

**MAGIC VALLEY HATCHERY**  
**LOWER SNAKE RIVER COMPENSATION PLAN**  
**2008 OPERATIONS REPORT**

**By**

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## **MAGIC VALLEY STEELHEAD HATCHERY**

Magic Valley Steelhead Hatchery has been a part of the Lower Snake River Compensation Plan since the completion of construction in 1987. The hatchery's annual production goal for the 2007 brood year was 1.6 million "A" and "B" strain steelhead smolts for release into the Salmon River and tributaries. Information for 2007 brood year is found in Table 1. Table 2 shows current information for brood year 2008.

Brood year 2007 production was completed in April 2008 with the stocking of steelhead smolts (Table 3). The five steelhead stocks released as smolts were 690,329 "B" strain from Dworshak, in addition to 62,315 Upper Salmon "B" strain from the Squaw Creek Acclimation Pond; 155,079 East Fork Natural "B" from the East Fork of the Salmon River; 372,394 "A" strain Pahsimeroi stock; and 340,803 Sawtooth "A" strain stock.

With the exception of 216,284 (13.34%) smolts released for Shoshone-Bannock Tribal programs, all smolts released were adipose fin clipped. In addition, 477,228 fish were coded wire tagged with 466,238 being released. An additional 34,664 were tagged with passive integrated transponders (PIT Tags) in February; of which 34,472 were released at ten different locations.

In April, May and June 2008 the hatchery received a total of 1,927,303 eyed eggs to begin the 2008 brood year. Of those eggs 423,881 were "A" strain from Pahsimeroi, 511,923 "A" strain from Sawtooth stock; 834,242 "B" strain from Dworshak; 92,086 "B" strain from the East Fork Salmon River a.k.a. East Fork Natural stock, and 65,171 USB (Upper Salmon B). Our current inventory consists of Five stocks: 734,268 Dworshak "B" strain fish weighing 45,035 pounds, 58,904 USB strain steelhead weighing 1,882 pounds, 384,510 Pahsimeroi "A" strain steelhead weighing 17,320 pounds, 447,950 Sawtooth "A" fish weighing 17,928 pounds, and 70,090 East Fork Naturals weighing 2,195 pounds.

Although water rights during the current phase of production allow for 125.59 cfs, maximum raceway flows have been measured at approximately 89.7 cfs. (92.1 cfs. November, 07)

## PERSONNEL

Personnel presently consist of Rick Lowell, Hatchery Manager II; Tom Tighe, Assistant Fish Hatchery Manager; Wade Symons, Fish Culturist; and Brandon Filloon, Fish Culturist.

## MAINTENANCE PROJECTS

During the year, the following projects were completed:

1. Installed irrigation system, topsoil, and sod between residences C & D.
2. Had the bucket cylinders on the John Deere front-end loader rebuilt.
3. Received a new Kawasaki Mule to replace our 20+ year old electric Cushman.
4. Received a new electric chemical pump from LSRCP.
5. Completed installation of floor and window molding in residences A, C, & D basements.
6. Prepped and painted residence "A" living room, master bedroom, and dining room.
7. Installed new garbage disposals in residences A, C, and D.
8. Fabricated new cleaning rakes for cleaning spring intake grates.
9. A local contractor replaced an electronic flow control valve for the water chiller.
10. Received a new pressure washer from LSRCP.
11. Purchased and planted 6 fruit trees near the east hatchery perimeter fence.
12. A local contractor installed a safety/security fence at Residence A.
13. Completed construction of four residence storage sheds.
14. Purchased new push lawn mower.
15. Purchased replacement bronze lift nuts for the outside raceway intake valves.
16. Loosened hold down tabs on the traveling bridge rails on either side of the raceway wall joints to inhibit wall cracking.
17. The 5 hp air compressor tank was pressure vessel tested.
18. Had the domestic well pump and control panel replaced.
19. Donated old aluminum dam boards and grip strut grating to Grace Hatchery
20. Received and installed replacement stainless steel fire extinguisher cabinets for the vat room

TABLE 1. BROOD YEAR 2007 STEELHEAD SURVIVAL RATES.

	DWORSHAK "B"	UPPER SALMON "B"	EAST FORK NATURAL "B"	PAHSIMEROI "A"	SAWTOOTH "A"	GRAND TOTAL
TOTAL EGGS RECEIVED	863,651	80,148	185,100	496,518	409,157	2,034,574
% HATCHED	87%	97%	97%	99%	99%	96%
SMOLTS STOCKED	690,329	62,315	155,079	372,394	340,803	1,620,920
WEIGHT SMOLTS	146,526	14,732	33,995	79,549	77,529	352,331
NO./LB.	4.7	4.2	4.6	4.7	4.4	4.6
FALL FRY RELEASES	83,814	8,378	0	80,835	46,145	219,172
WEIGHT FRY	1,234	78	0	1,045	446	2,803
TOTAL NUMBER	774,143	70,693	167,966	453,229	386,948	1,840,092
TOTAL WEIGHT	146,526	14,732	33,995	79,549	77,529	355,134
% SURVIVAL						
EGG/RELEASE	89.6%	88.2%	90.7%	91.3%	94.6%	90.4%
POUNDS OF FOOD	148,906	14,166	36,259	78,532	76,882	354,745
CONVERSION	1.02	0.96	1.07	0.99	0.99	1.00

**Note:**

12,887 East Fort Natural B's surplus to the BY 2007 Mark plan were mixed with Sawtooth A stock and released into Valley Creek.

TABLE 2. BROOD YEAR 2008 (11/08)

Magic Valley Hatchery Summary

November 1, 2008

Broodyear 2008

<b>Stock</b>	<b>DWOR</b>	<b>USB</b>	<b>EFK/NAT</b>	<b>PAH</b>	<b>SAW</b>	<b>TOTAL</b>
Total Eggs Received	834,242	65,171	92,086	423,881	511,923	1,927,303
Inventory/Start Outside	742,559	59,055	70,525	385,616	449,196	1,706,951
Weight/Start Outside	6,187	601	639	3,505	2,967	13,899
Inventory/Beginning	735,043	59,001	70,298	384,882	448,386	1,697,610
Inventory/Ending	734,268	58,904	70,090	384,510	447,950	1,695,722
Weight/Total 1st	26,252	894	1,098	9,164	10,115	47,523
Weight/Total Last	45,035	1,882	2,195	17,320	17,928	84,360
No. Shipped to date	19,995				32,508	52,503
Wt. Shipped to date	481				450	931
No./lb(Avg.)1st	28.0	66.0	64.0	42.0	44.3	38.8
No./lb(Avg.)Last	16.3	31.3	31.9	22.2	25.0	21.3
Length(Avg.)1st	4.53	3.40	3.44	3.95	3.88	4.06
Length(Avg.)Last	5.42	4.36	4.33	4.89	4.70	4.96
Length Increase	0.89	0.96	0.90	0.94	0.82	0.90
Mortality/Month **	775	97	208	372	436	1,888
Percent Mortality	0.11%	0.16%	0.30%	0.10%	0.10%	0.11%
Survival To Date	90.4%	90.4%	76.1%	90.7%	93.9%	90.7%
Monthly Feed	13,752.0	761.2	916.2	6,059.0	6,958.0	28,446.4
Monthly Conversion	0.73	0.77	0.84	0.74	0.89	0.77
Conversion to date	0.79	0.81	0.78	0.74	0.80	0.78
Feed to date	30,549.4	1,043.8	1,212.1	10,228.2	11,985.7	55,019.2

TABLE 3. BROODYEAR 2007 STEELHEAD SMOLT DISTRIBUTION

<u>Facility/Date</u>	<u>Site</u>	<u>Number Released</u>	<u>Stock</u>	<u>Fish/lb</u>	<u>Pounds</u>	<u>Marks</u>
<b>Magic Valley</b>						
*4/15/2008	Squaw Creek Acclimation Pond (acclimated fish)	62,910	Dwor B	4.72	13,328	100% AD, 62,910 CWT, 1,493 PIT
*4/7-4/10/2008	Little Salmon R (Pinehurst Bridge)	217,185	Dwor B	4.91	44,237	100% AD, 61,296 CWT, 4,691 PIT
*4/18-4/22/2008	East Fork Salmon River (lower)	226,648	Dwor B	4.70	48,264	100% AD, 31,678 CWT, 4,251 PIT
*4/25-4/28/2008	East Fork Salmon River (above E. Fk. Weir)	63,020	Natural B	4.56	13,820	No Clip, 63,020 CWT, 1,299 PIT
*4/23-4/25/2008	Squaw Creek	183,586	Dwor B	4.51	40,697	100% AD, 4,777 PIT
*4/24/2008	Squaw Creek	62,315	USB	4.23	14,732	100% AD, 62,315 CWT, 6,150 PIT
*4/14-4/27/2008	Pahsimeroi River (below weir)	30,733	Pah A	4.97	6,184	100% AD, 30,733 CWT, 599 PIT
	Salmon River (Section 16) Includes:			4.50	0	
*4/10-4/11/2008	(Red Rock)	121,414	Pah A	4.70	25,860	100% AD, 30,307 CWT, 1,396 PIT
	Salmon R. (Section 17) Includes:			4.50	0	
*4/15-4/16/2008	(Colston Corner)	129,157	Pah A/Saw A	4.56	28,304	100% AD, 30,764 CWT, 1,195 PIT
*4/14-4/15/2008	(Shoup Bridge)	91,090	Pah A	4.74	19,202	100% AD, 1,397 PIT
	Salmon R. (Section 18) Includes:					
*4/17-18/2008	(McNabb Point)	115,523	Paw A/SAW A	4.51	25,625	100% AD, 30,518 CWT, 1,391 PIT
*4/18-23/2008	(Tunnel Rock)	70,669	Pah A/Saw A	4.45	15,887	100% AD, 1,262 PIT
*4/29/2008	(Valley Creek)	62,485	Saw A	4.02	15,544	No Clip, 996 PIT
*4/30/2008	Yankee Fork	30,695	Saw A	4.50	6,821	No Clip, 695 PIT
*4/30/2008	Yankee Fork	61,431	Saw A	4.50	13,651	100% AD, 30,722 CWT, 896 PIT
*4/22/2008	Slate Creek	31,975	Natural B	4.77	6,703	100% AD, 31,975 CWT, 593 PIT
*5/1/2008	Slate Creek	<u>60,084</u>	Natural B	4.46	<u>13,472</u>	No Clip, 1,287 PIT
<b>Totals</b>		<b>1,620,920</b>		<b>4.60</b>	<b>352,331</b>	