

**MCCALL SUMMER CHINOOK HATCHERY**

**OPERATION AND MAINTENANCE  
ANNUAL REPORT**

**OCTOBER 1, 2007 TO SEPT. 30, 2008**

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FISH HATCHERY MANAGER II**

## INTRODUCTION

### Operations

McCall Summer Chinook Hatchery was the first hatchery to be built for Idaho under the Lower Snake River Compensation Plan and has been in operation since the fall of 1979. Production goals for the hatchery are 1,000,000 Summer Chinook Salmon smolts to be reared and released into the South Fork of the Salmon River. The mitigation goal is to return 8,000 adult Summer Chinook Salmon above Lower Granite Dam.

The brood year 2007 pre-smolts on station are in good condition at this time. Both outside production ponds are in use, pond 1 is loaded with 549,854 fish, and pond 2 is loaded with 558,972 fish for a total of 1,108,826 fish outside. There are no supplementation fish on station. The reserve fish are marked with ad-clips and ad-clips/coded wire tags (CWT). The fish were from pond 1 and were ad-clipped only. There are 91,418 Johnson Creek fish to be released by the Nez Perce tribal fishery into Johnson Creek. The eggs from the high BKD tested females were culled. There will be a portion of the fish PIT tagged in the spring of 2009, just prior to release.

The 2008 summer chinook spawning run at the South Fork Salmon trap was another good adult summer chinook run, nearly double the past years run. The trap and weir were operational on June 25. Excessive runoff coupled with considerable debris prevented an earlier installation. The operation concluded on September 18, 2008, with a total of 6,571 fish trapped over a period 86 days.

There was a total of 2,159,157 green eggs taken from 429 females with an average fecundity of 5,033 eggs per female, and an average eye-up of 89.3%. There were 322,620 eyed eggs transferred to the Sho-Bans for their egg box program this year. There were no females culled on site this year during spawning.

The eggs from 70 females were culled (15 high positive BKD, the rest due to mixing in the incubation trays and culling low positives back to a full hatchery).

Nez Perce fisheries staff held Johnson creek adult salmon on site at the South Fork trap facility. These fish were held with the South Fork fish until first sort when the males were placed in the circular tank to be held through spawning. All of the Johnson creek fish were uniquely marked to distinguish them from the South Fork stock. There were 30 females were spawned, producing 105,788 eyed eggs. The fecundity for these fish was 4,563 eggs per female, eye-up was 77.3%. There were no Johnson Creek females culled due to BKD.

## Personnel

There were no changes in permanent personnel at the McCall hatchery this past year. There were 7 temporary employees employed during the spring and summer months.

Gene McPherson	FHM II
Steve Kammeyer	AHM
Joel Patterson	Fish Culturist

## Miscellaneous

There were no major improvements conducted at the McCall Hatchery or the South Fork Trap this past year. The bridge structure was built to withstand a 50 year flood and we experienced a 100 year flood this spring during runoff. Numerous trees had to be removed that had lodged against the structure. There was only minimal damage to the structure and the weir panels. There was some erosion on the east side of the structure but not significant.

- A. Adult Returns to Hatchery - Species  
No adults return directly to McCall Hatchery.
- B. Adults Trapped off Hatchery, Spawned and Eggs Returned to Hatchery

### Summer Chinook (BY 08)

Where Trapped:	South Fork Salmon River trap
Dates Trapped:	6/25/08 through 9/18/08
No. Females Trapped:	2,733
No. Males Trapped:	1,759
No. Males and Females Released to Spawn Naturally:	589
No. of Jacks Trapped:	2,079
Mortality of Adult Returns:	789

- C. Spawning Record  
South Fork Summer Chinook (BY 08)

Dates Spawned	No. of Egg/spawn Day	No. Females & Males used/day	
		Females	Males
8/12	70,462	14	28
8/15	196,287	39	78
8/19	573,762	114	228
8/22	568,729	113	226
8/26	362,376	72	144

8/29	271,782	54	108
9/02	115,759	23	46
Totals	2,159,157	429	858**

\*\* Some males were used more than once.

All of the eggs taken were water hardened for an hour in a 100 ppm iodophor treatment prior to being transported to McCall Hatchery. Individual mesh bags were used for segregation purposes.

Total Number of Eyed Eggs:	1,928,127
Number of Eggs Retained for Rearing:	1,253,197
Number of Eggs Shipped:	322,620
Number of Eggs Culled (BKD):	352,310
Date of Last Spawning:	9/02/08
Date Weir Removed:	9/18/08

D. Rearing to Fry Stage

	<u>Summer Chinook (BY 07)</u>
Hatched from Eyed Eggs:	1,117,404
Percent Hatched:	N/A
Percent Mortality to Stocking:	N/A
Total No. of Fry Stocked:	0
Total Weight of Fry Stocked:	0
Average No./Lb. of Fry Stocked:	0
Conversion Rate:	

E. Rearing to Fingerling Stage

	<u>Summer Chinook (BY 07)</u>
No. of Fingerling Produced:	1,108,826
Weight of Fingerling Produced:	30,588
Percent of Mortality to Stocking:	N/A
Conversion:	0.77

F. Smolts Reared

	<u>Summer Chinook (BY 06)</u>
No. Smolts Produced:	1,060,540
Weight of Smolts Produced:	57,793
Average No./Lb. of Smolts:	18.35
Percent Mortality to Stocking:	1.81*
Conversion Rate:	0.88
*mortality from sac fry.	

G. Food Fed and Weight Gain

Total pounds Food Fed:	41,413
Conversion Rate - All Sizes:	0.90
Total Weight Gain - All Sizes:	45,816

H. Stocking

	<u>Summer Chinook (BY 06)</u>
Total No. of Distribution Trips:	25
No. and Wt. of Fry Stocked BY 06	0      0
No. and Wt. of Fing. Stocked BY 07	0      0
No. and Wt. of Smolts Stocked BY 06	1,060,540 57,793

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Date	Location	Weight	#/Lb	# Released
3/17	S. FK. Salmon R.	21,000	18.35	385,350
3/18	S. Fk. Salmon R.	18,200	18.35	333,970
3/19	S. FK. Salmon R.	14,700	18.35	269,784
3/20	S. FK. Salmon R.	3,893	18.35	71,436
Total Released		57,793		1,060,540

In addition to the normal production of the South Fork Summer Chinook program, the hatchery crew also reared 88,085 brood year 2006 summer chinook smolts for the Johnson Creek program in cooperation with the Nez Perce tribal fishery program. These fish averaged 23.9 fish per pound for 3,678 pounds. The Nez Perce fishery personnel transported and released these fish into Johnson Creek during the period of March 10 - 12, 200.