

MAGIC VALLEY HATCHERY
LOWER SNAKE RIVER COMPENSATION PLAN
2007 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 2006 brood year was 1.6 million "A" and "B" strain steelhead smolts for release into the Salmon River and tributaries. Information for 2006 brood year is found in Table 1. Table 2 shows current information for brood year 2007.

Brood year 2006 production was completed in April 2007 with the stocking of steelhead smolts (Table 3). The five steelhead stocks released as smolts were 614,383 "B" strain from Dworshak, in addition to 127,266 Upper Salmon "B" strain from the Squaw Creek Acclimation Pond; 50,592 East Fork Natural "B" from the East Fork of the Salmon River; 536,450 "A" strain Pahsimeroi stock; and 295,958 Sawtooth "A" strain stock.

With the exception of 145,483 smolts released for Shoshone-Bannock Tribal programs and 50,592 East Fork Natural stock, all smolts released were adipose fin clipped. In addition, 495,985 fish were coded wire tagged with 480,577 being released. An additional 3,691 were tagged with passive integrated transponders (PIT Tags) in February of which 3,345 were released at nine different locations.

In April, May and June 2007 the hatchery received a total of 2,034,574 eyed eggs to begin the 2007 brood year. Of those eggs 496,518 were "A" strain from Pahsimeroi, 409,157 "A" strain from Sawtooth stock; 863,651 "B" strain from Dworshak; 185,100 "B" strain from the East Fork Salmon River a.k.a. East Fork Natural stock, and 80,148 USB (Upper Salmon B). Our current inventory consists of Five stocks: 708,976 Dworshak "B" strain fish weighing 34,548 pounds, 63,720 Upper Salmon B "USB" strain steelhead weighing 2,656 pounds, 381,044 Pahsimeroi "A" strain steelhead weighing 19,074 pounds, 349,546 Sawtooth "A" fish weighing 15,645 pounds, and 161,417 East Fork Naturals weighing 7,277 pounds.

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

PERSONNEL

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

MAINTENANCE PROJECTS

During the year, the following projects were completed:

1. Modifications and improvements to the residence "C" basement were completed. They included constructing a partition wall to make an additional bedroom, and constructing an enclosed bathroom area in the laundry room.
2. Landscape preparation and installation of sod at residences A" and "D".
3. Completed a gravel based turn-around area for residence A.
4. Purchased blinds for all four residence basement egress windows.
5. Installed wall heater in residence C basement bedroom.
6. Had the transmission rebuilt on our primary fleet vehicle.
7. Had the electric motor on the south feed bin metering valve rebuilt.
8. A local HVAC contractor repaired the heat pump in residence "D"
9. Met with contract engineers to evaluate raceway wall deterioration issues.
10. Local contractors completed the interior painting and down-stairs carpet installation for residence "D".
11. Purchased a safety lifting harness for the T Size Oxygen bottles
12. LSRCP sold our surplus semi-square vats, the old gas-powered Cushman Cart, and the old, pressure washer/steam cleaner on GSA auction.
13. Had an irrigation pump rebuilt and electrical switch repairs completed.
14. A local electrical contractor completed installing 15 new flex conduit connectors to the bridge feeders.
15. LSRCP had a contractor take concrete core samples from various raceway walls to determine reasons for the extensive cracking we have observed.
16. Received 25 yards of topsoil and installed a new irrigation system and sod around residence B.
17. A local contractor completed the installation of remaining vinyl windows in all residences and the Hatchery Dormitory.
18. Painted the master bathroom and kitchen in all hatchery residences.
19. LSRCP purchased new furniture for the hatchery dormitory and 88 new aluminum dam boards.
20. Boise Rigging completed the installation of the new buss bar system for our traveling feeding bridge.
21. A local electrical contractor installed new 50 amp electrical service for the MATS marking trailers.
22. Surveyed for state auction our old 1983 Ford 2-Ton.
23. All four residences exterior painted.
24. Cut down several dead and dying trees around the settling pond area and removed shrubs.

TABLE 1. BROOD YEAR 2006 STEELHEAD SURVIVAL RATES.

	DWORSHAK "B"	UPPER SALMON "B"	EAST FORK NATURAL "B"	PAHSIMEROI "A"	SAWTOOTH "A"	GRAND TOTAL
EGGS	932,190	149,260	66,543	747,535	338,094	2,233,622
% HATCHED	87%	97%	97%	99%	99%	96%
SMOLTS STOCKED	614,383	127,266	50,592	536,450	295,958	1,624,649
WEIGHT SMOLTS	139,703	27,411	12,191	128,105	68,199	375,610
NO./LB.	4.39	4.64	4.15	4.19	4.34	4.32
TOTAL NUMBER	817,983	133,296	50,592	608,450	295,958	1,906,279
TOTAL WEIGHT	141,325	27,501	12,191	128,707	68,199	377,924
% SURVIVAL						
EGG/RELEASE	87.7%	89.3%	76.0%	81.4%	87.5%	85.3%
POUNDS OF FOOD	142,469	26,616	11,133	116,491	63,292	360,000
CONVERSION	1.01	0.97	0.91	0.91	0.93	0.95

TABLE 2. BROOD YEAR 2007 (11/07)

Magic Valley Hatchery Summary
October 24, 2007

Broodyear 2007

Stock	DWOR	USB	EFK/NAT	PAH	SAW	TOTAL
Total Eggs Received	863,651	80,148	185,100	496,518	409,157	2,034,574
Inventory/Start Outside	710,158	63,809	161,818	381,962	350,366	1,668,113
Weight/Start Outside	5,867	286	674	2,746	1,288	10,861
Inventory/Beginning	709,520	63,732	161,545	381,482	349,874	1,666,153
Inventory/Ending	708,976	63,720	161,417	381,044	349,546	1,664,703
Weight/Total 1st	22,141	1,554	4,142	11,111	8,688	47,636
Weight/Total Last	34,458	2,656	7,277	19,074	15,645	79,109
No./lb(Avg.)1st	32.0	41.0	39.0	34.3	40.3	35.0
No./lb(Avg.)Last	20.6	24.0	22.2	20.0	22.4	21.1
Length(Avg.)1st	4.33	3.99	4.05	4.23	4.01	4.20
Length(Avg.)Last	5.01	4.76	4.89	5.06	4.88	4.98
Length Increase	0.69	0.78	0.84	0.83	0.87	0.77
Mortality/Month **	544	12	128	438	328	1,450
Percent Mortality	0.08%	0.02%	0.08%	0.11%	0.09%	0.09%
Survival To Date	91.8%	90.0%	94.2%	93.0%	96.7%	93.2%
Monthly Feed	11,114	1,021	2,674	5,902	5,506	26,216
Monthly Conversion	0.90	0.93	0.85	0.74	0.79	0.83
Conversion to date	0.83	0.80	0.80	0.75	0.73	0.79
Feed to date	23,835	1,896	5,251	12,326	10,532	53,840

TABLE 3. BROODYEAR 2006 STEELHEAD SMOLT DISTRIBUTION

<u>Site</u>	<u>Number Released</u>	<u>Stock</u>	<u>Fish/lb</u>	<u>Pounds</u>
Squaw Creek Acclimation Pond (acclimated fish)	59,567	Dwor B	4.99	11,937
Squaw Creek Acclimation Pond (acclimated fish)	63,597	USB	4.89	13,006
Little Salmon R (Stinky Springs)	215,170	Dwor B	4.53	47,499
East Fork Salmon River (lower)	207,487	Dwor B	4.36	47,587
East Fork Salmon River (above E. Fk. Weir)	50,592	Natural B	4.15	12,191
Squaw Creek	132,159	Dwor B	4.04	32,680
Squaw Creek	63,669	USB	4.42	14,405
Pahsimeroi River (below weir)	30,591	Pah A	4.45	6,874
Salmon River (Section 16) Includes: (Red Rock)	129,930	Pah A	4.33	30,000
Salmon R. (Section 17) Includes: (Colston Corner)	165,473	Pah A/Saw A	4.18	39,600
(Shoup Bridge)	78,847	Pah A	4.22	18,700
Salmon R. (Section 18) Includes: (McNabb Point)	119,727	Paw A/SAW A	4.18	28,663
(Tunnel Rock)	60,439	Pah A/Saw A	4.10	14,741
(Valley Creek)	54,640	Saw A	4.25	12,856
Yankee Fork	60,783	Saw A	4.28	14,202
Yankee Fork	30,451	Saw A	4.32	7,049
Slate Creek	41,136	Pah A	4.40	9,342
Slate Creek	60,392	Pah A	4.23	14,277
Totals	1,624,649		4.33	375,610