UNITED STATES GOVERNMENT

memorandum

DATE: February 26, 1991

REPLY TO ATTN OF: Wildlife Biologist, Washington, N. C.

SUBJECT: 1990 Santee NWR Deer Hunt and Herd Summary

TO: Refuge Manager, Santee NWR

MAR 0 4 1991
SANTEE NWR

The summary data from the 1990 deer hunt is attached in the first four tables with comparisons to 1988, the previous year a deer hunt occurred. For the record, no deer hunting took place on Santee NWR in 1989 after 14 consecutive years of open season. This was due to your decision to close it following the severe damages to woodlands by hurricane Hugo (Sept. 1988) and lack of access to the hunt areas on the refuge.

Table 1 shows the 1990 deer hunt results by hunt types, hunter efforts and successes. Note that compared to the previous year of hunting, the 1990 harvest was almost double. The kill actually increased by 95.1 percent, hunter-days increased nearly 400 or 36.9 percent and success increased by a reduction of 4 hunter-days per kill. Bow hunters kill rose 130.8 percent while effort rose 33.8 percent and their success increased from a kill in 27.1 hunter-days to 15.7 days. This is the largest reported bow-hunter harvest and best success enjoyed by archers at Santee NWR since bow hunting began there in 1979.

Primitive weapon hunters also had a most successful season in 1990. Their harvest increased 88.2 percent with 800 more hunter-days (14.6%) and a rise in hunter-success from a kill in 10.7 days 77 hours in 1988 to a kill per 7.9 days 47 hours in 1990. This too was the highest harvest and best success since primitive weapon hunting began there in 1979.

Tables 2 and 3 show harvested deer age and sex compositions. Note that the fawn percentage dropped considerably from 1988 when they comprised over a third of the harvest to less than a quarter of the 1990 harvest. I feel sure this is because of no hunting last year and although production was still good in 1990 fawns comprised a lower percentage of the herd. This was especially evident on Pine Island where 12 of 19 deer harvested in 1988 were fawns and only 3 of 24 were in 1990. And of course both tables show a corresponding increase in 1 1/2 year-old deer as there was no harvest of that age class in 1989. On the long term, fawn age percentage was the lowest in four hunt seasons and yearlings were the highest on record since hunting first began on the refuge in 1975. I think these data show how necessary annual deer hunting is on Santee NWR. With the excellent deer habitat available, the

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114
☆U.S. GPO: 1989-201-760/80272

herd is capable of getting out of balance and overstocked very quickly. A one-year lapse is okay as we merely killed twice as many deer as the previous hunt and the age ratios stayed in line but one more year of no hunting would put a lot of mature breeders in the herd and things would explode and range depletion and crop depredation would again occur. I just hope the new $10 hunt fee will not reduce the number of participants to the point we will be forced into having only modern gun hunts to control the herd.

Table 4 shows perhaps that some overstocking was already occurring as weights and antler development in younger age classes, while still good, decreased. Fawns and yearlings are the age classes you would expect to show the first effects. Fawn buck weights were fourth lowest on record since 1975 and fawn does the lowest on record. Antler development in yearlings was still good at 3.7 but down from 4.3 in 1988.

Regarding next year, I would recommend no changes at this time if hunt data collection and other costs are not a problem with you. I have no idea what affect the newly implemented hunt fee will have on hunter turnout but we really can't afford even a few years of low harvest. You and your staff are to be commended for collecting the good data you did this year. I will try and get down during the primitive weapon hunt at Pine Island this year. Call me if you've any questions.

Otto Florschutz, Jr.

Attachments: Tables 1-4

cc/WHM, R&W, RO
RF-3, R&W, RO

Table 1
Deer Hunt Results on Santee NWR
1990

Hunt Type	Hunt Days	Bucks	Does	Total Take	Hunter-days	Hunter-hours	HD per Deer	HH per Deer	HH per HD
Bow Either-sex	6	18	12	30	471	2,826	15.7	94	6.0
Primitive Weapons ES Pine Island	6	16	8	24	212	1,272	8.8	53	6.0
Primitive Weapons ES Cuddo	6	56	48	104	793	4,758	7.6	46	6.0
1990 Totals	6 B 12 PW	90	68	158	1,476	8,856	9.3	56	6.0
1988 Totals*	6 B 12 PW	40	41	81	1,078	7,375	13.3	91	6.8

* no deer hunts held in 1989 due to inaccessibility caused by hurricane Hugo

Table 2
Deer Age Composition by Hunts
Santee NWR
1990

Hunt Type	1/2	1 1/2	2 1/2	3 1/2	4 1/2	5 1/2+	Unk.*	Totals
Bow, ES	4	15	6	3	2	0	0	30
PW, ES, PI	3	14	5	2	0	0	0	24
PW, ES, Cu	30	41	13	15	2	1	2	104
1990 Totals	37	70	24	20	4	1	2	158
1990 Percents	23.7	44.9	15.4	12.8	2.6	0.6	-	100.0
1988 Percents**	34.6	35.8	17.3	9.9	2.4	0.0	-	100.0

* not included in percentage computations
** no deer hunts held in 1989 due to inaccessibility caused by hurricane Hugo

Table 3
Deer Age Composition by Sexes
Santee NWR
1990

Sexes	1/2	1 1/2	2 1/2	3 1/2	4 1/2	5 1/2+	Unk.*	Totals
Bucks	20	42	16	9	1	1	1	90
Does	17	28	8	11	3	0	1	68
1990 Totals	37	70	24	20	4	1	2	158
1988 Totals*	28	29	14	8	2	0	0	81

* no deer hunts held in 1989 due to inaccessibility caused by hurricane Hugo

Table 4
Average Live Weights by Age & Sex Classes and
Points by Age Classes
Santee NWR
1988-1990

Ages	Bucks		Does		No. of Points	
	1988**	1990	1988**	1990	1988**	1990
1/2	61	57	53	50	--	--
1 1/2	116	112	90	88	4.3	3.7
2 1/2	134	144	102	102	6.0	6.6
3 1/2	179	178	102	105	8.0	8.0
4 1/2	NS	210*	110	90	NS	8.0*
5 1/2+	NS	165*	NS	NS	NS	7.0*
Comparative Averages	122.5	122.8	91.4	87.0	6.1	6.1

* single samples only
** no deer hunts held in 1989 due to inaccessibility caused by hurricane Hugo