



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
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## MEMORANDUM

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

From: Complex Manager  
Dworshak Fisheries Complex

Subject: Dworshak Production Narrative, January, 2009

### SPRING CHINOOK SALMON (SCS)

#### ***Brood Year 2007 (BY07)***

At the end of the month there were 1,025,418 BY07 SCS averaging 25 fish per pound (fpp) and 130 mm (5.1 inches) total length on station (Table 1). These fish are being held in A and B-Bank raceways (RW's). Mortality for the month averaged 0.22 percent.

Table 1. BY2007 SCS inventory summary (01/31/09).

Stock	Number	Wt (lb)	fpp	L in	L mm	Lgth/mm	Wt(lb) Gain/Mo
Dworshak	1,025,418	41,006	25.0	5.1	130	3	2,542

Water temperature averaged 41.7°F and flow averaged 500 gpm/RW.

From January 7-13 there were 51,609 SCS which received PIT tags from a total of six different RW's. These fish were tagged as part of a comparative survival study of smolts to be transported downriver (trucking and barging) versus river-run fish. The study compares the adult return rate of each group.

There were no medical or chemical treatments given to these fish during the month.

#### ***Brood Year 2008***

At the end of the month there were 368,486 eyed eggs of Dworshak stock incubating at Dworshak National Fish Hatchery (DNFH). Chilled incubation water temperature for the month averaged 36.6°F and the SCS are currently targeted to go on feed in April, 2009. There were also 820,000 eyed eggs of Dworshak stock transferred to Kooskia National Fish Hatchery (KNFH) in October, 2008 for incubation over the winter. Initial rearing of

the fish will occur at KNFH and then transferred back to DNFH and reared in the A and B Bank Raceways until release in the spring of 2010.

### COHO SALMON (COS)

#### **Brood Year 2007**

At the end of the month there were 283,941 BY07 COS in C-Bank RW's averaging 20 fpp and 133mm (5.2 inches) total length (Table 2). Mortality for the month was 0.3 percent.

Table 2. BY2007 COS inventory summary (01/31/09).

<b>Rearing Unit</b>	<b>Number</b>	<b>Wt (lbs)</b>	<b>fpp</b>	<b>L in</b>	<b>L mm</b>	<b>Lgth/mm Gain/mo</b>	<b>Wt (lbs) Gain/mo</b>
RWs C-bank	283,941	14,226	20.0	5.2	133	1.4	390

Water temperature averaged 41.7°F and flow averaged 408 gpm/RW.

There were no medical or chemical treatments given to these fish during the month.

#### **Brood Year 2008**

Egg Takes 1-4 (622,000 fry) were transferred from the incubation room to nursery tanks in C/D-bank during the month. These fry started on feed and will be transferred to outside Burrows ponds (BP's) in March. Approximately 333,000 fry from Take 5 remained in the incubation trays by the end of the month. The production goal for Coho at Dworshak is 280,000 presmolts.

### SUMMER STEELHEAD (SST)

#### **Brood Year 2008**

Mortality for January remained low for the third month in row. Reuse and the boilers were turned on in System I during the month to increase water temperature and fish growth to help the fish reach the target size of 200 mm. Systems II and III were run on single pass river water as fish growth has been slightly higher than projected during the Fall. Due to the high mortality throughout the summer and fall as a result of *Infectious Hematopoietic Necrosis Virus (IHNV)* and Cold Water Disease, the 2.1 million target release number for SST will not be met in the spring of 2009.

Table 3 illustrates the number of BY08 SST on station at the end of the month and the projected release numbers in the spring of 2009.

Table 3. BY08 SST on station and projected release size and numbers from 01/31/09.

End of Month Data					3 Yr Ave Lgth (mm) Month End JAN	Projected Release April 2009		
System	Number	Weight (lbs)	fpp	Lgth (mm)		Proj % Mortality until Release	Proj Release Number	Proj Release Size (mm)*
*Syst I	704,315	75,977	9.3	172	172	3	683,186	198
Syst II	627,923	81,191	7.7	182	181	3	609,085	199
Syst III	473,034	83,162	5.7	202	191	3	458,843	220
<b>Total/ Ave</b>	<b>1,805,272</b>	<b>240,330</b>	<b>7.5</b>	<b>184</b>		<b>3.0</b>	<b>1,751,114</b>	<b>204</b>

\*Reuse on January-March System I.  
System I

By the end of the month there were 704,315 SST in System I averaging 9.3 fpp and 172 mm (6.8 inches) total length (Table 4). Mortality for the month was 0.04 percent.

Table 4. BY2008 SST System I inventory numbers (01/31/09).

Rearing Unit	Number	Wt (lbs)	fpp	L in	L mm	Lgth/mm Gain/mo	Wt (lbs) Gain/mo
BPs	704,315	75,977	9.3	6.8	172	10	13,076

Water temperature averaged 41.7°F and flow averaged 550 gpm/BP.

On January 12, there were 6,160 SST from BP 19 which received PIT tags for a hatchery evaluation and comparative survival study. The tagging was done by personnel from the Idaho Fishery Resource Office.

On January 12, there were 250 SST which were taken out of BP 13 for PIT tagging and returned to BP 15. There were also 250 SST taken out of BP 21 for PIT tagging and returned to BP 17. These fish were tagged by the USFWS Columbia River Fishery Program Office (CRFPO) crew and are for the smolt monitoring program.

On January 12 and 21, formalin treatments were given to all SST in the system to control parasites both before and after going on reuse.

On January 15, System I's water was converted to reuse and heated water and was operated this way throughout the month.

## System II

By the end of the month there were 627,923 SST in System II averaging 7.7 fpp and 182 mm (7.2 inches) total length (Table 5). Mortality for the month was 0.2 percent.

Table 5. BY08 SST System II inventory numbers (01/31/09).

<b>Rearing Unit</b>	<b>Number</b>	<b>Wt (lbs)</b>	<b>fpp</b>	<b>L in</b>	<b>L mm</b>	<b>Lgth/mm Gain/mo</b>	<b>Wt (lbs) Gain/mo</b>
BPs	627,923	81,191	7.7	7.2	182	6	5,055

Water temperature averaged 41.7°F and flow averaged 500 gpm/BP.

On January 13<sub>2</sub>, there were 6,151 SST from BP 16 which received PIT tags for a hatchery evaluation and comparative survival study. The tagging was done by personnel from the Idaho Fishery Resource Office.

On January 13<sub>2</sub>, there were 247 SST which taken out of BP 18 for PIT tagging and returned to BP 12. There were also 248 SST taken out of BP 20 for PIT tagging and returned to BP 14. These fish were tagged by the CRFPO crew and are for the smolt monitoring program.

There were no medical or chemical treatments given to these fish during the month.

## System III

By the end of the month there were 473,034 SST in System III averaging 5.7 fpp and 202 mm (7.9 inches) total length (Table 6). Mortality for the month was 0.4 percent.

Table 6. BY08 SST System III inventory numbers (01/31/09).

<b>Rearing Unit</b>	<b>Number</b>	<b>Wt (lbs)</b>	<b>fpp</b>	<b>L in</b>	<b>L mm</b>	<b>Lgth/mm Gain/mo</b>	<b>Wt (lbs) Gain/mo</b>
BPs	473,034	83,162	5.7	7.9	202	6	7,297

Water temperature averaged 41.7°F and flow averaged 409 gpm/BP.

On January 14-16<sub>2</sub>, there were 7,206 SST from BP 53; 4,926 SST from BP70; and 4,545 SST from BP 72 which received PIT tags for a hatchery evaluation and comparative survival study. The tagging was done by personnel from the Idaho Fishery Resource Office.

On January 14<sub>2</sub>, there were 250 SST which taken out of BP 57 for PIT tagging and returned to BP 63. There were also 250 SST taken out of BP 74 for PIT tagging and returned to BP 68. These fish were tagged by the CRFPO crew and are for the smolt monitoring program.

There were no medical or chemical treatments given to these fish during the month.

## RAINBOW TROUT (RBT)

### *Brood Year 2008 done*

By the end of the month there were 13,300 BY08 RBT in System III averaging 3.3 (fpp) and 231 mm (9.1 inches) total length (Table 7). Mortality for the month was 3.2 percent.

Table 7. BY2008 RBT inventory numbers (01/31/09).

Rearing Unit	Number	Wt (lbs)	fpp	L in	L mm
BP 60 (Diploid)	5,245	1,380	3.8	8.7	221
BP 62 (Triploid)	2,793	1,241	2.3	10.4	263
Mixed Cell Unit	5,262	1,385	3.8	8.7	221
Total/Ave	13,300	4,006	3.3	9.1	231

Water temperature averaged 41.7°F and water flow was 500 gpm/BP.

On January 29, RBT in BP 60 were inventoried and split into a mixed cell unit (formerly BP64). These month-end numbers are adjusted for this inventory. Katie Teaters from the University of Idaho (UI) will compare the fish from the two different rearing units over the next few months as part of her Senior Project at the UI.

These RBT will be for Open House 2009.

## SUMMARY

Table 8. Total Production—Fish on Station (01/31/09).

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SCS	07	A Bank RWs	1,025,418	41,006	25.0	5.1	130
COS	07	C-Bank RWs	283,941	14,226	20.0	5.2	133
SST	08	System I	704,315	75,977	9.3	6.8	172
SST	08	System II	627,923	81,191	7.7	7.2	182
SST	08	System III	473,034	83,162	5.7	7.9	202
RBT	08	BPs 60, 62 & MCU	13,300	4,006	3.3	9.1	231
<b>Total</b>			<b>3,127,931</b>	<b>299,568</b>			

MCU = Mixed cell unit, Burrows pond 64 before renovation.



Larry Peltz  
Complex Manager

Dworshak NFH  
Dworshak Production (2)  
Kooskia NFH  
Idaho FRO

Idaho FHC

LSRCP - Boise IDFG - Boise & Lewiston Nez Perce Tribe - Fisheries