

## **LOOKINGGLASS FISH HATCHERY ANNUAL REPORT FY2011**

### **INTRODUCTION**

#### Location

Lookingglass Fish Hatchery is located on Lookingglass Creek 2.2 miles upstream from its confluence with the Grande Ronde River near the small community of Palmer Junction. The Grande Ronde flows another 85 miles before entering the Snake River at Heller Bar. The Imnaha satellite facility is located at river mile 46 on the Imnaha River, a tributary to the Snake River and is used as a smolt acclimation and release site in the spring and for adult trapping in the summer.

### **OBJECTIVES**

#### Program Goals

Lookingglass Fish Hatchery is part of the Lower Snake River Compensation Program (LSRCP) and has been in operation since 1982. LSRCP's long term mitigation goal for the hatchery is to return 5,720 adult Chinook to the Grande Ronde sub-basin for fish losses occurring as a result of the construction and operation of the four Lower Snake River Dams. Short term goals are recovery, delisting, and utilizing captive broodstock technology and conventional supplementation to prevent the extinction of three wild Chinook populations; the Upper Grande Ronde River stock, Catherine Creek stock, and Lostine River stock. Also, reintroduction of spring/summer Chinook into Lookingglass Creek using Catherine Creek stock is a goal of the program. In the Imnaha River system, the program mitigation goal is to return 3,210 hatchery adults to the area above Ice Harbor Dam. In addition, program goals include restoring and maintaining the natural spawning population, reestablishing sport and tribal fisheries, and minimizing the impacts of the program on resident stocks of fish.

### **CHINOOK**

#### Trapping and Adult Returns

The adult trap on Lookingglass Creek was put into operation on February 28, 2011 primarily to trap adult steelhead returning at this time of year. Wild steelhead are enumerated and then released upstream of the weir to spawn naturally and hatchery origin steelhead are removed. A total of 306 unmarked steelhead were trapped and released. Thirty unmarked steelhead were re-captured. Three hatchery steelhead were trapped and euthanized.

The first Chinook was trapped on June 1, 2011. A total of 1,385 Chinook were trapped consisting of 1,332 Lookingglass Creek stock and 53 Grande Ronde stock. The Grande Ronde stock fish were fish that swam into the Lookingglass trap identified by their intact adipose fin and CWT mark. Lookingglass Creek stock removed from the trap consisted of 226 males, 397 females, and 709 jacks. All trapped fish were held until July 12 when Confederated Tribes of the Umatilla (CTUIR) along with ODFW personnel released a portion of trapped fish above the weir to spawn naturally. Released on July 12 were 174 fish consisting of 39 males, 124 females, and 12 jacks. After July 12, trapped fish were either released above the weir in real time or retained for broodstock purposes. There

were 506 Chinook out planted above the weir for natural production. The trap was in continuous operation until September 15, 2011.

The weir at the Imnaha Satellite Facility was installed on July 18, 2011 and in operation until September 14, 2011. A total of 1,213 fish were trapped consisting of 296 males, 211 females, and 720 jacks. There were 170 males, 115 females, and 48 jacks held for broodstock purposes with 3 pre-spawning mortalities. Fish that were excess to broodstock needs were distributed to charitable food banks, out planted, released above the weir, or taken to Wallowa Fish Hatchery to recover CWT for M & E purposes. A total of 437 jacks and 5 adult males were distributed to food banks, 40 adults were out planted into Big Sheep Creek and 20 adults into Lick Creek, tributaries to the Imnaha River. Also, 92 males, 64 females, and 56 jacks were released above the weir and 158 hatchery jacks and 3 hatchery males were taken to Wallowa Hatchery. There were 2 trap mortalities.

Located on the Upper Grande Ronde River and Catherine Creek, weirs and traps are operated by the Confederated Tribes of the Umatilla Indian Reservation(CTUIR). A portion of returning adults trapped are transported to Lookingglass and held for spawning. Lookingglass Hatchery received a total of 85 fish from the Upper Grande Ronde facility. There were 33 males, 48 females, and 4 jacks. In addition, 12 males, 12 females, and 29 jacks swam into the Lookingglass trap and were identified as Grande Ronde fish due to unique marks placed on the fish. There were 86 broodstock received from the Catherine Creek weir and trap consisting of 43 males, 39 females, and 4 jacks.

Located on the Lostine River, a weir and trap is operated by the Nez Perce Tribe. A portion of returning adults trapped are transported to Lookingglass and held for spawning. There were 144 Lostine River broodstock consisting of 69 males, 72 females, and 3 jacks brought to Lookingglass Hatchery. Seven females were subsequently returned to the Lostine River.

### Spawning and Egg Production

All conventional broodstock of the various stocks of fish were spawned at Lookingglass and all fertilized eggs incubated at Lookingglass. All 79 Lookingglass stock females' eggs were incubated in a Moist Air Incubation unit. Eggs of the other stocks are incubated in traditional Heath style egg incubation stacks. Survival to the eyed egg stage was 91.6%. Fry from Catherine Creek, Grande Ronde River, Lostine River, and Imnaha will be reared at Lookingglass Hatchery. Lookingglass stock fry will be transferred to Irrigon Hatchery in the spring of 2012. The Lookingglass stock of fish will be reared at Irrigon until September of 2012 and then returned to Lookingglass for final rearing until release in the spring of 2013. The final rearing at Lookingglass will take place in the adult holding ponds which have been modified to hold fish at 20-30 fish per pound.

Egg production from 2011 spawning efforts, number of females' spawned, percent eye up, green and eyed egg numbers, and fecundities for the various stocks is as follows:

There were 105 Imnaha stock females spawned yielding 495,534 green eggs resulting in 419,970 eyed eggs for an eye up of 84.8%. Average fecundity was 4,719 per female.

A total of 64 Lostine females were spawned yielding 302,422 green eggs resulting in 277,876 eyed eggs for an eye up of 91.9%. Average fecundity was 4,725 per female.

A total of 79 Lookingglass females were spawned yielding 318,779 green eggs resulting in 292,019 eyed eggs for an eye up of 91.6%. Average fecundity was 4,035 per female. One females' eggs were culled on the recommendation of Fish Health services due to a high ELISA value.

A total of 39 Catherine Creek females were spawned yielding 150,225 green eggs resulting in 140,364 eyed eggs for an eye up of 93.4%. Average fecundity was 3,852 per female.

A total of 39 Grande Ronde females were spawned yielding 166,042 green eggs resulting in 143,568 eyed eggs for an eye up of 86.5%. Average fecundity was 4,257 per female.

Total conventional egg take was 1,433,002 green eggs yielding 1,273,797 eyed eggs.

#### Captive Broodstock Chinook Program

A separate annual report covers the details for operation of this program. BY 2009 captive smolts released in March 2010 were: Catherine Creek Stock 100,518, Grand Ronde Stock 50,196, Lostine River Stock 1,910.

#### Miscellaneous

Fish marking by ad-clipping, Coded Wire Tag marking, or both was completed on the BY 2010 Imnaha, Lostine, Catherine Creek, and Upper Grande Ronde River stocks in August, 2011. A total of 149,201 fish received a CWT only, 669,636 were CWT and ad-clipped, and 419,886 were ad-clipped only. Lookingglass stock fish were marked at Irrigon Hatchery in June, 2011.

There were 58,662 BY 09 Catherine Creek conventional fish that received a visual implant tag (VIE) in November 2010 which were released in March of 2011.

PIT-tagging was completed on the BY 2009 Imnaha, Lostine, Catherine Creek, Lookingglass, and Upper Grande Ronde River stocks in October, 2010. A total of 47,925 fish received PIT tags.

## **CONSTRUCTION AND MAINTENANCE**

### **MAINTENANCE PROJECTS ACCOMPLISHED BY ODFW PERSONNEL**

- Serviced and repaired vehicles and equipment.
- Repaired various snow removal equipment
- Continued a re-cycling program re-cycling computer paper, catalogs, plastic bottles, cardboard, aluminum, and tin cans
- Took several dump truck loads of surplus metal to re-cycling center

- Auctioned off surplus and unused equipment through Lower Snake program
- Landscaped area around residential construction area
- Cleaned rock out of intake area
- Serviced UV water treatment system cleaning drum filter and replacing UV lamps
- Repaired spray nozzles on traveling water screens at water supply intake
- Worked with Union County Sheriff's Department and people who have been ordered by the court to perform community service work in various miscellaneous labor projects including pressure washing, cutting, splitting, and stacking firewood
- Imnaha Facility: Repaired fish tower door, painted new siding, replaced water heater, removed skylights that were leaking in shop ceiling and sealed the hole

### **MAINTENANCE PROJECTS ACCOMPLISHED BY CONTRACTORS**

**Alpine Alarm** – Repair and maintenance of residential and hatchery fire alarm systems

**Alpine Chimney Sweeps**-Inspection and residential chimney cleaning

**Automation Direct**-Acquired alarm system technology; installed by ODFW

**Barnes Diesel Power** – Repair/Maintenance hatchery generator, vehicles

**Carpet One**-Replace vinyl flooring in office, restroom, and living quarters area with new vinyl; install carpet tile in office area

**Cooke & Emele** – Maintenance and repair on residence water furnace

**Delta Environmental** – Domestic water quality analysis and DEQ environmental water sample analysis

**Doug Hess Construction**-Install siding on Imnaha cabin and shop

**Eastern Oregon Nursery**-Provide backflow tests on hatchery residences

**Edge Performance**-Repair and service to two Kawasaki Mules

**Gildemeister** –Aerial photographs of hatchery

**Grande Ronde Sign**-Build welcome and hatchery hours sign

**Jensortner Inc.**-Maintenance and repair of egg picking machine

**Ladco Electric** – General electrical maintenance throughout the facility and replacement of the variable frequency drive for the TW2 well

**Les Schwab**-Miscellaneous tire and vehicle brake repair

**McMillen Co.**-Design and pour concrete dividing walls in adult holding ponds

**ODFW-Information Services Division** provided upgraded internet routers and switches, streamlined internet cabling system

**Partney/Mitrac Construction** – Remove rock and gravel from Lookingglass Creek in front of water intake

**Pendleton Grain Growers** – Domestic water well repair

**R & C Fire Extinguisher** – Annual maintenance and recharge fire extinguishers for LGH and ISF

**S & G Machinery**-Repair brakes on backhoe

**Scott's Heating and Service**-Replace faulty residential thermostat

**Steele's Septic Service**-Pump residential septic systems

**Wallowa County Road Department**-Plow snow to Imnaha Facility

**Wheeler Communication** – Repair handheld Motorola Radios, maintenance on existing alarm system, change alarm enunciation

**Wilde Electric**-Repair spray bar pump at intake

**MAJOR EXPENSES**

Repair & maintenance of buildings and grounds	\$ 2,770.99
Fish food	\$ 103,733.14
Repairs and maintenance to equipment	\$ 7,126.85
Supplies (Program related)	\$ 23,489.03
Other Services	\$ 25,619.03
Communication services	\$ 6,180.01
Utilities *	\$ 1,288.29
Technology	\$ 2,276.75
Uniform items, PPE	\$ 1,845.71
Chemicals	\$ 10,292.82
Equipment Rental	\$ 1,320.59
Office supplies	<u>\$ 3,162.80</u>
Total	\$189,106.01

\*Utilities does not include an estimated \$80,000 paid directly by LSRCP

## Adult Returns to Hatchery

### Chinook Lookingglass Creek Stock 81 BY11

Lookingglass Fish Hatchery	
Where trapped:	Lookingglass Creek Weir
Dates trapped:	June 1 – September 9, 2011
Number of adults trapped:	242 males, 382 females, 708 jacks
Date of peak returns:	June 28, 2011
Number of adults released to spawn naturally:	135 males, 300 females, 338 jacks
Number of adults to hatchery for broodstock:	83 males, 97 females, 117 jacks
Number given away:	0 males, 0 females, 340 jacks
Mortality of all adult returns	<i>at trap:</i> 0 males, 0 females
	<i>at hatchery:</i> 21 males, 4 females, 1 jack

### Chinook - Conventional Broodstock Program Grande Ronde River Stock 80 BY11

Lookingglass Fish Hatchery	
Where trapped:	Lookingglass Creek Weir
Dates trapped:	June 17 – September 7, 2011
Number of adults trapped:	12 males, 12 females, 29 jacks
Date of peak trapping:	July 21, 2011
Number of adults released to spawn naturally:	0 males, 0 females, 0 jacks
Number of adults to hatchery for broodstock:	12 males, 12 females, 26 jack
Number given away:	0 males, 0 females, 3 jacks
Mortality of all adults	<i>at trap:</i> 0 males, 0 females, 0 jacks

### Summer Steelhead Lookingglass Creek Stock 81 BY11

Lookingglass Fish Hatchery	
Where trapped:	Lookingglass Creek Weir
Dates trapped:	March 4 – June 13, 2011
Number of adults trapped:	91 males, 193 females, 0 jacks
Date of peak returns:	May 20, 2011
Number of adults released to spawn naturally:	89 males, 192 females, 0 jacks
Number of adults to hatchery for broodstock:	0 males, 0 female, 0 jacks
Number given away:	0 males, 0 female, 0 jacks
Mortality of all adult returns	<i>at trap:</i> 0 males, 0 females
	<i>at hatchery:</i> 0 males, 0 female, 0 jacks

## Adults Trapped Off Hatchery and Transported to Hatchery

### Chinook Imnaha Stock 29 BY11

Lookingglass Fish Hatchery	
Where trapped:	Imnaha Satellite Facility
Date weir installed:	July 18, 2011
Dates trapped:	August 2 – August 29, 2011
Number of adults trapped:	296 males, 211 females, 720 jacks
Date of peak trapping:	August 12, 2011
Number of adults released to spawn naturally:	
<i>Imnaha River</i>	92 males, 64 females, 56 jacks
<i>Big Sheep Creek</i>	22 males, 18 females, 0 jacks
<i>Lick Creek</i>	7 males, 13 females, 0 jacks
Number of adults to hatchery for broodstock:	167 males, 115 females, 67 jacks
Number given away	5 males, 0 females, 437 jacks
Mortality of all adults	<i>at trap:</i> 0 males, 1 females, 2 jacks
	<i>at hatchery:</i> 44 males, 7 females, 11 jacks

### Chinook - Conventional Broodstock Program Grande Ronde River Stock 80 BY11

Lookingglass Fish Hatchery	
Where trapped:	Upper Grande Ronde Weir
Dates trapped:	June 22 – July 20, 1
Number of adults trapped:	60 males, 76 females, 93 jacks
Date of peak trapping:	June 29, 2011
Number of adults released to spawn naturally:	25 males, 26 females, 15 jacks
Number of adults to hatchery for broodstock:	33 males, 48 females, 4 jacks
Mortality of all adults	<i>at trap:</i> 2 male, 2 females, 0 jacks
	<i>at hatchery:</i> 9 males, 20 females, 0 jacks

**Adults Trapped Off Hatchery and Transported to Hatchery**

**Chinook - Conventional Broodstock Program  
Catherine Creek Stock 201 BY11**

Lookingglass Fish Hatchery	
Where trapped:	Catherine Creek Weir
Dates trapped:	May 31 – August 2, 2011
Number of adults trapped:	114 males, 112 females, 167 jacks
Date of peak trapping:	July 4, 1
Number of adults released to spawn naturally:	
<i>Catherine Creek</i>	50 males, 53 females, 32 jacks
<i>Indian Creek</i>	21 males, 20 females, 5 jacks
Number of adults to hatchery for broodstock:	43 males, 39 females, 4 jacks
Mortality of all adults	
<i>at trap:</i>	0 males, 0 females, 0 jacks
<i>at hatchery:</i>	27 males, 5 female, 0 jacks

**Chinook - Conventional Broodstock Program  
Lostine River Stock 200 BY11**

Lookingglass Fish Hatchery	
Where trapped:	Lostine River Weir
Dates trapped:	June 24 – September 8, 2011
Date of peak trapping:	July 25, 2011
Number of adults trapped:	119 males, 134 females, 210 jacks
Number of adults to hatchery for broodstock:	68 males, 72 females, 4 jacks
Number of adults released to spawn naturally:	0 males, 0 females, 0 jacks
Mortality of all adults	
<i>at trap:</i>	0 males, 0 females, 0 jacks
<i>at hatchery:</i>	22 males, 11 females, 0 jacks

**SPAWNING RECORD****Chinook  
Imnaha Stock 29 BY11**

## Lookingglass Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/16/11	39,354	8	8
8/23/11	110,369	22	21
8/30/11	210,253	45	43
9/06/11	76,688	17	15
9/13/11	54,758	12	12
9/19/11	4,112	1	4

*Imnaha stock Chinook eggs and milt were combined according to matrices, depending on available mature broodstock. Milt from hatchery jacks was pooled, 6 jacks equivalent to one male.*

Total number of females spawned:	105
Total number of males spawned:	113
Total number of green eggs:	495,534
Total number of eyed eggs:	419,970
Number of eggs retained for rearing:	419,970
Date of last spawning:	9/19/11

**Chinook  
Lookingglass Stock 81 BY11**

## Lookingglass Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/18/11	12,509	3	3
8/25/11	56,968	13	14
9/01/11	207,010	51	50
9/08/11	46,503	12	7

*Eggs and milt were combined by matrices, according to available mature broodstock.*

Total number of females spawned:	79
Total number of males spawned:	60
Total number of green eggs:	322,990
Total number of eyed eggs:	295,912
Number of eggs retained for rearing:	295,912
Date of last spawning:	9/08/11

## Spawning Record

### Chinook - Conventional Broodstock Program Upper Grande Ronde Stock 80 BY11

Lookingglass Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/18/11	9,599	2	2
8/25/11	21,543	5	5
9/01/11	114,429	27	27
9/08/11	16,280	4	4
9/12/11	4,191	1	4

*Eggs and milt were combined by matrices, according to available mature broodstock.*

Total number of females spawned:	39
Total number of males spawned:	22
Total number of green eggs:	166,042
Total number of eyed eggs:	143,298
Total number of eggs shipped:	304*
Number of eggs retained for rearing:	142,994
Date of last spawning:	9/12/10

*\*Eyed eggs shipped to Wallowa Hatchery for SNAP program*

### Chinook - Conventional Broodstock Program Catherine Creek Stock 201 BY11

Lookingglass Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
9/01/11	3,394	1	2
9/08/11	43,019	11	12
9/15/11	30,472	8	7
9/20/11	47,989	12	10
9/22/11	7,548	2	2
9/26/11	17,893	5	5

*Egg and milt were combined by matrices, according to available mature broodstock.*

Total number of females spawned:	39
Total number of males spawned:	32
Total number of green eggs:	150,315
Total number of eyed eggs:	140,364
Number of eggs retained for rearing:	140,364
Date of last spawning:	9/26/11

**Spawning Record**

**Chinook - Conventional Broodstock Program  
Lostine Stock 200 BY11**

Lookingglass Fish Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/16/11	11,956	2	2
8/23/11	57,980	12	11
8/31/11	155,429	32	30
9/06/11	62,939	14	14
9/13/11	9,893	3	4
9/19/11	4,225	1	1

*Lostine stock Chinook were spawned by matrices, depending on available mature broodstock.*

Total number of females spawned: 64  
 Total number of males spawned: 42  
 Total number of green eggs: 302,422  
 Total number of eyed eggs: 277,876  
 Number of eggs retained for rearing: 277,876  
 Date of last spawning: 9/19/11

**Rearing to Fingerling Stage Only**

<b>Chinook Lostine River Stock 200 BY10</b>	
Number of fingerlings produced:	37,796
Weight of fingerlings produced (lbs.):	899.9
Percent mortality to stocking:	1.73%
Average number/pound of fingerlings produced:	42.0
Conversion rate:	0.96

*Fingerlings were trucked to Bear Creek for direct release on 9/7/11.*

### Rearing to Smolt Stage Only

**Chinook  
Imnaha Stock 29 BY09**

Number of smolts produced:	252,588
Weight of smolts produced (lbs.):	13,260.0
Percent mortality to stocking:	43.7%
Average number/pound of smolts produced:	19.05
Conversion rate:	1.05 at Lookingglass

*252,802 smolts (12,055.0 pounds) were transferred from Lookingglass Fish Hatchery to Imnaha Satellite Facility 3/09-3/10/2011 for acclimation. Volitional release began on 3/30/2011 and the remaining fish were forced out on 4/13/11.*

**Chinook  
Lookingglass Stock 81 BY09**

Number of smolts produced:	102,828
Weight of smolts produced (lbs.):	5,412.0
Percent mortality to stocking:	0.70%
Average number/pound of smolts produced:	19.0
Conversion rate:	0.89 at Lookingglass

*Smolts volitionally released directly into Lookingglass Creek beginning 4/01/11. Smolts remaining were forced out on 4/14/11.*

**Chinook - Captive Broodstock Program (F1's)  
Upper Grande Ronde River Stock 80F BY09**

Number of smolts produced:	53,114
Weight of smolts produced (lbs.):	2,505.4
Percent mortality to stocking:	16.3%
Average number/pound of smolts produced:	21.2
Conversion rate:	0.89 at Lookingglass

*53,166 smolts (2,400.0 pounds) were transferred to Grande Ronde Acclimation Facility on 3/15/11 for volitional release beginning 3/22/11. Grande Ronde Acclimation Facility is operated by the CTUIR. Facility operations are BPA funded. Fish feed is provided by the LSRCP.*

### Rearing to Smolt Stage Only

#### **Chinook - Conventional Broodstock Program Upper Grande Ronde River Stock 80 BY09**

Number of smolts produced:	189,268
Weight of smolts produced (lbs.):	10,094.0
Percent mortality to stocking:	6.33%
Average number/pound of smolts produced:	18.8
Conversion rate:	1.11 at Lookingglass

*Smolts were transferred to Grande Ronde Acclimation Facility in two groups. The first group of 41,873 smolts (2,200 pounds) were transferred on 3/15/11 for volitional release beginning 3/22/11. The second group of 134,882 smolts (7,920 pounds) were transferred on 3/31/11 for release beginning 4/06/11. Grande Ronde Acclimation Facility is operated by the CTUIR. Facility operations are BPA funded. Fish feed is provided by the LSRCP.*

#### **Chinook - Captive Broodstock Program (F<sub>1</sub>'s) Catherine Creek Stock 201F BY09**

Number of smolts produced:	100,417
Weight of smolts produced (lbs.):	4,124.1
Percent mortality to stocking:	0.36%
Average number/pound of smolts produced:	24.3
Conversion rate:	1.13 at Lookingglass

*Smolts were transferred to Catherine Creek Acclimation Facility in two groups. The first group of 50,194 smolts (1,900 pounds) were transferred on 3/14/11 for release beginning 3/21/11. The second group of 50,246 smolts (2,300 pounds) were transferred on 3/30/11 for release beginning 4/05/11. Catherine Creek Acclimation Facility is operated by the CTUIR. Facility operations are BPA funded. Fish feed is provided by the LSRCP.*

#### **Chinook - Conventional Broodstock Program Catherine Creek Stock 201 BY09**

Number of smolts produced:	58,737
Weight of smolts produced (lbs.):	2,285.2
Percent mortality to stocking:	62.8%
Average number/pound of smolts produced:	25.7
Conversion rate:	1.12 at Lookingglass

*58,887 smolts (2,400 pounds) were transferred from Lookingglass Fish Hatchery to Catherine Creek Acclimation Facility on 3/14/11 for volitional release beginning 3/30/11. Catherine Creek Acclimation Facility is operated by the CTUIR. Facility operations are BPA funded. Fish feed is provided by the LSRCP.*

### Rearing to Smolt Stage Only

<b>Chinook - Captive Broodstock (F<sub>1</sub>'s) and Conventional Programs</b>	
<b>Lostine River Stock 200M BY09</b>	

Number of smolts produced:	62,836
Weight of smolts produced (lbs.):	2,552.0
Percent mortality to stocking:	78.4%
Average number/pound of smolts produced:	24.6
Conversion rate:	1.06 at Lookingglass

*62,940 smolts (2,520 pounds) were transferred on 3/11/11 from Lookingglass Hatchery to Lostine Acclimation Facility for acclimation and release on 4/08/11. Lostine Acclimation Pond is operated by the Nez Perce Tribe. Facility operations are BPA funded. Fish feed is provided by the LSRCP.*

**Food Fed and Weight Gain****Chinook  
Imnaha Stock 29 BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	5,018.3
Conversion rate	1.08
Total weight gain (lbs.) - all sizes produced	4,655.4

**Chinook  
Imnaha Stock 29 BY10**

Lookingglass Fish Hatchery	
Total pounds of food fed	15,203.3
Conversion rate	0.97
Total weight gain (lbs.) - all sizes produced	15,734.6

**Chinook  
Lookingglass Stock 81 BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	2,258.6
Conversion rate	0.82
Total weight gain (lbs.) - all sizes produced	2,754.7

**Chinook  
Lookingglass Stock 81 BY10**

Lookingglass Fish Hatchery	
Total pounds of food fed	6,679.0
Conversion rate	1.00
Total weight gain (lbs.) - all sizes produced	6,701.5

### Food Fed and Weight Gain

**Chinook – Conventional Program  
Upper Grande Ronde River Stock 80 BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	4,343.9
Conversion rate	1.14
Total weight gain (lbs.) - all sizes produced	3,796.9

**Chinook – Conventional Program  
Upper Grande Ronde River Stock 80 BY10**

Lookingglass Fish Hatchery	
Total pounds of food fed	9,229.1
Conversion rate	0.92
Total weight gain (lbs.) - all sizes produced	10,058.3

**Chinook – Captive Broodstock Program (F<sub>1</sub>'s)  
Upper Grande Ronde River Stock 80F BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	562.5
Conversion rate	1.71
Total weight gain (lbs.) - all sizes produced	329.9

**Chinook - Conventional Broodstock Program  
Catherine Creek Stock 201 BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	510.2
Conversion rate	1.14
Total weight gain (lbs.) - all sizes produced	447.8

### Food Fed and Weight Gain

**Chinook - Conventional Broodstock Program  
Catherine Creek Stock 201 BY10**

Lookingglass Fish Hatchery	
Total pounds of food fed	5,230.9
Conversion rate	1.21
Total weight gain (lbs.) - all sizes produced	5,464.7

**Chinook - Captive Broodstock Program (F<sub>1</sub>'s)  
Catherine Creek Stock 201F BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	1,899.7
Conversion rate	2.76
Total weight gain (lbs.) - all sizes produced	683.7

**Chinook - Conventional and Captive Broodstock Program  
Lostine River Stock 200M BY09**

Lookingglass Fish Hatchery	
Total pounds of food fed	967.6
Conversion rate	1.03
Total weight gain (lbs.) - all sizes produced	937.0

**Chinook - Conventional Broodstock Program  
Lostine River Stock 200 BY10**

Lookingglass Fish Hatchery	
Total pounds of food fed	9,605.2
Conversion rate	1.01
Total weight gain (lbs.) - all sizes produced	9,517.8

**On Hand at Lookingglass Fish Hatchery  
September 30, 2011**

**Fish on Hand – BY10**

Species	Stock	Number
Spring Chinook	Imnaha	471,626
Spring Chinook	Grande Ronde	296,152
Spring Chinook	Lookingglass	229,160
Spring Chinook	Lostine River	268,210
Spring Chinook	Catherine Creek	163,091

**FY2010 Stocking**

Total number of distribution trips:	20*
Number of fry stocked:	0
Weight of fry stocked:	0 lbs
Number of fingerlings stocked:	37,796
Weight of fingerlings stocked:	899.9 lbs
Number of smolts stocked:	819,788
Weight of smolts stocked:	40,232.9 lbs
Date, location, number and weight at each stocking:	See Attached

*\*17 distribution trips were made to acclimation facilities associated with Lookingglass Fish Hatchery, and 2 trips were made to transfer fish to Irrigon Hatchery*

**Lookingglass Fish Hatchery and Associated Facility Stocking Records**  
**October 1, 2010 through September 30, 2011**

HATCHERY	SPECIES	STOCK	TYPE	DATE	FROM/TO	NO/LB	MORTS	NUMBER STOCKED	POUNDS STOCKED
CATH.CR. ACC	SPRING CHINOOK	201 09	LIBERATION	03-30-11	CATHERINE CR AT ACC PD - CTUIR	25.70	0	58737	2,285.49
CATH.CR. ACC	SPRING CHINOOK	201F09	LIBERATION	03-21-11	CATHERINE CR AT ACC PD - CTUIR	24.50	0	50182	2,048.24
CATH.CR. ACC	SPRING CHINOOK	201F09	LIBERATION	04-05-11	CATHERINE CR AT ACC PD - CTUIR	24.20	0	50235	2,075.83
GRND RND ACC	SPRING CHINOOK	080 09	LIBERATION	03-22-11	GRANDE RONDE AT ACC PD -CTUIR	26.20	0	54880	2,094.66
GRND RND ACC	SPRING CHINOOK	080 09	LIBERATION	04-06-11	GRANDE RONDE AT ACC PD -CTUIR	16.80	0	134388	7,999.29
GRND RND ACC	SPRING CHINOOK	080F09	LIBERATION	03-22-11	GRANDE RONDE AT ACC PD -CTUIR	21.20	0	53114	2,505.38
IMNAHA PD	SPRING CHINOOK	029 09	LIBERATION	03-30-11	IMNAHA R	19.50	0	25280	1,296.41
IMNAHA PD	SPRING CHINOOK	029 09	LIBERATION	03-30-11	IMNAHA R	19.00	0	227308	11,963.58
LOSTINE ACC	SPRING CHINOOK	200M09	LIBERATION	04-08-11	LOSTINE AT ACC POND - NPT	24.62	0	62836	2,552.00
LOOKINGGLASS	SPRING CHINOOK	081 09	LIBERATION	04-01-11	LOOKINGGLASS CR	19.00	0	102828	5,412.00
LOOKINGGLASS	SPRING CHINOOK	200 10	LIBERATION	09-07-11	BEAR CR	42.00	0	37796	899.90
LOOKINGGLASS	SPRING CHINOOK	081 10	TRANSFER	04-25-11	IRRIGON HATCHERY	202.60	0	121848	601.42
LOOKINGGLASS	SPRING CHINOOK	081 10	TRANSFER	04-26-11	IRRIGON HATCHERY	202.60	0	133081	656.87
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-09-11	IMNAHA PD	20.84	0	45213	2,170.00
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-09-11	IMNAHA PD	20.19	0	45017	2,230.00
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-09-11	IMNAHA PD	22.00	0	21560	980.00
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-10-11	IMNAHA PD	23.90	0	32858	1,375.00
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-10-11	IMNAHA PD	19.95	0	44898	2,250.00
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-09-11	IMNAHA PD	23.52	0	39991	1,700.00
LOOKINGGLASS	SPRING CHINOOK	029 09	ACCLIMATE	03-09-11	IMNAHA PD	17.23	0	23265	1,350.00
LOOKINGGLASS	SPRING CHINOOK	080 09	ACCLIMATE	03-31-11	GRND RND ACC	19.16	0	44823	2,340.00
LOOKINGGLASS	SPRING CHINOOK	080 09	ACCLIMATE	03-31-11	GRND RND ACC	19.15	0	25852	1,350.00
LOOKINGGLASS	SPRING CHINOOK	080 09	ACCLIMATE	03-15-11	GRND RND ACC	25.01	0	55016	2,200.00
LOOKINGGLASS	SPRING CHINOOK	080 09	ACCLIMATE	03-31-11	GRND RND ACC	19.16	0	19159	1,000.00
LOOKINGGLASS	SPRING CHINOOK	080 09	ACCLIMATE	03-31-11	GRND RND ACC	17.33	0	45048	2,600.00
LOOKINGGLASS	SPRING CHINOOK	080F09	ACCLIMATE	03-15-11	GRND RND ACC	22.15	0	53166	2,400.00
LOOKINGGLASS	SPRING CHINOOK	200M09	ACCLIMATE	03-11-11	LOSTINE ACC	24.98	0	62940	2,520.00
LOOKINGGLASS	SPRING CHINOOK	201 09	ACCLIMATE	03-14-11	CATH.CR. ACC	24.54	0	58887	2,400.00

**Lookingglass Fish Hatchery and Associated Facility Stocking Records**  
**October 1, 2010 through September 30, 2011**

HATCHERY	SPECIES	STOCK	TYPE	DATE	FROM/TO	NO/LB	MORTS	NUMBER STOCKED	POUNDS STOCKED
LOOKINGGLASS	SPRING CHINOOK	201F09	ACCLIMATE	03-30-11	CATH.CR. ACC	21.85	0	50246	2,300.00
LOOKINGGLASS	SPRING CHINOOK	201F09	ACCLIMATE	03-14-11	CATH.CR. ACC	26.42	0	50194	1,900.00