

WALLOWA HATCHERY ANNUAL REPORT FY2009

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 1,147,500 (green) Wallowa stock (56) summer steelhead eggs and 318,816 (green) Little Sheep Creek stock (29) summer steelhead eggs. The smolt release goal for the Wallowa stock is 800,000 smolts. The Little Sheep Creek stock goal is 215,000 smolts, 165,000 to Little Sheep (acclimated) and 50,000 to Big Sheep (direct stream). 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 sixth year of supplementing our existing Wallowa steelhead program with Fall Collected Brood (FCB) and the fifth year of FCB smolt releases. This was the second 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

Return numbers at Wallowa were slightly higher as compared to 2008. Big Canyon return numbers were significantly higher than the previous year. Little Sheep Creek had significantly lower return numbers than the previous year. The stock designations for adults collected during the 2009 season were Wallowa and Big Canyon (5609) and Little Sheep/Imnaha (2909).

Wallowa Hatchery collected 3,226 hatchery origin steelhead. Of those, 1,135 were male and 1,588 were female. This number includes the FCB adults (248 males and 255 females) that were RV clipped and returned to the Wallowa Hatchery trap. This was 14% more than the number of returning adults in 2008.

Big Canyon satellite facility had a return of 1,789 adult hatchery origin steelhead consisting of 679 males and 1,110 females. This was a 50% increase from the 1,189 returning adults in 2008. We had 80 (38 males, 42 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 2008 were 61 adults.

Little Sheep facility had 1,074 hatchery adults return (482 males, 592 females), which is 36% lower than the 2008 return of 1,686. Natural origin returns were 184 adults (63 male, 121 female), compared to 151 in 2008. Of the adults collected, 113 hatchery and 169 natural origin steelhead were passed above the weir in Little Sheep Creek. Additional releases include 869 hatchery adults transferred to Big Sheep Creek to spawn naturally.

Egg Production - Wallowa Stock (5609) Summer Steelhead

There were a total of 1,474,620 Wallowa stock eggs taken during the season, 1,226,450 production and 248,170 FCB eggs. 40,000 eyed eggs were taken for Lyons Ferry Hatchery in Washington due to a production shortfall at that hatchery. 1,099,600 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 16.9% for the Wallowa stock as a whole. This is the second year for spawning the RV fin clipped adults (FCB progeny) returning to Wallowa Hatchery. The FCB segregated eggs had a slightly higher percent loss (21.1%) compared to previous years (~15%) when adults were collected from the river and held at Wallowa Hatchery.

Egg Production - Imnaha Stock (2909) Summer Steelhead

A total of 361,675 green eggs were taken in the 2009 season. We transferred 318,475 eyed eggs to Irrigon Hatchery. Egg loss was 11.9%, comparable to the 11.5% loss in 2008.

Smolt Acclimation Summer Steelhead

There were 370,403 Wallowa stock (5608) smolts acclimated and released from Wallowa Hatchery. Big Canyon acclimated and released 282,021 Wallowa stock (5608) smolts to Deer Creek and 2,457 non-migrating "residual" smolts to local ponds.

Little Sheep satellite facility acclimated and released 142,103 Imnaha stock (2908) smolts to Little Sheep Creek, and 4,733 non-migrating "residual" smolts to Kinney Lake.

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

Residence #2 underwent fence and shed improvements. Repairs were also made to the bathroom included replacing the drywall, texturing and repainting.

Countertops were replaced in residence #1.

A leaky radiator on the back-up generator was removed and rebuilt, hoses were replaced.

A leak in the main upper spring line was repaired.

A screen was built for the back-up lower Spring Creek intake.

Installed air stones and aerators in four new liberation coolers.

Hand rails on the Spring Creek bridge were sanded and repainted.

The diesel tank was replaced.

A large portion of our time this year was spent on the state trout program. After a ten year absence, Wallowa Hatchery is rearing rainbow trout once again. A lot of maintenance and planning went into this program to get it up and running.

Big Canyon Facility

One of the two rotating screens at the intake was repaired and modified by screens shop personnel.

Upgrades to spawning shelter including a new fish lift (lift, rails, collection pen), roofing repairs, modifications to create an anesthetic tank, a fish stunner mounting bracket and counter, and hoist modifications.

Busy Bee completed annual carpet cleanings.

The heating diesel tank was removed and sent to Wallowa Hatchery.

Little Sheep Facility

A floating debris log was replaced at the intake.

New steel flush gates were built for fish ladder.

Several trees were removed near the intake.

All new dam boards have been cut and installed in the acclamation ponds and ladder.

Truck fill lines and septic covers were repaired.

MAINTENANCE PROJECTS ACCOMPLISHED BY CONTRACTORS

Wallowa Hatchery

South Fork Ready mix delivered two loads of washed river rock to be used to fill in sunken areas on our rock covered upper spring.

R & C Fire Extinguisher Services completed annual extinguisher inspections.

Tony's heating completed annual inspections on all facility, housing and satellite facility heating and cooling units

Countertops were replaced in residence #1.

Miller plumbing repaired a leaky pipe in the bathroom wall in residence #2.

Door locks were replaced on a number of doors allowing the facility to be unlocked with only two keys.

Painters were contracted to paint the eaves on the main building at the hatchery.

Big Canyon Facility

Painters were contracted to paint the eaves on the main building.

Little Sheep Facility

No contract work was performed this year.

MAJOR PURCHASES

Fish Pump	\$4,934-LSRCP (\$54,000-R&E,other)
Fish Food	\$9,670
INAD participation fee	\$800
DEQ water analysis	\$2,245
Propane	\$2,415
Plasma Cutter	\$1,381

MAJOR REPAIRS and MAINTENANCE

Dam Boards(Little Sheep)	\$1,300
Replace and re-key door handles	\$2,355
Carpet cleaning	\$1,027
Heat pump service	\$775
Egg Picker repair	\$1,026
Counter tops House#1	\$2,099
Plastic Jump screen material for replacement	\$911
Material for fabricating adult lift at Big Canyon	\$725
Painting Buildings (Contractor)	\$3,620

Adult Returns to Hatchery

Steelhead Wallowa Stock BY09

Big Canyon Facility

Date of first return:	February 27, 2009
Date of last return:	May 22, 2009
Number of adults returning:	717 males, 1153 females
Date of peak returns:	April 10, 2009
Number of fish released to spawn naturally:	38 males, 42 females
Number of fish planted for angling opportunity:	
<i>Wallowa River</i>	44 males, 64 females
Mortality of all adult returns:	11 males; 28 females

633 males and 1,023 females in excess of program needs were given away to food banks and educational use.

Wallowa Fish Hatchery

Date of first return:	February 11, 2009
Date of last return:	May 23, 2009
Number of adults returning:	1,397 males, 1,854 females
Date of peak returns:	March 25, 2009
Number of fish released to spawn naturally:	0 males, 0 females
Number of fish planted for angling opportunity:	
<i>Marr Pond</i>	74 males, 26 females
<i>Ladd Pond</i>	38 males, 2 females
<i>Roulet Pond</i>	24 males, 26 females
<i>Wallowa River</i>	13 males, 9 females
<i>Wallowa Wildlife Pond</i>	37 males, 33 females
Mortality of all adult returns:	18 males; 23 females

845 males and 1,372 females in excess of program needs were given away to food banks and educational use.

Steelhead Imnaha Stock BY09

Little Sheep Creek Facility

Date of first return:	March 9, 2009
Date of last return:	May 26, 2009
Number of adults returning:	545 males, 713 females
Date of peak returns:	April 13, 2009
Number of fish released to spawn naturally:	113 males, 169 females
Number of fish outplanted to Big Sheep Creek:	370 males, 486 females
Mortality of all adult returns:	2 males; 0 females

Spawning Record

Steelhead

Wallowa Stock BY09 (*includes Fall Caught Brood fish*)

Wallowa Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
3/11/09	107,700	19	19
3/18/09	196,500	33	33
3/25/09	260,700	42	42
4/01/09	245,400	42	42
4/08/09	260,300	41	41
4/15/09	210,520	31	31
4/23/09	193,500	32	32

Total number of females spawned:	240
Total number of males spawned:	240
Total number of green eggs:	1,474,620
Total number of eyed eggs:	1,135,500
Number of eggs retained for rearing:	40,000
Number of eyed eggs shipped:	1,100,800*
Number of fry shipped:	40,000**
Date of last spawning:	4/23/09

**1,200 eyed eggs were transferred to STEP and 1,099,600 were shipped to Irrigon Fish Hatchery for incubation and rearing.*

***Shipped to Lyons Ferry Hatchery in Washington*

Spawning Record

Steelhead Imnaha Stock BY09

Little Sheep Creek Facility

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
3/31/09	19,300	3	
4/7/09	24,400	20	
4/14/09	53,000	11	
4/21/09	53,175	11	
4/28/09	72,700	13	
5/5/09	98,700	18	
5/12/09	40,400	7	

Total number of females spawned:	83
Total number of males spawned:	60
Total number of green eggs:	361,675
Total number of eyed eggs:	318,475
Number of eggs retained for rearing:	0*
Number of eggs shipped:	318,475
Date of last spawning:	5/12/09

**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.*

Legal Trout Reared

Rainbow Trout Cape Cod Triploid Stock BY07

Number fingerlings produced:	29,738
Weight of fingerlings produced (lbs.):	10,970.3
Percent mortality to release:	3.16
Average number/pound of fingerlings produced:	2.71
Conversion rate:	1.01

Trophy Trout Reared

Rainbow Trout

Cape Cod Triploid Stock BY07

Number fingerlings produced:	335
Weight of fingerlings produced (lbs.):	670.0
Percent mortality to release:	3.16
Average number/pound of fingerlings produced:	0.5
Conversion rate:	1.01

Smolts Reared

Spring Chinook – Captive Brood Program

Grande Ronde River Stock BY07

Number smolts produced:	300
Weight of smolts produced (lbs.):	14.7
Percent mortality to transfer:	1.32%
Average number/pound of smolts produced:	20.4
Conversion rate:	1.10

Steelhead

Wallowa Stock BY08

Number of smolts produced:	654,881*
Weight of smolts produced (lbs.):	177,036.0
Percent mortality to stocking:	22.37%
Average number/pound of smolts produced:	3.70
Conversion rate:	0.92 at Irrigon Fish Hatchery

**Irrigon Fish Hatchery reared 668,502 smolts weighing 167,995 pounds for this program. A total of 284,478 smolts survived to release from Big Canyon Acclimation Facility; 2,457 non-migrating smolts were released to standing waterbodies. A total of 370,403 smolts survived to release from Wallowa Acclimation Facility. Pounds produced at Wallowa Fish Hatchery facilities totaled 9,081. Conversion rates at Big Canyon and Wallowa Acclimation facilities were 2.38 and 1.32, respectively.*

Smolts Reared

Steelhead Imnaha Stock BY07

Number smolts produced:	146,836*
Weight of smolts produced (lbs.):	32,632.0
Percent mortality to stocking:	13.1%
Average number/pound of smolts produced:	4.50
Conversion rate:	0.92 at Irrigon Fish Hatchery

**Irrigon Fish Hatchery reared 193,544 smolts weighing 40,565.0 pounds for this program. A total of 45,298 smolts weighing 10,295 pounds were direct-stream released to Big Sheep Creek from Irrigon Fish Hatchery. A total of 142,103 smolts survived to release from Little Sheep Creek Facility, where they were acclimated prior to release; 4,733 non-migrating smolts were released to Kinney Lake. Pounds produced at Little Sheep Creek Facility totaled 2,362, and the conversion rate was 1.23.*

Food Fed and Weight Gain

Chinook – Captive Broodstock Program Grande Ronde River Stock BY07

Wallowa Hatchery

Total pounds of food fed	9.31
Conversion rate	1.31
Total pounds weight gained - all sizes produced	7.11

Chinook – Captive Broodstock Program Grande Ronde River Stock BY08

Wallowa Hatchery

Total pounds of food fed	2.51
Conversion rate	1.24
Total pounds weight gained - all sizes produced	2.03

Steelhead Wallowa Stock BY08

Big Canyon Facility

Total pounds of food fed	4,950.00
Conversion rate	2.25
Total pounds weight gained - all sizes produced	2,203.00

Food Fed and Weight Gain

**Steelhead
Wallowa Stock BY08**

Wallowa Acclimation Pond	
Total pounds of food fed	9,100.00
Conversion rate	1.32
Total pounds weight gained - all sizes produced	6,878.00

**Steelhead
Imnaha Stock BY08**

Little Sheep Creek Facility	
Total pounds of food fed	2,900.00
Conversion rate	1.23
Total pounds weight gained - all sizes produced	2,362.00

**Rainbow Trout
Cape Cod Triploid Stock BY07**

Wallowa Hatchery	
Total pounds of food fed	8,165.00
Conversion rate	1.00
Total pounds weight gained - all sizes produced	8,125.15

**Rainbow Trout
Cape Cod Triploid Stock BY08***

Wallowa Hatchery	
Total pounds of food fed	2.40
Conversion rate	1.05
Total pounds weight gained - all sizes produced	2.28

*These fish were *Myxobolus cerebralis* test fish and were euthanized.

**On Hand at Wallowa Fish Hatchery
September 30, 2009**

Fish On Hand - BY07

Species	Stock	Number
Rainbow Trout	Cape Cod Triploid	3,234

Fish on Hand – BY08

Species	Stock	Number
Spring Chinook	Grande Ronde Captive Brood	311

FY09 Stocking

Total number of distribution trips:	18*
Number of fry stocked	0
Weight of fry stocked:	0 lbs.
Number of fingerlings stocked:	0
Weight of fingerlings stocked:	0 lbs.
Number of smolts stocked:	801,717
Weight of smolts stocked:	209,668.0 lbs
Number of legals stocked:	29,738
Weight of legals stocked:	10,970.3 lbs.
Number of trophies stocked:	335
Weight of trophies stocked:	670.0 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, 2008 through September 30, 2009**

HATCHERY	SPECIES	STOCK	TYPE	DATE	FROM/TO	NO/LB	MORTS	NUMBER STOCKED	POUNDS STOCKED
BIG CANYON	SUMMER STEELHEAD	056 08	LIBERATION	04-15-09	DEER CREEK	4.10	0	69,769	17,017
BIG CANYON	SUMMER STEELHEAD	056 08	LIBERATION	04-16-09	DEER CREEK	3.95	0	75,109	19,015
BIG CANYON	SUMMER STEELHEAD	056 08	LIBERATION	04-28-09	DEER CREEK	3.70	0	77,058	20,827
BIG CANYON	SUMMER STEELHEAD	056 08	LIBERATION	04-29-09	DEER CREEK	2.70	0	60,085	22,254
BIG CANYON	SUMMER STEELHEAD	056 08	LIBERATION	05-12-09	WALLOWA WILDLIFE PD	2.73	0	1,638	600
BIG CANYON	SUMMER STEELHEAD	056 08	LIBERATION	05-12-09	VICTOR PD	2.73	0	819	300
LITTLE SHEEP	SUMMER STEELHEAD	029 08	LIBERATION	03-31-09	SHEEP CR, L	4.51	0	142,103	31,507
LITTLE SHEEP	SUMMER STEELHEAD	029 08	LIBERATION	04-29-09	KINNEY LK	4.21	0	4,733	1,125
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	WALLOWA LK	0.50	0	100	200
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	WALLOWA WILDLIFE PD	0.50	0	25	50
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	VICTOR PD	0.50	0	25	50
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	KINNEY LK	0.50	0	25	50
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	MARR PD	2.50	0	800	320
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-06-09	MARR PD	0.50	0	100	200
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-19-09	MCGRRAW POND	0.50	0	20	40
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-19-09	SALT CREEK SUMMIT POND	0.50	0	20	40
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-19-09	WALLOWA WILDLIFE PD	0.50	0	20	40
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	05-15-09	MARR PD	2.60	0	502	193
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	05-15-09	VICTOR PD	2.60	0	751	289
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	05-15-09	WALLOWA WILDLIFE PD	2.60	0	502	193
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	05-22-09	KINNEY LK	2.30	0	1,955	850
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	05-22-09	KINNEY LK	2.80	0	1,047	374
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	WALLOWA LK	2.50	0	6,000	2,400
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	MARR PD	3.50	0	1,001	286
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	VICTOR PD	3.50	0	752	215
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-05-09	WALLOWA WILDLIFE PD	3.50	0	501	143
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	04-10-09	MARR PD	3.00	0	500	167
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	04-10-09	WALLOWA WILDLIFE PD	3.00	0	250	83
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	04-23-09	WALLOWA LK	2.80	5	4,996	1,784
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-19-09	MCGRRAW POND	2.70	0	1,401	519

**Wallowa Fish Hatchery and Associated Facility Stocking Records
October 1, 2008 through September 30, 2009**

HATCHERY	SPECIES	STOCK	TYPE	DATE	FROM/TO	NO/LB	MORTS	NUMBER STOCKED	POUNDS STOCKED
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-19-09	SALT CREEK SUMMIT POND	2.70	0	502	186
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-19-09	WALLOWA WILDLIFE PD	2.70	0	502	186
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	06-23-09	WALLOWA LK	2.70	0	2,754	1,020
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	07-01-09	ROULET PD	3.10	0	453	146
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	07-02-09	MARR PD	3.10	0	202	65
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	07-02-09	WALLOWA WILDLIFE PD	3.10	0	251	81
WALLOWA	RAINBOW TROUT	072T07	LIBERATION	07-14-09	WALLOWA LK	2.80	0	4,116	1,470
WALLOWA	SPRING CHINOOK	080Z07	TRANSFER	05-06-09	BONNEVILLE HATCHERY	20.44	0	300	15
WALLOWA ACC	SUMMER STEELHEAD	056 08	LIBERATION	04-12-09	SPRING CR	3.95	0	132,876	33,639
WALLOWA ACC	SUMMER STEELHEAD	056 08	LIBERATION	04-13-09	SPRING CR	4.00	0	125,475	31,369
WALLOWA ACC	SUMMER STEELHEAD	056 08	LIBERATION	04-25-09	SPRING CR	3.50	0	112,052	32,015