

MCCALL SUMMER CHINOOK HATCHERY

OPERATION AND MAINTENANCE
ANNUAL REPORT

OCTOBER 1, 2006 TO SEPT. 30, 2007

DONALD E. MCPHERSON
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 2006 pre-smolts on station are in good condition at this time. Both outside production ponds are in use, pond 1 is loaded with 532,571 fish, and pond 2 is loaded with 530,039 fish for a total of 1,062,610 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 88,313 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 2008, just prior to release.

The 2007 summer chinook spawning run at the South Fork Salmon trap was another good adult summer chinook run, up considerably from the past years run. The trap and weir were operational on June 8. The new bridge and weir panels allow for trapping to begin earlier than previous years, due to not having to put personnel in the water for installation. Two people can lower and lock the panels in place safely in a short period

time. The operation concluded on September 10, 2007, with a total of 3,745 fish trapped over a period 101 days.

There was a total of 1,534,133 green eggs taken from 335 females with an average fecundity of 4,579 eggs per female, and an average eye-up of 84.9%. There were no additional eggs taken for the Sho-Ban egg box program this year as the drainage targeted for the egg box program burned over this summer and concerns were raised about effects of severe silt loads during runoff. There were 9 females culled on site due to visual inspection, 5 for possible BKD infection and 4 for poor egg quality. The eggs from an additional 42 females were culled (8 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 25 females were spawned, producing 116,618 eyed eggs. The fecundity for these fish was 4,665 eggs per female, eye-up was 82.1%. 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 6 temporary employees

employed during the spring and summer months.

Gene McPherson	FHM II
Steve Kammeyer	AHM
Joel Patterson	Fish Culturist

Miscellaneous

There were some major improvements conducted at the McCall Hatchery or the South Fork Trap this past year. The bridge structure arrived at the trap site in April, assembled and hoisted into place on April 23. The weir panels arrived and installation begun on May 23. On June 1, the weir structure was fully functional and the panels were lowered to the trapping position. The structure functioned very well for the first season of operation. Forest fires in the area were the worst on record since trapping operations began in 1980. The North Fork Fire burned through the satellite facility causing evacuation of hatchery personnel for several days. None of the facility structures were damaged from the fire. The Forest Service set up and operated a perimeter sprinkler system around the compound as the fire advanced, probably the key factor preventing major damage.

The hatchery building roof was replaced with a "Sarnafil

Roofing Membrane", a flexible polymer material. The old insulation and roof were removed and replaced. The residence siding replacement project was completed early in the spring. Plans are in the works for repaving the pathway into the office to comply with ADA requirements. More retaining wall reconstruction was completed next to the office. The brick face on the south facing office/dormitory was removed and replaced with stained cedar siding. The bricks had pulled away from the wall over the years and had become a potential safety hazard.

- 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 07)

Where Trapped:	South Fork Salmon River trap
Dates Trapped:	6/08/07 through 9/10/07
No. Females Trapped:	1,031
No. Males Trapped:	1,152
No. Males and Females Released to Spawn Naturally:	337
No. of Jacks Trapped:	1,506
Mortality of Adult Returns:	292

- C. Spawning Record
South Fork Summer Chinook (BY 07)

Dates Spawned	No. of Egg/spawn Day	No. Females & Males used/day	
		Females	Males
8/17	64,190	14	28
8/21	343,425	75	150
8/24	348,088	76	152
8/28	283,898	62	124
8/31	334,267	73	146
9/05	160,265	35	70
Totals	1,534,133	335*	670**

*Eggs were culled from 9 females on site.
 ** 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:	1,302,479
Number of Eggs Retained for Rearing:	1,140,022
Number of Eggs Shipped:	0
Number of Eggs Culled (BKD):	162,457
Date of Last Spawning:	9/05/07
Date Weir Removed:	9/10/07

D. Rearing to Fry Stage	<u>Summer Chinook (BY 06)</u>
Hatched from Eyed Eggs:	1,069,515
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 06)</u>
No. of Fingerling Produced:	1,067,622
Weight of Fingerling Produced:	17,055
Percent of Mortality to Stocking:	N/A
Conversion:	0.76

F. Smolts Reared	<u>Summer Chinook (BY 05)</u>
No. Smolts Produced:	1,087,170
Weight of Smolts Produced:	56,850
Average No./Lb. of Smolts:	19.12
Percent Mortality to Stocking:	2.05*
Conversion Rate:	1.04
*mortality from sac fry.	

G. Food Fed and Weight Gain	
Total pounds Food Fed:	58,916
Conversion Rate - All Sizes:	1.04
Total Weight Gain - All Sizes:	56,466

H. Stocking	<u>Summer Chinook (BY 05)</u>
Total No. of Distribution Trips:	28
No. and Wt. of Fry Stocked BY 05	0 0

No. and Wt. of Fing. Stocked BY 06	0	0
No. and Wt. of Smolts Stocked BY 05	1,087,170	56,850

+

Date	Location	Weight	#/Lb	# Released
3/19	S. FK. Salmon R.	16,800	19.12	321,216
3/20	S. FK. Salmon R.	16,800	19.12	321,216
3/21	S. FK. Salmon R.	16,800	19.12	321,216
3/23	S. FK. Salmon R.	6,450	19.12	123,522
Total Released		56,580		1,087,170

In addition to the normal production of the South Fork Summer Chinook program, the hatchery crew also reared 120,415 brood year 2005 summer chinook smolts for the Johnson Creek program in cooperation with the Nez Perce tribal fishery program. These fish averaged 26.9 fish per pound for 4,476 pounds. The Nez Perce fishery personnel transported and released these fish into Johnson Creek during the period of March 12 - 14, 2007.