

IRRIGON ACTIVITY

OCTOBER 1, 1990 - SEPTEMBER 30, 1991

INTRODUCTION NARRATIVE

OPERATIONS:

Irrigon Steelhead Hatchery has been part of the Lower Snake River Compensation Program (LSRCP) since 1985. The annual production goal is the rearing of 1.68 million summer steelhead for release into the Grande Ronde and Imnaha river systems.

The 1990 brood year production was completed in April, 1991, with the release of 400,915 (2990) Imnaha and 1,351,283 (5690) Grande Ronde stock steelhead. All smolts released had an adipose fin removed. In addition, 100,000 Imnaha stock and 150,000 Grande Ronde stock were coded-wire tagged and identified with a left ventral fin clip.

In May, 1991 the Hatchery received 361,744 (2991) Imnaha and 2,972,500 (5691) Grande Ronde eyed steelhead eggs (2,409,938 total) to start the 1991 brood year. The resulting fingerlings, 300,595 Imnaha and 1,729,988 Grande Ronde, (2,030,583 total) on hand on September 30, indicated a 5.8% mortality. Additional non-LSRCP fish raised included 46,000 rainbow legals, 3,168,649 (9590) upriver stock fall chinook 0's, 240,000 (9190) Umatilla River summer steelhead and 6,042 (5091) Hood River winter steelhead.

MAINTENANCE PROJECTS:

Maintenance work completed during this reporting period included annual repairs to pumps and impellers in both Rainey wells, improvements to our feeder system by our maintenance person and new shelving and rearrangement of our shop area and spare parts.

CONSTRUCTION PROJECTS:

First phase of the project to provide additional water for Irrigon Hatchery was completed. Two pumps and pipelines to the aeration facility were installed. This will provide approximately 6,000 gpm of additional water. Phase two of this project will connect one additional well, build permanent block buildings, provide two diesel generators for backup power, flush laterals at both Rainey wells and do several cleanup contract items.

PERSONNEL:

Personnel changes during the year were as follows: Wade Bergeson was promoted to Tech-2 at Irrigon on December 1, 1990; Ron Rehn was hired to take the Tech-1 position vacated by Wade; Jack Palmer was promoted to Tech-2 at Fall Creek Hatchery in September, 1991; Jim Grieve was hired to fill the Tech-1 position vacated by Jack Palmer; Jennifer Mesteth Wolf, long time tribal trainee, was given a permanent Tech-1 position at the new Umatilla Hatchery on October, 1991; Mike Pearsall has been in the seasonal position for the past several months. In addition, four YCC personnel worked at the hatchery this past summer.

Present Personnel are:

| | |
|--------------------------|--------------------------------|
| Ray Hill | Fish and Wildlife Manager-3 |
| Jack Hurst | Fish and Wildlife Manager-1 |
| Bob Gallup | Trades/Maintenance Coordinator |
| Wade Bergeson | Fish and Wildlife Tech-2 |
| Mike Posey | Fish and Wildlife Tech-1 |
| Dave Sheldon | Fish and Wildlife Tech-1 |
| Jim Grieve | Fish and Wildlife Tech-1 |
| Ron Rehn | Fish and Wildlife Tech-1 |
| Nanette Gallup | Office Specialist-1 |
| Mike Pearsall | Seasonal |
| <i>TERAY BLESSING</i> | |

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|---|
| STOCK FALL CHINOOK¹ Columbia River (Upriver Stock) Lot No. 9590 |
|---|

REARING

| | | |
|--------------------------|-----------|-------------------------|
| Transferred in | 3,403,600 | |
| 02/13/91 To 02/21/91 | | From Bonneville |
| Total mortality | 41,777 | 3,690 lbs. @ 922/lb. |
| No. transferred | 2,910 | |
| 04/03/91 | | To Umatilla R. Research |
| No. transferred | 79,856 | 15 lbs. @ 194/lb. |
| 04/29/91 | | To Minthorn Acc. Pd. |
| No. transferred | 8,500 | 713 lbs. @ 112/lb. |
| 05/02/91 | | To Umatilla R. Research |
| Inventory adjustment | -101,908 | 106 lbs @ 80.2/lb. |
| Percent mortality | 1.22 | |
| Total pounds of food fed | 38,194 | |
| Total pounds gain | 38,864 | |
| Conversion rate for | 1.06 | |

LIBERATION

| <u>Date</u> | <u>Location</u> | <u>Number</u> | <u>Pounds</u> | <u>No. / lb.</u> |
|---|-----------------|---------------|---------------|------------------|
| 05/06/91 | Umatilla R. | 443,805 | 5,734 | 77.4 |
| 05/07/91 | Umatilla R. | 708,530 | 9,039 | 78.4 |
| 05/08/91 | Umatilla R. | 626,707 | 7,600 | 82.5 |
| 05/09/91 | Umatilla R. | 814,730 | 8,869 | 91.9 |
| 05/10/91 | Umatilla R. | 500,017 | 6,582 | 76.0 |
| 05/13/91 | Umatilla R. | 74,860 | 1,040 | 72.0 |
| <hr style="border-top: 1px dashed black;"/> | | | | |
| Total | | 3,168,649 | 38,864 | |

Total distribution trips 20

¹ Funding for the production of these fish is from the Army Corps of Engineers and the National Marine Fisheries Service.

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|-------|------------------|-------------------------|
| STOCK | SUMMER STEELHEAD | Imnaha R. & Tributaries |
| | Lot No. | 2990 |

REARING

| | | |
|--|---------|---|
| Eggs transferred in 5-7-90 to 5-23-90 | 536,000 | Eyed from Wallowa |
| Shock loss | 290,000 | At Wallowa |
| Egg loss | 11,000 | At Irrigon |
| Fry loss | 23,000 | At Wallowa |
| Fry loss | 101,000 | At Irrigon |
| | | Includes 87,000 destroyed |
| No. hatched | 424,000 | |
| Percent hatch | 79.1 | |
| No. ponded | 432,782 | |
| No. transferred 04/23/91 | 193,709 | To Little Sheep 35,740 lbs. @ 5.4/lb |
| Total mortality | 20,260 | |
| Percent mortality | 4.68 | |
| End season adjustment | -10,299 | |
| Total pounds of food fed | 68,328 | |
| Total pounds gain | 59,168 | |
| Conversion rate | 1.5 | |
| Total gain for fiscal year | 49,379 | |
| Total feed fed for fiscal year | 54,833 | |

LIBERATION

| <u>Date</u> | <u>Location</u> | <u>Number</u> | <u>Pounds</u> | <u>No. / lb.</u> |
|---|-----------------|---------------|---------------|------------------|
| 11/21/90 | Snake R.-1 | 71,698 | 1,256 | 57.1 |
| 04/23/91 | Sheep CRT. L | 50,581 | 7,903 | 6.4 |
| 05/01/91 | Imnaha R. | 46,666 | 7,778 | 6.0 |
| 05/02/91 | Imnaha R. | 35,009 | 5,835 | 6.0 |
| 05/03/91 | Imnaha R. | 4,560 | 760 | 6.0 |
| <hr style="border-top: 1px dashed black;"/> | | | | |
| Total | | 208,514 | 23,532 | |
| Total distribution trips | | | | 14 |

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|-------|------------------|-------------------------|
| STOCK | WINTER STEELHEAD | Imnaha R. & Tributaries |
| | Lot No. | 2991 |

REARING

| | | |
|---|---------|-------------------|
| Eggs transferred in 5-10-91 to 6-21-91 | 338,744 | Eyed from Wallowa |
| Shock loss | 116,548 | At Wallowa |
| Percent eye-up | 74.4 | |
| Fry loss | 12,968 | At Irrigon |
| Percent hatch | 96.2 | |
| No. ponded | 325,776 | |
| No. fingerling on hand | 300,595 | |
| Percent mortality to date | 7.7 | |
| Total pounds of food fed | 3,990 | |
| Total pounds gain | 3,221 | |
| Conversion rate | 1.24 | |

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|-------|-------------------------------|------------|
| STOCK | SUMMER STEELHEAD ² | Hood River |
| | Lot No. | 5091 |

REARING

| | | |
|---|--------|-------------------------|
| Eggs transferred in 02/08/91 to 02/05/91 | 11,858 | |
| Shock loss | 5,013 | |
| Fry loss | 139 | |
| No. ponded | 6,707 | |
| Percent hatch | 42 | |
| No. fingerling transferred | 6,042 | To Oak Springs Hatchery |
| Percent mortality | 9.9 | |
| Total pounds of food fed | 26 | |
| Total pounds gain | 28 | |
| Conversion rate | .93 | |

² Funding for the production and distribution of these fish is from the State Wildlife Fund and General Fund.

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| STOCK SUMMER STEELHEAD Wallowa R. Lot No. 5690 |
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REARING

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| Eggs transferred in 5/14/90 to 5/25/90 | 1,706,061 | |
| Pickoff | 14,502 | |
| Percent eye-up | 99.1 | |
| Fry transferred in 06/13/90 to 06/20/90 | 287,276 | From Wallowa |
| Fry loss | 35,675 | |
| Percent hatch | 98.1 | |
| Destroyed | 85,779 | IHN program |
| Destroyed | 168,460 | Program excess |
| No. ponded | 1,688,921 | |
| No transferred | 606,667 | Wallowa Acc. Pd. |
| 01/31/91 to 04/25/91 | | 116,033 lbs. @ 5.3/lb. |
| No transferred | 272,284 | Big Canyon Acc. Pd. |
| 03/14/91 to 04/31/91 | | 48,951 lbs. @ 5.6/lb. |
| No transferred | 8,400 | Passage study NMFS |
| 03/27/91 | | 1,400 lbs. @ 6.0/lb. |
| No. fingerling destroyed | 57,788 | IHN Study |
| Total mortality | 126,614 | |
| Percent mortality | 7.8 | |
| End season adjustment | -79,761 | |
| Total pounds of food fed | 295,047 | |
| Total pounds gained | 248,608 | |
| Conversion rate | 1.19 | |
| Total gain for fiscal year | 206,053 | |
| Total feed fed for fiscal year | 253,040 | |

LIBERATION

| <u>Date</u> | <u>Location</u> | <u>Number</u> | <u>Pounds</u> | <u>No. / lb.</u> |
|---|-------------------|----------------|---------------|------------------|
| 11/20/90 | Snake R.-1 | 140,787 | 2,617 | 53.8 |
| 04/08/91 | Grande Ronde R.-2 | 41,575 | 8,485 | 4.9 |
| 04/09/91 | Grande Ronde R.-2 | 41,656 | 8,501 | 4.9 |
| 04/10/91 | Grande Ronde R.-2 | 86,189 | 15,835 | 5.4 |
| 04/11/91 | Catherine Cr. | 39,229 | 7,079 | 5.5 |
| 04/11/91 | Grande Ronde R.-2 | 31,046 | 5,262 | 5.9 |
| 04/12/91 | Catherine Cr. | 62,250 | 11,457 | 5.4 |
| 04/16/91 | Catherine Cr | 9,985 | 1,849 | 5.4 |
| 04/26/91 | Deer Cr. | 50,195 | 9,471 | 5.3 |
| 04/30/91 | Grande Ronde R.-2 | 31,461 | 5,242 | 6.0 |
| 04/30/91 | Grande Ronde R.-1 | 41,715 | 7,318 | 5.7 |
| 05/01/91 | Grande Ronde R.-1 | 25,607 | 4,198 | 6.1 |
| <hr style="border-top: 1px dashed black;"/> | | | | |
| Total | | 601,695 | 87,314 | |

Total distribution trips 52

| | | |
|-------|------------------|------------|
| STOCK | SUMMER STEELHEAD | Wallowa R. |
| | Lot No. 5691 | |

REARING

| | | |
|---|-----------|--------------|
| Eggs transferred in 5-01-91 to 5-31-91 | 2,072,500 | From Wallowa |
| Shock loss | 296,758 | At Wallowa |
| Percent eye-up | 85.7 | |
| Fry loss | 49,062 | |
| Percent hatch | 97.6 | |
| Destroyed excess | 185,360 | |
| No. ponded | 1,831,146 | |
| Mortality to date | 101,158 | |
| Percent mortality | 5.5 | |
| No. on hand | 1,729,988 | |
| Total pounds of food fed | 30,537 | |
| Total pounds gain | 28,926 | |
| Conversion rate | 1.06 | |

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|-------|-------------------------------|--------------|-----------------|-------|
| STOCK | SUMMER STEELHEAD ³ | Umatilla R. | Three Mile Trap | CTUIR |
| | | Lot No. 9191 | | |

ADULT RETURNS

| | | |
|---|-----------------|------------------|
| Date of first return | 10/10/90 | |
| Date of last return | 05/31/91 | |
| No. of males, females, jacks returning | (353) (757) (1) | |
| Date of peak returns | 02/06/91 | |
| No. of males, females, jacks released to spawn naturally | (253) (608) (0) | |
| No. of males, females, jacks transported out | (92) (110) (0) | To Minthorn Pond |
| Mortality of all adult returns | 5 | |

SPAWNING RECORD

| <u>Date spawned</u> | <u>Egg take</u> | <u>Females</u> | <u>Males</u> |
|---|-----------------|----------------|--------------|
| 04/01/91 | 112,700 | 21 | |
| 04/08/91 | 114,646 | 20 | |
| 04/15/91 | 21,261 | 4 | |
| 04/23/91 | 50,796 | 9 | |
| 04/29/91 | 14,284 | 3 | |
| 05/06/91 | 26,987 | 7 | |
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| TOTALS | 340,674 | 64 | |

REARING

| | |
|---------------------------|---------|
| Green Eggs | 340,674 |
| Shock loss | 67,878 |
| Percent eye-up | 80.1 |
| Fry loss | 5,263 |
| Transferred to STEP | 600 |
| Percent hatch | 98.1 |
| No. fingerling ponded | 266,933 |
| No. on hand | 243,871 |
| Percent mortality to date | 27.6 |
| Total pounds of food fed | 3,703 |
| Total pounds gain | 3,434 |
| Conversion rate | 1.0 |

³Funding for the production and distribution of these fish is from Bonneville Power Administration (BP).

LIBERATION RAINBOW TROUT

| | | |
|-------|----------------------------|----------|
| STOCK | RAINBOW TROUT ⁴ | Cape Cod |
| | Lot No. 7289 | |

| | <u>Number</u> | <u>Pounds</u> | <u>No. / lb.</u> |
|-------|---------------|---------------|------------------|
| Total | 44,289 | 13,119 | 3.4 |

Total distribution trips 33

⁴ Funding for the production and distribution of these fish is from the State Wildlife Fund and General Fund.