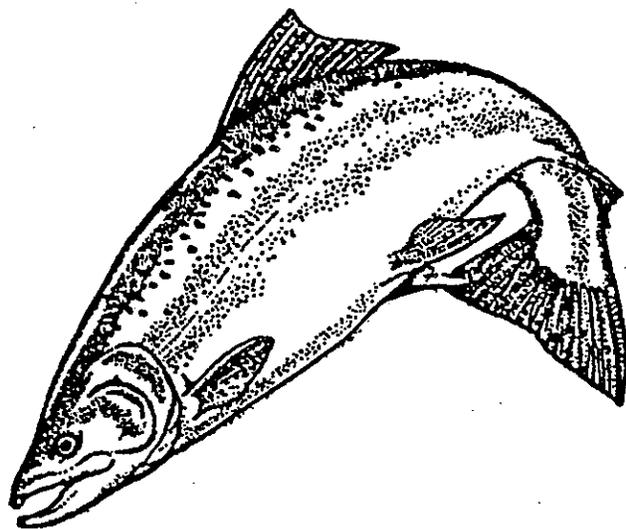
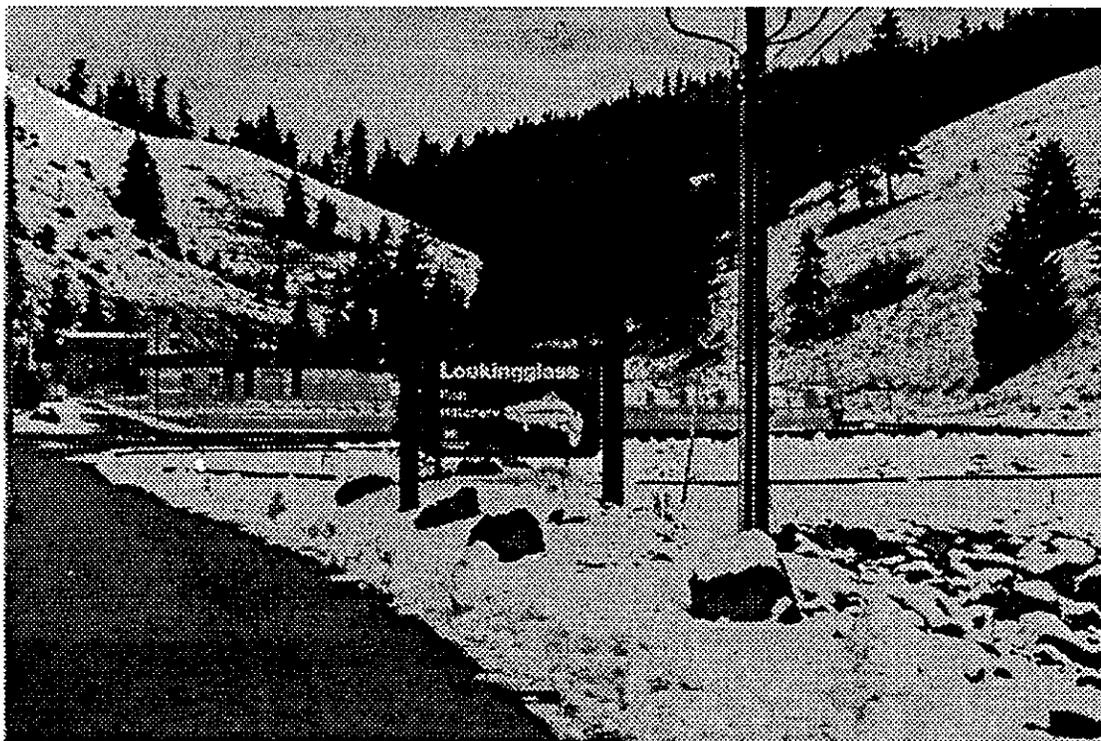


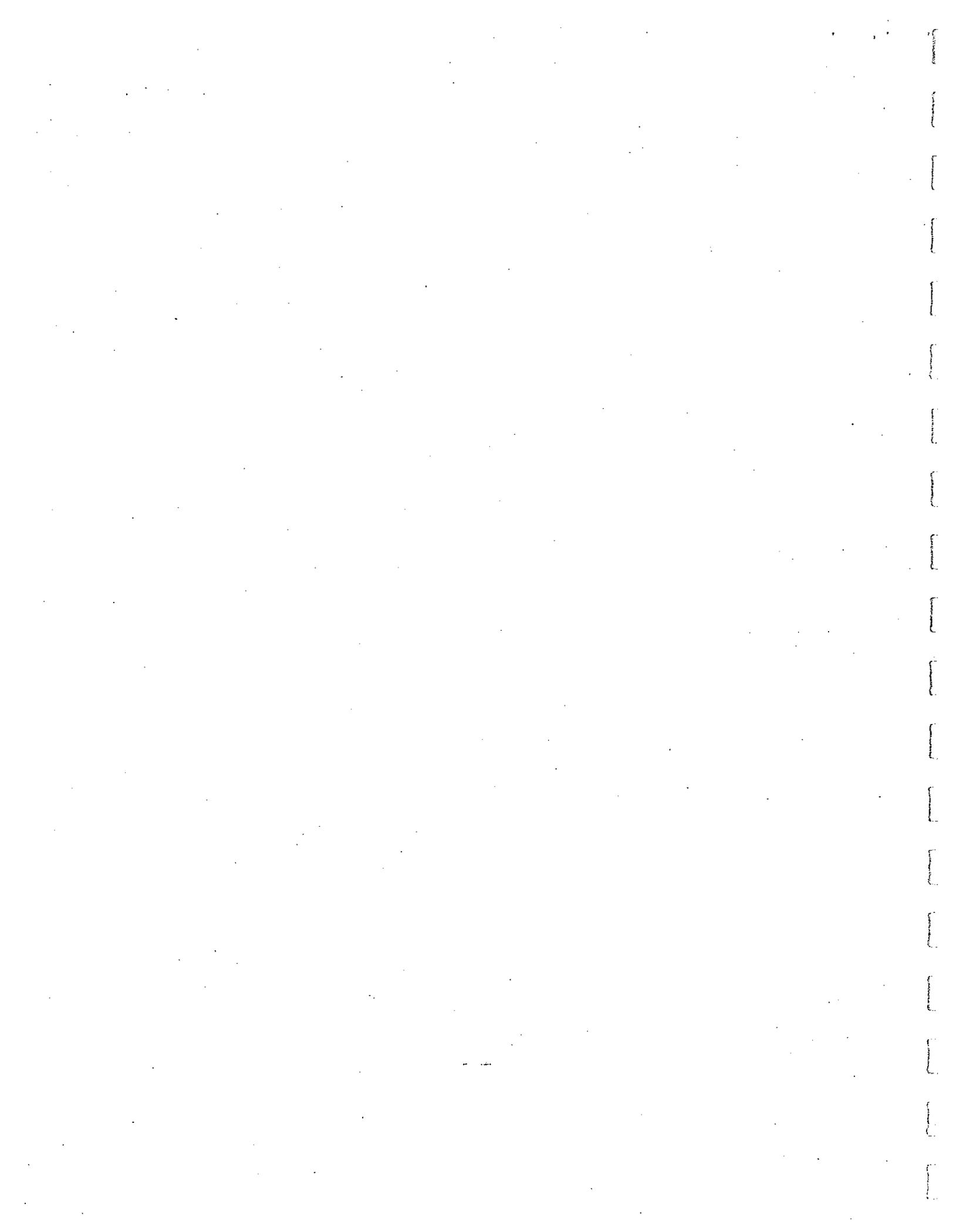
LOOKINGGLASS FISH HATCHERY



Operation and Maintenance
Annual Report



October 1, 1989 to September 30, 1990



LOOKINGGLASS ACTIVITY

OCTOBER 1, 1989 - SEPTEMBER 30, 1990

INTRODUCTION NARRATIVE

Operations:

Lookingglass Fish Hatchery is part of the Lower Snake River Compensation Plan (LSRCP) and has been in operation since 1982. Mitigation goals are for 1,390,000 spring chinook smolts, comprised of 900,000 Rapid River stock and 490,000 Imnaha River stock. Carson stock has been used when Rapid River stock was below production levels. A satellite station located on the Imnaha River is used for acclimating smolts, and collecting, holding and spawning adults.

This 1989-1990 fiscal year, hatchery production was similar to previous years. The 1988 brood production goals were met with 100% Rapid River and Imnaha stocks. The 1989 brood is comprised of 331,636 Rapid River stock, 504,688 Lookingglass/Carson stock and 398,910 Imnaha River stock.

The 1990 run of Rapid River spring chinook was larger than expected with a total of 493 adults. Rapid River adults were also trapped at Hells Canyon Dam, with a total of 30 adults trucked to Lookingglass Hatchery by Idaho Power Company.

The 1990 Imnaha adult return was comprised of 187 wild fish and 213 hatchery fish. Three adult females were trucked in from Lookingglass Hatchery from 4 captured. A total of 170 adults were passed above the weir for natural spawning, 102 wild fish and 68 hatchery fish. This was the first season for holding and spawning adults at the new Imnaha facility.

Construction Projects:

None

Engineering Projects:

Oregon Department of Fish and Wildlife submitted a list of changes and repairs needed at the Imnaha facility on a clean up contract with the U.S. Army Corps of Engineers. Most of these items were accepted and work will begin the fall of 1991.

The U.S. Fish and Wildlife Service agreed to fund the upgrade of the chillers and generator at Lookingglass Hatchery. This will increase the ability to chill well water from 80 gpm to 200 gpm. The generator upgrade will give the additional emergency power needed to power the entire facility. The US Army Corps of Engineers will design this project and put it out for bid in the fall of 1990 with construction starting in the spring of 1991.

Personnel Changes:

We were fortunate in having a Confederated Tribe of the Umatilla Indian Reservation trainee at the hatchery, Gene Shippentower. Gene accepted a permanent position with the Tribe in September of 1990. He was a big help and an asset to the program.

Chris Lauman was the hatchery seasonal from April 1990 through September 1990. Mike Bones was hired as a hatchery seasonal from June 1990 through September 1990.

Brian Zimmerman transferred as foreman to Clackamas Hatchery in November 1989. Phil McKee was selected to fill this position. This was a promotion for Phil, who was a Fish and Wildlife Tech-1 at Rock Creek Hatchery. Don Faulhaber transferred to Roaring River Hatchery as manager in February 1990. Scott Lusted was promoted from Irrigon Hatchery to fill this position. Dave Hope transferred to Fall Creek Hatchery as Fish and Wildlife Tech-1 in May 1990. Ron Harrod, just out of Mt Hood Community College Fisheries program, was hired to fill this position.

STOCK	SPRING CHINOOK	Imnaha R. & Tribs.	Imnaha Trap
		Lot No. 2988	

ADULT RETURNS

Date of first return	5/24/88		
Date of last return	9/09/88		
No. of females returning	239		
No. of males returning	136		
No. of jacks returning	67		
Date of peak return	7/01/88		
No. of males, females, jacks released to spawn naturally	(7)	(01)	(88)
No. of males females jacks transported in		0	
No. of males females jacks transported out	(76)	(139)	(19)
Mortality of all adult returns	15		Imnaha R.

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
8/15/88	15,460	3
8/17/88	27,325	5
8/24/88	152,546	25
8/31/88	257,101	46
9/06/88	55,927	10
7/13/88	13,579	3

TOTAL	521,938	92

REARING

Egg Take	522,000
No. eyed eggs	440,000
Eggs Transferred out	22,000
Shock loss	82,000
Fry loss	416,000
Percent hatch	84.3
Ponded	415,310
No. smolts liberated	444,462
Season adjustment	+29,152
Percent mortality	1.77
Weight gain	25,525
Total pounds food fed	40,637
Total pounds liberated	26,693
Conversion	1.52

LIBERATIONS

<u>Date</u>	<u>Location</u>	<u>Number</u>	<u>Pounds</u>	<u>No./Lb</u>
4/02/90	Big Sheep Cr.	79,947	4,350	18.4
4/02/90	Imnaha R.	36,448	1,960	18.6
4/03/90	Imnaha R.	37,561	1,959	19.7
4/04/90	Imnaha R.	40,713	2,119	19.2

Imnaha Pd.

3/31/90	Imnaha R.	249,793	16,305	15.3

Total		444,462	26,693	16.7

STOCK SPRING CHINOOK Imnaha R. & Tribs Lot No. 2989

ADULT RETURNS

Lookingglass

Date of first return	6/05/89
Date of last return	10/13/89
No. of females returning	33
No. of males returning	27
No. of jacks returning	86
Date of peak returns	7/07/89
No. of males, females, jacks released to spawn naturally	0
No. of males females jacks transported in	(59) (52) (86)
No. of males females jacks transported out	
Mortality of all adult returns	3

From Imnaha Pd.

Date of first return	7/10/89
Date of last return	10/13/89
No. of females returning	108
No. of males returning	124
No. of jacks returning	153
Date of peak returns	7/14/89
No. of males, females, jacks released to spawn naturally	(63) (56) (34)
No. of males females jacks transported in	0
No. of males females jacks transported out	(59) (52) (86)
Mortality of all adult returns	19

Imnaha Pd.

Imnaha R.

To Lookingglass

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
8/14/89	12,081	2
8/21/89	54,043	11
8/28/89	142,884	27
9/01/89	7,983	2
9/05/89	182,117	38
9/11/89	12,900	3
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TOTAL	412,008	83

REARING

Egg take	412,008	
No. eyed eggs	402,000	
Eggs transferred in	0	
Eggs transferred out	160,000	To Irrigon
Shock loss	10,008	
Fry loss	540	
No. ponded	241,460	
Percent hatch	97.5	
Percent mortality to date	1.4	
Total pounds of food fed	21,974	
Total gain to date	15,398	
Conversion	1.4	

STOCK	SPRING CHINOOK	Imnaha R. & Tribs.
	Lot No.	2990

ADULT RETURNS

Imnaha Trap / Lookingglass

Date of first return	5/04/90	
Date of last return	9/11/90	
No. of females returning	163	Includes 3 females transferred from Lookingglass
No. of males returning	185	
No. of jacks returning	56	
Date of peak returns	7/19/90	
No. of males, females, jacks released to spawn naturally (86) (75) (9)		Imnaha R.
Mortality of all adult returns	26	

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
8/23/90	48,107	9
8/28/90	143,338	31
9/04/90	109,057	25
9/11/90	19,317	5
9/18/90	6,793	2
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TOTAL	326,612	72

Egg take	326,612	
No. eyed eggs	272,750	
No. transferred out	92,000	To Irrigon
Shock loss	53,862	
Fry loss	1,762	
Percent hatch	83.5	
No. ponded	178,988	

STOCK	SPRING CHINOOK	Lookingglass Cr.
	Lot No.	8188

ADULT RETURNS

Date of first return	5/23/88
Date of last return	10/15/88
No. of females returning	1,385
No. of males returning	1,164
No. of jacks returning	41
Date of peak returns	6/06/88
No. of males, females, jacks released to spawn naturally	(605) (708) (11)

Catherine Cr.
Upper Grande Ronde
& Wallowa R.

No. of males females jacks transported in	0
No. of males females jacks transported out	(164) (214) (9)
Mortality of all adult returns	58

To Wallowa

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
8/22/88	594,742	120
8/29/88	678,390	142
9/06/88	129,572	30

TOTAL	1,402,704	292

REARING

Egg take	1,402,704
No. eyed eggs	1,332,132
Eggs transferred in	0
Eggs transferred out	1,273,132
Eggs transferred out	59,000
Shock loss	70,572
Fry loss	
Percent hatch	95
No. ponded	0

To Wallowa
To STEP

STOCK	Spring Chinook	Lookingglass Cr.
	Lot No.	8189

ADULT RETURNS

Date of first return	6/01/89	
Date of last return	10/13/89	
No. of females returning	401	
No. of males returning	375	
No. of jacks returning	11	
Date of peak returns	6/09/89	
No. of males, females, jacks released to spawn naturally	(83) (93)	To Lookingglass Cr. Wallowa R. & Catherine Cr.
No. of males females jacks transported in	0	
No. of males females jacks transported out	(166) (279) (3)	To Wallowa Hatchery
Mortality of all adult returns	4	

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
8/17/89	12,206	3
8/21/89	5,044	1
8/22/89	5,663	2
8/29/89	11,283	3
9/05/89	25,552	7
9/11/89	4,222	1
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TOTAL	63,970	17

REARING

Egg take	63,970	
No. eyed eggs	742,336	
Eggs transferred in	47,155	From Big Canyon
Eggs transferred in	631,211	From Wallowa Hatchery
Eggs transferred out	52,500	To Oxbow Hatchery
Shock loss	147,461	
Fry loss	19,024	
Destroyed	12,000	IHN Positive From Big Canyon
Destroyed	12,000	IHN Positive From Wallowa
Percent hatch	80.1	
Ponded	523,315	
Percent mortality to stocking	1.4	
Total pounds of food fed	28,521	
Total gain to date	20,039	
Conversion	1.42	

STOCK	SPRING CHINOOK	Carson / Lookingglass Cr.
	Lot No.	8190

ADULT RETURNS

Date of first return	6/07/90		
Date of last return	9/13/90		
No. of females returning	53		
No. of males returning	82		
Date of peak returns	6/07/90		
No. of males, females, jacks released to spawn naturally	0		
No. of males females jacks transported in	0		
No. of males females jacks transported out	(74)	(49)	(0) To Wallowa
Mortality of all adult returns	0		

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
Transferred to Wallowa for spawning.		

STOCK	SPRING CHINOOK	Rapid River
	Lot No.	8588

LIBERATION

<u>Date</u>	<u>Location</u>	<u>Number</u>	<u>Pounds</u>	<u>No./Lb.</u>
4/14/89	Lookingglass Cr.	126,700	3,500	36.2
4/02/90	Lookingglass Cr.	619,630	35,541	17.4
4/09/90	Catherine Cr.	70,002	3,520	19.9
4/09/90	Grande Ronde R-2	80,043	4,098	19.5
4/10/90	Hurricane Cr.	26,438	1,280	20.7
4/10/90	Wallowa R.	26,442	1,280	20.7

Total		949,225	49,219	19.3
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Total distribution trips	10
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STOCK	SPRING CHINOOK	Rapid River
	Lot No. 8589	

ADULT RETURNS

Date of first return	6/01/89
Date of last return	10/13/89
No. of females returning	104
No. of males returning	71
No. of jacks returning	42
Date of peak returns	6/05/89
No. of males, females, jacks released to spawn naturally	0
No. of males females jacks transported in	0
No. of males females jacks transported out	0
Mortality of all adult returns	8

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>
8/14/89	3,069	1
8/21/89	11,115	4
8/28/89	110,380	33
9/05/89	190,380	56
9/11/89	18,579	6
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TOTAL	333,570	100

REARING

Egg take	333,570	
No. eyed eggs	326,000	
Eggs transferred in	0	
Eggs transferred out	96,000	To Irrigon
Shock loss	7,570	
Fry loss	661	
Percent hatch	97.7	
Ponded	229,339	
Percent mortality to date	1.5	
Total pounds of food fed	18,875	
Total gain to date	12,245	
Conversion	1.54	

STOCK	SPRING CHINOOK	Rapid River
	Lot No.	8590

ADULT RETURNS

Date of first return	5/23/90		
Date of last return	9/13/90		
No. of females returning	237		
No. of males returning	250		
No. of jacks returning	6		
Date of peak returns	5/24/90		
No. of males, females, jacks released to spawn naturally	0		
No. of males females jacks transported in	(11) (19) (0)		(Trapped at Hells Canyon)
No. of males females jacks transported out	0		
Mortality of all adult returns	17		

SPAWNING RECORD

<u>Date spawned</u>	<u>Egg take</u>	<u>Females</u>	Imnaha Trap
8/21/90	2,645	1	
8/31/90	364,002	96	
9/06/90	380,410	108	
9/13/90	101,364	29	
9/20/90	15,427	5	

TOTAL	863,848	239	

REARING

Egg take	863,848	
No. eyed eggs	838,875	
Eggs transferred in	184,387	From Rapid River Idaho
Eggs transferred out	125,125	To Irrigon
Shock loss	24,973	
Egg loss	987	
Fry loss	5,056	
Ponded	892,094	
Percent hatch	97.1	

