

Memorandum**To :** ELDEN VESTAL, FISHERIES MANAGEMENT SUPERVISOR**Date :** August 12, 1968**From :** Department of Fish and Game**Subject :** NICASIO CREEK, MARIN COUNTY

There is growing concern regarding our anadromous fisheries on Nicasio Creek. I have reviewed past records and I feel very strongly some changes are in order concerning present operations.

Adult salmon and steelhead are trapped about ½ mile below Nicasio Reservoir and transported to the headwaters of Nicasio Creek upstream from the reservoir to continue their spawning migration.

Four years of records were selected to illustrate my point. During this four year period, 631 female silver salmon and 98 female steelhead were transported with male fish to upper Nicasio Creek (Table 1). A resume of downstream migrants produced by each year's run which were trapped and released into Nicasio Creek below the dam is given in Table 2.

Table 1

ADULT SALMON AND STEELHEAD
TRAPPED AND TRANSPORTED TO
THE UPPER NICASIO CREEK DRAINAGE

YEAR	SILVER SALMON			STEELHEAD	
	MALE	FEMALE	GRILSE	MALE	FEMALE
1963	8	5	138	89	40
1964	139	185	296	33	50
1965	37	70	7	2	4
1966	197	371	68	4	4

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Table 2

NUMBER OF DOWNSTREAM MIGRANTS
TRAPPED FROM EACH YEAR'S SPAWN

<u>YEAR</u>	<u>SS♀</u>	<u>SSYOY</u>	<u>SSY</u>	<u>SH♀</u>	<u>SHYOY</u>	<u>SHY</u>
1963	5	15	98	40	801	159
1964	185	16,273	378	50	-	836
1965	70	19	172	4	-	64
1966	371	6,459	5,919	4	-	104
	<u>631</u>	<u>22,776</u>	<u>6,567</u>	<u>98</u>	<u>801</u>	<u>1,163</u>

Based on the numbers of downstream migrants trapped in Nicasio and Halleck Creeks, Table 3 and 4 give the number of fish of the year and yearling fish produced per female of each years run transported upstream from the reservoir.

Table 3

NUMBERS OF YOUNG OF THE YEAR
AND YEARLING SILVER SALMON FROM
ADULT FEMALES RELEASED UPSTREAM
FROM NICASIO RESERVOIR 1963-1966

<u>SS♀</u>	<u>SSYOY</u>	<u>SSY</u>	<u>SSYOY/♀</u>	<u>SSY/♀</u>	<u>TOTAL SS/♀</u>
5	15	98	3.0	19.6	22.6
185	16,273	378	88.0	2.0	90.0
70	19	172	0.3	2.5	2.7
371	6,459	5,919	17.4	16.0	33.4
<u>631</u>	<u>22,766</u>	<u>6,567</u>	<u>36.1</u>	<u>10.4</u>	<u>46.5</u>

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Table 4

NUMBERS OF YOUNG OF YEAR
AND YEARLING STEELHEAD FROM
ADULT FEMALES RELEASED UPSTREAM
OF NICASIO RESERVOIR 1963-1966

<u>YEAR</u>	<u>SH ♀</u>	<u>SHYOY</u>	<u>SHY</u>	<u>SHYOY/♀</u>	<u>SHY/♀</u>	<u>TOTAL SH/♀</u>
1963	40	801	159	20.0	4.0	24.0
1964	50	-	836	0.0	16.7	16.7
1965	4	-	64	0.0	16.0	16.0
1966	4	-	104	0.0	26.0	26.0
	98	801	1,163	8.2	11.9	20.0

For the purposes of maintaining silver salmon and steelhead resources in Nicasio Creek, the Marin Municipal Water District is paying an exorbitant price. Although the exact annual costs are not known, it is believed to exceed \$5,000 yearly. This would amount to over \$10.00 per fish produced by present trapping and transporting methods during this four year period.

I am sure we can maintain a much larger run of adult fish in Nicasio Creek than presently exists based on annual plants of 10,000 silver salmon and 10,000 steelhead yearlings. The estimated annual cost of this type program would be \$5,000 and provide better angling success to anglers not only in Nicasio Creek, but Lagunitas Creek and the Pacific Ocean as well.

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It is realized great demand is placed on our hatcheries at the present time, and they are at maximum production, I believe we should reevaluate the present program and arrive at a solution which will maintain or enhance these resources at a lesser cost to the District.


Earl Gibbs
Associate Fishery Biologist
Region 3