RIVER MARINE AIR STATION					
New River Pond	2.0	LMB, BLG, RSF			

CHEMICALS USED

No chemicals were used in fish or aquatic vegetation control.

Powerline Pond - 2 acres; pH - 6.5; TH - 17 ppm; water temperature 80°F

Powerline Pond was renovated and restocked in 1968 and opened to fishing in 1969. This pond used to provide good fishing. However, in the past two years fishing has declined. The decline in fishing success was probably due to the heavy aquatic weed growth in the pond. But this year aquatic weeds did not appear to be a problem. Sampling in 1978 indicated only gambusia and one bluegill present in the pond.

Recommendations:

1. Deepen the shoreline to prevent weed growth.
2. Renovate the pond.
3. Restock with bass and bluegill.
4. Open to fishing in July 1980.
5. Fertilize.
6. Establish a creel census on the pond when it is reopened to fishing.

Ward Pond - 1.5 acres; pH - 7.0; TH - 34 ppm; water temperature 78°F

Ward Pond was renovated and restocked in 1965. The pond is overgrown with aquatic vegetation and can not be seined. Chemical weed control with Diquat, 2,4-D, and Aquathol has been ineffective.

1. Deepen the shoreline to prevent weed growth.
2. Fertilize.

Cedar Point Pond - 2 acres; pH - 6.5; TH - 17 ppm; water temperature 82°F

Cedar Point Pond was renovated in 1965, restocked, and opened to fishing in 1967. Fishing pressure has been heavy and success good. A 10.5 pound largemouth bass was reported taken from this pond in 1978. The pond has deep edges and there is no problem with aquatic vegetation. Seine sampling in 1978 indicated successful reproduction by bass and bream.

Recommendations:

Continue fertilization program and present management.

Hickory Pond - 5.5 acres; PH - 6.7; TH - 20 ppm; water temperature 78°F; bloom 27 inches

Hickory Pond was built in 1968 and stocked with bass and bream. The pond did not fill with water until 1970 and then, after a short time, the water dropped to 6 feet below normal pool. The pond filled to normal pool in 1971 and has remained full. Seine sampling in 1978 was restricted by aquatic weeds and algae. Only young-of-the-year bluegill were collected. Eight to ten largemouth bass (6 - 10 inches) were seen around the edge of the pond, but no yonng bass were collected.

Recommendations:

1. Fertilize for weed control.
2. Continue fishing.
3. Establish a creel census on the pond to evaluate fishing pressure and harvest.

Mild Hammock Pond - 1.5 acres; pH - 6.5; TH - 17 ppm; water temper. 82°F

Mild Hammock Pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has poor fishing and light pressure. Seine sampling did not indicate any bass or bluegill reproduction in 1974, and only limited reproduction for both species in 1975. Seine samples in 1976, 1977 and 1978 contained young of the year bream and only one young bass in 1978. The pond is difficult to seine because of stumps and terrestrial weeds.

Recommendations:

1. Remove terrestrial weeds.
2. Deepen the shoreline to prevent weed growth.
3. Continue fishing.

Courthouse Bay Pond - 1.5 acres; pH - 6.5; TH - 17 ppm; water temper. 78°F

Courthouse Bay Pond was deepened in 1967 and stocked with bass, bluegill and redear sunfish. Pond was opened to fishing in 1970. The pond produces good bass fishing. Sampling in 1978 indicated both bass and bluegill reproduction. The only problems associated with the pond are poor access and siltation from bank erosion.

Recommendations:

1. Continue fishing.
2. Improve fisherman access by clearing around the edge of the pond.
3. Control bank erosion by installing water diversion ditches around the pond.

Hickory Pond - 5.5 acres; pH - 6.7; 9A - 20 ppm; water temperature 70°F; bloom 27 inches

Hickory Pond was built in 1968 and stocked with bass and bream. The pond did not fill with water until 1970 and then, after a short time, the water dropped to 6 feet below normal pool. The pond filled to normal pool in 1971 and has remained full. Some dumping in 1976 was restricted by aquatic weeds and algae. Only young-of-the-year bluegill were collected. Quite ten largemouth bass (4 - 10 inches) were seen around the edge of the pond, but no young bass were collected.

Recommendations:

1. Fertilize for weed control.
2. Continue fishing.
3. Establish a creel census on the pond to evaluate fishing pressure and harvest.

Wild Hammock Pond - 1.3 acres; pH - 6.5; TH - 17 ppm; water temper. 82°F

Wild Hammock Pond was renovated in 1968 and stocked with bass, bluegill and redear sunfish. The pond has poor fishing and light pressure. Seine sampling did not indicate any bass or bluegill reproduction in 1974, and only limited reproduction for both species in 1975. Seine samples in 1976, 1977 and 1979 contained young of the year bream and only one young bass in 1978. The pond is different to seine because of stumps and horizontal weeds.

Recommendations:

1. Remove terrestrial weeds.
2. Deepen the shoreline to prevent weed growth.
3. Continue fishing.

Courthouse Bay Pond - 1.3 acres; pH - 6.5; TH - 17 ppm; water temper. 78°F

Courthouse Bay Pond was developed in 1967 and stocked with bass, bluegill and redear sunfish. Pond was opened to fishing in 1970. The pond produces good bass fishing. Sampling in 1978 indicated both bass and bluegill reproduction. The only problems associated with the pond are poor access and siltation from bank erosion.

Recommendations:

1. Continue fishing.
2. Remove fisherman access by clearing around the edge of the pond.
3. Control bank erosion by installing water diversion ditches around the pond.

Prince Pond - 1.0 acres; pH - 7.3; TH - 17 ppm; water temperature 87°F

Hogpen Pond - 1.0 acres; pH - 6.5; TH - 17 ppm; water temperature 86°F

Both of these ponds were renovated in 1967 and are now managed for channel catfish. One thousand catfish are stocked annually and a feeding program is in effect. Seine sampling in 1978 indicated the presence of bass and bluegill in both ponds.

Recommendations:

1. Continue present management.
2. Remove the bass and bluegill by use of Fintrol when the chemical becomes available again.
3. Establish a creel census on each pond to evaluate fishing pressure and harvest.

Henderson Pond - 14.0 acres; pH - 7.5; TH - 51 ppm; water temperature 88°F

Henderson Pond was completed in 1971 and stocked with bass and bream. The dam washed out, was rebuilt, and the pond was restocked in December 1971. The pond was opened to fishing in 1974. Fishing pressure was heavy, but the success was poor. Some large bass and channel catfish were taken. Seine samples in June 1976 indicated very limited reproduction by bass and an overpopulation of bluegill. Renovation was recommended and carried out in 1976, and the pond was restocked. Sampling in July 1978 indicated that the bass had spawned.

Recommendations:

1. Open to fishing.
2. Stock with 1,400 CCF.
3. Establish a creel census to evaluate fishing pressure and harvest.

Orde Pond - 3.0 acres; pH - 9.8; TH - 51 ppm; water temperature 87°F

Orde Pond was completed in 1973, stocked with bass, bream and channel catfish, and opened for fishing in 1974. Orde Pond provides the best fishing on the base and sustains the heaviest fishing pressure. Bass up to 2½ pounds and nice bluegill and redear sunfish are taken regularly. Seine sampling in June 1977 indicated reproduction by bass and bluegill. In 1978 only bluegill reproduction was noted. However, small bass are caught regularly out of this pond.

Recommendations:

Continue fishing.

New River Pond - 2 acres; pH - 9.2; TH - 34 ppm; water temperature 87°F; no bloom

The pond is located on the New River Marine Air Station but is managed by biologists stationed at Camp Lejeune. The pond is approximately 6 years old and has been stocked by sportsmen. It provides the only pond fishing on the base. Some bass and bluegill are taken. No management has been applied. Seine sampling in 1978 indicated reproduction by bass and bluegill.

Recommendations:

Continue fishing.

Submitted By:

John L. Boaze
Fishery Management Biologist
March 16, 1979

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

P. O. Box 302
Cherokee, NC 28719

September 18, 1978

Mr. Charles Peterson
Base Wildlife Manager
Natural Resourc. & Environ. Affairs Div.
Base Maintenance
Marine Corps Base
Camp Lejeune, NC 28542

By September 30, 1978, I will need to know the number of man-days of fishing that occurred on your facility between October 1, 1977, and September 30, 1978. Last year, I reported the man-days for your station as follows:

FY 1977	Oct.1-Dec.31	Jan.1-Mar.31	Apr.1-Jun.30	Jul.1-Sep.30
No. of man-days	3,300	3,300	29,700	29,700

Total 66,000

Please complete the following table for this year:

FY 1978	Oct.1-Dec.31	Jan.1-Mar.31	Apr.1-Jun.30	Jul.1-Sep.30
No. of man-days	2,950	2,950	27,500	27,500

Total 60,900

Please return one copy to me immediately, keep the other for your files.

Sincerely,

John L. Boaze

John L. Boaze
Project Leader

P. O. Box 302
Cherokee, NC 28719

April 19, '78

Commanding General
Marine Corps Base
Camp Lejeune, NC 28542

Dear Sir:

Attached is the 1977 Annual Project Report prepared and submitted by Fishery Management Biologist G. Alan Kelly.

Thank you for the cooperative assistance furnished Mr. Kelly by your personnel.

Sincerely,

John L. Boaze
Project Leader

US FISH AND WILDLIFE SERVICE
DIVISION OF FISHERY SERVICES

Annual Project Report, 19 77
Fishery Management Program

Camp Lejeune, US Marine Corps
(Management Area)

Onslow County, North Carolina
Location (County and State)

BY

G. Alan Kelly
Fishery Management Biologist

1. Description of Area: **Camp Lejeune, located in southeast North Carolina, encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the station. Twentyone miles of marine shore and 11 fresh water ponds provide a variety of angling opportunities.**

2. Year Fishery Management Began: **1963**

3. Total of Lakes, Ponds, Reservoirs on Management Area: No. **11** Acres: **33.5**

4. Total of Lakes, Ponds, Reservoirs under Management: No. **11** Acres: **33.5**

5. Number of New Lakes, Ponds, Reservoirs Developed since last report (to be included in No's 3 + 4): No. _____ Acres: _____

6. Total Number of Streams on Management Area: No. _____ Miles: **80** Acres: _____

7. Total Number of Streams Managed: No. _____ Miles: _____ Acres: _____

8. Dates Visited: **6/13/ and 6/14/78**

9. Total Man-days Expended per Management Area: **4**

10. Total Man-days Fishing this Year: **66,000** Last Year: **75,500**

11. Is Public Fishing Permitted? **Yes**

12. Persons Contacted (Names + Titles):
Mr. Peterson, Wildlife Manager
Mr. Bostic, Wildlife Technician
Willie
Wendell Neal, Director
Staff Sergeant R.C. Gottschammer

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB, RSF, BLG			
Ward Pond	1.5	LMB, RSF, BLG			
Cedar Point Pond	2.0	LMB, RSF, BLG	CCF	200	4
Hickory Pond	5.5	LMB,RSF,BLG,CCF	CCF	550	4
Mild Hammock Bay E	1.5	LMB, RSF, BLG			
Oak Pond	.5	CCF			
Courthouse Bay	1.5	LMB, RSF, BLG			
Prince Pond	1.0	CCF			
Hogpen Pond	1.0	CCF			
Henderson Pond	14.0	LMB, RSF, BLG	CCF1	1,400	4
Orde Pond	3.0	LMB,BLG,RSF,CCF			
NEW RIVER MARINE AIR STATION					
~~New River Pond~~ Magnum Pond	2.0	LMB, BLG RSF			

CHEMICALS USED

No chemicals were used in fish or aquatic vegetation control.

Powerline Pond - 2 acres; pH - 6.5; DO - 8 ppm; TH - 20 ppm; water temperature 78°F; bloom 25 inches

Powerline Pond was renovated and restocked in 1968 and opened to fishing in 1969. The pond used to provide good fishing, but only some bluegill and a few large bass have been taken lately. Because of aquatic weeds, seine sampling is ineffective. No bass or bream were seined in June 1976. The pond is almost closed up with horned pondweed and other aquatics. Chemical weed control with Diquat, 2,4-D, and Aquathol has been ineffective.

Recommendations:

1. Attempt to control aquatic vegetation with herbicides. Try Silvex.
2. Attempt mechanical removal of vegetation.
3. If aquatic vegetation can not be controlled, remove Powerline Pond from the management program.

Ward Pond - 1.5 acres; pH - 6.9; DO - 8.0 ppm; water temperature 82°F

Ward Pond was renovated and restocked in 1965. The pond is overgrown with aquatic vegetation, and can not be seined. Chemical weed control with Diquat, 2,4-D, and Aquathol has been ineffective.

Recommendations:

Same as for Powerline Pond.

Cedar Point Pond - 2 acres; pH - 6.8; DO - 8.0 ppm; TH - 30 ppm; water temperature 82°F; bloom 28 inches

Cedar Point Pond was renovated in 1965, restocked, and opened to fishing in 1967. Fishing pressure has been heavy and success good. The pond has deep edges and there is no problem with aquatic vegetation. Seine sampling in 1974, 1975, 1976, and June 1977 indicate successful reproduction by bass and bream.

Recommendations:

Continue fertilization program and present management.

Lower Dr. Pond - 2 acres; pH - 6.3; DO - 8 ppm; Ta - 21°C;
water temperature 78°F; bloom 2% inches

Power Line Pond was renovated and restocked in 1958 and opened to fishing in 1959. The pond used to provide good fishing, but only some bluegill and a few largemouths have been taken lately. Because of aquatic weeds, seine sampling is ineffective. No bass or bream were seined in June 1974. The pond is almost closed up with normal pond weed and other aquatics. Chemical weed control with diquat, 2,4-D, and fluridone has been ineffective.

Recommendations:

1. Attempt to control aquatic vegetation with herbicides. Try Diquat.
2. Attempt mechanical removal of vegetation.
3. If aquatic vegetation can not be controlled, remove Power Line Pond from the management program.

Ward Pond - 1.5 acres; pH - 6.1; DO - 8.0 ppm; water temperature 72°F

Ward Pond was renovated and restocked in 1965. The pond is overgrown with aquatic vegetation, and can not be seined. Chemical weed control with diquat, 2,4-D, and fluridone has been ineffective.

Recommendations:

Same as for Powerline Pond.

Cedar Point Pond - 3 acres; pH - 6.8; DO - 8.0 ppm; TA - 80 ppm;
water temperature 68°F; bloom 2% inches

Cedar Point Pond was renovated in 1965, restocked, and opened to fishing in 1967. Fishing pressure has been heavy and success good. The pond has deer, ducks and there is no problem with aquatic vegetation. Seine sampling in 1974, 1975, 1976, and June 1977 indicate successful reproduction by bass and bream.

Recommendations:

Continue Centralization program and present stocking rate.

Hickory Pond - 5.5 acres; pH - 6.5; DO - 8.0 ppm; TH - 20 ppm; water temperature 78°F; bloom 27 inches

Hickory Pond was built in 1968 and stocked with bass and bream. The pond did not fill with water until 1970 and then, after a short time, the water dropped to 6 feet below normal pool. The pond filled to normal pool in 1971 and has remained full. The pond has no weed problem and sustains moderate fishing pressure. Seine sampling in 1975, 1976, and June 1977 indicated bass and bream reproduction.

Recommendations:

Continue fertilization program and present management.

Mild Hammock Pond - 1.5 acres; pH - 7.3; DO - 9.0 ppm; TH - 30 ppm; water temperature 80°F; bloom 27 inches

Mild Hammock Pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has poor fishing and light pressure. Water level is down and the pond perimeter is feather edged. Seine sampling did not indicate any bass or bluegill reproduction in 1974, and only limited reproduction for both species in 1975. Seine samples in 1976 and 1977 contained young of the year bream, but no bass. Pond is difficult to seine because of stumps and bad terrestrial weed problem.

Recommendations:

1. Remove terrestrial weeds.

2. Continue present management.

Oak Pond - .5 acres; water temperature 67°F

Oak Pond is located in the tank training area of the base. The roads are torn up and there is no access by vehicle. Fishermen have to walk 1 to 1½ miles to fish the pond, and there is little fishing pressure. Pond is covered with duckweed, and impossible to seine effectively. Seine samples in June 1976 contained one 7 inch bass. There is no reason to control the duckweed or to manage Oak Pond until access can be provided for fishermen.

Recommendations:

Take Oak Pond out of the management program.

Courthouse Bay Pond - 1.5 acres; pH - 6.9; DO - 8.0 ppm; TH - 30 ppm; water temperature 74°F; no bloom

Courthouse Bay Pond was deepened in 1967 and stocked with bass, bluegill and redear sunfish. Pond was opened to fishing in 1970. The pond produces good bass fishing. Water level was down by about 2 feet and some aquatic vegetation was present. The pond has a fairly deep perimeter and should be O. K. once the water comes up. Seine samples in June 1976 indicated reproduction by bass and bream. Seine samples in June 1977 indicated no bass or bluegill reproduction. Critical siltation problem from bank erosion.

Recommendations:

1. Control bank erosion immediately.

Prince Pond - 1.0 acres; pH - 6.9; DO - 7.0 ppm; TH - 20 ppm; water temperature 77°F; bloom 25 inches

Prince Pond was renovated in 1967 and managed for channel catfish thereafter. One thousand CCF are stocked annually and a feeding program is in effect. Base personnel will install demand feeders to facilitate proper feeding. Fishing pressure is moderately heavy and success is good with 3 to 4 pound catfish being caught. Bass and bream are also present in the pond, and seine sampling in June 1977 indicated reproduction by both species.

Recommendations:

1. Continue present management.

Hog Pen Pond - 1.0 acres; pH - 6.5; DO - 8.0 ppm; TH - 40 ppm; water temperature 78°F;

Hog Pen Pond was renovated in 1967 and managed for channel catfish thereafter. One thousand CCF are stocked annually and a feeding program is in effect. Critical terrestrial weed problem - seining ineffective.

Recommendations:

1. Remove terrestrial weeds immediately.

2. Continue present management.

Courthouse Bay Pond - 1.5 acres; pH - 6.9; DO - 6.0 ppm; TH - 180 ppm;
water temperature 74°F; 10.5 feet.

Courthouse Bay Pond was deepened in 1957 and stocked with bluegill and redear sunfish. Pond was opened to fishing in 1970. Pond produces good bass fishing. Water level was down by about 3 feet and some aquatic vegetation was present. The pond has a fairly deep perimeter and should be O. K. once the water comes up. Seine samples in June 1976 indicated good reproduction by bass and bream. Seine samples in June 1977 indicated no age 0 bass reproduction. Critical shallow area is from bank erosion.

Recommendations:

1. Control bank erosion immediately.

Prince Pond - 1.0 acres; pH - 6.9; DO - 7.0 ppm; TH - 120 ppm;
water temperature 77°F; bloom 25 inches

Prince Pond was renovated in 1967 and managed for channel catfish there after. One thousand CCF are stocked annually and a feeding program is in effect. Base personnel still fish it and feeding is a definite problem. Fishing pressure is moderately heavy and success is good with 2 to 4 pound catfish being caught. Bass and bream are also present in the pond, and seine sampling in June 1977 indicated reproduction by both species.

Recommendations:

1. Continue present management.

Moreton Pond - 1.0 acres; pH - 6.8; DO - 8.0 ppm; TH - 40 ppm;
water temperature 73°F

Moreton Pond was renovated in 1967 and managed for channel catfish there after. One thousand CCF are stocked annually and a feeding program is in effect. Critical correction was problem weeds in 1977 which

Recommendations:

1. Remove terrestrial weeds immediately.

2. Continue present management.

Henderson Pond - 14.0 acres; pH - 8.0; DO - 8.0 ppm; TH - 50 ppm; water temperature 82°F

Henderson Pond was completed in 1971 and stocked with bass and bream. The dam washed out, was rebuilt, and the pond was restocked in December 1971. The pond was opened to fishing in 1974. Fishing pressure is heavy, but the success is poor. Some large bass and channel catfish have been taken. Seine samples in June 1976 indicated very limited reproduction by bass and bluegill. A 56 foot seine haul contained many intermediate size bluegill. The pond had been drawn down to facilitate bluegill harvest by bass, but without effect on the bluegill population. Since the pond could be drawn down to permit a good kill, renovation was recommended and carried out in spring of 1977.

Recommendations:

1. Continue recommended management.

2. Stock with 1,400 CCF

Orde Pond - 3.0 acres; pH - 8.4; DO - 8.0 ppm; TH - 90 ppm; water temperature 80°F; bloom 25 inches

Orde Pond was completed in 1973, stocked with bass, bream and channel catfish, and opened for fishing in 1974. Orde Pond provides the best fishing on the base and sustains the heaviest fishing pressure. Bass to 2½ pounds and nice bluegill and redear sunfish are taken. Seine sampling in June 1977 indicated reproduction by bass and bream.

Recommendations:

1. Continue present management.

New River Pond - 2 acres; pH - 8.5; DO - 8.3 ppm; TH - 70 ppm; water temperature 76°F; no bloom

The pond is located on the New River Marine Air Station but is managed by biologists stationed at Camp Lejeune. The pond is approximately 6 years old and has been stocked by sportsmen. It provides the only pond fishing on the base. Some bass and bream are taken. No management has been applied. Seine sampling in June 1977 indicated reproduction by bream and limited reproduction by bass. Seine hauls contained numerous intermediate size bream and the pond may be going out of balance.

Recommendations:

1. Check pond for balanced fish population in 1978.

Henderson Pond - 3a.9 acres; pH - 7.0; DO - 8.0 ppm; TM - 30 ppm; water temperature 72°F

Henderson Pond was completed in 1971 and stocked with bass and bream. The dam washed out, was rebuilt, and the pond was recovered in December 1971. The pond was opened to fishing in 1972. Fishing pressure is heavy, but the species is poor. Some carp, bass and catfish have been taken. Fishing access is by June 1975 Limited Service Recreation Permit and Disabled. A 50-foot gravel road constructed many intermediate fish migrations. The pond has been drawn down to eradicate diseased bass, but removal effort on the bluegill population. Since the pond could be drawn down it is felt a good kill, removal has to completed and carried out in spring of 1977.

Recommendations:

1. Continue present management.

2. Stock with 1,000 carp

Pine Pond - 3.0 acres; pH - 8.0; DO - 10.0 ppm; TM - 50 ppm; water temperature 80°F; bloom 25 inches

Pine Pond was completed in 1972, stocked with bass, bream and channel catfish, and opened for fishing in 1974. The pond provides two feet fishing on the dam and contains the heaviest fishing pressure. Bass to 2½ pounds are now limited and reduce stunted bass catches. A fish sampling in June 1977 indicated reproduction was present.

Recommendations:

1. Continue present management.

Deep River Pond - 2 acres; pH - 7.0 - 8.3 ppm; TM - 70 ppm; water temperature 78°F; no bloom

The pond is located on the New River Marine Air Station but is managed by biologists stationed at Camp Lejeune. The pond is approximately five acres and has been stocked by sportsmen. It provides the only pond fishing on the base. Some bass and bream are taken. No management has been completed. Fish sampling in June 1977 indicated reproduction by bream and limited reproduction by bass. Some bass collected measured in excess of 12 inches and the pond may be crowded out of balance.

Recommendations:

1. Check pond for balance in population in 1978.

SUMMARY

No adverse environmental affects result from the base fish management program.

Submitted By:

G. Alan Kelly
Fishery Management Biologist
March 1978

Approved by:

William C. Hickling
Area Manager
Date:

Division of Wildlife Services
P. O. Box 25878
Raleigh, North Carolina 27611

January 26, 1976

Major General H. Poggemeyer, Jr.
Commanding General
Marine Corps Base
Camp Lejeune, North Carolina 28542

Dear General Poggemeyer:

As part of our cooperative agreement, we have planned an informal review of the fish and wildlife management program on the Base for March 2 and 3, 1976.

We would appreciate a helicopter being made available for an overflight of the game management areas.

Our representatives will include Biologists Roger Banks, Otto Florschutz, Ron Jones, and myself. Several biologists from the N. C. Wildlife Resources Commission will also attend.

Thank you for your past courtesies to our personnel. We look forward to continued cooperation and liaison with your outstanding programs and personnel.

Sincerely,

Don Harke

Donald T. Harke
State Supervisor

DTH:jtc

bcc: Roger Banks
Wendell Neal
Ron Jones
Otto Florschutz

Division of Wildlife Services
P. O. Box 25878
Raleigh, North Carolina 27611

January 26, 1976

Major General V. A. Armstrong
Commanding General
Marine Corps Air Station
Cherry Point, North Carolina 28533

Dear General Armstrong:

As part of our cooperative agreement we have planned an informal review of the Air Station's fish and wildlife management program for March 4-5, 1976.

Our representatives will include Biologists Roger Banks, Otto Florschutz, Ron Jones, and myself. Several biologists with the N. C. Wildlife Resources Commission will also attend.

Thank you for your past courtesies to our personnel. We look forward to continued cooperation and liaison with your excellent programs and personnel.

Sincerely,

Donald T. Harke
State Supervisor

DTH:jtc

bcc: John Wright
Roger Banks
Ron Jones
Otto Florschutz
Eugene Czuhai

US FISH AND WILDLIFE SERVICE
DIVISION OF FISHERY SERVICES

Annual Project Report, 19 75
Fishery Management Program

Camp Lejeune, US Marine Corps
(Management Area)

Onslow County, North Carolina
Location (County and State)

BY

Henri Gruenthal
Fishery Management Biologist

1. Description of Area:
Camp Lejeune, located in southeast North Carolina, encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the Station. Twenty-one miles of marine shore and 11 fresh water ponds provide a variety of angling opportunities.

2. Year Fishery Management Began: 1963

3. Total of Lakes, Ponds, Reservoirs on Management Area: No. 11 Acres: 33.5

4. Total of Lakes, Ponds, Reservoirs under Management: No. 11 Acres: 33.5

5. Number of New Lakes, Ponds, Reservoirs Developed since last report (to be included in No's 3 + 4): No. _____ Acres: _____

6. Total Number of Streams on Management Area: No. _____ Miles: 80 Acres: _____

7. Total Number of Streams Managed: No. _____ Miles: _____ Acres: _____

8. Dates Visited: May 28 and 29, 1975

9. Total Man-days Expended per Management Area: 4

10. Total Man-days Fishing this Year: 32,500 Last Year: 30,000

11. Is Public Fishing Permitted? Yes

12. Persons Contacted (Names + Titles):

Charles Peterson, Wildlife Technician
Carroll Russell, Conservation Director

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB, RSF, BLG			
Cedar Point Pond	2.0	LMB, RSF, BLG			
Ward Pond	1.5	LMB, RSF, BLG			
Hickory Pond	5.5	LMB, RSF, BLG	CCF	300	6"
Mild Hammock	1.5	LMB, RSF, BLG			
Oak Pond	.5	CCF			
Courthouse Bay	1.5	LMB, RSF, BLG			
Prince Pond	1.0	CCF	CCF	500	5
Hoggen Pond	1.0	CCF	CCF	500	5
Henderson Pond	14.0	LMB, RSF, BLG			
New Pond	3.0	CCF, LMB, RSF, BLG	CCF	200	6"

CHEMICALS USED

Powerline Pond, Ward Pond, Hickory Pond, Mild Hammock Pond, Courthouse Bay Pond Prince Pond, and Henderson Pond - a total of 27 surface acres of water - were treated with 11 gallons of Aquathol Plus to control aquatic vegetation in 1975.

SUMMARY

Ward Pond - 1.5 acres; pH - 7.0; CO_2 - 15 ppm; TH - 51; water temperature 78°F; bloom - poor

Ward Pond was renovated and restocked in 1965. The pond has an extensive growth of Horned Pondweed and cannot be seined. Chemical weed control has not been effective. Base fish management personnel will dragline the pond.

Recommendations:

1. Dragline pond.
2. Resume chemical weed control early in the year.
3. Check for reproduction the following year.

Mild Hammock Pond - 1.5 acres; pH - 6.5; CO_2 - 15 ppm; TH - 51 ppm; water temperature 82°F; bloom - poor

This pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition and has produced some very nice fish. Seine sampling did not indicate any bass or bluegill reproductions in 1974, and only limited reproduction of both species for 1975. The pond is hard to seine because of stumps.

Recommendations:

1. Continue fertilization program.

2. Continue present management.

Cedar Point Pond - 2 acres; pH - 6.8; DO - 9 ppm; CO_2 - 10 ppm; TH - 17 ppm; water temperature 81°F; bloom 24 inches

Cedar Point Pond was renovated in 1965, restocked, and opened to fishing in 1967. Fishing pressure has been heavy and success good. Reproduction of bass and bluegill was good in 1974. Seine samples in 1975 indicate limited bass and bluegill reproduction.

Recommendations:

1. Continue fertilization program.

2. Continue present management.

Powerline Pond - 2 acres; pH - 7.0; water temperature 82°F; bloom 24 inches

Powerline Pond was renovated and stocked in 1968, opened to fishing in 1969, and has been producing good bluegill fishing. The pond is filled with horned pondweed. Chemical weed control has not been effective, and Base fish management personnel are planning to dragline the pond. Seine samples revealed good bluegill reproduction in 1974 and 1975. No bass reproduction was indicated either year, but because of the weed problem, it is impossible to seine the pond effectively.

Recommendations:

1. Dragline pond.

2. Resume chemical weed control early in the year.

3. Check for reproduction the following year.

4. Use 50 ft. seine to check condition of fish population.

New Pond - 3 acres; pH - 9.0; CO_2 - 15 ppm; TH - 68 ppm; water temperature 81°F; bloom 16 inches

New Pond was named Orde Pond. It was completed in 1973, stocked with bass, bream and channel catfish, and opened for fishing in 1974. Seine samples in 1975 indicate good bass and bluegill reproduction.

Recommendations:

1. Stock 200 channel catfish.

2. Continue fertilization program.

3. Continue present management.

Hickory Pond - 5.5 acres; pH - 6.8; DO - 8 ppm; CO_2 - 15 ppm; TH - 17.1 ppm; water temperature 82°F; bloom - poor

Hickory Pond was built in 1968 and stocked with bass and bream. The pond did not fill with water until 1970 and then, after a short time, the water dropped to 6 ft. below normal pool. The pond filled to normal pool in 1971 and has remained full. Seine samples in 1974 and 1975 indicate good bass and bluegill reproduction.

Recommendations:

1. Stock 300 channel catfish in the fall of 1975.

2. Continue fertilization program.

3. Continue present management.

Henderson Pond - 14 acres; pH - 8; DO - 8 ppm; water temperature 80°F

Henderson Pond was completed in 1971 and stocked with bass and bream. The dam washed out, was rebuilt, and the pond was restocked in December 1971. The pond was opened to fishing in 1974, and has produced good size bass and catfish. Seine samples in 1975 indicate good bass and bluegill reproduction.

Recommendations:

1. Continue fertilization program.

2. Continue present management.

Environmental Statement

No adverse environmental effects result from the Base fish management program.

Camp Lejeune has a successful fish management program due to the efforts of Mr. Peterson, the Base Wildlife Technician.

Submitted By:

Henn Gruenthal
Fishery Management Biologist
Date: November 1975

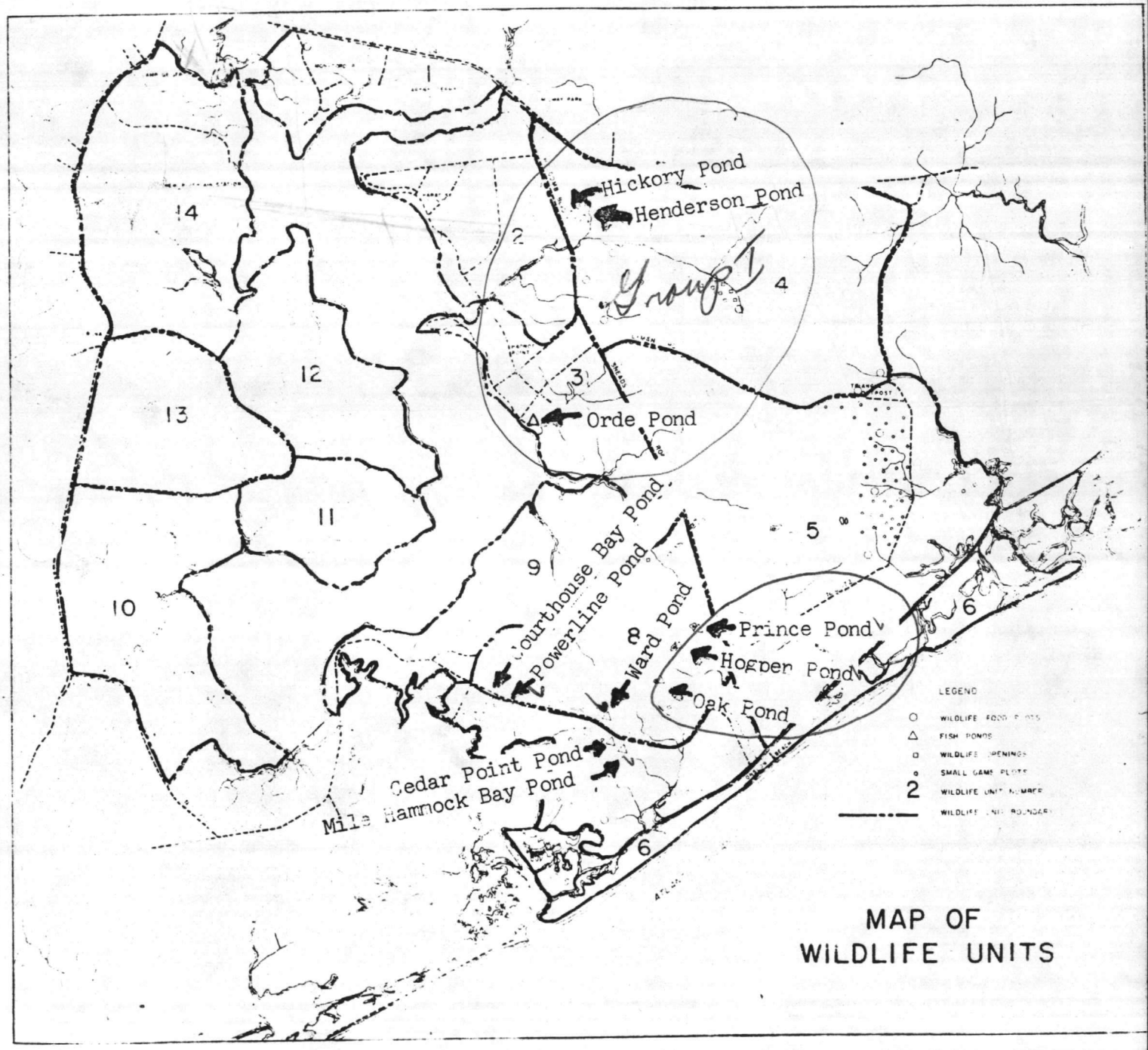
Reviewed By:

Enhancement Specialist
Division of Fishery Services
Date:

Concurred By:

Allen B. Montgomery
Regional Supervisor
Division of Fishery Services
Date:

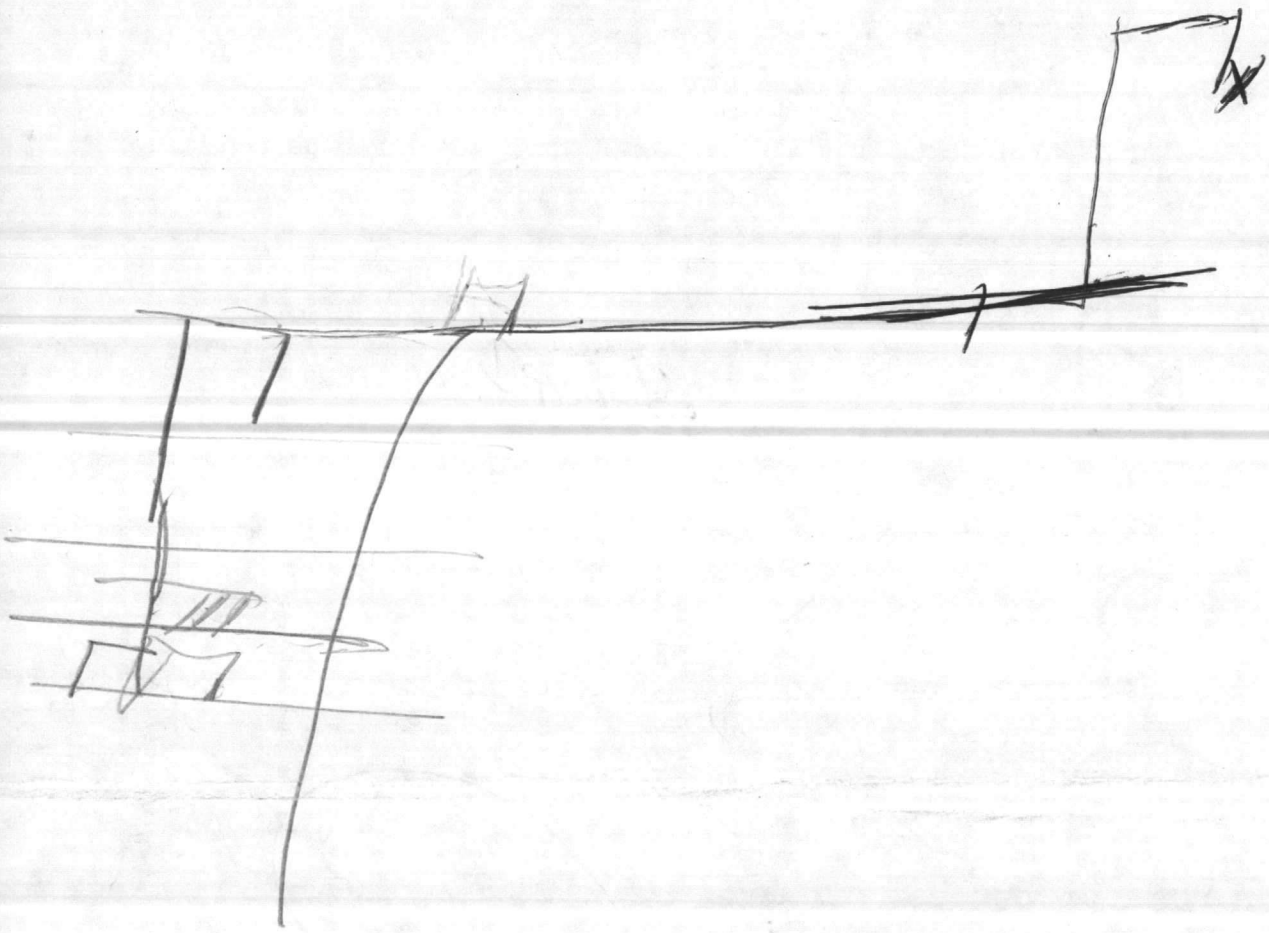
MAP OF WILDLIFE UNITS SHOWING LOCATIONS OF FISH PONDS



P.O. 2491

375-8-10

24010



UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Annual Project Report

FISHERY MANAGEMENT PROGRAM

Camp Lejeune
Onslow County, North Carolina
U.S. Marine Corps
Date of Visit: July 20, 1970
Date of Report: December 17, 1970

Annual Project Report

Fishery Management Program

Camp Lejeune
North Carolina

Fishery Management Biologist Ronald D. Jones and Biological Aid John L. Boaze visited Camp Lejeune on July 20, 1970, to provide technical assistance to the fishery management program on this installation. Mr. Charles Peterson, Wildlife Technician - Conservation Division, and his staff had conducted thermal, chemical, and population surveys of the ponds under management. The results of the surveys were analyzed and management for each water for 1970 was reviewed. Mr. Peterson accompanied the Bureau biologist on an inspection of the waters under management.

Camp Lejeune has 26,000 surface acres of water, most of which are salt and brackish. Approximately 80 miles of stream, fresh and brackish, lace the installation. The Atlantic shore line measures 21 miles, and 222 shore line miles of bay-inlet-estuary are within the installation and offer a variety of angling opportunities.

The following comments concern the analysis of field studies of the individual ponds under management.

Prince Pond - 1.0 acre, pH - 6.5, Total Hardness 34 - 51 ppm
Alkalinity 34 - 51 ppm, Water Temp. 92°F.

Prince Pond was renovated with rotenone in 1967 and restocked with 2,000 channel catfish. The pond was opened to angling in 1968 and has produced good fishing since that time. The pond is fertilized as needed and is stocked annually with 1,000 catfish. The catfish are fed daily with commercial pellets to increase growth. The pond also contains a very abundant population of Gambusia and some largemouth bass. The water level was below normal due to drought conditions.

Recommendations:

1. Continue feeding catfish.
2. Continue to fertilize as needed to maintain a bloom.
3. Restock with 1,000 channel catfish (fish applied for).
4. Check bass for predation on catfish.
5. Maintain creel records.

Hog Pen Pond - 1.0 acre, pH - 6.3, Total Hardness 17-34 ppm, Alkalinity 17 - 34 ppm, Water Temp. 87°F.

Hog Pen Pond was renovated in 1967, restocked with 2,000 channel catfish, and opened to fishing in 1968. The pond is fertilized as needed and restocked annually with 1,000 catfish. The catfish are fed daily with commercial pellets to increase growth. The fish range in size from 10 to 22 inches at the present time, and provide good fishing. The pond contains an abundant population of Gambusia and some largemouth bass. The bass utilize the Gambusia and apparently are not seriously affecting the catfish population.

Recommendations:

1. Continue feeding program.
2. Fertilize as needed to maintain bloom.
3. Restock with 1,000 channel catfish (fish applied for).
4. Maintain creel records.
5. Check for bass predation on catfish.

Power Line Pond - 2.0 acres, pH - 6.2, Total Hardness 17-34 ppm, Alkalinity 17 - 34 ppm, Water Temp. 84°F.

This pond was renovated with rotenone and restocked with bass, bluegill, and redear sunfish in 1968. The pond has been fertilized and limed as needed and was opened to fishing in 1969. It has produced very good bluegill fishing, and the bass are about one pound in size. The water level was 2 feet below normal due to drought conditions. The bass and bluegill had reproduced.

Recommendations:

1. Continue to fertilize as needed.
2. Maintain creel records.
3. Continue present management.

Cedar Point Pond - 2.0 acres, pH - 6.0, Total Hardness 17 - 34 ppm Alkalinity 17 - 34 ppm, Water Temp. 85°F.

This pond was renovated in 1965, restocked with bass, bluegill, and redear sunfish. It was opened to fishing in 1967, and angling pressure is heavy and success has been good, especially for redear sunfish. The pond is fertilized and limed as needed. Bass and bluegill both reproduced successfully in 1970. This pond is a good example of a small, shallow, acid pond that can provide sport fishing when properly managed.

Recommendations:

1. Continue to fertilize and lime as needed to maintain a bloom.

2. Continue present management practices.

Ward Pond - 1.5 acres, pH - 6.0, Total Hardness - 34 ppm, Water Temp. 82°F. Alkalinity 17 - 34 ppm

This pond was renovated in 1965, restocked with bass, bluegill and redear sunfish, opened to fishing in 1967, and has produced good fishing since that time. It has been properly fertilized as needed to increase fish production. Bass and bluegill spawned successfully in 1970. The pond had a weed problem which was caused by low water levels due to drought conditions.

Recommendations:

1. Continue to fertilize as needed to maintain a bloom.

2. Continue present management practices.

3. Control weeds as discussed.

Hickory Pond - 3.5 acres, pH - 6.5, Total Hardness 17 - 34 ppm, Alkalinity 17 - 34 ppm, Water Temp. 80°F.

Hickory Pond was built in 1968 (technical assistance furnished by the Soil Conservation Service) and stocked with bass, bluegill, and redear sunfish. During the 1968/69 winter, the pond filled only to about one surface acre. This was thought to be due to dry weather conditions which have persisted in this area for the past four years. The pond filled up for a short period of time in 1970, but at the time of inspection was 6 feet below normal pool.

Hickory Pond (Continued)

Although drought conditions still remain in this area, it is assumed that with normal rainfall, the pond will fill. The bass and bluegill spawned successfully in 1970 and the fish population appears in good condition.

Recommendations:

1. Continue fertilization program as needed.
2. Open to fishing and keep close check on pond for leaks or other causes of water loss.
3. Continue all other management activities.

Mild Hammock - 1.5 acres, pH - 7.3, Total Hardness - 34 ppm
Alkalinity - 34 ppm, Water Temp. 84°F.

This pond was renovated in 1965 and restocked with bass, bluegill, and redear sunfish. It was opened to angling in 1967 and fishing pressure has been heavy with angling success good. Fertilization and liming schedules have been carried out to increase fish production, and to hold pH and total hardness at desirable levels. Bass and bluegill reproduced successfully in 1970 and the fish exhibit good body condition. The pond appeared in excellent condition.

Recommendations:

1. Continue fertilization program and present management practices.

Ronald D. Jones
Ronald D. Jones
Fishery Management Biologist
DEC 18 1970

Reviewed:

Alex B. Montgomery
Alex Montgomery, Regional Supervisor
Division of Fishery Services
DEC 18 1970

Approved:

W. L. Towns
W. L. Towns, Acting Regional Director
DEC 18 1970

cc: W.O. (3); R.O. (1); Jones (1); Camp Lejeune (2)

US FISH AND WILDLIFE SERVICE
DIVISION OF TECHNICAL ASSISTANCE

Annual Project Report, 19 74
Fishery Management Program

Camp Lejeune, US Marine Corps
(Management Area)

Onslow County, North Carolina
Location (County and State)

BY

Gerald L. Burton
Fishery Management Biologist

1. Description of Area:
Camp Lejeune, located in southeast North Carolina, encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the Station. Twenty-one miles of marine shore and 11 fresh water ponds provide a variety of angling opportunities.

2. Year Fishery Management Began: 1963

3. Total of Lakes, Ponds, Reservoirs on Management Area: No. 11 Acres: 33.5

4. Total of Lakes, Ponds, Reservoirs under Management: No. 11 Acres: 33.5

5. Number of New Lakes, Ponds, Reservoirs Developed since last report (to be included in No's 3 + 4): No. 1 Acres: 3.0

6. Total Number of Streams on Management Area: No. _____ Miles: 80 Acres: _____

7. Total Number of Streams Managed: No. _____ Miles: _____ Acres: _____

8. Dates Visited: June 6, 1974

9. Total Man-days Expended per Management Area: 4

10. Total Man-days Fishing this Year: 30,000 Last Year: 30,000

11. Is Public Fishing Permitted? Yes

12. Persons Contacted (Names + Titles):

Charles Peterson, Wildlife Technician;
Carroll Russell, Conservation Director.

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB, RSF, BLG			
Cedar Point Pond	2.0	LMB, RSF, BLG			
Ward Pond	1.5	LMB, RSF, BLG			
Hickory Pond	5.5	LMB, RSF, BLG			
Mild Hammock	1.5	LMB, RSF, BLG			
Oak Pond	.5	CCF			
Courthouse Bay	1.5	LMB, RSF, BLG			
Prince Pond	0.5 ~~1.0~~	CCF	CCF	500	5
Hogpen Pond	0.5 ~~1.0~~	CCF	CCF	500	5
Henderson Pond	14.0	LMB, RSF, BLG			
Orde Pond	3.0	CCF, LMB, RSF, BLG			

CHEMICALS USED IN CONTROL

During 1974 all the ponds on the base were treated with either diquat or aquathol to control aquatic vegetation. Fifteen (15) gallons of aquathol were used and 3 gallons of diquat.

Hickory Pond - 5.5 acres; pH - 6.2; O_2 - 7.3 ppm; CO_2 - 10 ppm; water temperature 74°F; bloom 12 inches

This pond was built in 1968 and stocked with bass, bluegill and redear sunfish. The pond did not fill with water until 1970 and then after a short time the water dropped to six feet below normal pool. The pond filled in 1971 to normal pool and has remained full since that time.

In 1972 no bass or bluegill reproduction was found in the pond. The 1974 seine samples revealed good reproduction of both species. The adult population appeared healthy with bluegill up to one pound and bass three to four pounds.

Recommendations:

1. Continue fertilization program.

2. Check population in 1975.

Henderson Pond - 14 acres; pH - 6.4; O_2 - 7.4 ppm; CO_2 - 5 ppm; water temperature 76°F; bloom 17 inches

This pond was completed and stocked with bluegill and redear sunfish in 1971. The dam washed out and the fish were lost, however, repairs were made and the pond was restocked in December 1971. Bass were stocked June 6, 1972. The pond was inspected June 19, 1972, and found to contain light bluegill reproduction. This delayed reproduction is attributed to the late stocking in 1971. The pond was checked in 1973 before being opened to fishing and a good bluegill population was found, however, no evidence of a bass spawn was noted.

The pond was opened to fishing in July of 1974 and produced many good size catfish and bass. Seine samples taken in 1974 showed a light bluegill spawn, but no bass spawn. Cold water temperature has probably delayed spawning.

Recommendations:

1. Continue fertilization program.

2. Check later in summer for evidence of bass spawn.

Power Line Pond - 2 acres; pH - 6.2; O_2 - 8 ppm; CO_2 - 10 ppm; water temperature 79°F; clear, light bloom

This pond was renovated and restocked in 1968. It was opened to fishing in 1969 and has produced good bluegill fishing since that time. The bluegill had a light spawn as of June 1974, however, there was no evidence of bass spawn.

Recommendations:

1. Control vegetation.

2. Continue fertilization program.

3. Continue present management.

4. Check later in summer for bass spawn.

Cedar Point Pond - 2 acres; pH - 6.2; O_2 - 5.8 ppm; th - 34.2; CO_2 - 10 ppm; water temperature 82°F; bloom 20 inches

This pond was renovated in 1965 and restocked. It was opened to fishing in 1967, and angling pressure has been heavy. Fishing success has been good especially for redear sunfish. The pond is fertilized and seine samples revealed good reproduction by both bass and sunfish. This is a good example of a well managed pond.

Recommendations:

1. Continue fertilization program.

2. Continue present management.

Mild Hammock - 1.5 acres; pH - 6.9; O_2 - 6 ppm; CO_2 - 15 ppm; water temperature 80°F; bloom 12 inches

This pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition since that time. Seine samples revealed that neither bass nor sunfish had reproduced in 1974, however this is a very good pond and produces some very nice fish.

Recommendations:

1. Continue fertilization program.

2. Continue present management practices.

Orde Pond - 3 acres; pH - 8.3; O_2 - 7 ppm; water temperature 77°F; bloom 15 inches

This pond was just completed in 1973. It is well designed and should provide excellent fishing when opened to the public. Several schools of recently spawned bluegill fry were noted in the pond at the time of inspection. This pond could well provide the best freshwater fishing on the Base. In the fall of 1973 it was stocked with 500 channel catfish 5 inches long. It was opened to fishing in 1974 and produced excellent size bluegills and shell crackers; however, the bass did not grow as well as expected and few large ones were taken.

Recommendations:

1. Continue present management.

SUMMARY

Camp Lejeune has a very successful fish management program which provides many thousands of hours of recreation to Base personnel. Much of the success is the result of the work being done by Mr. Peterson and his staff.

No adverse environmental effects result from the program except those resulting from managing for specific species and weed control.

Submitted:

Gerald L. Burton

Gerald L. Burton
Fishery Management Biologist
October 25, 1974

Reviewed:

F. Glenn McBay

Acting Chief, Br. of Fishery Management Assistance
Date: 11/21/74

Concurred:

O. W. Jackson

Regional Supervisor, Div. of Technical Assistance
Date: 11/21/74

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

Edenton National Fish Hatchery
Edenton, North Carolina
April 20, 1973

Mr. Ronald D. Jones, Fishery Mgt. Biologist
Great Smoky Mtns. National Park Headquarters
Gatlinburg, Tennessee

Dear Mr. Jones:

We attempted to deliver 1,200 largemouth bass on 5/23/72 for Henderson pond at Camp Lejeune. No one met our driver, and he waited at the main gate for an hour.

Would you like delivery this spring?

Sincerely yours,

James E. Baker
Assistant Manager

JEB/cpt

SUBJECT: CHEMICALS USED IN BIOLOGICAL CONTROL FISH OR VEGETATION - 1973

Name of Pond or Stream	Ward	Prince	Powerline	Cedar Point
Chemical	Diquat	Diquat	Diquat	Aquathol Plus
Target	Pondweed Zannichellia spp.	Duckweed	Pondweed Zannichellia spp.	Water Lily Nuphar spp.
Pounds Used	1 gal/acre	½ gal/acre	1.0 gal/acre	1 gal/acre
Ponds Active Ingred.				
Acre Feet Treated	3	1.5	3	6
Surface Acres	1.5	1.0	2.0	2.0
Miles of Stream *				
PPM				

* Most ponds treated have small stream above which must be treated. Please include.

January 17, 1973

Lieutenant Colonel J. M. Cummings
United States Marine Corps
Marine Corps Base
Camp Lejeune, North Carolina 28542

Dear Colonel Cummings:

The proposed meeting date of February 15, as suggested in your letter of January 10, for review of the Cooperative Plan is agreeable with our Bureau. We will be pleased to join your staff for this annual updating and review of the Camp Lejeune fish and wildlife program.

Our representatives will include the following:

Joe W. Hardy, Enhancement Specialist, Division of Wildlife Services, Atlanta, Georgia
Ronald D. Jones, Fishery Biologist, Division of Fishery Services, Gatlinburg, Tennessee
Donald T. Harke, State Supervisor, Division of Wildlife Services, Raleigh, North Carolina

If we can be of assistance in planning for this meeting, please feel free to call on us.

Sincerely yours,

Alex B. Montgomery
Regional Supervisor, Division of Fishery Services

cc: Mr. Robert Beam, Norfolk, Va.
Fishery Biologist, FS, Gatlinburg, Tenn.
State Supervisor, DOWS, Raleigh, N. C.

December 27, 1973

Commanding General
United States Marine Corps
Camp Lejeune, North Carolina 28542

Dear Sir:

Attached are two copies of the 1973 Annual Project Report prepared and submitted by Fishery Management Biologist Gerald L. Burton.

The cooperative assistance furnished our biologist is greatly appreciated.

Sincerely,

Alex B. Montgomery
Regional Supervisor
Division of Fishery Services

Enclosures

FROM: Gerald L. Burton
Fishery Management Biologist
Division of Fishery Services
P. O. Box 18, Cherokee, NC 28719
Phone: 704-497-3811

DATE: Nov. 9, 1973

TO: United States Marine Corps
Base Conservation Division
Marine Corps Base
Maintenance Department
Camp Lejeune, NC 28542

Attention: Mr. Charles Peterson

SUBJECT: INFORMATION NEEDED FOR ANNUAL REPORT 1973

I need this information as soon as possible;
if you don't have the facts yet, estimate.

		1972	1973
NEW LAKES	Numbers		
	Acres		
RECLAIMED LAKES	Numbers		
	Acres		
TOTAL NUMBER OF LAKES	Number of Lakes	10	11
	Number of Acres	30.5	33.5
RESTRICTED FISHING (BASE PERSONNEL ONLY)	Number of Lakes	none	none
	Number of Acres		
PUBLIC FISHING	Number of Lakes	10	11
	Number of Acres	30.5	33.5
	Miles of Stream	80	80
	Number of Streams		
	Acres of Streams		
MAN-DAYS OF FISHING		30,000	30,000

Gerald L. Burton
Fishery Management Biologist
Division of Fishery Services
P. O. Box 18, Cherokee, NC 28719
Phone: 704-497-3811

Nov. 9, 1972

United States Marine Corps
Base Conservation Division
Marine Corps Base
Maintenance Department
Camp Lejeune, NC 28542

Attention: Mr. Charles Peterson

1973

1972 1973

10
30.5

none

10
30.5
80

30,000

Camp Lejeune, U. S. Marine Corps

Onslow County, North Carolina

Gerald L. Burton

Camp Lejeune, located in southeast North Carolina, encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the Station. Twentyone miles of marine shore and 11 fresh water ponds provide a variety of angling opportunities.

1963

11 33.5

11 33.5

1 3.0

80

June 1 and 2, 1973

4

30,000 30,000

Yes

Charles Peterson, Wildlife Technician;

Carroll Russell, Conservation Director; Ralph Gargams, Forestry.

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond, or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB,RSF,BLG			
Cedar Point Pond	2.0	LMB,RSF,BLG			
Ward Pond	1.5	LMB,RSF,BLG			
Hickory Pond	5.5	LMB,RSF,BLG			
Mild Hammock	1.5	LMB,RSF,BLG			
Oak Pond	.5	CCF			
Courthouse Bay	1.5	LMB,RSF,BLG			
Prince Pond	1.0	CCF	CCF	500	5
Hogpen Pond	1.0	CCF	CCF	500	5
Henderson Pond	14.0	LMB,RSF,BLG	LMB	1,200	2
Orde Pond	3.0	CCF,LMB,RSF, BLG	LMB CCF	300 500	2 5

CHEMICALS USED IN CONTROL

Name of Lake, Pond, or Stream	Chemical	Target	Pounds of Active Ingred.	Surface Acres / Miles	Acre feet Treated
Ward Pond	Diquat	Horned Pondweed (Zannichellia)	2½ gall.	1.5	3
Power Line	Diquat	"	2 gall.	2.0	3
Prince Pond	Diquat	"	½ gall.	1.0	1.5
Cedar Point	Diquat	"	2 gall.	2.0	6.0

MANAGEMENT RECORD

BODY OF WATER			STOCKING RECORD		
Name of Lake, Pond, or Stream	Acres/ Miles	Species Managed	Species	Number	Average Length
Powerline Pond	2.0	LMB,RSF,BLG			
Cedar Point Pond	2.0	LMB,RBF,YCA			
Ward Pond	1.5	LMB,RBF,BMG			
Hickory Pond	2.5	LMB,RSF,BLG			
Mill Hammock	1.5	LMB,RSF,BLG			
Oak Pond	3	CCF			
Centerhouse Bay	4.5	LMB,RBF,BLG			
Prince Pond	3.0	CCF	CCF	500	5
Hogpen Pond	1.0	CCF ✓	CCF	300	3
Henderson Pond	14.0	LMB,RSF,BLG	LMB	1,200	7
Grade Pond	3.0ac	CCF,LMB,RSF, BLG	LMB CCF	300 500	7 5

CHEMICALS USED IN CONTROL

Name of Lake, Pond, or Stream	Chemical	Target	Formula of Active Ingred.	Surface Acres / Miles	Date Treated
Ward Pond	Diquat	Horned Pondweed (Zannichellia)	2% gall.	1.5	
Power-Line	Diquat	"	2 gall.	2.0	
Prince Pond	Diquat	"	4 gall.	1.0	1.5
Cedar Point	Diquat	"	2 gall.	2.0	6.0

SUMMARY AND RECOMMENDATIONS

(Indlude Environmental Impact) - No adverse environmental effects result from the program except those resulting from managing for specific species and weed control.

Hickory Pond - 5.5 acres; pH-7.0; O_2-7 ppm; CO_2-10 ppm; Water temperature 83°F; bloom 20 inches

This pond was built in 1968 and stocked with bass, bluegill and redear sunfish. The pond did not fill with water until 1970 and then after a short time the water dropped to xis feet below normal pool. The pond filled in 1971 to normal pool and has remained full since that time.

In 1972 no bass or bluegill reproduction was found in the pond. The 1973 seine samples revealed good reproduction of both species. The adult population appeared healthy with bluegill up to one pound and bass three to four pounds. Mr. Peterson reported no abnormal water chemistry during the spawning period for bass.

Recommendations:

1. Check water chemistry during spring of 1973.
2. Continue fertilization program.
3. Check population in 1974.

Henderson Pond - 14 acres; pH - 7.5; O_2-7 ppm; CO_2-5 ppm; water temperature 83°F; bloom 20 inches

This pond was completed and stocked with bluegill and redear sunfish in 1971. The dam washed out and the fish were lost, however, repairs were made and the pond was restocked in December 1971. The bass were stocked June 6, 1972. The pond was inspected June 19, 1972, and light bluegill reproduction was present. The late stocking of bluegill in 1971 delayed their reproduction in 1972. The pond was checked in 1973 before being opened to fishing and a good bluegill population was found. However, no evidence of a bass spawn was noted. This pond looks good and should produce a good fishery.

Recommendations:

1. Continue fertilization program.

Power Line Pond - 2 acres; pH - 6.5; O_2-8 ppm; CO_2-10 ppm; water temperature 83°F; clear, no bloom

This pond was renovated and restocked in 1968. The pond was opened to fishing in 1969 and has produced good bluegill fishing since that time. The pond was low and filled with water weeds to where it could not be effectively seined. Visual observation of the entire pond indicates an excellent population of 4 to 5 inch bass and 1 to 3 inch bluegill. The bluegill had a light spawn as of June 1973 and the bass had not evidently spawned yet.

Recommendations:

1. Control vegetation.
2. Continue fertilization program.
3. Continue present management.

Cedar Poind Pond - 2 acres; pH - 6.5; O_2-7 ppm; th - 34.2; CO_2-10 ppm; water temperature 82°F; bloom 18 inches

This pond was renovated in 1965 and restocked. It was opened to fishing in 1967, and angling pressure has been heavy. Fishing success has been good especially for redear sunfish. The pond is fertilized and seine samples revealed good reproduction by both bass and sunfish. This is a good example of a well managed pond.

Recommendations:

1. Continue fertilization program.
2. Continue present management.

Ward Pond - 1.5 acres; pH - 6.6; O_2-4 ppm; CO_2-30 ppm; water temperature 78°F; clear, no bloom

This pond was renovated in 1965 and restocked. The pond has weed problems which have been aided by low water levels the last three years. Weeds were so thick, it could not be seined properly; however, the bass had reproduced. The pH was so low it is doubtful if the bluegill did reproduce. The weeds must be controlled before the fish population can be managed.

Recommendations:

1. Start early in the year with weed control.
2. Check in 1974.
3. Continue fertilization program in conjunction with weed control.

Power Line Pond - 2 acres; pH - 6.5; O_2-6 ppm; CO_2-10 ppm;
water temperature 83°F; clear, no bloom

This pond was renovated and restocked in 1968. The pond was opened to fishing in 1969 and has produced good bluegill fishing since that time. The pond was low and filled with water weeds to where it could not be effectively seined. Visual observation of the entire pond indicates an excellent population of 4 to 5 inch bass and 1 to 3 inch bluegill. The bluegill had a light spawn as of June 1973 and the bass had not evidently spawned yet.

Recommendations:

1. Control vegetation.

2. Continue fertilization program.

3. Continue present management.

Cedar Point Pond - 2 acres; pH - 6.5; O_2-7 ppm; pH - 34.2; CO_2-10ppm;
water temperature 82°F; bloom 12 inches

This pond was renovated in 1965 and restocked. It was opened to fishing in 1967, and angling pressure has been heavy. Fishing success has been good especially for redear sunfish. The pond is fertilized and seine samples revealed good reproduction by both bass and sunfish. This is a good example of a well managed pond.

Recommendations:

1. Continue fertilization program.

2. Continue present management.

Marl Pond - 1.5 acres; pH - 6.5; O_2-6 ppm; CO_2-10 ppm;
water temperature 78°F; clear, no bloom

This pond was renovated in 1965 and restocked. The pond has weed problems which have been aided by low water levels the last three years. Weeds were so thick, it could not be seined properly; however, the bass had reproduced. The pH was so low it is doubtful if the bluegill did reproduce. The weeds must be controlled before the fish population can be managed.

Recommendations:

1. Start early in the year with weed control.

2. Check in 1974.

3. Continue fertilization program in conjunction with weed control.

Mild Hammock - 1.5 acres; pH - 6.5; O_2-7 ppm; CO_2 - 15 ppm; water temperature 84°F; bloom 12 inches

This pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition since that time. Seine samples revealed that both bass and sunfish had reproduced. However, the bluegill spawn had been light and may be better later. This is a very good pond and produces some very nice fish.

Recommendations:

Continue fertilization program.

2. Continue present management practices.

Prince Pond - 1 acre; pH - 6.5; O_2-5 ppm; CO_2 - 25 ppm; water temperature 84°F; bloom clear

Prince Pond was renovated with rotenone in 1967 and restocked with 2,000 channel catfish. The pond is restocked annually with 1,000 catfish. The catfish are fed commercial pellets daily to increase growth. The pond was covered with duckweed at the time of inspection and the water was clear. The fish stocked in 1970 were 12½ inches long at the time of inspection. Fishing pressure had been light and the annual stocking was reduced to 500 fish for 1973. No evidence of bluegill spawning was found; however bass had spawned.

Recommendations:

1. Continue feeding program.

2. Control weeds and fertilize to produce bloom.

3. Stock 500 channel catfish (fish applied for).

Orde Pond - 3 acres; pH - 8.0; O_2 - 7 ppm; water temperature 82°F; bloom 12 inches

This pond was just completed in 1973. It is well designed and should provide excellent fishing when opened to public fishing. Several schools of recently spawned bluegill fry were noted in the pond at the time of inspection. This pond could well provide the best freshwater fishing of any on the base. In the fall of 1973 it will be stocked with 500 channel catfish 5 inches long.

Wild Hammock - 1.5 acres; pH - 6.0; O_2-7 ppm; CO_2 - 15 ppm;
water temperature 84°F; bloom 12 inches

This pond was renovated in 1963 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition since that time. Spring samples revealed that both bass and sunfish had reproduced. However, the bluegill spawn had been light and may be better later. This is a very good pond and produces some very nice fish.

Recommendations:

Continue fertilizer program.

2. Continue present management practices.

Prince Pond - 1 acre; pH - 6.1; O_2-5 ppm; CO_2 - 25 ppm;
water temperature 84°F; bloom slight

Prince Pond was renovated with rotenone in 1961 and restocked with channel catfish. The pond is restocked annually with 1,000 catfish. The catfish are fed commercial pellets daily to increase growth. The pond was covered with duckweed at the time of harvesting and the water was clear. The fish sampled in 1970 were 12% inches long at the time of inspection. Fishing pressure had been light and the annual stocking was reduced to 500 fish for 1973. No evidence of bluegill spawning was found; however bass had spawned.

Recommendations:

1. Continue feeding program.

2. Control weeds and fertilize to produce bloom.

3. Stock 500 channel catfish (plan applied for).

Duke Pond - 3 acres; pH - 6.0; O_2 - 7 ppm;
water temperature 82°F; bloom 12 inches

This pond was just completed in 1973. It is well designed and should provide excellent fishing when opened to public fishing. Several schools of recently spawned bluegill fry were noted in the pond at the time of inspection. This pond could well provide the best freshwater fishing of any on the base. In the fall of 1973 it will be stocked with 500 channel catfish 8-11 inches long.

Submitted By:

_____

Fishery Management Biologist

November 30, 1973

Reviewed By:

_____

Regional Supervisor, Div. Fishery Services

Date:

January 14, 1972

Lieutenant Colonel J. R. Fox
Chairman, Committee for the
Conservation of Natural Resources
U. S. Marine Corps
Camp Lejeune, North Carolina 28542

Dear Colonel Fox:

This is in response to your correspondence of January 6 requesting an annual meeting to discuss the cooperative fish and wildlife management plan. The date of February 3 will be agreeable with this office. Our field representatives have been contacted and will be in attendance on our behalf. We suggest a meeting time of 9 a.m. If a different hour would be more convenient, please advise our representative, Mr. Donald Harke, State Supervisor, Division of Wildlife Services, P. O. Box 25878, Raleigh, North Carolina 27611.

We look forward to this meeting to review the cooperative agreement and a continued effort on behalf of wise recreational use of fish and wildlife resources on Camp Lejeune.

Sincerely yours,

(sgd) C. Edward Carlson

Regional Director

cc: Fishery Services, RO
Fishery Services Biologist, Ronald Jones, Gatlinburg, Tenn.
State Supervisor, DOWS, Raleigh, N. C.

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

Fishery Dvn.

IN REPLY REFER TO

JRF/lp
11015
6 Jan 1972

Regional Director
U. S. Department of the Interior
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Peachtree - Seventh Building
Atlanta, Georgia 30323

Dear Sir:

The Cooperative Plan for Conservation and Development of Fish and Wildlife at Camp Lejeune has been in effect for nine years, with the first major revision in February 1968. Your cooperation and assistance have been most beneficial in the development and maintenance of the Wildlife Management Program for Camp Lejeune.

Under the terms of the Cooperative Plan, an annual meeting is to be held to discuss updating fish and wildlife plans and reviewing accomplishments of the past year. In this regard, I propose that a meeting be set for Thursday, 3 February 1972, at this Headquarters. If this date is satisfactory to you and to your representatives, please so acknowledge in order that specific details of a working agenda can be determined. You are invited to suggest any agenda items you wish to be discussed.

A similar letter is being provided the Executive Director, Wildlife Resources Commission, State of North Carolina.

Your consideration of the above and an early reply is requested.

Sincerely yours,

J. R. FOX
Lieutenant Colonel, U. S. Marine Corps
Chairman, Committee for the Conservation of Natural Resources
By direction of the Commanding General

FROM: Ronald D. Jones, Fishery Management Biologist
Great Smoky Mountains National Park
Headquarters
Gatlinburg, Tenn. 37738
Telephone: 615-436-5615

DATE: 10-11-72

TO: Base Conservation Division
Maintenance Department
Marine Corps Base
Camp Lejeune North Carolina

Attention Charles Peterson

SUBJECT: Information needed for Annual Report 1972

I need this information as soon as possible;
if you don't have the facts yet, estimate.

		1972	1971
NEW LAKES	Numbers	Same	1
	Acres		14.0
RECLAIMED LAKES	Numbers		
	Acres		
TOTAL NUMBER OF LAKES	Number of Lakes		10
	Number of Acres		30.5
RESTRICTED FISHING	Number of Lakes		
	Number of Acres		
PUBLIC FISHING	Number of Lakes		10
	Number of Acre's		30.5
	Miles of Stream		80
	Number of Streams		
	Acres of Streams		
MAN-DAYS OF FISHING	~~Acres of Streams~~		30,000

Thanks
Ron

FROM: Ronald D. Jones, Fishery Management Biologist
Great Smoky Mountains National Park, Headquarters
Gatlinburg, Tennessee 37738
Telephone: 615-436-5615

DATE: 10-11-72

TO: Base Conservation Division
Maintenance Department
Marine Corps Base
Camp Lejune North Carolina
Attention Charles PetersOn

SUBJECT: Chemicals Used in Biological Control Fish or Vegetation - 1972

Name of Pond or Stream	Chemical	Target	Gallons ~~Pounds~~ Used	Ponds Active Ingred.	Acre Feet Treated	Surface Acres	Miles of Stream *	PPM
Mile Hammock	Aquathol Plus	Burr Reed (Sparganium)	2	10.2		1.5		2
Hog Pen	"	"	2	10.2		1.5		2
Ward Pond	"	Horned Pondweed (Zannichellia spp.)	6	30.6		1.5		3
Power Line	"	"	3	15.3		1.0		3
Prince Pond	"	"	2	10.2		1.0		3
Cedar Point	"	"	2	10.2		2.0		2
Hickory	"	Black Willow	2	10.2		4.5		2

* Most ponds treated have small stream above which must be treated. Please include.

Oct. '72

72

Camp Lejeune US Marine Corps

Onslow County, North Carolina

Ronald D. Jones

Camp Lejeune, located in southeast North Carolina, encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the installation. 21 miles of marine shore and 10 freshwater ponds provide a variety of angling opportunities.

1963

10 30.5

10 30.5

80

June 19 and 20, 1972

4

30,000

yes

Charles Peterson, Wildlife Technician;

Carroll Russell, Conservation Director.

Powerline Pond	2.0	LMB, RSF, BLG			
Cedar Point Pond	2.0	LMB, RSF BLG			
Ward Pond	1.5	LMB, RSF, BLG			
Hickory Pond	5.5	LMB, RSF, BLG			
Mild Hammock	1.5	LMB, RSF, BLG			
Oak Pond	.5	CCF			
Courthouse Bay	1.5	LMB, RSF, BLG			
Prince Pond	1.0.5	CCF	CCF	500	5
Hogpen Pond	1.0 .5	CCF	CCF	500	5
Henderson Pond	14.0	LMB, RSF, BLG	LMB	1,200	2
	29.5				

Acreage changed after stocking.

Hickory Pond - 3.5 acres; pH - 6.0; O_2-6 ppm; CO_2-10 ppm; water temperature 82°F; bloom 30 inches

This pond was built in 1968 and stocked with bass, bluegill and redear sunfish. The pond did not fill with water until 1970 and then after a short time the water dropped to six feet below normal pool. The pond filled in 1971 to normal pool and has remained full since that time. The inspection last year revealed bass reproduction but no bluegill reproduction. Numerous small and intermediate bluegill were present in 1971. Seine samples in 1972 revealed no reproduction from bass or bluegill and only adult bass and bluegill were present. The adult population appeared healthy with bluegill up to one pound and bass three to four pounds. Mr. Peterson reported no abnormal water chemistry during the spawning period for bass. Apparently the pond suffered an overpopulation of bass in 1971 resulting in the present population. If this is true it should correct itself by 1973, but it should be checked.

Recommendations:

1. Check water chemistry during spring of 1973.

2. Continue fertilization program.

3. Check population in 1973.

Henderson Pond - 14 acres; pH - 7.0; O_2-7 ppm; CO_2-5 ppm; water temperature 82°F; bloom 20 inches

This pond was completed and stocked with bluegill and redear sunfish in 1971. The dam washed out and the fish were lost; however, repairs were made and the pond was restocked in December 1971. The bass were stocked June 6, 1972. The pond was inspected June 19, 1972, and light bluegill reproduction was present. The late stocking of bluegill in 1971 delayed their reproduction in 1972. This pond looks good and should produce a good fishery.

Recommendations:

1. Continue fertilization program.

2. Do not open to fishing until it is checked in 1973.

Hickory Pond - 3.5 acres; pH 6.0; O_2 6 ppm; CO_2 10 ppm; water temperature 82°F; bloom 30 inches

This pond was built in 1968 and stocked with bass, bluegill and redear sunfish. The pond did not fill with water until 1970 and then after a short time the water dropped to six feet below normal pool. The pond filled in 1971 to normal pool and has remained full since that time. The inspection last year revealed bass reproduction but no bluegill reproduction. Numerous small and intermediate bluegill were present in 1971, some sample in 1972 revealed no reproduction. Only bass and only adult bass and bluegill were present. The adult population appeared healthy with bluegill up to nine pound and bass three to four pounds. Mr. Peterson reported no chemical chemistry during the spawning period for bass. Apparently the pond suffered an overpopulation of bass in 1971 resulting in the present population. If this is true it should correct itself by 1975, but it should be checked.

The following:

1. Check water chemistry during spring of 1973.

2. Continue fertilization program.

3. Check population in 1973.

Henderson Pond - 14 acres; pH - 7.0; O_2 7 ppm; CO_2 5 ppm; water temperature 82°F; bloom 20 inches

This pond was completed and stocked with bluegill and redear sunfish in 1972. The dam washed out and the fish were lost. However, repairs were made and the pond was restocked in December 1972. The bass were stocked June 2, 1972. The weed was inspected June 14, 1973, and bluegill reproduction was present. The late stocking of bluegill in 1971 delayed their reproduction in 1972. This pond looks good and should produce a good fishery.

Recommendations:

1. Continue fertilization program.

2. Do not open to fishing until it is checked in 1975.

Power Line Pond - 2.0 acres; pH - 6.0; O_2-8 ppm; CO_2-10 ppm; water temperature 83°F; bloom - clear, no bloom

This pond was renovated and restocked in 1968. The pond was opened to fishing in 1969 and has produced good bluegill fishing since that time. The pond was low and filled with water weeds to where it could not be effectively seined. Bluegill reproduction was collected however, and one 6 inch bass was caught.

Recommendations:

1. Control vegetation.
2. Continue fertilization program.
3. Continue present management.

Cedar Pond - 2.0 acres; pH - 6.5; O_2-8 ppm; th - 34.2; CO_2-10 ppm; water temperature 82°F; bloom 18 inches

This pond was renovated in 1965 and restocked. It was opened to fishing in 1967, and angling pressure has been heavy. Fishing success has been good especially for redear sunfish. The pond is fertilized and seine samples revealed good reproduction by both bass and sunfish. This is a good example of a well managed pond.

Recommendations:

1. Continue fertilization program.
2. Continue present management.

Ward Pond - 1.5 acres; pH - 5.0; O_2-4 ppm; CO_2-30 ppm; water temperature 80°F; bloom + clear, no bloom

This pond was renovated in 1965 and restocked. The pond has weed problems which have been aided by low water levels the last three years. Weeds were so thick, it could not be seined properly; however, the bass had reproduced. The pH was so low it is doubtful if the bluegill did reproduce. The weeds must be controlled before the fish population can be managed.

Recommendations:

1. Start early in the year with weed control.
2. Check in 1973.
3. Continue fertilization program in conjunction with weed control.

Mild Hammock - 1.5 acres; pH - 6.5; O_2-7 ppm; CO_2-15 ppm; water temperature 87°F; bloom 12 inches

This pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition since that time. Seine samples revealed that both bass and sunfish had reproduced. This is a very good pond and produces some very nice fish.

Recommendations:

1. Continue fertilization program.

2. Continue present management practices.

Price Pond - 1.0 acres; pH - 6.0; O_2-5 ppm; CO_2-25 ppm; water temperature 77°F; bloom - clear

Prince Pond was renovated with rotenone in 1967 and restocked with 2,000 channel catfish. The pond is restocked annually with 1,000 catfish. The catfish are fed commercial pellets daily to increase growth. The pond was covered with duckweed at the time of inspection and the water was clear. The fish stocked in 1970 were 12½ inches long at the time of the inspection. Fishing pressure had been light and the annual stocking was reduced to 500 fish for 1972.

Recommendations:

1. Continue feeding program.

2. Control weeds and fertilize to produce bloom.

3. Stock 500 channel catfish (fish applied for).

Hogpen Pond - 1.0 acres; pH - 6.0; O_2-3 ppm; CO_2-50 ppm; water temperature 77°F; bloom 15 inches

Hogpen Pond was renovated in 1967, restocked with 2,000 channel catfish, and opened to fishing in 1968. The pond is fertilized as needed and restocked annually with 1,000 catfish. The catfish are fed daily with commercial pellets to increase growth. The catfish range in size from 12 to 22 inches and provide good fishing. The O_2 level was low at the time of inspection; however, it was cloudy and raining at the time. If low O_2 continues, stop feeding during long periods of cloudy weather. Fishing pressure had been light during the summer so annual restocking was reduced to 500 fish for 1972.

Recommendations:

1. Continue feeding program, reduce if low O_2 continues during cloudy weather.

2. Continue present management.

3. Restock with 500 channel catfish (fish applied for).

This management program is carried out by a trained wildlife biologist and has been very successful.

Environmental Impact

No adverse environmental effects result from the program except those resulting from managing for specific species and weed control.

Submitted by:

Ronald D. Jones
Fishery Management Biologist

October 26, 1972

Reviewed by:

_____
Regional Supervisor
Division of Fishery Services

Date:

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

Fishery Mgt

IN REPLY REFER TO

15/CFR/ss
11015
28 JAN 1971

Regional Director
U. S. Department of the Interior
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Peachtree - Seventh Building
Atlanta, Georgia 30323

Dear Sir:

The Cooperative Plan for Conservation and Development of Fish and Wildlife at this Base has been in effect for eight years, with the first major revision in February 1968. Your cooperation and assistance have been most beneficial in the maintenance and development of wildlife management programs here at Marine Corps Base, Camp Lejeune.

Under the terms of the Cooperative Plan, an annual meeting is to be held to discuss updating fish and wildlife plans and reviewing accomplishments of the past year. In this regard, I propose that a meeting be set for Tuesday, 23 February 1971 at this Headquarters. If this date is satisfactory to you and your representatives, please so acknowledge in order that specific details of a working agenda can be determined.

A similar letter is being provided to the Executive Director, North Carolina Wildlife Resources Commission.

Your consideration of the above and an early reply is requested.

Sincerely yours,

C. R. BURROUGHS
Colonel, U. S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General

February 10, 1971

Ref: 15/CFR/ss 11015

Commanding General
United States Marine Corps
Camp Lejeune, North Carolina 28542

Dear Sir:

This is to notify you that Mr. Ronald D. Jones, Fishery Management Biologist, Division of Fishery Services, and Donald T. Harke, Wildlife Biologist, Division of Wildlife Services, will attend the meeting scheduled for Tuesday, February 23, 1971, to discuss updating fish and wildlife plans and reviewing accomplishments under the Cooperative Plan Agreement.

The Bureau's past relationship with personnel of Camp Lejeune in developing and maintaining a progressive fish and wildlife management program has been outstanding. We look forward to continued advancement in this mutually beneficial development of the Installation resources and wish you success in the forthcoming meeting.

Sincerely yours,

(sgd) Ernest C. Martin

Ernest C. Martin
Assistant Regional Director

cc:
Project Leader, Fishery Services, Gatlinburg, Tenn.
State Supervisor, DOWS, Raleigh, N. C. w/copy of incoming

AGENDA

ANNUAL CONSERVATION MEETING WITH

STATE AND FEDERAL WILDLIFE OFFICIALS

23 FEBRUARY 1971

TIME	EVENT	REMARKS
1000 - 1015	Meeting convened by LtCol. J. R. FOX, Chairman, Committee for the Conservation of Natural Resources	Welcome aboard and introduction of guests
1015 - 1030	Review of Cooperative Agreement Remarks by Mr. C. F. RUSSELL	Marine Corps Base Conservation Director
1030 - 1050	Review of 1970 Wildlife Programs accomplished, and 1971 Program Plans Mr. C. D. PETERSON	Marine Corps Base Wildlife Technician
1050 - 1110	Review of 1970 Forestry Programs accomplished, and 1971 Program Plans Mr. T. G. COOPER	Marine Corps Base Forester
1110 - 1130	Outdoor Recreational Program of Special Services Colonel G. W. CALLEN	Marine Corps Base Special Services Officer
1130 - 1150	Discussion Period LtColonel J. R. FOX	State and Federal Wildlife Officials
1150 - 1200	Enroute to Base Cafeteria	
1200 - 1230	Lunch	No host luncheon
1300 - 1600	Field Trip	Itinerary Mr. C. D. PETERSON

Enclosure (1)

FROM: Ronald D. Jones, Fishery Management Biologist
Great Smoky Mountains National Park
Gatlinburg, Tennessee 37738

November 29, 1971

TO:

SUBJECT: Chemicals Used In Biological Control Fish Or Vegetation - 1971

Name of Pond or Stream	Chemical	Target	Pounds Used	Ponds Active Ingred.	Acre Feet Treated	Surface Acres	Miles of Stream*
Hendersons	Rotenone	Trash fish ~~Hand Sprayer~~	1 gt.		1 acre (before flooding)		
Ward	Aquathol Plus	~~Hornwort~~ Pondweed ~~Hand Sprayer~~	1 gt.		1.0		
Prince	"	"	"	"	1 gt.	1.0	
Hog Pen	"	"	"	"	1 gt.	1.0	

*'Most ponds treated have small stream above which must be treated. Please include.

FROM: Ronald D. Jones, Fishery Management Biologist
Great Smoky Mountains National Park
Gatlinburg, Tenn. 37738

November 29, 1971

TO: Base Conservation Division
Maintenance Department
Marine Corps Base
Camp Lejeune North Carolina 28542
Attention Charles Peterson

SUBJECT: Information needed for Annual Report 1971

I need this as soon as possible, If you don't have all the facts yet estimate.

		1971	1970
NEW LAKES	Numbers	1	
	Acres	14.0	
RECLAIMED LAKES	Numbers		
	Acres		
TOTAL NUMBER OF LAKES			
RESTRICTED FISHING -	Number of Lakes		
	Number of Acres		
PUBLIC FISHING	Number of Lakes	10	~~9~~ ~~10~~
	Number of Acres	30.5	~~16.5~~ ~~16.5~~ ~~30.5~~
	miles streams	80	80
MAN-DAYS OF FISHING		30,000	25,000
	marine shore	21	21

Thanks

Ron

Bureau of Sport Fisheries and Wildlife
Division of Fishery Services

Annual Project Report 1971
Fishery Management Program

Camp Lejuene US Marine Corps
(Name of Management Area)

Onslow County, North Carolina
(Counties and States in Which Located)

by

Ronald D. Jones
(Name)
Fishery Management Biologist

Description of Area: Camp Lejeune, located in southeast North Carolina, encompasses 170 square miles and has 26,000 surface acres of water, most of which is salt or brackish. Approximately 80 miles of stream lace the installation. Twenty-one miles of marine shore and 10 freshwater ponds provide a variety of angling opportunities. A total of 95,000 acres of land area are managed for fish and wildlife.

Year Fishery Management Program Began: 1963

Number of Lakes and Ponds Under Management: 10 Acres: 30.5

Number of New Lakes and Ponds Developed: 1 Acres: 12.0

Number of Streams Under Management: — Miles: 80

Dates of Visitations: June 21, 1971 Total Days: 1

Persons Contacted (names and titles): Charles Peterson, Wildlife Technician; Carroll Russell, Conservation Director

Total Man-days of Fishing This Year: 30,000 Last Year: 25,000

Is Fishing by the Public Permitted? Yes

MANAGEMENT RECORD

Body of Water			Stocking Record		
Name of Lake, Pond or Stream	Size acres/miles	Species Managed	Species	Number	Average Length (")
Henderson Pond	12	BLG,RSF,LMB,CCF	BLG	8,400	1
			RSF	3,600	1
			CCF	1,200	3
Prince Pond	1	~~BLG,RSF,LMB~~,CCF	CCF	500	3
Hogpen Pond	1	~~BLG,RSF,LMB~~,CCF	CCF	500	3

Henderson Pond washed out, is due to be stocked again in December 1971, but has not been stocked yet (will be stocked same as above).

CHEMICALS USED IN BIOLOGICAL CONTROL

Name of Lake, Pond or Stream	Chemical	Target	Pounds Active Ingred.	Surface Acres or Miles	Acre-Feet Treated
Henderson Pond	Rotenone	trash fish	.4 lbs.	1.0	.5
Ward Pond	Aquathal +	hornel pond-weed	1.3 lbs.	1.0	.5
Prince Pond	Aquathal +	Pondweed	1.3 lbs.	1.0	.5
Hogpen Pond	Aquathal +	Pondweed	1.3 lbs.	1.0	.5

SUMMARY AND RECOMMENDATIONS

Cedar Point Pond - 2.0 acres, pH - 6.5, TH - 34.2 ppm, Water Temp. 92°F.

This pond was renovated in 1965 and opened to fishing in 1967. Angling pressure has been heavy and success has been good.

Seine samples revealed that both bass and bluegill had reproduced in sufficient numbers. The bloom was good and overall, this is a good pond.

Recommendations:

1. Continue fertilization program.

2. Continue present management.

Hickory Pond - 3.5 acres, pH - 6.2, TH - 34 ppm, Water Temp. 89°F.

This pond was built in 1968 (technical assistance furnished by the Soil Conservation Service) and stocked with bass, bluegill and redear sunfish. The pond did not fill with water until 1970 and then after a short time the water dropped to six feet below normal pool. The pond filled in 1971 and at the time of inspection was at normal pool. Seine samples revealed that the bass had reproduced and the fry were three inches long. No bluegill fry were observed, but numerous small and intermediate bluegill were present. Bass up to three pounds had been taken and the adult bluegill were six to seven inches long.

Recommendations:

1. Continue fertilization program.

2. Continue other management practices.

Mild Hammock - 1.5 acres, pH - 7.0, TH - 34 ppm, Water Temp. 92°F.

This pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition since that time. A seine sample revealed that both bass and bluegill had reproduced successfully. The bass fry were from two separate spawning periods as some were less than one inch and some were two inches long. This pond has produced some 7.5 pound bass, and .25 pound bluegill.

Recommendations:

1. Continue fertilization program.

2. Continue present management practices.

SUMMARY AND RECOMMENDATIONS

Cedar Foothills - 2.0 acres, pH - 6.5, TH - 34.5 ppm, Water Temp. 62°F.

This pond was renovated in 1965 and opened to fishing in 1967. Angling pressure has been heavy and acceptable by users.

Water samples revealed that both bass and bluegill had responded to sufficient numbers. The bluegill was good and overall this is a good pond.

Recommendations:

1. Continue rehabilitation program.

2. Continue present management.

Hickory Pond - 3.5 acres, pH - 6.8, TH - 34 ppm, Water Temp. 69°F.

This pond was built in 1958 (Soil Conservation Service) and stocked with bass, bluegill and redear sunfish. The pond did not fill with water until 1959 and then dried up about five times before it was declared to be dry for good in 1962. The pond refilled in 1971 and at the time of examination was at normal pool. Seine samples revealed that the bass had reproduced and the fry were thread fin shad. No bluegill fry were observed, but numerous small and intermediate bluegill were present. Bass up to three pounds had been taken and the adult bluegill were six to seven inches long.

Recommendations:

1. Continue rehabilitation program.

2. Continue present management practices.

Mill Hopper - 1.5 acres, pH - 7.0, TH - 25 ppm, Water Temp. 72°F.

This pond was renovated in 1965 and stocked with bass, bluegill and redear sunfish. The pond has remained in good condition since that time. A seine sample revealed that both bass and bluegill had reproduced successfully. The bass from the preceding periods ranged from nine inches to 12 inches and some were two pounds. This pond has produced some 7.5 pound bass, and .65 pound bluegill.

Recommendations:

1. Continue rehabilitation program.

2. Continue present management practices.

Ward Pond - 1.5 acres, pH - 7.5, TH - 34 ppm, Water Temp. 93°F.

This pond was renovated in 1965 and restocked with bass, bluegill and redear sunfish. Seine samples revealed that both bass and bluegill had reproduced and several eight to twelve inch bass were caught. This pond had weed problems which have been aided by low water levels the last two years, however, treatment was planned.

Recommendations:

1. Continue fertilization program.

2. Control weeds.

3. Continue present management.

Henderson Pond - 12 acres

This pond was under construction at the time of inspection. The pond was finished and stocked with bass, bluegill and redear sunfish. In November a five inch rain occurred and the pond was washed out. The pond is being repaired and fish have been ordered for restocking as soon as possible.

Recommendations:

1. Repair dam.

2. Restock as soon as possible (fish applied for).

Prince Pond, Hogpen Pond, and Power Line Pond could not be reached with the available vehicle so they were not checked.

This management program is carried out by a trained wildlife biologist and has been very successful.

Ronald D. Jones
Ronald D. Jones
Fishery Management Biologist

Reviewed and Approved:

Alex B. Montgomery
Alex B. Montgomery, Regional Supervisor
Division of Fishery Services

cc: W.O. (3); R.O. (1); Jones (1); Camp Lejeune (2)

cc: N.O. (3); P.O. (1); Jones (1); Camp Lejeune (2)

HEADQUARTERS, MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

BBul 11015
15/CDP/mkc
3 Jun 1970

BASE BULLETIN 11015

From: Commanding General
To: Distribution List

Subj: Cooperation in Wildlife Conservation Program for Fishing

Ref: (a) BO 1710.20B

1. Purpose. To provide information pertaining to the base recreational fishing pond program.

2. Information

a. Nine fishing ponds aboard this base are being developed for recreational purposes, and the following ponds are now open for fishing:

	Grid Coordinate
Cedar Point Pond	871281
Mile Hammock Pond	874279
Ward Pond	872286
Hogpen Pond	884301
Power Line Pond	844290
Courthouse Bay Pond	843291
Prince Pond	899310
Hickory Pond	863425

b. The following pond is closed and marked with "no fishing" signs until the fish are large enough to harvest:

	Grid Coordinate
Oak Pond	888287

c. Base fishing permits are required to fish in these ponds and may be obtained from the Base Game Protector as outlined in reference (a). (Note: Persons under 16 years of age allowed access to the base may fish without a permit).

d. The dumping of chemicals or detonating explosives in these ponds can delay, or destroy, the fishing recreation for all personnel. While it

is not the intent of this Bulletin to interfere with the training of personnel in water treatment, personnel should not run chlorine back into the ponds or dump excess hypochlorite or any other chemical in these ponds.

3. Pond Regulations. The following regulations apply concerning fishing in the authorized ponds listed in paragraph 2.a.:

a. It shall be unlawful for any person to take fish by any method except with hook and line, rod and reel, or by casting. Crickets, shrimp, worms, cut bait, and artificial baits are the only baits permissible for use in these ponds.

b. It is prohibited to fish with minnows or release any species of fish into these ponds.

c. Trotlines and set-hooks may not be used. Set-hooks are defined as any hook and line which is attached at one end only to a stationary or floating object which is not under the immediate control and attendance of the person using such a device.

d. The creel and size limits shall be eight bass of not less than ten inches in length and creel limit of ten channel catfish per day per person. All bass of lesser size shall be returned alive and unharmed to the ponds.

4. Action

a. Unit commanders will instruct personnel as to the contents of this Bulletin, with particular stress to avoid chemical contamination and detonating explosives in these ponds.

b. The Base Provost Marshal will apprehend all fishing violators, personnel fishing in the closed pond, and anyone detonating explosives or introducing chemicals into any of the nine ponds.

5. Self-cancellation. 1 December 1970.

James M. Callender

JAMES M. CALLENDER
Chief of Staff

DISTRIBUTION: "A" plus PMO (300)

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Annual Project Report

FISHERY MANAGEMENT PROGRAM

Camp Lejeune
Onslow County, North Carolina
U.S. Marine Corps
Date of Visit: June 3, 1969
Date of Report: September 18, 1969

Annual Project Report

Fishery Management Program

Camp Lejeune
North Carolina

Fishery Management Biologist Frank R. Richardson visited Camp Lejeune on June 3, 1969 to provide technical assistance in fishery management in the angling waters of this installation. Mr. Charles Peterson, Wildlife Technician - Office of the Provost Marshall, had been contacted and instructed to carry out several field operations prior to the visit. Mr. Peterson and his staff had conducted thermal, chemical, and population surveys of the ponds under management. The results of these surveys were analyzed and management for each water for 1969 was reviewed. Stocking applications for supplementary releases and for new ponds have been processed.

Camp Lejeune has 26,000 surface acres of water, most of which are salt and brackish. Approximately 80 miles of stream, fresh and brackish, lace the Base. The Atlantic shoreline measures 21 miles, and 222 shoreline miles of bay-inlet-estuary are within the installation and offer a variety of angling opportunities. Approximately 150,000 man-days of fishing by civilians and military personnel took place at Camp Lejeune in 1968.

The following comments concern the analyses of field studies of the individual ponds under management. Recommendations are listed for each pond.

Mild Hammock - 1.5 acres, pH - 7.0

This pond was renovated in 1965 and restocked with bass, bluegill and redear. Fertilization and liming schedules have been carried out to increase fish production. The pond was opened to angling in 1967 after bass had spawned successfully. Fishing success has been rated good and angling pressure has been heavy. Liming has effectively held pH and total hardness at desirable levels.

Bass and bluegill reproduced successfully in 1969 and adult fish exhibit good condition. The pond appeared in excellent condition and management practices are paying off with good fishing.

Recommendations:

1. Continue fertilization program.

2. Renew liming if pH falls below 6.5.

3. Maintain all present management procedures including water chemistry monitoring and maintain records for the biologist's review during annual inspection.

Ward Pond - 1.5 acres, pH - 6.5

Ward Pond was renovated in 1965, restocked with bass, bluegill and redear, and opened to fishing in 1967 following the successful spawning of bass. Fertilizing and liming have been carried out to increase fish production. Angling pressure has been heavy and fishing is considered good. Bass and bluegill spawned successfully in 1969.

Recommendations:

1. Continue to fertilize as directed.

2. Renew liming if pH falls below 6.5.

3. Maintain all present management procedures including creel census and water chemistry surveys.

Cedar Point Pond - 2.0 acres, pH - 6.7

This pond was renovated in 1965, restocked with bass, bluegill and redear, and opened to fishing in 1967 after the bass had reproduced successfully. The pond is fertilized and limed when needed to increase fish production. Angling pressure is heavy and success rated good. Bass and bluegill reproduced successfully and adult fish exhibited good condition. The management practices are considered successful. This pond is a good example of a small, shallow, acid pond that can provide sport fishing when properly managed.

Recommendations:

1. Continue to fertilize.

2. Reinitiate liming if pH falls below 6.5.

3. Maintain all management procedures including periodic water chemistry sampling.

Hog Pen Pond - 1.0 acre, pH - 8.0

Hog Pen Pond was renovated in 1967, restocked with 2,000 channel catfish, and opened to fishing in 1968. The pond is supplementally stocked each year. Commercial fish food pellets are fed daily to increase fish production. The fish have exhibited good growth and provide good fishing. Fertilization and liming are carried out. One hundred bass were stocked in 1968 to help control Gambusia which were very abundant and feeding on the fish pellets. The bass have attained outstanding growth and spawned successfully in 1969. The Gambusia are not as plentiful, and the bass apparently are not affecting the success of the catfish angling.

Recommendations:

1. Continue feeding program.
2. Fertilize as needed.
3. Renew liming if pH falls below 6.5.
4. Restock with 1,000 channel catfish (fish applied for).
5. Maintain records on catch success and other management procedures.
6. Keep constant check for possible bass predation on catfish.

Prince Pond - 1.0 acre, pH - 6.5

Prince Pond was renovated with rotenone in 1967 and restocked with 2,000 channel catfish. The pond was opened to angling in 1968 and produced good fishing. It is fertilized and limed as needed, and is supplementally stocked annually with 1,000 catfish. The catfish are fed daily with commercial pellets to increase growth. In 1968, 100 bass were stocked to control a very abundant Gambusia population. These bass attained outstanding growth and spawned in 1969, and are apparently utilizing the Gambusia without serious predation on catfish.

Recommendations:

1. Continue feeding catfish.
2. Continue to fertilize.
3. Renew liming if pH falls below 6.5.
4. Restock with 1,000 channel catfish (fish applied for).
5. Maintain records on management procedures and creel results for review by Bureau biologists.
6. Keep constant check for bass predation on catfish.

Oak Pond - 0.5 acre, pH - 6.8

Oak Pond was renovated and stocked with channel catfish in 1967. Field investigations in 1968 indicated that the 1967 stocking failed. Mr. Peterson indicated that the 1967 fish were in poor condition when released, and some dead fish were observed the day after stocking. The pond was restocked again in 1968 with channel catfish and again the plant failed. Every effort will be made to determine the reasons why catfish have not survived prior to reintroduction of fish into the pond.

Recommendations:

1. Hold out of fish production in 1969.

2. Continue liming program when pH falls below 6.5.

3. Determine possible causes for failure of catfish stockings. Initiate complete chemical analyses in 1970.

Power Line Pond - 2.0 acres, pH - 7.0

This pond was renovated with rotenone and restocked with bass, bluegill and redear in 1968. The pond was fertilized and limed when needed. Bass and bluegill spawned successfully in 1969 and the population has developed sufficiently to harvest. Shallow water areas and presence of debris interfere with proper management.

Recommendations:

1. Continue to fertilize.

2. Renew liming when pH falls below 6.5.

3. Open to fishing as bass and bluegill have developed sufficiently for harvest.

4. Maintain management records for our biologist's review (including chemical analyses).

5. Continue efforts to deepen pond and remove debris from shoreline and lake bed.

Court House Bay Pond - 1.5 acres, pH - 7.5

In 1967, the average depth in Court House Bay Pond was increased from less than one to four feet. Following this operation, the pond was stocked with bass, bluegill and redear. Field studies in 1968 indicated that the plant was unsuccessful; however, 1969 investigations revealed that both bass and bluegill had survived and reproduced. Following deepening, the pond remained extremely turbid. Treatment with aluminum sulfate and lime has cleared the pond and allowed for normal pond management.

Recommendations:

1. Continue to fertilize.

2. Renew liming when pH falls below 6.5.

3. Close to fishing until after the bass reproduce in 1970.

4. If turbidity returns, treat with aluminum sulfate as directed.

5. Maintain management records for review by Bureau biologist.

Hickory Pond (New Pond) - 3.5 acres, pH - 7.0

Hickory Pond was built in 1968 (technical assistance furnished by Soil Conservation Service) and stocked with bass, bluegill and redear. During the 1968-69 winter, the pond filled only to about one surface acre. This is thought to be due to extremely dry weather conditions which have persisted in this area for the past four years, and the resulting lowering of the water table. There are no apparent leaks in the dam, and the watershed is sufficient for natural drainage to maintain a full pond. It is generally assumed that with normal rainfall the pond will fill, however, this should be verified.

Recommendations:

1. Fertilize as instructed.

2. Lime if pH falls below 6.5.

3. Close to fishing until investigations by our biologists reveal that the fish population has developed sufficiently for harvest.

4. Request examination of dam and pond site by a Soil Conservation Service specialist for leaks or excessive leaching of pond water.

5. Continue all other management activities.

Summary

In summarizing our report in 1968, Charles Peterson, Base Wildlife Technician, was complimented for the outstanding manner in which he was directing the fish and game program at Camp Lejeune.

In May of 1969, Camp Lejeune was selected from 241 competing installations to receive the 1968 Secretary of Defense Conservation Award. We wish to sincerely congratulate the Installation for this achievement which could only have been accomplished through the full support of the Command. Certainly, all those involved in the fish and wildlife management program are to be highly commended.

Frank R. Richardson
Fishery Management Biologist

Reviewed:

Alex B. Montgomery
Regional Supervisor
Division of Fishery Services

Approved:

Ernest C. Martin
Assistant Regional Director

cc:
W.O. (3); R.O. (2); Camp Lejeune (2)

Copy to Jack S. Frank R. Fishery Services

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

IN REPLY REFER TO

4A/LEK/mkc
5420/4
14 FEB 1969

From: Commanding General
To: Regional Director, U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, Peachtree-Seventh Building, Atlanta, Georgia 30323

Subj: Conservation and Development of Fish and Wildlife, Marine Corps Base, Camp Lejeune, North Carolina; meeting concerning

Ref: (a) Cooperative Plan 1-63

1. The annual meeting of the Marine Corps Base Conservation Committee, with the representatives of the Executive Director, Wildlife Resources Commission of North Carolina, and the Regional Director, U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, will be held on 20 March 1969, in accordance with reference (a). The purpose of the meeting is to review conservation programs accomplished in 1968, and to discuss conservation programs for 1969.

2. It is requested a representative of your Bureau attend this meeting, which will commence at 10:00 a.m. in the Conference Room, Building No. 1 (Marine Corps Base Headquarters). Representatives of the Naval Facilities Engineering Command, Norfolk, Virginia, have also been invited.

3. Your representative is requested to contact the Assistant Chief of Staff, Facilities (telephone extention 2544) if billeting or transportation is required.

Held for Grady

~~Jack~~ Frank
Please take care of this
AH

R. McC. TOMPKINS

called Pete 3/5
wants Fish. Serv there.
5 1/2 AC
meet-Bob

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

IN REPLY REFER TO

27/CDP/th
4 April 1969

Mr. Frank Richardson
Fisheries Management Specialist
Bureau of Sports Fisheries and Wildlife
Great Smoky Mountains National Park
Gatlinburg, Tennessee 37738

Dear Frank:

We certainly were happy to have you visit with us and attend the annual meeting. Since you had to leave early and were unable to go on the tour, I would like for you to maybe plan an extra day stay here when you check the fish ponds this summer.

I would like for us to look at several areas which are potential sites for new ponds. The folder you left in my car was given to Mr. Jack Larimer as both of us thought it belonged to him. I called Mr. Larimer and he said that he had already forwarded it to your section in Atlanta.

With best wishes and kindest personal regards, I am

Sincerely,

Charles D. Peterson
Wildlife Technician

Sincerely,

Charles D. Peterson
Wildlife Technician

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

IN REPLY REFER TO
4D/DCH/rlp
5420/4:11015
8 Jul 1968

From: Base Commander
To: Commandant of the Marine Corps (Code COC)

Subj: Fish and Wildlife Report; submission of

Ref: (a) MCO 11015.2A

Encl: (1) Annual Fish and Wildlife Report (Report Symbol DD-11015-S)

1. In compliance with reference (a), enclosure (1) is submitted.

FREDRIC O. OLSON
By direction

Blind copy to:
PMO (Base Game Protector)

(Report Symbol DD-11015-3)
8 Jul 1968

ANNUAL FISH AND WILDLIFE REPORT

1. State, activity, and category

NORTH CAROLINA, MARINE CORPS BASE, CAMP LEJEUNE I

2. Cooperative Management Plan

Date completed 19 June 1963, or
Expected date of completion updating scheduled 3rd quarter FY-69

3. Extent of land and water areas in the fish and wildlife program.

Land acreage	65,000
Water acreage	26,000
Miles of stream	80
Miles of shoreline	21 Marine 122 stream and bay

4. Degree of public access: Use the following legend and place the appropriate letters in the blanks for hunting, fishing, and other:

A. Generally open with controlled public access within manageable quotas.
B. Installation personnel and guests.
C. Installation personnel only.
D. Closed. (Specify whether for hunting, fishing, or other).

For hunting	A	
For fishing	A	
For other outdoor recreation	A	(Includes other outdoor recreation; i.e., camping, picnicking, winter sports, etc.; not swimming pools, ball parks, golf courses, etc.)

5. Estimated number of visitors granted access for:

Hunting	1,151751
Fishing	150,000
Other outdoor recreation	5,380
Total	157,131

ENCLOSURE (1)

6. Problems and potential problem areas: Water pollution

7. N/A

September 13, 1968

Commanding Officer
Camp Lejeune
North Carolina 28542

Dear Sir:

Attached are two copies of a Summary Report submitted by Fishery Management Biologist Frank R. Richardson on his inspection of the fishing waters located on Camp Lejeune.

We would like to take this opportunity to express our appreciation for the cooperation and courtesy extended Mr. Richardson during his visit to your Installation.

Sincerely yours,

Ernest C. Martin
Assistant Regional Director

Attachments 2

cc:
Frank Richardson

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Summary Report

FISHERY MANAGEMENT PROGRAM

Camp Lejeune
Onslow County, North Carolina
U.S. Marine Corps
Date of Visit: June 20-21, 1968
Date of Report: September 12, 1968

Summary Report

Fishery Management Program

Camp Lejeune
North Carolina

On June 20-21, 1968, Fishery Management Biologist Frank R. Richardson and Biological Aid John L. Boaze visited Camp Lejeune to conduct investigations on the Base fishing waters. Mr. Charles Peterson, Wildlife Technician, of the Office of the Provost Marshal was contacted. Each of the eight small ponds under management was checked.. Mr. Peterson and Marine Corps personnel assigned to the Fish and Wildlife Section assisted the writer during the field investigations. A field trip by boat was taken on Little River and into several of the fresh water streams that flow into Little River from the Base. Little River, which divides the Base, is saline and marine fish inhabit the area within station boundaries. The several fresh water streams that flow into Little River are brackish near their mouth and both fresh and salt water fish are found. In general, these areas receive light angling pressure, provide fair to excellent fishing (seasonal because of the migratory habits of certain marine fish), and are accessible almost exclusively by boat.

The Base has 26,000 surface acres of water, most of which are salt and brackish. Some 80 miles of streams, fresh and brackish, lace the Installation. The ocean shoreline measures 21 miles and 222 shoreline miles of bay-inlet-estuary type are within the Base boundary. It is estimated that there are over 150,000 man-days of fishing at Camp Lejeune during the year.

The following comments concern the results of the field inspection of the individual ponds. Recommendations are listed for each pond.

Mild Hammock - 1.5 acre, pH - 8.4 (3:45 p.m.), TH - 51 ppm, Total Alkalinity - 34 ppm, DO - 13 ppm, pH - 6.6 (9:45 a.m.)

This pond was renovated in 1965 and stocked with bass, bluegill, and redear. Fertilization and liming schedules have been carried out to increase the fish production. The pond was opened to fishing in 1967 after the bass had spawned successfully. Fishing pressure has been heavy and success has been rated as good. Liming has held the pH and total hardness in desirable ranges.

Both bass and bluegill were found to have spawned successfully in 1968. Adult fish appeared to be in good condition and few intermediates were present. Dry conditions had lowered the water level over a foot below normal. The pond appeared to be in excellent condition and all management practices are paying off.

Mild Hammock Recommendations:

1. Continue fertilization program.

2. Use hydrated lime with fertilizer treatments as recommended if pH falls below 6.5.

3. Maintain all management procedure records including creel census for review during annual inspection.

Ward Pond - 1.5 acre, pH - 7.3 (2:50 p.m.), TH - 34 ppm, DO - 13 ppm, Total Alkalinity - 27 ppm, water temperature - 84°F.

Ward Pond was renovated in 1965 and restocked with bass, bluegill, and redear. Fertilizer and lime have been applied to increase fish productivity. The pond was opened to fishing in 1967. Fishing pressure has been heavy and angling success has been good. The normal water level was down about a foot at the time of inspection. Bass and bluegill young-of-the-year were very abundant. Adult fish were in good condition and few intermediate size bluegill were present. Management practices in Ward Pond are providing good fishing in a small body of water which otherwise would offer little or no angling opportunities.

Recommendations:

1. Continue to fertilize.

2. Renew liming if pH falls below 6.5.

3. Maintain all management procedures including creel census for review by our biologist during the annual inspection.

Cedar Point Pond - 2.0 acres, pH - 7.3 (4 p.m.), TH - 34 ppm, DO - 12 ppm, Total Alkalinity - 20 ppm, water temperature - 94°F.

This pond was renovated in 1965 and restocked with bass, bluegill, and redear. The pond was fertilized and limed to increase fish production. It was opened to angling in the summer of 1967. Fishing pressure has been heavy and success is rated good. The present water level is approximately a foot below normal. Young-of-the-year bass and bluegill were present in abundant numbers. Adult bass and bluegill were in good condition and few intermediate size bluegill were present. The management program for the pond is considered successful as it is another example of a small, shallow acid pond that is now providing fishing.

Cedar Point Pond Recommendations: LMB-BG POND

1. Continue to fertilize.

2. Renew liming if pH falls below 6.5.

3. Maintain all management procedure records including creel analysis for review during the annual inspection.

Hog Pen Pond - 1.0 acre, pH - 8.2 (10 a.m.), TH - 68 ppm, DO - 14 ppm, Total Alkalinity - 48 ppm, water temperature - 83°F.

Hog Pen Pond was renovated in 1967 and restocked that fall with 2,000 channel catfish. Samples indicated that the catfish have reached an average length of 10.6 inches and are in excellent condition. Commercial fish food is fed daily and the growth exhibited by the catfish indicates excellent utilization of the food. Gambusia are very abundant and undoubtedly are preyed upon by the catfish. The fertilizing and liming program has helped enrich the pond.

Recommendations: CC

1. Open pond to fishing in July. Establish a creel of eight to ten fish. Do not set size limits.

2. Continue catfish feeding program.

3. Continue to fertilize and renew limingiif pH falls below 6.6.

4. Restock with 1,000 channel catfish this fall (fish applied for). 10-10-68 stocked

5. Stock 100 bass to control Gambusia (fish applied for).

6. Maintain records of management success and creel results for review of our biologist.

Prince Pond - 1.0 acre, pH - 8.7 (11 a.m.), TH - 68 ppm, DO - 14 ppm, total alkalinity - 48 ppm, water temperature - 85°F.

Prince Pond was rotenoned in the summer of 1967 and restocked with 2,000 channel catfish. The pond is fertilized regularly and limed when the pH falls below 6.5. The catfish are fed commercial pellets and are growing at a satisfactory rate. Gambusia are abundant.

Prince Pond Recommendations:

1. Open to fishing when fish average from 10-12 inches (probably in August). Establish creel limits of eight to ten fish. Do not set size limits.

CC

2. Continue catfish feeding program.

3. Continue fertilization program and lime if pH falls below 6.5.

4. Restock with 1,000 channel catfish this fall (fish applied for). 10-10-68 stocked

5. Stock 100 bass to control Gambusia (fish applied for).

6. Maintain records on management procedures and creel results for review by our biologists.

Oak Pond - 0.5 acre, pH - 6.3 (5 p.m.), TH - 51 ppm, DO - 12 ppm, Total alkalinity - 27 ppm, water temperature - 88°F.

Oak Pond was reclaimed and stocked with channel catfish in 1967. Population sampling during the inspection suggests that the stocking was not successful. Mr. Peterson indicated that when the stocking was done many of the catfish were sick and the following day dead fish were observed. The pond will be reprogrammed for stocking in 1968.

Recommendations:

CC

1. Restock with channel catfish and establish a feeding program (fish applied for). 10-10-68 stocked

2. Close to fishing until fish reach a harvestable size (10-12 inches).

3. Fertilize and lime to maintain bloom, discontinue liming when pH reaches 7.0.

Power Line Pond - 2.0 acres, pH - 10.0 (4:30 p.m.), pH - 7.1 (9:30 a.m.), DO - 15 ppm, total alkalinity - 100 ppm

Power Line Pond was treated with rotenone in the summer of 1967 and restocked with bass, bluegill, and redear. The pond was limed and fertilized. Seine samples captured only Gambusia. The pond will be restocked in 1968.

Power Line Pond Recommendations:

1. Stock with bass, bluegill, redear, and channel catfish (fish applied for).

Stocked BG&RE cc 10-10-68

2. Maintain fertilization program.

3. Initiate liming procedures if pH falls below 6.5.

4. Deepen pond and remove obstructions from shoreline and lake bed.

5. Close to fishing until checks indicate fish have reached a harvestable size.

Court House Bay Pond - 1.5 acre, pH - 5.1 (4:30 p.m.), TH - 17.1 ppm, DO - 12 ppm, total alkalinity - 20 ppm, water temperature - 94°F.

During the past year this pond was deepened with a dragline. Considerable debris was removed from the lake and shoreline. The pond has remained extremely turbid since this operation (late summer of 1967). Bluegill were stocked in the fall of 1967 and bass in May 1968. Field studies indicated that neither bluegill nor bass survived. Gambusia, usually present in all ponds on the Base, are absent. It is unlikely that turbidity is the direct cause of this. However, a low pH reading does indicate a possible reason for mortality. Mr. Peterson has been given directions for eliminating the turbidity and plans are being made to restock.

Expanded in 1969

Recommendations:

cc Al Saltzberg SK

1. Eliminate high turbidity as discussed.

Expand in 1970

2. Fertilize and lime as recommended. Discontinue liming when pH reaches 7.0.

3. Restock with channel catfish (fish applied for).

4. Feed channel catfish as directed by feeding chart.

NEW LAKE

A new lake estimated to have four surface acres is planned. This lake, to be constructed during the summer of 1968, should be ready for stocking in the fall.

Summary Report Camp Lejeune, North Carolina September 12, 1968

Recommendations:

1. Stock with bass, bluegill, redear, and channel catfish (fish applied for).

2. When pond fills, initiate fertilization program.

3. If pH is below 6.5, apply hydrated lime with fertilizer until pH reaches 7.0.

4. Prior to impoundment, eliminate any fish life in watershed runoff area.

5. Establish plant cover on exposed areas as soon as possible.

6. Notify this office of impoundment date as soon as possible.

Summary:

Mr. Peterson is to be complimented for the outstanding job he is doing with the management of the eight small ponds. The attention and dedication to following out our management recommendations is providing good pond fishing from these limited resources. We feel that his assignment as a full-time wildlife technician is contributing substantially to the fish and game program at Camp Lejeune.

Frank R. Richardson
Frank R. Richardson
Fishery Management Biologist

Reviewed:

R. T. Webb
Robert T. Webb
Regional Supervisor
Division of Fishery Services

Approved:

Ernest C. Martin
Ernest C. Martin
Assistant Regional Director

cc:
W.O. (3); R.O. (1); Frank Richardson (1); Camp Lejeune (2)

Charles Peterson
Wildlife Tech.

11/20/68

Dear Pete,

Annual report time again - need some info.
Just fill in the blanks. Frank

Estimated man days of fishing 1968 ~~[illegible]~~ 22,500
was 29,000 in 1967 (This included eel water)

Potenone treatments:

Gallons used 1½; estimated acre ft 1.5; name of lake
Prince Pond 1.0 acre, Oak Pond .5 acre

Aquatic weed control

Gallons of chemical (name); esti. acre or surface treated;
name of lake. Aquathol Plus - 1 gal - 1.5 A.

Pete - also give me details on the new lakes, stocking dates, rot. treat., surface acres, anything else. Thanks again.
Missed you in Baltimore

F.

(Over)

Frank:

We have construction of the new pond to the point that we are ready to stock fish in it. We treated the 24 Oct 1968 with 1 gal. rotenone. Also, the water has been properly fertilized and limed.

I believe that when the pond is completely filled with water it will be approximately 5½ acres in size. We constructed this pond under SCS specification and I think it will be a very nice addition for our fishery management program.

Congratulations on your new position.

Yours Truly,

Charles Peterson

7-19-67

Pete called [redacted]

found BG in
Powes Line Pond

had fish kill in Hog Pen
Pond - lost 8Z C Cats - low
D.O. solved with superchlorate
Quick thinking - good!

New Pond will be on
main road into base - 5A

9/30 called Pete they are still working
on 5A lake.

December 14, 1967

Commanding Officer
Camp Lejeune
North Carolina 28542

Dear Sir:

Attached are two copies of a Progress Report submitted by Fishery Management Biologist Frank R. Richardson on his inspection of the fishing waters at Camp Lejeune.

We wish to take this opportunity to express our appreciation for the courtesy extended our biologist during his visit to your Installation.

Sincerely yours,

(sgd) Ernest C. Martin

Ernest C. Martin
Assistant Regional Director

Attachments 2

cc:
Frank Richardson

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Progress Report

FISHERY MANAGEMENT PROGRAM

Camp Lejeune
Onslow County, North Carolina
U. S. Marine Corps
Date of Visit: September 14, 1967
Date of Report: December 13, 1967

Progress Report

Fishery Management Program

Camp Lejeune
North Carolina

This report supplements a Summary Report prepared earlier in the year. On September 14, 1967, Fishery Management Biologist Frank Richardson visited Camp Lejeune to inspect several ponds that had recently been renovated by the Base Fish and Wildlife Coordinator Charles Peterson and his staff. Mr. Peterson was unable to accompany the biologist during the inspection, however, Gunnery Sergeant Thomas Hughes, his Chief Assistant, was assigned to this detail. Prince Pond, Oak Pond, Power Line Pond, and Court House Bay Pond were visited. Sergeant Hughes who was present during the renovation operation indicated that all species known to be present were affected. The ponds were treated at a rate of one gallon of rotenone to the acre foot. These ponds are being restocked as follows: Prince Pond, 2,000 channel catfish; Oak Pond, 1,000 channel catfish; Power Line Pond, 200 bass, 2,000 bluegill and redear; Court House Bay Pond, 150 bass, 1,500 bluegill and redear. The catfish ponds are to be limed, fertilized, and fed fish pellets. The bass-bluegill ponds are to be limed and fertilized. Mr. Peterson is familiar with feeding and fertilizing programs.

Following the pond inspections, stocking release dates were given to our Bureau hatcheries.

Frank R. Richardson
Frank R. Richardson
Fishery Management Biologist

DEC 14 1967

Reviewed:

Robert T. Webb
Robert T. Webb, Regional Supervisor
Division of Fishery Services

DEC 14 1967

Approved:

Ernest C. Martin
Ernest C. Martin
Assistant Regional Director

DEC 14 1967

cc:
W. O. (3); R. O. (1); Richardson (1); Camp Lejeune (2)

August 10, 1967

Commanding Officer
Camp Lejeune
North Carolina 28542

Dear Sir:

Attached are two copies of a Summary Report submitted by Fishery Management Biologist Frank R. Richardson on his inspection of the fishing waters at Camp Lejeune.

We wish to take this opportunity to express our appreciation for the courtesy extended our biologist during his visit to your Installation.

Sincerely yours,

James R Fielding
Assistant Regional Director

Attachments 2

cc:
Frank R. Richardson

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Summary Report

FISHERY MANAGEMENT PROGRAM

Camp Lejeune
Onslow County, North Carolina
U. S. Marine Corps
Date of Visit: June 14-15, 1967
Date of Report: July 28, 1967

Summary Report

Fishery Management Program

Camp Lejeune
North Carolina

On June 14-15, 1967, Fishery Management Biologist Frank R. Richardson contacted Mr. Charles Peterson, Chief Base Game Protector and Fish and Wildlife Coordinator of the Office of the Provost Marshal to conduct checks of the Installation's managed fishing waters. Mr. Peterson and Gunnery Sergeant Thomas Hughes assisted during these investigations. Following the survey, a meeting was held with Colonel W. W. Stegemerten, Post G-4, to discuss the findings and management recommendations. Mr. Peterson and Sergeant Hughes attended the meeting.

A comprehensive discussion was held with Mr. Peterson and Sergeant Hughes concerning each pond now under active management. Results and future management recommendations were discussed at length.

Mild Hammock Pond - 1.5 acre

6/14/67: pH - 9.8 (2 p.m.), TH - 18 ppm, water temp. - 84°F.
6/15/67: pH - 8.2 (11 a.m.), water temperature - 82°F.

This pond was reclaimed in January of 1965, stocked with bluegill and redear sunfish in the fall of 1965 and with bass in the late spring. Fertilization and liming are both carried out to increase the productivity of the lake. Effects of the extended dry spell were evident as the pond was one to two feet below normal level. Population checks indicate that the bass spawned successfully for the first time and were very abundant. Mr. Peterson in a later check on June 16, 1967 found an abundant population of bluegill fry.

In addition, Gambusia and golden shiners are present in the small pond. Adult bass and bluegill exhibited good growth. The liming program was found to be very successful and is no longer needed, therefore, all liming has been discontinued. A plankton bloom was evident with water depth visibility to 14 inches.

Mild Hammock Pond Recommendations:

1. Open to fishing.

2. Continue fertilization program.

3. Use hydrated lime at 25 pounds per acre if pH falls below 6.5.

4. Maintain all management procedure records and creel census records if possible for review byyour biologists during future visits.

Ward Pond - 1.5 acre, pH - 6.8 (2:30 p.m.), TH - 22 ppm, water temp. - 85°F.

This pond was set up under the same management procedure as Mild Hammock Pond, reclaimed, and stocked in 1965. The water level of the pond was down one to two feet which left an estimated surface acreage of .75 acres. Maximum pond depth appeared to be about four feet during the inspection. Population investigations with large and small seines were inconclusive.

Mr. Peterson reported via mail on July 7 that bluegill had spawned.

During the first week in June of this year, the pond was effectively treated with Aquathol for aquatic weed control.

Several adult bass were examined after being caught. They exhibited fair condition and were from eight to nine inches long. At this length they may not have reached sexual maturity.

Recommendations:

1. Continue to fertilize as needed.

2. Lime at 25 pounds per acre if pH falls below 6.5.

3. Transfer 50 to 100 bass fry from Mild Hammock Pond to Ward Pond. (Mr. Peterson carried out this recommendation on June 16 as reported to this office by mail.)

4. Open to fishing with regulations as discussed with Mr. Peterson.

Cedar Point Pond - 2.0 acres

6/14/67: pH - 8.3 (12:45 p.m.), TH - 13 ppm, water temp. - 83°F.
6/15/67: pH - 6.7 (10 a.m.)

Though the water level was down about one foot from normal level, this pond lost little of its surface acreage. Adequate reproduction of bass and bluegill was reported to the writer by Mr. Peterson via a letter dated July 7. Mr. Peterson believed that the actual bass spawning occurred in late June. Seining checks on June 14 indicated that neither bass nor bluegill had spawned. The fertilization and liming programs have been successful. The plankton bloom cut out depth visibility at 12 inches. The adult population of bass and bluegill exhibited good condition.

Like Ward and Mild Hammock, this pond was set up in 1965 following reclaiming and restocking.

Recommendations:

1. Open to fishing with regulations as discussed with Mr. Peterson.

2. Continue to fertilize as needed,

3. Resume liming if pH falls below 6.5 at 25 pounds per acre.

Hog Pen Pond - 1.0 acre, pH - 6.8 (3:40 p.m.), TH - 14 ppm, water temperature - 84°F.

The normal water level is down two to three feet. Population investigations turned up one 5-inch channel catfish and an abundance of Gambusia. The liming and fertilization programs have paid off as both a plankton bloom and pH were at desired levels. Catfish pellets were being fed but it could not be determined if the catfish were getting all the food or if the very abundant Gambusia were utilizing it. The pond bottoms of many of these sandhill lakes are characterized by the presence of an "organic ooze" about the consistency of pea soup. Much of the pond bottom of Hog Pen Pond exhibited this condition. Whenever fish food was broadcast over this type bottom it likely sank into the "ooze" and would not be available to fish.

Hog Pen Pond Recommendations:

1. Restock with 2,000 fingerling catfish (fish applied for).

2. Continue fertilization and lime at 25 pounds per acre if pH falls below 6.5.

3. Continue feeding program but broadcast pellets over farm bottom (refer to feeding chart for amounts).

4. Open to fishing when fish average 10-12 inches long.

Prince Pond - 1.0 acre, pH - 8.7 (4 p.m.), TH - 22 ppm, water temp. - 87°F.; Oak Pond - .5 acre

These two ponds are to be reclaimed with rotenone and set up as channel catfish ponds (fish applied for). The undesirable vegetation (water-lillies and a spike rush) are to be treated with herbicides as discussed with Mr. Peterson. Pond margins are to be cleared to facilitate fishermen access and for fishery management investigations. Fertilization and liming to produce plankton bloom and desirable pH and hardness should be initiated following rotenone treatment.

Power Line Pond - 2.0 acres; Court House Bay - 1.5 acre

These two ponds are to be reclaimed by Mr. Peterson and set up as bass-bluegill ponds (fish applied for). Fertilization and liming will be carried out to provide desirable ranges of plankton bloom and pH. Ponds and pond edges are to be cleared for access by anglers and for management practices. Fishing will be prohibited until recommendations are made by one of our biologists.

Summary

The assignment of Mr. Peterson as a full-time game and fish coordinator is paying dividends to the sportsmen who take the advantage of the wildlife program he directs. He is to be complimented for the job he is doing. His enthusiasm and attention in following our directions in fishery management should help provide good fishing.

Summary Report Camp Lejeune, North Carolina July 28, 1967

Four ponds have been recommended for reclamation and will be included in the active fishery management program. Two ponds are for channel catfish and two are bass-bluegill ponds. Fishing in these waters likely will be opened in 1968. Mr. Peterson is to feel free to call on this office for any technical assistance needed in preparing these ponds for stocking.

The proposed development of a 200-acre lake at the site of the old Wallace Creek Grist Mill Lake is still in the planning stage. However, money is not available at this time for construction - some $80,000 would be required for this project. If and when funds become available for this project, we request notification in order that proper provisions can be presented that are necessary for good lake fishery management.

Frank R Richardson

Frank R. Richardson
Fishery Management Biologist
AUG 10 1967

Reviewed:

Robert T. Webb

Robert T. Webb
Regional Supervisor
Division of Fishery Services
AUG 10 1967

Approved:

James R. Fielding

James R. Fielding
Assistant Regional Director
AUG 10 1967

cc:
W. O. (3); R. O. (1); Frank Richardson (1); Camp Lejeune (2)

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Summary Report

FISHERY MANAGEMENT PROGRAM

Camp Lejeune
Onslow County, North Carolina
U. S. Marine Corps
Date of Visit: June 16-18, 1966
Date of Report: July 15, 1966

Summary Report

Fishery Management Program

Camp Lejeune
North Carolina

On June 16-17, Lieutenant Colonel Sullivan, Provost Marshal; Major Jenkins, Assistant Provost Marshal; and Charles Peterson, Chief Post Game Protector and Fish and Wildlife Coordinator were contacted by Fishery Management Biologist Alex B. Montgomery and assisted in checking the Installation's fishing waters. Prior to leaving the Post, the results of the inspection and the future of the fishery management program were discussed with Major General H. Hickerson, Jr., Commanding General; Colonel Dillow, Post G4; Lieutenant Colonel J. D. Smith, Special Services Officer; and Lieutenant Colonel Nader. Following is a brief discussion of the conditions which were found:

Mild Hammock Pond - 1.5 acres, pH 6.0, TH 13 ppm; Ward Pond - 1.5 acres, pH 5.3, TH 10 ppm; and Cedar Point - 2.0 acres, pH 5.4, TH 7 ppm

The reclamation of these three small ponds was completed in January of 1965, which was too late for their being stocked in the normal manner. As a result largemouth bass fingerlings were stocked in the spring of 1965 and bluegill and redear this past fall at a rate requiring fertilization. Seine analysis during this visit failed to produce reproduction of any of the stocked species and revealed that the individuals are small (largemouth bass 6" in length and bluegill and redear from 3 to 5" in length) and exhibiting extremely slow growth. In addition, a number of golden shiners and Gambusia were taken. It is felt that the lack of reproduction and the slow growth is a result of the extremely acid conditions which persist, and we can expect little improvement until pH and total hardness are raised into a more desirable range.

Virtually the entire shorelines of these ponds are covered with heavy brush and undergrowth which prevents access to the water at all but one or two points, thus seriously restricting sampling operations and other necessary management work, as well as utilization of the ponds when they are opened to fishing. Aquatic weeds including bladderwort and water lilies were present in minor amounts. The proper development of the stocked fish will require initiation and maintenance of adequate liming and fertilization programs in the future. Although Mr. Peterson has been fertilizing properly adequate liming (which was to be done by the Rod and Gun Club) has not been maintained. The ponds should remain closed to fishing for sufficient time to permit adequate growth and reproduction and the development of a balanced population.

Summary Report Camp Lejeune, North Carolina July 15, 1966

Mild Hammock, Ward, and Cedar Point Ponds Recommendations:

1. Immediately procure sufficient lime and fertilizer and initiate and maintain an adequate fertilization and liming program. This should consist of 100 pounds of hydrated lime and 100 pounds of fertilizer (either 8-8-2 or 20-20-5) per acre at two-week intervals until an adequate plankton bloom is established in accordance with the attached fertilization sheet. Maintain this bloom throughout the summer until water temperatures decline to 60°F. (Note: A pH of approximately 7.0 is an indicator of sufficient lime. When this level is reached, subsequent lime applications can be reduced to the number which is sufficient to maintain this 7.0 reading.)

2. Clear brush and undergrowth around entire edges of the pond to permit access for management work and fishing.

3. Keep the ponds closed to fishing until future visits by our biologists reveal that the fish populations have developed sufficiently to permit harvest.

Prince Pond - 1.0 acre, pH 5.5, TH 15 ppm

This pond was reclaimed in January of 1965 and was to have been stocked with 2,000 channel catfish to be fed. When the fish were delivered, several individuals on the Installation determined that this stocking rate was high and the pond received only 1,000 fish. Inspection in August of 1965 revealed inadequate fertilization and liming and through misunderstanding, the fish were not being fed. Subsequent to that visit, food was procured and a feeding program initiated.

Sampling with a gill net (set overnight) and a 12-foot seine during this visit produced only Gambusia and three of the stocked channel catfish which measured 15 inches in length and were in good condition. It is felt that the fish are of sufficient size for the pond to be opened to fishing and due to the lack of undesirable species, can be supplementally stocked this fall with additional fingerlings.

Recommendations:

1. Open pond to fishing

2. Immediately procure sufficient lime and fertilizer and initiate and maintain an adequate fertilization and liming program (same as No. 1 above).

Prince Pond Recommendations Continued:

3. Clear brush and undergrowth around entire edges of the pond to permit access for management work and fishing.

4. Supplementally stock 2,000 channel catfish fingerlings this fall (fish applied for).

5. Stock no other fish of any species.

Hog Pen Pond - 1.0 acre, pH 5.8, TH 18 ppm

This pond was reclaimed in January of 1965 and fingerling bass were added in the spring. In addition, an undetermined number of channel catfish which were to have gone in Prince Pond were stocked in the pond. No bluegill or redear were stocked. Sampling last year failed to produce any of the stocked fish. However, it revealed that bullheads were present and reproducing. Low pH and total hardness indicated insufficient liming.

Sampling with a gill net (set overnight) and a 12-foot seine during this visit failed to produce any of the stocked bass. However, some forty bullheads ranging in size from 5-10 inches were taken in the gill net. It is evident that this pond is heavily infested with this undesirable species and will produce nothing in the way of catchable, desirable fish until they are eliminated. In order to establish a good environment for the stocking of fingerling channel catfish this fall, it is felt that a good liming and fertilization program should be maintained in this pond throughout the remainder of the summer.

Recommendations:

1. Initiate and maintain an adequate liming and fertilization program throughout the remainder of the summer.

2. Reclaim the pond with 5% emulsifiable rotenone in August and restock with 2,000 channel catfish fingerlings (fish applied for).

3. Initiate and maintain a good feeding program when the fish are stocked.

4. Close the pond to all fishing until stocked fish have reached a harvestable size.

5. Clear brush and undergrowth around entire edges of the pond to permit access for management work and fishing.

6. Stock no other fish of any species.

Summary Report Camp Lejeune, North Carolina July 15, 1966

Note: In order that Division personnel can assist in the reclamation of Hog Pen Pond, it is requested that the Installation notify us at the earliest possible time of their concurrence in the reclamation of this pond. This will permit us to schedule sufficient time for the assistance of a biologist and to place an application for fish for restocking.

In addition, the Installation has plans for the development of a 200-acre lake on the site of the old Wallace Creek Grist Mill Lake. The plans have been approved and the bids let on removal of the harvestable timber in the area. However, no money is available for the construction of the proposed $80,000 dam. It is hoped that the plans for creation of this lake will become a reality as it would be an excellent, needed addition to the Installation's recreational program. It was requested that this office be kept informed as to the progress which the Installation makes on the project, in order that provisions can be made for including the features necessary for good fishery management in the lake.

The installation of Mr. Peterson as a full-time game and fish coordinator is a tremendous step toward the development of a good program. His direction and attention to our recommendations including proper liming and fertilization, the feeding of channel catfish, recording the number and size of fish taken, and other important management aspects will add continuity to the program and put it on a sound footing. A survey of other available water areas later this summer should reveal additional natural ponds which could be valuable additions to the fishery management program.

Alex B. Montgomery
Fishery Management Biologist

Reviewed:

Robert T. Webb
Regional Supervisor
Division of Fishery Services

Approved:

James R. Fielding
Assistant Regional Director

cc: Washington Office (3); Regional Office (2); Camp Lejeune (2)

w. file

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Division of Fishery Services
Atlanta, Georgia

Summary Report

FISHERY MANAGEMENT PROGRAM

Camp LeJeune
Onslow County, North Carolina
U. S. Marine Corps
Dates of Visit: July 13-15, 1965
Date of Report: August 11, 1965

Summary Report

Fishery Management Program

Camp LeJeune
North Carolina

On July 13 and 14, 1965 Willie H. Henderson, Base Game Warden, and Sergeant Donald L. Parker, Assistant Base Game Warden, were contacted by Fishery Management Biologist Alex B. Montgomery, and arrangements were made to check the Installation's fishing waters.

Following the inspection, the results were discussed with Captain E. A. Berry, President of the Rod and Gun Club, which presently has the responsibility for implementing the fish and wildlife programs on a voluntary basis

Fishery Services personnel contacted this Base initially in 1952. Since that time, a number of visits have been made, following which recommendations were advanced for fishery management. According to our files, little, if any, action has ever been taken on implementation of the recommendations. In July of 1963, it was anticipated that more consideration would be given to a fishery management program, following a meeting of Installation, State, BUDOCKS and Bureau personnel, to discuss the formulation of a cooperative agreement for the development and management of fish and wildlife resources as directed by Public Law 86-797.

In August of 1964, the Installation was again contacted at which time recommendations were made for the reclamation, restocking and management of seven small natural lakes, on a fertilized basis. One of these lakes was to be stocked with 2,000 channel catfish per acre, and the fish fed a specialized fish food pellet. Other aspects of the management program included the elimination of aquatic weeds, addition of sufficient hydrated lime to raise total hardness and pH conditions, maintenance of adequate fertilization, and the closing of all ponds to fishing until the stocked fish have developed. The results of this inspection indicate that with the exception of the ponds being rotenoned, restocked and initial applications of lime and fertilizer being made, no other effort has been expended on the management program. Results of this inspection are as follows:

Mild Hammock Pond - 1.5 acres; Ward Pond - 1.5 acres; and Cedar Point Pond - 2.0 acres, pH range 5.5 to 6.0 (1:30 p.m.) T.H. less than 17 ppm

These three small ponds were reclaimed and fingerling bass were stocked this spring. At the time of this visit, all ponds were extremely clear indicating inadequate fertilization and low total hardness and pH readings indicate need of additional lime. Heavy weed infestations in the pond prevented adequate seining, however, two of the stocked bass which were in excellent condition (some four to five inches in length) were taken in Mild Hammock Pond. The only other species in evidence were Gambusia.

A number of fish which were assumed to be the stocked bass were observed striking around the edges in the other two small ponds. Although the bass which were observed appear in excellent condition, there is little chance that a good fish population can be established in these ponds unless the pH and total hardness conditions are raised and maintained through liming and a good fertilization program established.

Recommendations:

1. Apply 100 pounds of hydrated lime and 100 pounds of 8-8-2 fertilizer or its equivalent per acre at two week intervals until an adequate plankton bloom is established in accordance with the attached fertilization sheet. Maintain this bloom.

2. Eliminate obnoxious aquatic weeds either manually, or through chemical control.

3. Place "No Fishing" signs around each of the ponds and publicize this fact to Base personnel.

4. At some time in the future, clear brush around the edges to permit access for fishing.

Prince Pond - 1.0 acres, pH 5.7 (2 p.m.) T.H. less than 17 ppm

This pond was reclaimed and was to have been stocked with 2,000 channel catfish to be fed. Base personnel indicated that when the catfish arrived several individuals determined that this was too many for the pond and they were distributed in several ponds and a creek, Prince Pond receiving only 1,000. It must be pointed out that our recommendations are set forth by a trained biologist as being, in his opinion, the best possible for the successful management of fish in the existing situation. Alteration of these recommendations by Base personnel merely negate the effort expended in our visits.

No evidence of a plankton bloom was present in this pond, indicating insufficient fertilization, and low pH and total hardness readings are indicative of insufficient liming. In addition, Base personnel did not seem to be aware of the feeding program and no effort had been made to obtain food for these fish. None of the stocked fish could be captured in the seine to examine them for growth. Immediate steps should be taken to raise the pond's fertility, and a feeding program initiated.

Recommendations:

1. Apply 100 pounds of hydrated lime and 100 pounds of 8-8-2 fertilizer, or its equivalent, per acre at two week intervals until a plankton bloom is established in accordance with the attached fertilization sheet. Maintain this bloom.

2. Procure fish food pellets and initiate a feeding program in accordance with the attached feeding information sheet. Cease the fertilization program when feeding is initiated.

3. Keep the pond closed to fishing until catfish have reached a harvestable size. Place signs around the pond indicating this and publicize the fact to Base personnel.

Hog Pen Pond - 1.0 acre, pH 5.5 (2:20 p.m.) T.H. less than 17 ppm

This pond was reclaimed and fingerling bass were added this spring. In addition, an undetermined number of the channel catfish, which were to have gone in Prince Pond, were stocked in this pond. No evidence of a plankton bloom and low pH and total hardness indicates the need for the addition of lime and fertilizer.

Extensive seining failed to produce any of the stocked fish, however, additional species which were taken included Gambusia and bullhead reproduction which indicates that the reclamation treatment was not successful. It is hoped that the presence of small bass will serve to suppress these species.

Recommendations:

1. Apply 100 pounds of hydrated lime and 100 pounds of 8-8-2 fertilizer, or its equivalent, per acre at two week intervals until an adequate plankton bloom is established in accordance with the attached fertilization sheet.

Hog Pen Pond Recommendations Continued:

2. Place "No Fishing" signs around the pond and publicize this fact to Base personnel.

3. At some time in the future, clear brush around the edges to permit fisherman access.

Note: All of these ponds are to be stocked with bluegill and redear this coming fall; this reversed stocking procedure was necessary due to the fact that the Installation failed to accomplish reclamation of these ponds in time to stock bluegill and redear last fall.

In addition to the above five ponds, Windberry Pond - 2.0 acres, and Whitehouse Pond - 2.5 acres, were to have been reclaimed and restocked with bass, bluegill and redear. These ponds were not included in the management program due to their being so close to the impact area as to prevent fisherman access.

As indicated, it is felt that much effort by Installation personnel will be required to salvage this fishery program. Unless the above recommendations are carried out, future visits to this Installation by personnel from the Division of Fishery Services will accomplish little. For this reason, no future visits will be scheduled prior to this office receiving notification that the above recommendations have been accomplished.

At the present time, the members of the Rod and Gun Club are working towards the construction of a dam at the Old Wallace Grist Mill site which would create a lake approximately 200 acres in size. BSDOCNS has furnished $5,000 for lake survey, which the Soil Conservation Service is undertaking. Base personnel indicate little optimism that the Installation will approve the construction of such a dam. If this lake could be constructed, it would contribute much to the Installation's recreational program.

Alex B. Montgomery
Fishery Management Biologist

Reviewed and Approved:

James H. Fielding, Assistant Regional Director

cc:
W. O. (3)
R. O. (2)

W. file

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Branch of Fishery Management Services
Atlanta, Georgia

Summary Report

FISHERY MANAGEMENT PROGRAM

Camp Lejuene
Craven County, North Carolina
U. S. Army
Date of Visit: August 6 - 7, 1964
Date of Report: August 27, 1964

Summary Report

Fishery Management Program

Camp LeJeune
North Carolina

On August 6 and 7, I contacted Willie H. Henderson, Base Game Warden, and Sergeant R. P. Lyon, Assistant Game Warden, and assisted them in checking certain of the installation's fishing waters. The last inspection on this installation was attempted in October 1956, at which time military field operations prevented the checking of any ponds. It was requested that the installation notify our Branch of a date which would be suitable for checking these ponds, however, such notification was never received. A previous visit to the installation in March 1956, resulted in recommendations for the renovation, reclamation and restocking of several of the ponds, including Wallace Creek Crist Mill Area, where the existing dam structure could be repaired to form a lake of some fifty acres. So far as is known, no action was ever taken by the installation on these recommendations.

During this visit, seven small natural lakes were inspected, including the following with their approximate acreages: Ward Pond - 1½ acres, Cedar Point Pond - 1½ acres, Wild Hammock Pond - 12 acres, Prince Pond - 1 acre, Hog Pen Pond - 1 acre, Windberry Pond - 2 acres, and Whitehouse Pond - 22 acres. With the exception of Wild Hammock Pond, which had a pH of 6.6, the remainder of the ponds had pH below 6.0. No pH indicator solution was on hand to make readings below this point.

Rotenone sampling revealed very few fish in any of the ponds, and included only bullhead catfish, golden shiner, bluespotted sunfish and Gambusia. No bass or bluegill were taken, however, largemouth bass are known to be present in Wild Hammock Pond. In discussing the apparent lack of fish, Mr. Henderson indicated that these lakes had been treated extensively for mosquito control, in addition to being used as training areas for water purification instruction, at which time large quantities of chlorine were introduced into the water. There is virtually no source of re-introduction of fishes, as these are small natural lakes supported by the water table with no inflow or outflow.

While a few of these ponds are virtually weed free, most are infested to some extent with aquatic weeds, including needlerush, water lilies and bladderwort. Their elimination could be easily accomplished either manually or through chemical control.

It is felt that all of these small ponds could be developed into ideal fish management areas through eliminating aquatic weeds, liming, reclaiming with 5% rotenone, restocking bass, bluegill and redear, and initiating and maintaining an adequate fertilization program.

In order to provide a variety of fishing, one of the ponds could be stocked with channel catfish and fed a specialized pelleted fish feed to promote rapid growth. This was discussed in detail with Mr. Henderson and Sergeant Lyon. It must be pointed out, however, that no fish management program will be possible in any of the ponds so long as they are periodically treated with mosquito control chemicals or chlorine, as either one will eliminate the fishes which we stock.

Recommendations:

1. Eliminate water lilies from the ponds through manually pulling them or chemical treatment.

2. Remove existing fish population through treatment with 5% emulsifiable rotenone in late September or early October.

3. Restock with bass, bluegill and redear, and one pond with channel catfish to be fed (fish applied for by this Branch).

4. Add hydrated lime to the ponds at the rate of 100 pounds per acre and initiate and maintain a fertilization program in accordance with the attached instruction sheet.

5. Close to all fishing until the stocked bass have spawned (and until the stocked channel catfish have attained a catchable size).

6. Introduce no other fish of any species into any of the ponds.

The installation should notify this office at the earliest possible time as to the action which will be taken on the above recommendations. This will permit us to schedule sufficient time for a biologist to assist in the poison operations and to order the fish for restocking the ponds. Also, sufficient 5% emulsifiable rotenone to treat the ponds should be obtained and on hand by September 15. Assuming an average water depth of 5 feet in all ponds, approximately 30 gallons of material would be required to treat the 11 acres of water involved. This chemical can be obtained as Nox-Fish, from S. B. Penick and Company, 100 Church Street, New York 8, New York.

It is felt that the initiation of fish management in these small ponds would be a good start towards a sound fisheries program on the installation. Further development of the existing potentials could be accomplished in the future.

Alex E. Montgomery, Fishery Management Biologist

Reviewed:

Regional Supervisor, Fishery Management Services

Approved:

Chief, Division of Sport Fisheries

cc:
Washington Office (2)
Regional Office (2)
Camp LeJeune (2)

W. File

U. S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Bureau of Sport Fisheries and Wildlife
Atlanta, Georgia

Cooperative Plan Conference

Camp Lejeune, North Carolina

On July 19, 1963, I attended a conference to discuss the preparation of Exhibits 1 (inventory) and 2 (assistance) to the Cooperative Plan for the Development and Management of Fish and Wildlife Resources as requested by Colonel Atkinson's letter of 8/8/63. The representatives present and their organizations are as follows:

Lieutenant Colonel O. P. Hughes, Acting G-4, Marine Corps Base, Camp Lejeune, North Carolina
J. P. Sabella, Attorney Advisor, Marine Corps Base, Camp Lejeune, N. C.
Major L. K. Wirth, President, Rod & Gun Club, Marine Corps Base
WO J. W. Thomason, Vice President, Rod & Gun Club, Marine Corps Base
Sergeant C. J. Anderson, President, Rod & Gun Club, MCAF
Mr. Raymond A. Watson, District Protector Supervisor, North Carolina Wildlife Resources Commission
Mr. Grady L. Barnes, Supervisor, Eastern Management Area, North Carolina Wildlife Resources Commission
Mr. Paul S. Metters, Wildlife Patrolman, North Carolina Wildlife Resources Commission
Sergeant Royce P. Lyon, Assistant Game Warden, Marine Corps Base, CLNC
Mr. W. H. Henderson, Base Game Warden
Mr. Carroll F. Russell, Base Forester
Mr. Alex B. Montgomery, Bureau of Sport Fisheries & Wildlife, Atlanta, Ga.
Mr. David F. Jones, Jr., Atlantic Division, BUDOCKS, Norfolk, Virginia
Lieutenant Colonel F. P. Dayton, Lt. Col. Base Range Office (Chairman, Inventory Committee

Base personnel had completed an inventory of game which was acceptable to all members. With regard to inventory of the fisheries, I pointed out that it should be of a general nature including:

1. Number of lakes and ponds and their respective acreage.

2. Miles of freshwater streams.

3. Miles of salt and brackish water fishing area.

4. Species of game fish available in these areas.

The Base was informed that the Bureau would be responsible for furnishing technical biological assistance on fisheries management and the State assumed this responsibility for game. It was pointed out that no funds were available from the Bureau or the State for this work.

It was resolved that the Base would formulate Exhibits 1 and 2 and forward them to the State and Bureau for review and concurrence.

A complete transcript of the meeting is being prepared of which we will receive a copy.

I informed Colonel Hughes and Major Wirth that upon their request, we would be happy to generally inspect their fishing areas and make recommendations for management. It was pointed out that upon our receipt of the request, the work would be scheduled as early as possible.

Alex B. Montgomery

Alex B. Montgomery
Fishery Management Biologist

Submitted: July 26, 1963

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ATLANTA, GEORGIA

Inspection of Fishing Waters on Military Lands
Marine Corps Base
Camp Lejeune, North Carolina

Col. T. M. Hinkle and Lt. Col. R. B. Carney were contacted at this Base on March 30 and arrangements made for inspecting the fishing waters on the Reservation.

Much of the waters on Camp Lejeune are of such a nature that they are difficult to manage extensively. For the most part they are shallow with considerable overflow.

There are a few small lakes on this Base which have never been inspected. It is planned to inspect all these lakes this summer when all waters will be checked for balance. Following is a brief description of the lakes which were inspected.

Industrial Area Pond - Approximately 10 acres. This lake was checked in 1952 and found to contain rough fish, mainly bullhead catfish. It was recommended that this lake be drawn down, treated with rotenone and restocked on an unfertilized basis. So far as is known, this operation was never completed.

This pond is extremely shallow around the edges, choked with weeds and subject to considerable overflow. These conditions, of course, do not lend themselves to good fish management.

RECOMMENDATIONS:

1. If Base personnel are interested in poisoning the existing fish population and restocking, this lake can be improved. Since the edges are shallow and it cannot be fertilized there will always be a weed problem.

2. One other possibility of improving the fishing exists in the form of a winter draw down. This will be discussed in detail with interested personnel if they decide not to rotenone and restock.

Round Lake - Approximately 1 acre. (Located on Mile Hammock Road) This little lake could be easily managed. There is no overflow to prevent fertilization and the edges are steep enough to eliminate most marginal weeds.

The existing fish population is unknown but personnel have taken bullheads by fishing.

U. S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ATLANTA, GEORGIA

Inspection of Fishing Waters on Military Lands
Marine Corps Base, Camp Lejeune, N.C.

Lt. Col. R. B. Carney was contacted at this Base on October 1 as was prearranged in the spring of this year to survey the fishing waters on Camp Lejeune. (See report of April 18, 1956).

It was planned to check the fish population in some of the small lakes on the Reservation and determine if they could be cleaned out, restocked and managed. Due to Military operations, nothing could be accomplished on this date. Tentative plans were made to do the work the last of November or the first of December.

RECOMMENDATIONS:

1. If Base personnel feel they would like to renovate some small lakes they should order rotenone to clean out the wild fish. Note: For this job a 5% emulsion of rotenone should be secured from S. B. Penick and Company, 50 Church Street, New York 8, N. Y., or some other reputable dealer.

   It takes approximately 3 pints of this rotenone to treat one acre-foot of water. For example - if a lake covers 2 acres and has an average depth of 5 feet then 2 x 5 = 10 acre-feet of water. 10 x 3 = 30 pints of rotenone needed to treat the lake.

2. This Base should give some thought to building new lakes, properly constructed and easily managed. Often it is easier and more economical to build a new lake than to renovate an old one.

3. Col. Carney should contact this office and suggest a definite date for the work planned. The suggested date of November 22 is Thanksgiving Day.

Robert T. Webb
Fishery Management Biologist

Submitted: November 14, 1956

RECOMMENDATIONS:

1. Rotenone to kill existing fish.

2. Restock with bass and bluegills on a fertilized basis.

3. Initiate a fertilization program. (Note: If personnel decide to renovate this lake and/or others, a biologist from this Service will assist in the operation).

Small Lake # 2 - Approximately 1½ acres. (N.W. of Mile Hammock Road). Conditions are same as above lake.

RECOMMENDATIONS:

Same as above.

Wallace Creek Grist Mill Area. At one time there was an old mill dam across Wallace Creek which backed up approximately 50 acres of water. In fact, most of the dam is entact at present. It is believed that the dam could be repaired easily and economically to form a 50 acre lake which would be a valuable addition to the recreational facilities of the Base.

CONCLUSIONS:

At the present time it is planned for a biologist from this Service to contact Col. R. B. Carney, Jr. and Col. T. M. Hinkle this summer after the fish have spawned and check all the lakes on the Base. At that time plans will be made for renovating any lakes which need to be drained or rotenoned and restocked.

Robert T. Webb
Fishery Management Biologist

Submitted April 18, 1956

CC: Washington, D. C. (2)
Camp Lejeune, N. C. (2)

RTWebb:ba