

MAGIC VALLEY HATCHERY
LOWER SNAKE RIVER COMPENSATION PLAN
2006 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 2005 brood year was 1.6 million "A" and "B" strain steelhead smolts for release into the Salmon River and tributaries. Information for 2005 brood year is found in Table 1. Table 2 shows current information for brood year 2006.

Brood year 2005 production was completed in April 2006 with the stocking of steelhead smolts (Table 3). The five steelhead stocks released as smolts were 735,324 "B" strain from Dworshak, in addition to 31,015 Upper Salmon "B" strain from the Squaw Creek Acclimation Pond; 31,073 East Fork Natural "B" from the East Fork of the Salmon River; 446,277 "A" strain Pahsimeroi stock; and 304,301 Sawtooth "A" strain stock.

With the exception of 143,329 smolts released for Shoshone-Bannock Tribal programs and 31,073 East Fork Natural stock, all smolts released were adipose fin clipped. In addition, 379,603 fish were coded wire tagged with 364,718 being released. An additional 3,900 were tagged with passive integrated transponders (PIT Tags) in February of which 3,894 were released at nine different locations.

In April, May and June 2006 the hatchery received a total of 2,233,622 eyed eggs to begin the 2006 brood year. Of those eggs 747,535 were "A" strain from Pahsimeroi, 338,094 "A" strain from Sawtooth stock; 932,190 "B" strain from Dworshak; 66,543 "B" strain from the East Fork Salmon River a.k.a. East Fork Natural stock, and 149,260 USB (Upper Salmon B). Our current inventory consists of five stocks: 648,063 Dworshak "B" strain fish weighing 26,253 pounds, 136,153 Upper Salmon B "USB" strain steelhead weighing 4,005 pounds, 584,283 Pahsimeroi "A" strain steelhead weighing 18,352 pounds, 303,643 Sawtooth "A" fish weighing 10,305 pounds, and 51,939 East Fork Naturals weighing 1,484 pounds.

Although water rights during the current phase of production allow for 125 cfs, maximum raceway flows have been measured at approximately 89.7 cfs.

PERSONNEL

Personnel presently consist of Rick Lowell, Hatchery Manager II; Pat Moore, Assistant Fish Hatchery Manager; Wade Symons, Fish Culturist; and Dan Green, Fish Culturist.

MAINTENANCE PROJECTS

During the year, the following projects were completed:

1. Inside hatchery building vats were sand-blasted and epoxy painted by a contractor out of Texas.
2. Had new stainless steel knife gate fabricated for the North fines bin.
3. Purchased new washing machine for hatchery dormitory.
4. Replaced two north-end wheels on the traveling bridge and ordered four new replacement wheels.
5. Completed construction of tiered landscape flower beds at all 4 hatchery residences.
6. Surveyed our old 1986 Chevy Truck ☹ and received a replacement secondary fleet vehicle from Nampa Research.
7. A smaller fork lift was transferred from the Eagle Truck Shop to Magic Valley Hatchery.
8. Received and set up 4 surplus Canadian Troughs from Looking Glass Hatchery.
9. A local contractor repaired three pumps in our pump room. Two of the pumps serviced the hatchery irrigation and residence heat pump system, and one pump serviced the water chiller.
10. A local contractor poured concrete approach pads for all four residence front entries.
11. Had one drive-line wheel from the traveling bridge repaired.
12. A local electrical contractor repaired one of our automatic feeder circuits in the vat room.
13. Had a local professional pesticide applicator spray for mosquitoes around the hatchery residences.
14. Made several trips to the County waste transfer station to haul old Koch rings from the degassing tower.
15. Modifications and improvements to the residence "C" basement were initiated. They include constructing a partition wall to make an additional bedroom, and constructing an enclosed bathroom area in the laundry room.

TABLE 1. BROOD YEAR 2005 STEELHEAD SURVIVAL RATES.

	DWORSHAK "B"	UPPER SALMON "B"	EAST FORK NATURAL "B"	PAHSIMEROI "A"	SAWTOOTH "A"	GRAND TOTAL
EGGS	945,000	41,802	54,110	624,365	338,448	2,003,725
% HATCHED	87%	97%	97%	99%	99%	96%
SMOLTS STOCKED	735,324	31,015	31,073	446,277	304,301	1,547,990
WEIGHT SMOLTS NO./LB.	170,982 4.30	7,097 4.37	6,967 4.46	106,252 4.20	72,802 4.18	364,100 4.25
% SURVIVAL						
EGG/RELEASE	77.8%	74.2%	57.4%	71.5%	89.9%	77.3%
POUNDS OF FOOD CONVERSION	170,437 1.00	6,169 0.87	6,604 0.95	96,851 0.91	67,449 0.93	347,512 0.95

TABLE 2. BROOD YEAR 2006 (11/06)

Magic Valley Hatchery Summary
October 31, 2006

Broodyear 2006

Stock	DWOR	USB	EFK/NAT	PAH	SAW	TOTAL
Total Eggs Received	932,190	149,260	66,543	747,535	338,094	2,233,622
Inventory/Beginning	650,381	136,277	52,028	584,613	303,777	1,727,076
Inventory/Ending	648,063	136,153	51,939	584,283	303,643	1,724,081
Weight/Total 1st	15,902	1,867	743	9,207	5,320	33,038
Weight/Total Last	26,253	4,005	1,484	18,352	10,305	60,399
No. Shipped month	5,600	6,030	0	20,000	-	31,630
Wt. Shipped month	80	90	0	200	-	370
No. Shipped to date	198,000	-	0	52,000	-	250,000
Wt. Shipped to date	1,542	-	0	402	-	1,944
No./lb(Avg.)1st	40.9	73.0	70.0	63.5	57.1	52.3
No./lb(Avg.)Last	24.7	34.0	35.0	31.8	29.5	28.5
Length(Avg.)1st	3.99	3.29	3.33	3.45	3.57	3.68
Length(Avg.)Last	4.72	4.24	4.20	4.34	4.45	4.50
Length Increase	0.73	0.95	0.87	0.89	0.88	0.82
Mortality/Month *	2,318	124	89	330	134	2,995
Percent Mortality	0.36%	0.09%	0.17%	0.06%	0.04%	0.17%
Survival To Date	91.4%	95.3%	78.1%	87.8%	89.8%	89.8%
Monthly Feed	7,508	1,282	518	5,823	3,286	18,417
Monthly Conversion	0.72	0.58	0.70	0.62	0.66	0.66
Conversion to date	0.80	0.70	0.86	0.71	0.72	0.75
Feed to date	22,139	2,817	1,270	13,301	7,456	46,979

** Beginning inventory did not reflect fish inventory that was left over inside after CWT

TABLE 3. BROODYEAR 2005 STEELHEAD SMOLT DISTRIBUTION

<u>Site</u>	<u>Number Released</u>	<u>Stock</u>	<u>Fish/lb</u>	<u>Pounds</u>
Little Salmon R (Hazard Creek)	248,105	Dwor B	4.43	55,975
Squaw Creek Acclimation Pond (acclimated fish)	62,457	Dwor B	4.59	13,610
Squaw Creek Acclimation Pond (acclimated fish)	31,015	USB	4.37	7,097
Yankee Fork Ranger Station DWOR B (direct release into Salmon R.)	187,051	Dwor B	4.27	43,841
East Fork Salmon River (lower)	237,711	Dwor B	4.13	57,556
East Fork Salmon River (above E. Fk. Weir)	31,073	Natural B	4.46	6,967
Lemhi River (St Charles Cr. Bridge)	47,008	Pah A	4.39	10,714
Hayden Creek/Basin Creek Confluence	14,639	Pah A	4.18	3,500
Hayden Creek/Lemhi River Confluence	19,150	Pah A	3.83	5,000
Hayden Pond	46,866	Pah A	4.31	10,882
Pahsimeroi River (below weir)	31,759	Pah A	4.76	6,672
Salmon River (Section 16) Includes:				
Red Rock	102,087	Pah A	4.09	24,984
Salmon R. (Section 17) Includes:				
Colston Corner	110,235	Pah A	3.95	27,901
Lemhi Hole	74,534	Pah A	4.49	16,599
Salmon R. (Section 18) Includes:				
McNabb Point	137,098	Pah A/Saw A	4.38	31,285
Tunnel Rock	41,004	Pah A/Saw A	3.97	10,334
Valley Creek	30,599	Saw A	3.80	8,052
Yankee Fork	63,525	Saw A	4.07	15,600
Yankee Fork	32,075	Saw A	4.26	7,529
Totals	1,547,990		4.25	364,100