

WALLOWA HATCHERY ANNUAL REPORT FY2008

INTRODUCTION

Location

Wallowa Hatchery is located in northeast Oregon, two miles west of Enterprise. The hatchery is adjacent to Spring Creek, one mile upstream from the confluence of Spring Creek and the Wallowa River. Five rivers comprise the 613 river miles to the ocean: Spring Creek, Wallowa, Grande Ronde, Snake and Columbia Rivers. Two satellite stations, Big Canyon (Wallowa system) 30 miles west of the hatchery and Little Sheep (Imnaha system) 30 miles east of the hatchery, are used for adult trapping, spawning and smolt acclimation.

OBJECTIVES

Mitigation Goals

Wallowa Hatchery is operated as part of the Lower Snake River Compensation Program. Mitigation goals include, collecting 1,133,000 (green) Wallowa stock (56) summer steelhead eggs and 313,000 (green) Imnaha stock (29) summer steelhead eggs. The smolt release goal for the Wallowa stock is 800,000 smolts. The Imnaha stock goal is 265,000 smolts, 165,000 to Little Sheep (acclimated) and 100,000 to Big Sheep (direct stream). The 2008 brood year releases will be reduced to 50,000 smolts into Big Sheep Creek, a goal of 215,000 smolts. The adult return goal is 9,200 for the Wallowa stock and 2,000 for the Little Sheep stock into their respective mitigation areas.

This is the fifth year of supplementing our existing Wallowa steelhead program with Fall Collected Brood (FCB) and the fourth year of FCB smolt releases. This was the first year of spawning on returning FCB adults. The main goals of the program are reduce the potential for straying into Columbia River tributaries and enhance fall harvest opportunities within the LSRCP compensation area. All eggs collected from the FCB adults are segregated, uniquely marked as smolts, and then incorporated into our rearing program. We replaced conventional program eggs with eggs from the FCB thus maintaining our goal of 800,000 smolts.

SUMMER STEELHEAD

Adult Returns

There were similar return numbers at Wallowa as compared to 2007. Big Canyon return numbers were significantly higher than the previous year. Mitigation goals were met for the 5608 stock. Little Sheep also met its mitigation goal with a higher return number than the previous year. The stock designations for adults collected during the 2008 season were Wallowa and Big Canyon (5608) and Little Sheep/Imnaha (2908).

Wallowa Hatchery collected 2,835 hatchery origin steelhead. Of those, 1,625 were male and 1,210 were female. This number includes the FCB adults (202 males and 130 females) that were RV clipped and returned to the Wallowa Hatchery trap. This was 2 fish less than the number of returning adults in 2007.

Big Canyon satellite facility had a return of 1,189 adult hatchery origin steelhead consisting of 588 males and 601 females. This was a 65% increase from the 767 returning adults in 2007. We had 61 (38 males, 23 females) natural origin steelhead return, all of which were passed above the weir in Deer Creek to spawn naturally. The natural origin steelhead returns in 2007 were 48 adults.

Little Sheep facility had 1,686 hatchery adults return (880 males, 806 females), which is 1.5% lower than the 2007 return of 1,712. Natural origin returns were 151 adults (72 male, 79 female), compared to 91 in 2007. Of the adults collected, 146 hatchery and 145 natural origin steelhead were passed above the weir in Little Sheep Creek. Additional releases include 1,365 hatchery adults transferred to Big Sheep Creek to spawn naturally.

Egg Production - Wallowa Stock (5608) Summer Steelhead

There were a total of 1,185,685 Wallowa stock eggs taken during the season, 964,180 production and 221,505 FCB eggs. 1,025,250 eyed eggs were transferred to Irrigon Hatchery. 1,200 eggs were transferred to local school education programs (STEP). The green to eyed egg loss was 8.6% for the Wallowa stock as a whole. 2008 was the first year for spawning the RV fin clipped adults (FCB progeny) returning to Wallowa Hatchery. The FCB segregated eggs had a much lower percent loss (9.8%) compared to previous years (~15%) when adults were collected from the river and held at Wallowa Hatchery.

Egg Production - Imnaha Stock (2908) Summer Steelhead

A total of 297,350 green eggs were taken in the 2008 season. We transferred 263,300 eyed eggs to Irrigon Hatchery. Egg loss was 11.5%, comparable to the 10.8% loss in 2007.

Smolt Acclimation Summer Steelhead

There were 485,507 Wallowa stock (5607) smolts acclimated and released from Wallowa Hatchery. Big Canyon acclimated and released 318,340 Wallowa stock (5606) smolts to Deer Creek and 2,361 non-migrating "residual" smolts to local ponds.

Little Sheep satellite facility acclimated and released 171,545 Imnaha stock (2907) smolts to Little Sheep Creek.

Irrigon Hatchery reared the above stocks of smolts acclimated and release at our facilities.

CAPITAL CONSTRUCTION AND MAINTENANCE

There were no capital construction projects at Wallowa Hatchery or its satellite facilities during the report period.

MAJOR PROJECTS ACCOMPLISHED BY ODFW PERSONNEL

Wallowa Facility

The areas where willow tree stumps had been removed were leveled with top soil and planted with grass seed.

The outlet pipe for our two concrete circular ponds was dug up and replaced with an eight inch PVC line. The old drain line had collapsed was restricting flow.

The staff replaced 6 maples trees that did not survive the previous winter.

A lot of ground maintenance was performed in the hatcheries planted areas. Trees and bushes were pruned and bark dust was spread through out them.

The staff spent a lot of effort in trying to up grade the facility buildings, residences, and apartment. Many minor repairs were made and time spent with contractors on projects to upgrade from the original construction. The goal is to get these facilities through many years of service with out putting huge maintenance dollars into them in the future.

New vinyl windows were installed in the old hatchery building. This installation should cut down on the energy costs to heat this building.

Two more truck loads of washed rock were brought in to cover some sections of our upper spring. This spring provides water to the captive brood CHS.

Cracks occurring in the steelhead acclimation ponds were repaired.

The crew repaired a few leaks in the metal roof that covers the old hatchery building.

A plywood fish slide was constructed at a concrete out fall down stream of the hatchery where the steelhead smolts have to travel over. The slide will provide a less harmful landing on the concrete for downstream migrating smolts

After a December flood event the staff spent many hours cleaning up the shop and captive brood area. Approximately 2 feet off water muddy water was standing in the building. The staff did an excellent job in keeping the damages to a minimum.

Big Canyon Facility

Trees that were planted during original construction were trimmed around the site.

Portions of the exterior fence were destroyed due to a mud slide. The crew rebuilt the fence and a rock jack to keep the cattle out of the facility.

Little Sheep Facility

All off the damn boards were pulled out of the pond and hauled away. New boards will be installed.

A wind storm destroyed a metal storage building, which blew through a fence. The chain link fence was repaired and the building hauled off.

The aluminum pipe dividers in the trap had 2" square aluminum cage wire welded to them to prevent fish from going through them.

MAINTENANCE PROJECTS ACCOMPLISHED BY CONTRACTORS

Wallowa Hatchery

Two new 12 foot electric roll up doors were installed in our equipment building by The Door Guy.

Carpet One installed new vinyl flooring and carpet in House #2.

Hamptons Paving put down asphalt in a planted area that is along side of our acclimation ponds. This will make it easier to maintain and more user friendly when feeding with the feed blower.

Ted Co. installed a wood stove insert in House #1.

Tony's Heating and AC completed annual heating and air conditioning maintenance at all three facilities.

Scotts Heating and Repair worked on the heat pump in House #2 to fix some reoccurring problems.

Rocky Smith General Contracting installed new hardy board siding on house #2.

E.C. Power Systems completed the annual inspection and maintenance of all three facility's backup generators.

Mountain View Glass installed some new vinyl window and a sliding glass door in House #1.

Big Canyon Facility

Tony's Heating rebuilt the heater cold air return to pull air from the floor. The air return was pulling air form the ceiling instead of the floor where you need it for good air circulation.

Little Sheep Facility

There were no renovations or major repairs made by contractors at Little Sheep facility this year.

MAJOR PURCHASES

Radio Alarms	\$ 1,259
John Deere Tractor	\$12,233
Fish Food	\$10,491
Wood Shed	\$ 1,998
MS222	\$ 900
INAD participation fee	\$ 800
DEQ water analysis	\$ 850

MAJOR REPAIRS and MAINTENANCE

Siding House #2	\$6,642
Replace cold air return at Big Canyon	\$ 576
Asphalt at Wallowa Hatchery	\$3,000
New Roll up doors for Lib truck building	\$6,244
Annual maintenance on backup generators at 3 facilities	\$2,728
Annual hoist inspections at 3 facilities	\$ 600
Appliances	\$1,550
House #1 carpet	\$1,538
Heat pump repair	\$ 576
Wood Stove	\$3,700
Vinyl Window	\$1,330

Adult Returns to Hatchery

Steelhead Wallowa Stock BY08

Big Canyon Facility

Date of first return:	February 29, 2008
Date of last return:	June 9, 2008
Number of adults returning:	626 males, 624 females
Date of peak returns:	April 15, 2008
Number of fish released to spawn naturally:	38 males, 23 females
Number of fish planted for angling opportunity:	
<i>Roulet Pond</i>	60 males, 30 females
<i>Wallowa River</i>	56 males, 21 females
<i>Wallowa Wildlife Pond</i>	12 males, 8 females
Mortality of all adult returns:	0 females; 0 males

430 males and 496 females in excess of program needs were given away to food banks and educational use.

Wallowa Fish Hatchery

Date of first return:	February 13, 2008
Date of last return:	May 21, 2008
Number of adults returning:	1,625 males, 1,210 females
Date of peak returns:	March 19, 2008
Number of fish released to spawn naturally:	0 males, 0 females
Number of fish planted for angling opportunity:	
<i>Marr Pond</i>	83 males, 17 females
<i>Wallowa River</i>	6 males, 6 females
<i>Wallowa Wildlife Pond</i>	44 males, 6 females
Mortality of all adult returns:	3 males; 0 females

1,118 males and 661 females in excess of program needs were given away to food banks and educational use.

Steelhead Imnaha Stock BY08

Little Sheep Creek Facility

Date of first return:	March 10, 2008
Date of last return:	June 16, 2008
Number of adults returning:	952 males, 885 females
Date of peak returns:	April 14, 2008
Number of fish released to spawn naturally:	153 males, 138 females
Number of fish outplanted to Big Sheep Creek:	720 males, 645 females
Mortality of all adult returns:	2 males; 0 females

Spawning Record

Steelhead

Wallowa Stock BY08 (*includes Fall Caught Brood fish*)

Wallowa Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
3/12/08	102,200	19	19
3/19/08	178,250	33	33
3/26/08	220,100	42	42
4/02/08	219,635	42	32
4/09/08	221,600	41	41
4/16/08	162,100	31	31
4/24/08	81,800	17	17

Total number of females spawned:	225
Total number of males spawned:	215
Total number of green eggs:	1,185,685
Total number of eyed eggs:	1,084,100
Number of eggs retained for rearing:	0*
Number of eyed eggs shipped:	1,026,450
Date of last spawning:	4/24/08

**1,200 eyed eggs were transferred to STEP, and the remainder was shipped to Irrigon Fish Hatchery for incubation and rearing.*

Spawning Record

Steelhead Imnaha Stock BY08

Little Sheep Creek Facility

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
4/08/08	18,550	4	4
4/15/08	47,850	12	12
4/22/08	67,150	14	11
4/29/08	43,100	10	8
5/06/08	34,000	8	8
5/13/08	38,400	9	8
5/20/08	48,300	9	9

Total number of females spawned:	66
Total number of males spawned:	60
Total number of green eggs:	297,350
Total number of eyed eggs:	263,300
Number of eggs retained for rearing:	0*
Number of eggs shipped:	263,300
Date of last spawning:	5/20/08

**Unfertilized eggs and milt were transported to Wallowa Fish Hatchery for fertilization.
All eyed eggs were shipped to Irrigon Fish Hatchery for incubation and rearing.*

Fingerlings Reared

Rainbow Trout

Cape Cod Stock BY07

Number fingerlings produced:	35,464
Weight of fingerlings produced (lbs.):	238.9
Percent mortality to release:	18.5
Average number/pound of fingerlings produced:	148.4
Conversion rate:	1.01

Smolts Reared

**Spring Chinook – Captive Brood Program
Grande Ronde River Stock BY06**

Number smolts produced:	151
Weight of smolts produced (lbs.):	6.9
Percent mortality to transfer:	0.66%
Average number/pound of smolts produced:	21.88
Conversion rate:	0.93

**Spring Chinook – Conventional Program
Grande Ronde River Stock BY06**

Number smolts produced:	155
Weight of smolts produced (lbs.):	7.0
Percent mortality to transfer:	4.24%
Average number/pound of smolts produced:	22.14
Conversion rate:	1.01

Steelhead
Wallowa Stock BY07

Number of smolts produced:	806,208*
Weight of smolts produced (lbs.):	185,094.0
Percent mortality to stocking:	5.67%
Average number/pound of smolts produced:	4.36
Conversion rate:	1.16 at Irrigon Fish Hatchery

**Irrigon Fish Hatchery reared 809,148 smolts weighing 168,830 pounds for this program. A total of 318,340 smolts survived to release from Big Canyon Acclimation Facility; 2,361 non-migrating smolts were released to standing waterbodies. A total of 485,507 smolts survived to release from Wallowa Acclimation Facility.*

Pounds produced at Wallowa Fish Hatchery facilities totaled 16,264. Conversion rates at Big Canyon and Wallowa Acclimation facilities were 1.19 and 1.18, respectively.

Steelhead
Imnaha Stock BY07

Number smolts produced:	274,865*
Weight of smolts produced (lbs.):	57,264.00
Percent mortality to stocking:	5.19%
Average number/pound of smolts produced:	4.80
Conversion rate:	1.21 at Irrigon Fish Hatchery

**Irrigon Fish Hatchery reared 275,834 smolts weighing 52,974.8 pounds for this program. A total of 103,320 smolts weighing 21,525 pounds were direct-stream released to Big Sheep Creek from Irrigon Fish Hatchery. A total of 171,545 smolts survived to release from Little Sheep Creek Facility, where they were acclimated prior to release. Pounds produced at Little Sheep Creek Facility totaled 4,950, and the conversion rate was 1.15.*

Food Fed and Weight Gain

**Chinook – Captive Broodstock Program
Grande Ronde River Stock BY06**

Wallowa Hatchery	
Total pounds of food fed	3.19
Conversion rate	0.92
Total pounds weight gained - all sizes produced	3.46

**Chinook – Captive Broodstock Program
Grande Ronde River Stock BY07**

Wallowa Hatchery	
Total pounds of food fed	2.01
Conversion rate	0.97
Total pounds weight gained - all sizes produced	2.07

**Chinook – Conventional Program
Grande Ronde River Stock BY06**

Wallowa Hatchery	
Total pounds of food fed	4.27
Conversion rate	0.92
Total pounds weight gained - all sizes produced	4.64

**Steelhead
Wallowa Stock BY07**

Big Canyon Facility	
Total pounds of food fed	5,750.00
Conversion rate	1.18
Total pounds weight gained - all sizes produced	4,877.00

**Steelhead
Wallowa Stock BY07**

Wallowa Acclimation Pond	
Total pounds of food fed	13,400.00
Conversion rate	1.18
Total pounds weight gained - all sizes produced	11,387.00

Food Fed and Weight Gain

**Steelhead
Imnaha Stock BY07**

Little Sheep Creek Facility	
Total pounds of food fed	4,950.00
Conversion rate	1.15
Total pounds weight gained - all sizes produced	4,289.00

**Rainbow Trout
Cape Cod Triploid Stock BY07**

Wallowa Hatchery	
Total pounds of food fed	5.63
Conversion rate	1.21
Total pounds weight gained - all sizes produced	4.66

**Rainbow Trout
Cape Cod Stock BY07**

Wallowa Hatchery	
Total pounds of food fed	227.6
Conversion rate	1.01
Total pounds weight gained - all sizes produced	225.3

On Hand at Wallowa Fish Hatchery September 30, 2008

Fish On Hand - BY07

Species	Stock	Number
Spring Chinook	Grande Ronde Conventional	304

FY08 Stocking

Total number of distribution trips:	2*
Number of fry stocked	0
Weight of fry stocked:	0 lbs.
Number of fingerlings stocked:	35,464
Weight of fingerlings stocked:	238.9 lbs.
Number of smolts stocked:	977,753
Weight of smolts stocked:	220,833.0 lbs
Date, location, number and weight at each stocking:	See Attached

*One trip was to transport Captive Broodstock to Bonneville Hatchery.

**Wallowa Fish Hatchery and Associated Facility Stocking Records
October 1, 2007 through September 30, 2008**

HATCHERY	SPECIES	STOCK	TYPE	DATE	FROM/TO	NO/LB	MORTS	NUMBER STOCKED	POUNDS STOCKED
BIG CANYON	SUMMER STEELHEAD	056 07	LIBERATION	4/9/2008	DEER CREEK	4.25	0	80,273	18,888
BIG CANYON	SUMMER STEELHEAD	056 07	LIBERATION	4/10/2008	DEER CREEK	4.30	0	80,298	18,674
BIG CANYON	SUMMER STEELHEAD	056 07	LIBERATION	4/29/2008	DEER CREEK	4.30	0	71,713	16,677
BIG CANYON	SUMMER STEELHEAD	056 07	LIBERATION	5/12/2008	WALLOWA WILDLIFE PD	4.63	0	1,852	400
BIG CANYON	SUMMER STEELHEAD	056 07	LIBERATION	5/12/2008	VICTOR PD	4.63	0	509	110
BIG CANYON	SUMMER STEELHEAD	056 07	LIBERATION	4/30/2008	DEER CREEK	4.35	0	86,056	19,783
LITTLE SHEEP	SUMMER STEELHEAD	029 07	LIBERATION	4/1/2008	SHEEP CR, L	4.80	0	171,545	35,739
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	ANEROID LK	120.00	0	4,000	33
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	PROSPECT LK	120.00	0	2,000	17
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	UNIT LK	120.00	0	2,000	17
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	VAN PATTEN LK	160.00	0	3,280	21
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	LOST LK	160.00	0	1,790	11
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	LOOKINGGLASS LK	160.00	820	2,460	15
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	MELLARD RES	120.00	0	250	2
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	MELLARD RES	160.00	0	1,040	7
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	HOBO LK	160.00	0	2,000	13
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	HAWK LK	160.00	0	2,000	13
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	TWIN LK	160.00	0	1,290	8
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	ROCK CREEK RES	160.00	0	2,780	17
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	CRATER LK	160.00	0	2,780	17
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	LEGORE LK	160.00	0	1,500	9
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	EAGLE LK	160.00	0	1,940	12
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	HEART LK	160.00	0	2,290	14
WALLOWA	RAINBOW TROUT	072 07	LIBERATION	8/5/2008	FRANCIS LK	160.00	0	2,064	13
WALLOWA ACC	SUMMER STEELHEAD	056 07	LIBERATION	4/6/2008	SPRING CR	4.50	0	183,278	40,728
WALLOWA ACC	SUMMER STEELHEAD	056 07	LIBERATION	4/7/2008	SPRING CR	4.30	0	180,792	42,045
WALLOWA ACC	SUMMER STEELHEAD	056 07	LIBERATION	4/26/2008	SPRING CR	4.37	0	121,437	27,789
WALLOWA	SPRING CHINOOK	080Z06	TRANSFER	4/21/2008	BONNEVILLE HATCHERY	22.05	0	306	14