



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Dworshak Fisheries Complex

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MEMORANDUM

To: Fisheries Supervisor, Columbia Basin Ecoregion
Region 1, Portland, OR

From: Complex Manager
Dworshak Fisheries Complex

Subject: **Monthly Activity Report –April, 2010**

Fish Management Culture

Dworshak

SPRING CHINOOK SALMON (SCS)

Brood Year 2009(BY09)

On April 15, 2010 there were 584,206 sac-fry transferred from Dworshak incubators to outside raceways (RW's) and tanks. These fry started on feed within a few days after transfer and were approximately 1800 fish per pound when moved outside.

For the second consecutive year an experiment is designed to help determine if a better initial rearing system could be used for the SCS instead of putting fry from the incubator trays directly into concrete RW's. There were two 3' x 3' x 20' aluminum rectangular tanks set up inside of RW's 13 and 14 along with seven 6' fiberglass circular tanks placed into RW 15. The rectangular tanks each received approximately 28,600 fry from the incubators and the circular tanks each received approximately 16,900 fry. There were approximately 115,000 fry transferred to concrete RW's 28-29-30 on the same day. All fry were started on feed shortly after moving outside.

On April 16 and 19 there were a total of 559,418 BY09 SCS fingerlings transferred from Kooskia National Fish Hatchery (KNFH) to Dworshak National Fish Hatchery (DNFH). These fish were approximately 350 fpp at the time of shipping and were transferred into six raceways (RW's) in B-bank; 23-24-25-26-27.

At the end of the month there were 1,136,556 BY09 SCS in A and B bank RW's averaging 554 fpp and 46 mm (1.8 inches) total length. Mortality was 0.6 percent and water temperature in the RW's averaged 41.0°F during the month.

FALL CHINOOK SALMON(FCS)

Brood Year 2009

The Idaho Fishery Research Office (IFRO) is participating in an evaluation of the effect of transportation and summer spill in the Columbia River hydro system on smolt-to-adult return rates of Snake and Clearwater River fall Chinook salmon (FCS). Lyons Ferry Hatchery stock FCS are being used and the fish are referred to as either Snake or Clearwater River surrogates depending on their release location. The Snake and Clearwater River surrogates for the transportation study were initially incubated and reared at Umatilla Hatchery (UH) in Oregon. These groups were transferred in April, 2010, to DNFH where cool water temperatures allow date and size at release to be controlled to match rearing timing and size of fish in the wild.

On April 14 a total of approximately 212,724 Snake River surrogates for the transportation study were transported from UH to RW B17 at Dworshak. These fish were 281.6 fpp and averaged 58 mm (2.3 inches) fork length at time of transport. Water temperature at the time of arrival for all transports was approximately 41.0°F. Mortality after transport was 0.08 percent. These fish will be PIT tagged at the end of May and beginning of June.

On April 15, a total of approximately 106,153 Clearwater River surrogates for the transportation study were trucked from UH to RW B20 at Dworshak. At the time of arrival, these fish were 354 fpp and averaged 54 mm (2.1 inches) fork length. Mortality after transport was 0.41 percent. These fish will be PIT tagged at the end of June and beginning of July. Tagging of all the fish will be done by BioMark staff.

At the end of the April there were 317,848 FSC on station ranging in size from 252 – 310 fpp.

COHO SALMON (COS)

Brood Year 2009

There were no COS on station at Dworshak during the month of April; they will be transferred from Kooskia to Dworshak in May.

SUMMER STEELHEAD (SST)

Brood Year 2009

Release of BY09 SST was done April 12-22. Of the 1,234,563 BY09 SST released, 209,638 (17% of release) received no adipose fin clip to designate them as hatchery fish and are under the U.S. vs. OR Harvest Settlement Agreement. These fish went to Lolo and Peasley Creek. Table 1 depicts the final release numbers of BY09 SST by each rearing System.

Table 1. BY2009 SST Release from Dworshak NFH, April 12-22, 2010.

System	Number	Weight (lbs)	fpp	Lgth (mm)
Syst I Outplant	27,286	4,640	5.9	200
Syst I Direct Rel	339,321	57,674	5.9	200
Syst II Outplant	182,352	25,910	7.0	188
Syst II Direct Rel	472,868	69,175	6.8	190
Syst III Outplant	0	0	-	-
Syst III Direct Rel	212,736	35,413	6.0	198
Total Outplanted	209,638	30,550	6.9	190
Total Direct Rel	1,024,925	162,262	6.3	195
Total/ Ave	1,234,563	192,812	6.4	194

Brood Year 2010

At the end of the month there were 2.1 million SST in the nursery in various stages of development from eyed-eggs to feeding fry. Spawning ended with Take 10 on April 27. Takes 1-8 were in the nursery and green eggs from Takes 9-10 were in the incubation room at the end of the month. Thus far the percent eye-up of eggs from Takes 1-8 enumerated at Dworshak is 93 percent.

RAINBOW TROUT (RBT)

Brood Year 2009

At the end of the month there were 10,967 BY09 RBT in BP61 averaging 1.4 fpp and 310 mm (12.2 inches) total length. Mortality was 6.0 percent and water temperature in the tanks averaged 41.0°F during the month. These fish will be utilized for the Kids Fishing Day in 2010.

Brood Year 2010

At the end of the month there were 4,367 triploid RBT averaging 329 fpp and 50 mm (2.0 inches) total length in two circular tanks in the incubation room. Mortality for the month was 1.6 percent. These RBT will be for Kids Fishing Day in 2011.

SUMMARY

Table 2. Total Production—Fish on Station (04/30/10).

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
FCS	09	B-Bank RWs	317,848	1,150	276.4	2.3	58
SCS	09	A-Bank RWs	1,136,556	2,053	554	1.8	46
SST	10	Nursery	2,151,819	5,593	384.7	2.0	50
RBT	10	Incub. Circ Tanks	4,367	13	329.1	2.0	50
RBT	09	BP 61	10,967	7,976	1.4	12.2	310
Total			3,621,557	16,785			

Kooskia

Kooskia Trap Operations BY09

The trap was closed April 5. BY09 Adult SST collection is summarized below.

Kooskia Steelhead Summary BY 2009.													
Date	Out-planted			Killed CWT			Natural passed upstream			Trap Morts			Daily Total
	M	F	J	M	F	J	M	F	J	M	F	J	
4/5/2010	20	28	0				2	4					54
													0
													0
													0
													0
Total:	20	28	0	0	0	0	2	4	0	0	0	0	54

Kooskia Brood Year 2009

Kooskia Stock BY09 SCS number 652,186 averaging 319 fpp at 2.19 inches long. Growth for the month was .68 inches. Kooskia stock SCS are currently being reared in the outside nursery tanks on reuse with well water makeup. The reuse water temperature averaged 50.0°F during April. On April 30, 52,882 surplus BY09 SCS were outplanted to O'Hara Creek by the Nez Perce Tribe (NPT).

Dworshak Brood Year 2009

All Dworshak Stock BY09 SCS were moved to Dworshak April 16th and 19th. Total number moved was 559,418 averaging 442.6 fpp at 1.96 inches long.

Brood Year 2009 Coho Salmon (COS)

An inventory of juvenile Coho on May 1st records 341,573 Clearwater-stock fingerlings being reared in twenty nursery tanks as shown in table 1 below. On April 16th and 19th all nursery tanks had to be spilt due to density index exceeding 0.25. All Coho are planned to be moved back to Dworshak hatchery the first two weeks of May.

Table 1. Brood year 2009 Coho inventory summary on May, 1st 2010.

Vat Number	Number of fish	Weight (lbs)	FPP	Length (inch)	Date Poned
TOTAL	341,537	922	370.47	1.98	

MORTALITY: The average percent mortality for Clearwater stock Coho in April was 5.13%. Total monthly mortality was 18,459 fry as collected by staff (see attached spreadsheet).

GROWTH: Coho fingerlings increased from 494 pounds to 922 pounds in total weight and fpp increased from an average of 728.72 fpp to 370.47 fpp and length increased from an average of 1.58 inches to 1.98 inches.

FEED: Coho fry were fed BioVita Starter (Bio-Oregon) #0, #1 and #2 crum feed at 3% body weight of fish during the month.

FISH HEALTH: No chemical and or medicated treatments were conducted in April.

Maintenance

Dworshak

- Hauled fall Chinook from Umatilla Fish Hatchery to DNFH and spring Chinook from KNFH to DNFH.
- Electrical: Disassembled and troubleshot Mech II boiler 1 and 4 480-volt disconnects and moved controls to safe zone; replaced long boom control hydraulic hose on Boom truck; removed conduits, wiring and connectors in 30" pipe chase for installation of 20" hot tap; added and ran circuits, conduits, feeders, etc. for vacuum degasser systems.
- Assisted Rotor Rooter with the cleaning of System I, flushed digesters and clarifiers.
- Set up fish pumps and pumped steelhead in U.S. Army Corps of Engineers truck for outplanting and outplanted steelhead to Five mile creek on the Clearwater River.
- Fabrication projects: remodeled a lab specimen cart in Spawning Room; rack for waders in Spawning area and fabricated a ½" aluminum cover for valve pit in front of Main Building.
- Repaired broken fish screen for "A" bank head tank #11 and installed round and rectangular tanks and piping for spring Chinook.
- Removed old pack columns from System I reuse aeration chamber.
- Repaired leak in Idaho Fish Health Center roof.
- Installed new brushes on pond scrubber; installed MSDS signs to quickly locate MSDS books.
- Daily maintenance performed daily by cleaning moss trap, check main pumps, ran traveling water screens in Main Pump House, greased screens, grounds and building maintenance.

Kooskia

- Construction on the new quarters continues with exterior painting and concrete work being conducted.
- Rebuilt reuse return pump was reinstalled.

ARRA/ Projects:

Screen Chamber project: The project is scheduled for actual construction to begin June 2010.

Egg recirculation system and well rehab:

Work on the wells was completed with fencing and final work on the electrical control boxes.

Meetings/Training/Travel

Dworshak

- 4/6 & 29 The Hatchery Evaluation Team (HET) met on April 6th and 29th to discuss and plan out rearing strategies for steelhead after the fish are moved from the nursery tanks to the burrows ponds (BP's). The staff at the Clearwater State Fish hatchery has been working with us to utilize additional reservoir water to delay exposure of the steelhead to pumped river water (North Fork) to minimize the risk of infection with *Infectious Hematopoietic Necrosis Virus* (IHNV). In conjunction with this effort, there are multiple ongoing hatchery modifications/improvements to utilize reservoir water in System I. Water treatment includes fabrication and installation of a vacuum degassing system for the reservoir water, modification to the System I reuse, a variety of plumbing changes and a ton of adaptability on the part of the hatchery staff.
- 4/8 & 19 Larry Peltz, Complex Manager, Mark Drobish, Hatchery Manager and Jill Olson, Fisheries Biologist had a conference call with the U.S. Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA) to discuss NPDES issues.
- 4/12 Larry Peltz, Mark Drobish and Jack Christiansen, Aquatics Engineer traveled to Walla Walla, WA to discuss facility piping changes with the COE, U.S. Fish & Wildlife Service (USFWS), Lower Snake River Compensation Plan (LSRCP) Nez Perce Tribe (NPT) and Idaho Fish & Game (IDFG). Future facility needs at DNFH were also discussed.
- 4/15 Met with Eric Barker, Lewiston Tribune to discuss future needs of DNFH.
- 4/20 Larry Peltz traveled to Walla Walla, WA to meet with COE and discuss boiler issues.
- 4/21 Met with representatives of the NPT to discuss tribal access issues on hatchery grounds.
- 4/23 Larry Peltz traveled to Walla Walla, WA to meet with COE and Ch2MHill to discuss NPDES project.

Kooskia

- 4/6 Adam Izbicki attended an HET meeting at Dworshak.

Miscellaneous

- 4/15 Staff attended an informal informational meeting by Larry Peltz while enjoying cake and ice cream provided by the Lab to celebrate April birthdays.

Personnel Actions –

- Delivered fish food and conducted feeding lesson at 1 school – Kamiah Elementary (16 students).
- Picked up morbid fish from Kamiah Elementary for fish health evaluation; relayed results to teacher.
- Facilitated fish dissection at 1 school – Clearwater Valley Elementary (21 students).

A handwritten signature in black ink that reads "Larry Peltz". The signature is written in a cursive style with a large, prominent "L" and "P".

Larry Peltz
Complex Manager

cc: Kooskia NFH
Hagerman NFH
CFRU – Moscow
Dworshak Production (2)
LSRCP – Boise

