

MCCALL SUMMER CHINOOK HATCHERY

**OPERATION AND MAINTENANCE
ANNUAL REPORT**

OCTOBER 1, 2008 TO SEPT. 30, 2009

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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 2008 pre-smolts on station are in good condition at this time. Both outside production ponds are in use, pond 1 is loaded with 520,990 fish, and pond 2 is loaded with 519,211 fish for a total of 1,040,201 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 100,670 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 2009 summer chinook spawning run at the South Fork Salmon trap was another good adult summer chinook return, nearly one third larger than the past year's run. The trap and weir were operational on June 15. The operation concluded on September 11, 2009, with a total of 9,737 fish trapped over a period 86 days.

There was a total of 1,999,933 green eggs taken from 473 females with an average fecundity of 4,987 eggs per female, and

an average eye-up of 89.1%. There were 326,840 eyed eggs transferred to the Sho-Bans for their egg box program this year, and an additional 331,000 eggs from 72 females were shipped to green to the Clearwater Hatchery to start a Summer Chinook program. There were 7 females culled on site this year during spawning. The eggs from 80 females were culled (19 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 27 females were spawned, producing 110,595 eyed eggs. The fecundity for these fish was 4,737 eggs per female, eye-up was 86.5%. 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

Nearly all of the asphalt at the hatchery received an overlay of approximately two inches, a much needed upgrade. There were no other major projects undertaken at the hatchery this year.

- 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 09)

Where Trapped:	South Fork Salmon River trap
Dates Trapped:	6/15/09 through 9/11/09
No. Females Trapped:	2,621
No. Males Trapped:	1,700
No. Males and Females Released to Spawn Naturally:	546
No. of Jacks Trapped:	5,416
Mortality of Adult Returns:	627

- C. Spawning Record
South Fork Summer Chinook (BY 09)

Dates Spawned	No. of Egg/spawn Day	No. Females & Males used/day	
		Females	Males
8/14	210,658	43	43
8/18	286,952	57	57
8/21	607,700	144	144
8/25	476,930	122	122
8/28	241,743	72	72
9/01	175,923	35	35

Totals	1,999,933	473	473
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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:	1,782,740
Number of Eggs Retained for Rearing:	1,099,510
Number of Eggs Shipped:	657,840
Number of Eggs Culled (BKD):	356,390
Date of Last Spawning:	9/01/09
Date Weir Removed:	9/11/09

D. Rearing to Fry Stage

	<u>Summer Chinook (BY 08)</u>
Hatched from Eyed Eggs:	1,242,508
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 08)</u>
No. of Fingerling Produced:	1,220,201
Weight of Fingerling Produced:	38,238
Total No. of Fingerling Stocked:	180,000
Total Weight of Fingerling Stocked:	5,714
Percent of Mortality to Stocking:	N/A
Conversion:	0.77

F. Smolts Reared

	<u>Summer Chinook (BY 07)</u>
No. Smolts Produced:	1,106,700
Weight of Smolts Produced:	52,126
Average No./Lb. of Smolts:	21.25
Percent Mortality to Stocking:	1.95*
Conversion Rate:	0.85
*mortality from sac fry.	

G. Food Fed and Weight Gain

Total pounds Food Fed:	50,319
Conversion Rate - All Sizes:	0.84
Total weight Gain - All Sizes:	60,104

H. Stocking

Summer Chinook (BY 07)

Total No. of Distribution Trips:	26	
No. and Wt. of Fry Stocked BY 07	0	0
No. and Wt. of Fing. Stocked BY 08	180,000	5,714
No. and Wt. of Smolts Stocked BY 07	1,106,700	52,126

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Date	Location	Weight	#/Lb	# Released
9/28/09	S.Fk. Salmon R.	2,857	31.50	90,000
9/29/09	S.Fk. Salmon R.	2,857	31.50	90,000
3/23/09	S.FK. Salmon R.	21,000	21.25	446,250
3/24/09	S.Fk. Salmon R.	16,800	21.25	446,250
3/25/09	S.FK. Salmon R.	10,066	21.25	214,200
Total Released		55,265		1,286,700

In addition to the normal production of the South Fork Summer Chinook program, the hatchery crew also reared 91,080 brood year 2007 summer chinook smolts for the Johnson Creek program in cooperation with the Nez Perce tribal fishery program.

These fish averaged 28.0 fish per pound for 3,253 pounds. The Nez Perce fishery personnel transported and released these fish into Johnson Creek during the period of March 16 - 18, 2009.