# Salmon and Snake River Hatchery Annual Operation Plan For Calendar year 2011

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### 2011 SNAKE/SALMON RIVER ANNUAL OPERATION PLAN

This Annual Operation Plan (AOP) is composed of four parts:

- 1. Snake/Salmon river 2011 Annual Operation Plan;
- 2. Standard Operation Procedures;
- 3. 2011 Projected Release Tables;
- 4. 2011 BY2011 Egg and Fish Needs.

All four parts can be accessed at: http://www.fws.gov/lsnakecomplan/Reports/LSRCPreports.html

# 1 Summer Steelhead

## 1.1 BY 2010 Releases in 2011

# 1.1.1 Smolt Releases (stock in parenthesis)

#### 1.1.1.1 Hagerman National Fish Hatchery Releases

#### 1.1.1.1.1 East Fork Weir (EFnat)

Release Date – 4/29/11 Release Goal – 170,000 Projected Release - 163,830 Marks – 163,830CWT PIT- 7,100

Comments: As of February - 94.43% survival. N. salmonis has been detected in this rel. group. Immediately after marking, Idaho Fish Health Center confirmed Aeromonas salmonicida (Furunculosis) in one raceway in the upper deck which spread to the middle and lower decks. The epizootic was treated with Aquaflor. Cold water disease was detected in late February; fish were fed Aquaflor.

#### 1.1.1.1.2 Sawtooth Weir (SawA)

Release Date – 4/11/11 Release Goal – 750,000 Projected Release – 739,346 Marks – 658,888AD; 80,458ADCWT

PIT- 13,500

Comments: As of February 2011- 94.64% survival. N. salmonis has been detected in this release group immediately after marking. Idaho Fish Health Center confirmed Aeromonas salmonicida (Furunculosis) in one raceway in the upper deck which spread to the middle and lower decks. The epizootic was treated with Aquaflor.

In February the hatchery observed skin sloughing in the upper deck identified by IFHC as sunburn. The hatchery administered treatment of KMnO4 and salt in an attempt to control the problem.

Cold water disease was detected in late February; fish were fed Aquaflor.

#### 1.1.1.1.3 Yankee Fork (SawA)

Release Date – 5/2/11 Release Goal – 440,000 Projected Release – 442,422

Marks - 129,668AD, 86,629ADCWT, 226,125UNMARKED

PIT- 8,300

Comments: As of February - 94.64% survival. N. salmonis has been detected in this rel. group. Immediately after marking, Idaho Fish Health Center confirmed Aeromonas salmonicida (Furunculosis) in one raceway in upper the deck which spread to the middle and lower decks. The epizootic was treated with Aquaflor. In February the hatchery observed skin sloughing in the upper deck identified by IFHC as sunburn. The hatchery administered treatments of KMnO4 and salt in an attempt to control the problem.

Cold water disease was detected in late February; fish were fed Aquaflor

Shoshone Bannock Tribes program staff will construct pipe for smolt releases prior to the arrival of transport trucks. All steelhead smolts will be released in Pond Series One to conduct the necessary monitor and evaluation activities. Tribal and Hagerman National Fish Hatchery staff communicate and coordinate on release schedules. Tribal staff will be present to assist in directing the drivers and releasing the smolts.

## 1.1.1.2 Magic Valley Fish Hatchery Releases

#### 1.1.1.2.1 EastFork Salmon River, Lower (DworB)

Release Date – 4/23/11 Release Goal -275,000 Projected Release – 275,000 Marks – 215,000AD, 60,000ADCWT

PIT- 5,000

Comments: As of 3/1/11, survival from eyed egg to present is 86.7%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.2 L. Salmon R Stinky Springs (DworB)

Release Date – 4/8/11 Release Goal – 215,000 Projected Release – 215,000 Marks – 95,000AD, 120,000ADCWT

PIT- 4,000

Comments: As of 3/1/11, survival from eyed egg to present is 86.7%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.3 Squaw Ck (DworB)

Release Date – 4/24/11 Release Goal – 280,000 Projected Release – 280,000 Marks – 130,000AD, 150,000ADCWT PIT – 5,100 Comments: As of 3/1/11, survival from eyed egg to present is 86.7%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. During early rearing, DworB fingerlings from Vat #20 were treated with Aquaflor-CA1 in response to a Flavobacterium psychrophilum infection. 50,949 fingerlings from vat #20 were transferred to raceways W9A and W9B. Chronic low mortality rates continued in raceway W9A and B for approximately two months then subsided to normal levels. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.4 L. Salmon R Stinky Springs (PahA)

Release Date -4/6/11 Release Goal - 200,000 Projected Release - 200,000 Marks - 170,000AD, 30,000ADCWT PIT - 3,700

Comments: As of 3/1/11, survival from eyed egg to present is 94.9%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.5 Salmon R RedRock (PahA)

Release Date – 4/13/11 Release Goal – 120,000 Projected Release – 120,000 Marks – 30,000AD, 90,000ADCWT PIT – 2,100

Comments: As of 3/1/11, survival from eyed egg to present is 94.9%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.6 Salmon R Colston Corner (PahA)

Release Date – 4/17/11 Release Goal – 120,000 Projected Release – 120,000 Marks – 60,000AD, 60,000ADCWT PIT – 2,100

Comments: As of 3/1/11, survival from eyed egg to present is 94.9%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.7 Salmon R Shoup Br (PahA)

Release Date – 4/19/11 Release Goal – 90,000 Projected Release – 90,000 Marks – 60,000AD, 30,000ADCWT PIT - 1,600

Comments: As of 3/1/11, survival from eyed egg to present is 94.9%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.8 Salmon R McNabb Point (SawA)

Release Date - 4/19/11 Release Goal - 120,000 Projected Release – 120,000 Marks - 60,000AD, 60,000ADCWT PIT - 2,000

Comments: As of 3/1/11, survival from eyed egg to present is 92.1%. All production experienced fish feed palatability issues from approximately 2/11/11 through 3/1/11. As a result, fish growth rate is behind the ten year average by approximately one fish per pound. We project that fish size per pound will range from 4.7 to 5.7 at time of distribution. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist.

#### 1.1.1.2.9 Pahsimeroi Weir (USRB)

Release Date - 4/8/11 Release Goal – 120,000 Projected Release – 120,000 Marks - 120,000CWT PIT - 7,200

Comments: Release date may be up to one week later than stated above due to fish growth size issues mentioned above.

#### 1.1.1.3 Niagara Springs Fish Hatchery

#### 1.1.1.3.1 L. Salmon R Stinky Springs (OxbA)

Release Date – 4/1/11 Release Goal - 275,000 Projected Release – 100,000 Marks - 100,000AD PIT - 0

Comments: As of 3/1/11, survival from fingerling to present of Oxbow stock fish, used for stocking the Little Salmon, is 66.9%. Over 300,000 fry were euthanized to prevent the spread of IHN to other fish, resulting in the low survival from eyed eggs. No IHN was found again after the euthanization. Survival from fingerling to 3/1/11 was 99.1%. All production experienced fish feed palatability issues from approximately 11/2/10 through 3/1/11. As a result, fish growth rate is behind last year by approximately four fish per pound, from 5.5 fpp last year to 9.2 fpp this year. We project that fish size per pound will range from 6.0 to 7.5 at time of distribution. All fish have been fed vitamin-boosted feed from December until release since they weren't getting their daily feed ration because of palatability issues. Fish were all given Oxytetracycline medicated feed to clean up minor infections of coldwater disease prior to release. FDA requirements of a 21-day withdrawal time were followed for these fish. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist, and Stefanie Leth, IPC biologist. Fish stocking will occur one week later than previously anticipated to allow the Little Salmon River to warm up prior to stocking and to allow one more week of growth for the fish.

#### 1.1.1.3.2 Snake River Hells Canyon (OxbA)

Release Date - 3/22/11 Release Goal - 525,000 Projected Release - 525,000 Marks - 435,000AD, 90,000ADCWT PIT - 8,300

Comments: As of 3/1/11, survival from fingerling to present of Oxbow stock fish, used for stocking the Little Salmon, is 66.9%. Over 300,000 fry were euthanized to prevent the spread of IHN to other fish, resulting in the low survival from eyed eggs. No IHN was found again after the euthanization. Survival from fingerling to 3/1/11 was 99.1%. All production experienced fish feed palatability issues from approximately 11/2/10 through 3/1/11. As a result, fish growth rate is behind last year by approximately four fish per pound, from 5.5 fpp last year to 9.2 fpp this year. We project that fish size per pound will range from 6.0 to 7.5 at time of distribution. All fish have been fed vitamin-boosted feed from December until release since they weren't getting their daily feed ration because of palatability issues. Fish were all given Oxytetracycline medicated feed to clean up minor infections of coldwater disease prior to release. FDA requirements of a 21-day withdrawal time were followed for these fish. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist, and Stefanie Leth, IPC biologist. Fish stocking will occur one week later than previously anticipated to allow the Little Salmon River to warm up prior to stocking and to allow one more week of growth for the fish.

#### 1.1.1.3.3 L. Salmon R Stinky Springs (PahA)

Release Date – 4/8/11 Release Goal – 170,000 Projected Release - 345,000 Marks-285,000AD, 60,000ADCWT PIT - 7,000

Comments: As of 3/1/11, survival from fingerling to present of Pahsimeroi stock fish, used for stocking the Little Salmon, is 93.7%. . No IHN was detected in these fish. Survival from fingerling to 3/1/11 was 99.3%. All production experienced fish feed palatability issues from approximately 11/2/10 through 3/1/11. As a result, fish growth rate is behind last year by approximately four fish per pound, from 5.5 fpp last year to 9.2 fpp this year. We project that fish size per pound will range from 6.0 to 7.5 at time of distribution. All fish have been fed vitamin-boosted feed from December until release since they weren't getting their daily feed ration because of palatability issues. Fish were all given Oxytetracycline medicated feed to clean up minor infections of coldwater disease prior to release. FDA requirements of a 21-day withdrawal time were followed for these fish. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist, and Stefanie Leth, IPC biologist. Fish stocking will occur one week later than previously anticipated to allow the Little Salmon River to warm up prior to stocking and to allow one more week of growth for the fish.

#### 1.1.1.3.4 Pahsimeroi Weir (PahA)

Release Date – 4/12/11 Release Goal - 830,000 Projected Release – 830,000 Marks - 740,000AD, 90,000ADCWT PIT - 13,000

Comments: As of 3/1/11, survival from fingerling to present of Oxbow stock fish, used for stocking the Little Salmon, is 66.9%. Over 300,000 fry were euthanized to prevent the spread of IHN to other fish, resulting in the low survival from eyed eggs. No IHN was found again after the euthanization. Survival from fingerling to 3/1/11 was 99.1%. All production experienced fish feed palatability issues from approximately 11/2/10 through 3/1/11. As a result, fish growth rate is behind last year by approximately four fish per pound, from 5.5 fpp last year to 9.2 fpp this year. We

project that fish size per pound will range from 6.0 to 7.5 at time of distribution. All fish have been fed vitamin-boosted feed from December until release since they weren't getting their daily feed ration because of palatability issues. Fish were all given Oxytetracycline medicated feed to clean up minor infections of coldwater disease prior to release. FDA requirements of a 21-day withdrawal time were followed for these fish. Release date may be up to one week later than stated above due to fish growth size issues mentioned above. All release information, communication, and coordination has been channeled through Carl Stiefel, LSRCP steelhead evaluation biologist, and Stefanie Leth, IPC biologist. Fish stocking will occur one week later than previously anticipated to allow the Little Salmon River to warm up prior to stocking and to allow one more week of growth for the fish.

## 1.2 BY-2011 PRODUCTION PLANNING

# 1.2.1 Dworshak National Fish Hatchery (DworB)

Spawn 322 females from egg takes 6 (3/22) and 7 3/29) to produce 1,420,400 green eggs.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

# 1.2.2 Pahsimeroi (PahA)

7,000 adult steelhead are forecast to return to Pahsimeroi Trap in the spring of 2011. All adults returning to the trap will be ponded, 631 females will be spawned to produce 3,028,000 green eggs and 2,423,000 eyed eggs.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

# 1.2.3 Oxbow/Hells Canyon Trap OxbA)

Oxbow Hatchery trapped 585 adult steelhead in the fall of 2010 for BY-2011 production. After prespawning mortality over the winter 513 remained at the start if spawning on March 10, 2011. The trap will be operated in April 2011 until an additional 50 females are trapped. Oxbow Hatchery will spawn 185 females to provide the 1.07 million green eggs needed to yield the 440,000 eyed-eggs and 440,000 emergent fry requested for Niagara Springs Hatchery , based on average fecundity of 5,800 eggs/female and eye-up survival or 82%.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

## 1.2.4 Sawtooth

#### 1.2.4.1 East Fork Weir (EFNat)

Trap all adults at weir, Spawn 45 females to provide 228,000 green eggs, 200,000 eyed eggs, and 170,000 smolts.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

## 1.2.4.2 Sawtooth Weir (SawA)

All adult steelhead returning to Sawtooth weir will be ponded. 525 females will be spawned to produce 2,100,000 green eggs and 1,820,000 eyed eggs.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

## 1.2.4.3 Squaw Cr (USRB)

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

## 1.3 BY-2011 RELEASES IN 2011

# 1.3.1 Eyed Eggs

## 1.3.1.1 Sawtooth Fish Hatchery (SawA)

#### 1.3.1.1.1 Yankee Fork

Release Date - 6/5/11

Release Goal - 500,000

Planned Release - 500,000

Comments: Eyed eggs taken across the run incubated and obtained from Sawtooth A hatchery stock will be placed into incubators in Yankee Fork.

## 1.3.1.2 Pahsimeroi Fish Hatchery (PahA)

#### 1.3.1.2.1 Beaver Creek

Release Date - 5/1/11

Release Goal - 400,000

Planned Release – 400,000

#### 1.3.1.2.2 Indian Creek

Release Date - 5/1/11

Release Goal - 100,000

Planned Release – 100,000

Comments: Eggs obtained from PFH are incubated at PFH and placed into stream side incubators (SSI) in Beaver and Indian creeks. Tribal staff will coordinate with hatchery personnel on scheduling and transport dates.

## 1.4 BY-2011 PLANNED RELEASES IN 2012

# 1.4.1 Smolts (stock in parenthesis)

## 1.4.1.1 Hagerman National Fish Hatchery Releases

#### 1.4.1.1.1 East Fork Weir (EFnat)

Release Goal – 170,000 Planned Release – 170,000 Marks – 170,000CWT

PIT- 7,100

Comments: No BY 11 fish on station at this time

#### 1.4.1.1.2 Sawtooth Weir (SawA)

Release Goal – 750,000 Planned Release – 750,000

Marks - 670,000AD, 80,000ADCWT

PIT- 13,500

Comments: No BY-11 fish on station at this time

#### 1.4.1.1.3 Yankee Fork (SawA)

Release Goal – 440,000

Planned Release - 440,000

Marks - 140,000AD, 80,000ADCWT, 220,000UNMARKED

PIT- 8,300

Comments: Shoshone Bannock Tribes program staff will construct pipe for smolt releases prior to the arrival of transport trucks. All steelhead smolts will be released in Pond Series One to conduct the necessary monitor and evaluation activities. Tribal and Hagerman National Fish Hatchery staff communicate and coordinate on release schedules. Tribal staff will be present to assist in directing the drivers and releasing the smolts.

## 1.4.1.2 Magic Valley Fish Hatchery Releases

### 1.4.1.2.1 EastFork Salmon River, Lower (DworB)

Release Goal – 280,000

Planned Release – 280,000

Marks - 220,000AD, 60,000ADCWT

PIT- 5,100

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.2.2 L. Salmon R Stinky Springs (DworB)

Release Goal - 220,000

Planned Release - 220,000

Marks - 100,000AD, 120,000ADCWT

PIT- 4,000

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.2.3 Squaw Ck (DworB)

Release Goal - 280,000

Planned Release – 280,000

Marks – 220,000AD, 60,000ADCWT

PIT -2,000

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

## 1.4.1.2.4 L. Salmon R Stinky Springs (PahA)

Release Goal: 190,000

Planned release – 190,000

Marks - 100,000AD, 90,000ADCWT

PIT - 3,700

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.2.5 Salmon R RedRock (PahA)

Release Goal – 90,000 Planned Release –90,000 Marks –90,000ADCWT PIT - 5,000

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers. "Some of the PAHA production (~60k) at Magic Valley was converted to DWORB production and will be released at the Pahsimeroi Fish Trap with the USALB's. Like the USALB's these DWORB's will be CWT only (intact adipose). These CWT tags will come from the 20k groups in inventory."

#### 1.4.1.2.6 Salmon R Colston Corner (PahA)

Release Goal - 90,000

Planned Release - 90,000

Marks - 30,000AD, 60,000ADCWT

PIT - 2,100

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers. "Some of the PAHA production (~60k) at Magic Valley was converted to DWORB production and will be released at the Pahsimeroi Fish Trap with the USALB's. Like the USALB's these DWORB's will be CWT only (intact adipose). These CWT tags will come from the 20k groups in inventory.

#### 1.4.1.2.7 Salmon R Shoup Br (PahA)

Release Goal - 90,000

Planned Release – 90,000

Marks - 60,000AD, 30,000ADCWT

PIT - 1,600

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.2.8 Salmon R McNabb Point (SawA)

Release Goal – 120,000

Planned Release - 120,000

Marks - 30,000AD, 90,000ADCWT

PIT - 1,600

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.2.9 Pahsimeroi Weir (USRB)

Release Goal - 120,000

Planned Release – 120,000

Marks - 120,000CWT

PIT - 7,100

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.2.10 Pahsimeroi Weir (DworB)

Release Goal - 60,000

Planned Release - 60,000

Marks - 60,000CWT

PIT - 2,000

Comments: All mark-plan/projected raceway loading plans should have higher numbers than the projected release numbers.

#### 1.4.1.3 Niagara Springs Fish Hatchery Releases

#### 1.4.1.3.1 L. Salmon R Stinky Springs (OxbA)

Release Goal - 275,000

Planned Release - 275,000

Marks - 245,000AD, 30,000ADCWT

PIT - 4,300

Comments: Numbers of fish will be close to release numbers listed above, but overall fish length will be smaller. There are no CWT or PIT tags with this group.\_ Those tags went into Pahsimeroi stock fish destined for the Little Salmon.

#### 1.4.1.3.2 Snake River Hells Canyon (OxbA)

Release Goal – 525,000 Planned Release – 525,000

Marks - 435,000AD, 90,000ADCWT

PIT - 8,300

Comments: Numbers of fish will be close to release numbers listed above, but overall fish length will be smaller.

#### 1.4.1.3.3 L. Salmon R Stinky Springs (PahA)

Release Goal – 170,000

Planned Release – 170,000

Marks - 140,000AD, 30,000ADCWT

PIT - 2,700

Comments: Numbers of fish will be close to release numbers listed above, but overall fish length will be smaller.

### 1.4.1.3.4 Pahsimeroi Weir (PahA)

Release Goal - 830,000

Planned Release – 830,000

Marks - 740,000AD, 90,000ADCWT

PIT - 13,000

Comments: Numbers of fish will be close to release numbers listed above, but overall fish length will be smaller.

# 2 Spring/Summer Chinook

## 2.1 BY2009 RELEASES IN 2011

# 2.1.1 Smolt Releases (stock in parenthesis)

#### 2.1.1.1 McCall

#### 2.1.1.1.1 Knox Bridge (SFSR)

Release Date 3/22-25/2011

Release Goal - 1,000,000

Projected Release - 1,070,000

Marks - 807,552AD, 210,448ADCWT

PIT - 52,000

Comments: Eggs were collected from 473 Reserve SFSR summer Chinook females over 6-Lots, August 14 — September 1, 2009. Eggs from 72 Reserve females (3-Lots) were transferred to Clearwater FH following water hardening at the SFSR Trap. Eggs from the remaining 401 spawned females were returned to MCFH for incubation. These females produced 1,999,933 green eggs resulting in an average fecundity of 4,987eggs per female. Eye-up was 89.1%, leaving 1,782,742 eyed eggs. Of these, 169,032 were culled as BKD High ELISA positives, 187,358 were culled as excess BKD Low ELISA positives, 326,840 were transferred to the Shoshone Bannock Tribe and 1,099,512 were retained for hatchery production. The highest ELISA optical density retained for hatchery production was 0.165. Representatives from the Shoshone Bannock Tribe received 326,840 eyed eggs, coming from 74 females, on October 7, 2009 for use in Dollar Creek in-stream incubator boxes. There were no prophylactic erythromycin medicated feed treatments fed to BY2009 summer Chinook salmon reared at MCFH. PIT tags were equally distributed into both rearing ponds. The fish are averaging 19.3 fpp.

#### 2.1.1.1.2 Johnson Creek (Johnson Creek)

Release Date - 3/14/2011 and 4/4/11 (53,000 each date)

Release Goal – 100,000

Projected Release - 106,000

Marks – 53,000CWT, 53,000CWTVIE (Right Eye Orange)

PITS - 4,200 (2,100 each release group)

Comments: Each release group (Early and Late) will have roughly equal numbers of 26,500 CWT only fish and 26,500 CWTVIE fish (53,000 per release group). Each release group has approximately 2,100 PIT tags equally divided between CWT and CWTVIE fish.

## 2.1.1.2 Pahsimeroi (Pahsimeroi)

Release Date – 4/1/11 Release Goal – 1,000,000 Projected Release – 1,067,000 Marks – 924,616AD, 121,000ADCWT PIT - 21,400 Comments:

## 2.1.1.3 Rapid River

## 2.1.1.3.1 Rapid River (Rapid River)

Release date - 3/15/11-4/29/11

Release Goal – 2,500,000

Projected Release - 2,500,000

Marks - 2,399,248AD, 100,752ADCWT

PIT -52,000

Comments: Volitional release will begin 3/14/2011. Survival from swim-up to date is 99.2%. Preliberation health inspection was performed 3/8/2011 results are pending analysis.

#### 2.1.1.3.2 Hells Canyon (Rapid River)

Release Date - 3/24/11

Release Goal - 350,000

Projected Release – 400,000

Marks - 400,000AD

Comments: Transport by IPC tanker

#### 2.1.1.3.3 Little Salmon (Rapid River)

Release Date – 3/25/11

Release Goal – 150,000

Projected Release – 200,000

Marks - 200,000AD

Comments: Transport by IPC tanker

#### 2.1.1.4 Sawtooth

#### 2.1.1.4.1 Sawtooth Weir (Salmon River Segregated)

Release Date - 4/8/2011

Release Goal - 1,300,000

Projected Release - 1,300,000

Marks 1,180,000AD, 120,000ADCWT

PIT -19,000

Comments:

## 2.1.1.4.2 Yankee Fork (Salmon River Segregated)

Release Date 4/20/2011 Release Goal – 400,000 Projected Release - 400,000

Marks – 200,000AD, 200,000CWT PIT – 2,400

Comments: Smolt releases will occur in two locations: Pond Series One (acclimated) and Confluence with Jordan Creek (direct stream). Tribal staff will be present at the hatchery to participate in crowding, loading, and transporting Chinook salmon smolts destined for the Yankee Fork. Shoshone Bannock Tribes program staff will construct pipe for smolt releases prior to the arrival of transport trucks. Tribal and Sawtooth Fish Hatchery staff communicate and coordinate on release schedules. Tribal staff will be present to assist in directing the drivers and releasing the

# 2.2 BY2010 Planned Releases in 2012

# 2.2.1 Smolts (stock in parenthesis)

#### 2.2.1.1 McCall

### 2.2.1.1.1 Knox Bridge (SFSR Segregated)

Release Goal – 750,000 Projected Release – 750,000 Marks – 630,000AD, 120,000ADCWT PIT – 39,000

Comments: Eggs from SFSR hatchery females were double loaded into hatchery incubation egg trays. ELISA optical density values of 0.250 or greater were considered high positives for BKD. Seventeen females tested high positive for BKD during incubation and their eggs, paired with 12 other females were culled prior to hatch resulting in a loss of 131,660 eyed eggs. Eggs from 54 BKD low positive females (0.100 – 0.249) were culled back to achieve full hatchery rearing capacity. Overall fecundity was 5,345 egg per female and eye up was 90%.

#### 2.2.1.1.2 Knox Bridge (SFSR Integrated)

Release Goal – 250,000 Projected Release - 250,000 Marks – 250,000CWT PIT – 19,000

Comments: The integrated broodstock (IBS) was initiated by spawning natural origin males with hatchery females. Due to the ongoing ISS project upstream of the south fork of the Salmon River weir, hatchery staff was only allowed to pre-collect milt from natural origin males for spawning. These subsequently released upstream of the weir. All natural origin females were passed upstream to spawn naturally. Milt was pre-collected the day before and the day of spawning, stored in air inflated whirl pac bags, and refrigerated at 30 to 40 degrees F. There were 72 hatchery females crossed with 77 natural origin males to produce 380,650 green eggs. Five of the females required milt from 2 natural origin males, the rest were 1:1 crosses. These eggs were incubated as single families. Any extra IBS fish above the 250,000 required for smolt production will be mixed in with the normal hatchery production fish.

#### 2.2.1.1.3 Johnson Creek (Johnson Creek)

Release Goal – 100,000 Projected Release – 96,000 Marks – 48,000CWT, 48,000CWTVIE (one color) PITS – 4,200 (2,100 for each release group)

Comments: Each release group (Early and Late) will have roughly equal numbers of 24,000 CWT only fish and 24,000 CWTVIE fish (48,000 fish per release group). Each release group has approximately 2,100 PIT tags equally divided between CWT only fish and CWTVIE fish.

#### 2.2.1.2 Pahsimeroi

#### 2.2.1.2.1 Pahsimeroi Ponds (Pahsimeroi Segregated)

Release Goal – 800,000 Projected Release – 889,390

Marks – 769,390AD, 120,000ADCWT PIT – 21,400 Comments:

#### 2.2.1.2.2 Pahsimeroi Ponds (Pahsimeroi Integrated)

Release Goal – 200,000 Projected Release – 186,000 Marks – 186,000CWT PIT – 4,200

#### 2.2.1.3 Rapid River

#### 2.2.1.3.1 Rapid River (Rapid River)

Release Goal – 2,500,000 Projected Release – 2,500,000 Marks – 2,380,000AD, 120,000ADCWT PIT -52,000

## 2.2.1.3.2 Hells Canyon (Rapid River)

Release Goal – 350,000 Projected Release – 350,000 Marks – 350,000AD

#### 2.2.1.3.3 Little Salmon (Rapid River)

Release Goal – 150,000 Projected Release – 150,000 Marks – 150,000AD

#### 2.2.1.4 Sawtooth

## 2.2.1.4.1 Sawtooth Weir (Salmon River Segregated)

Release Goal – 1,300,000 Projected Release – 1,300,000 Marks – 980,000AD, 120,000ADCWT PIT – 21,400

## 2.2.1.4.2 Sawtooth Weir (Salmon River Integrated)

Release Goal – 200,000 Projected Release – 170,000 Marks – 170,000CWT PIT –4,200

#### 2.2.1.4.3 Yankee Fork (Salmon River Segregated)

Release Goal – 200,000 Projected Release – 200,000 Marks – 200,000CWT

# 2.3 BY-2011 PRODUCTION PLANNING

#### 2.3.1 McCall

## 2.3.1.1 Johnson Creek (Johnson Creek)

Between 400 and 800 Chinook are forecast to return to the Johnson Creek weir in 2011. All returning Chinook will be trapped. Spawn 32-34 natural produced females to provide 144,000 green eggs, 115,000 eyed eggs, and 100,000 smolts. Release all hatchery produced Johnson Creek adults and naturally produced adults surplus to brood need above the weir. Transport SFSR strays to the SFSR trap.

- a. Forecast Return 400-800
- b. Trapping Period -
- c. Broodstock Need 32-34 females to produce 144,000 green eggs to produce 115,000 eyed eggs, and 100,000 smolts,
- **d. Adult Distribution Plan –** All hatchery adults trapped will be placed above the weir to spawn naturally. Natural adults surplus to adult brood need will be placed above the weir to spawn naturally. Hatchery strays will be collected and transported to South Fork Trap.

#### 2.3.1.2 SFSR Integrated

Spawn 77 females crossed with milt pre-collected from an equal number of natural origin males to produce 346,500 green eggs, 276,850 eyed eggs, and a minimum of 250,000 smolts. Any extra Integrated broodstock fish will be added to the segregated production population.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan -

## 2.3.1.3 SFSR Segregated

Trap 1,380 adults, spawning 380 females to produce 1,710,000 green eggs; 280,000 green eggs to be shipped to Clearwater Hatchery, and 300,000 eyed eggs to be given to the Sho-Ban egg box program for Dollar creek. The remainder reared to produce enough smolts to meet the 750,000 segregated smolt release goal.

- a. Forecast Return -
- b. Trapping Period -
- **c. Broodstock Need** 380 females to produce 1,710,000 green eggs. 300,000 green eggs to be shipped to Clearwater Fish Hatchery to produce 250,000 smolts for Clearwater River release. 300,000 eyed eggs to be placed in Dollar Creek.
- **d. Adult Distribution Plan** Adults surplus to brood need to be outplanted as identified in Standard Operating Procedures for South Fork Salmon River Weir.

## 2.3.2 Pahsimeroi

## 2.3.2.1 Pahsimeroi Ponds (Pahsimeroi Integrated)

52 hatchery females will be spawned with 52 natural males to produce 200,000 Integrated smolts for 2013 release. Males will be live spawned and released above the weir following milt collection.

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need –
- d. Adult Distribution Plan

## 2.3.2.2 Pahsimeroi Ponds (Pahsimeroi Segregated)

3,675 Adult Pahsimeroi stock Chinook are forecast to return to Lower Granite Dam in 2011. The trap will be operated from mid-June through Oct 1. Brood need is for 300 hatchery females, and 248 hatchery males. 52 hatchery females will be spawned to produce Integrated Brood for 2013 release.

- a. Forecast Return -3,675 adults
- b. Trapping Period mid June Oct. 1.
- c. Broodstock Need 248 females for segregated brood.
- d. Adult Distribution Plan -

# 2.3.3 Rapid River

# 2.3.3.1 Hells Canyon Trap (Rapid River)

2050 adult Rapid River stock Chinook are forecast to return to Lower Granite Dam in 2011. The Hells Canyon Trap will be operated by IPC and IDFG starting in late May or early June 2011 to trap Rapid River stock adult spring Chinook salmon returning from Rapid River Hatchery releases in 2008, 2009, and 2010. 400 4 and 5 year-old adult Chinook will be trapped and transported to Rapid River Hatchery to supplement broodstock. Additional trapped Chinook will be released into

fisheries (typically Boise River and Powder River) and/or distributed to humanitarian organizations for subsistence. Details regarding the duration of trapping and numbers for transfer, release, or distribution will be defined after agreement of the cooperators and may be changed in-season based on number of adult trapped. Releases and transfers will be preceded by appropriate health analysis performed by Eagle Fish Health Laboratory staff to achieve Bio-Security, ANS, and AIS standards to be agreed upon by the cooperators.

- a. Forecast Return 2050
- b. Trapping Period late May early June
- c. Broodstock Need 400 age 4 and age 5 Chinook
- **d. Adult Distribution Plan** 400 age 4 and age 5 Chinook transported to Rapid River Hatchery. See above, and Standard Operating Plan for additional distribution.

## 2.3.3.2 Rapid River trap (Rapid River)

10,350 adult Rapid River Chinook (from releases at Rapid River hatchery and not including Hells Canyon and Little Salmon River releases) are forecast to return to Lower Granite Dam in 2011. Rapid River Hatchery will operate the Rapid River Trap from March 16 through Sept 12 to collect 2,500 Rapid River stock spring Chinook salmon (including adults transferred from Oxbow Hatchery). Total brood need is 2,500 chinook (including 400 transferred from Hells Canyon Trap). Rapid River Hatchery will spawn 1,080 females to provide 4 million green eggs needed to yield 3.2 million eyed-eggs necessary to produce 3 million smolts for release in 2013, based on average fecundity of 3,700 eggs/female and eye-up survival or 90%. Disposition and related broodstock practices are designated segregated.

- a. Forecast Return 10,350 adults
- **b.** Trapping Period March 16 Sept 12.
- c. Broodstock Need 2,500 females (including females transported from Hells Canyon trap).
- d. Adult Distribution Plan See Standard Operating Procedure.

#### 2.3.4 Sawtooth

## 2.3.4.1 East Fork trap (EastFork)

The East Fork weir will be operated from mid-May through early September to enumerate and pass returning Chinook salmon. Trap will be operated by the Chinook Captive Rearing Research Biologist for monitoring and evaluation of the Chinook Captive Rearing Program.

- a. Forecast Return -
- **b.** Trapping Period mid May early September.
- c. Broodstock Need none.
- **d. Adult Distribution Plan** Natural adults released above the weir to spawn naturally. Hatchery adults trpped and hauled to Sawooth hatchery.

## 2.3.4.2 Sawtooth weir (Upper Salmon R Integrated)

- a. Forecast Return 0
- b. Trapping Period mid-June-Mid-September
- c. Broodstock Need -
- d. Adult Distribution Plan -

### 2.3.4.3 Sawtooth weir (Upper Salmon R Segregated)

502 adult Salmon River Segregated stock at Sawtooth Weir are forecast to return to Lower Granite Dam in 2011. The weir will be operated from mid-June (depending on water levels) until mid-Sept. to trap Chinook. Weir will be operated through Oct to trap Sockeye.

- a. Forecast Return -502
- b. Trapping Period mid June-Mid September
- c. Broodstock Need –
- d. Adult Distribution Plan Adults surplus to Sawtooth brood need to be outplanted to Yankee Fork (Salmon River segregated)

Release Date - 7/14/2011

Release Goal – Up to 1,500 maximum, 50%male:50%female

Projected Release – TBD based on adult return to Sawtooth Weir surplus to brood need.

Marks - Opercle Punch

Comments: Adult outplants excess of broodstock may occur in area waters including Yankee Fork Salmon River. The Tribes will operculum punch, genotype, and phenotype adult hatchery-origin Chinook salmon outplanted in the Yankee Fork. Tribal and hatchery staff will coordinate transportation and outplanting schedules when appropriate.

#### 2.3.4.1 Yankee Fork weir

- a. Forecast Return -
- b. Trapping Period -
- c. Broodstock Need -
- d. Adult Distribution Plan

# 2.4 BY 2011 RELEASES IN 2011, 2013

## 2.4.1 Eyed Egg Release BY2011

#### 2.4.1.1 McCall

#### 2.4.1.1.1 Dollar Creek (SFSR Segregated)

Release Date - 10/1/2011 Release Goal – 300,000 Planned Release - 300,000

Comments: SBT and McCall FH personnel will coordinate to determine a schedule to spawn, obtain, and transfer eyed eggs. Eggs are transferred in bags within iced coolers to Dollar Creek. Eggboxes are distributed throughout incubation areas. Once placed into in-stream hatch boxes, incubation will occur on stream water in the natural environment.

## 2.4.1.1.2 Clearwater Fish Hatchery (SFSR Segregated)

Transfer Date – Aug 19-25, 2011 Release Goal – 250,000 smolts Planned Transfer - 300,000 (green eggs)

## 2.4.2 Smolt Planned Release

#### 2.4.2.1 McCall

### 2.4.2.1.1 Knox Bridge (SFSR Segregated)

Release Goal – 750,000 Planned Release – 750,000 Marks – 630,000AD, 120,000ADCWT PIT – 39,000

Comments: Total PIT tags for segregated and integrated groups will be 52,000. See Standard Operating Procedures for Hatcheries, Traps, and Weirs.

#### 2.4.2.1.2 Knox Bridge (SFSR Integrated)

Release Goal – 250,000 Planned Release – 250,000 Marks – 250,000CWT PIT – 13,000

Comments: PIT tags for segregated and integrated groups will be 52,000. See Standard Operating Procedures for Hatcheries, Traps, and Weirs.

#### 2.4.2.1.3 Johnson Creek (Johnson Creek)

Release Goal – 100,000 Planned Release – 100,000 Marks – 50,000CWT, 50,000CWTVIE (one color) PITS – 4,200 (2,100 for each release group)

#### 2.4.2.2 Pahsimeroi

#### 2.4.2.2.1 Pahsimeroi Ponds (Pahsimeroi Segregated)

Release Goal – 800,000 Planned Release – 800,000 Marks – 680,000AD, 120,000ADCWT PIT - 21,400

#### 2.4.2.2.2 Pahsimeroi Ponds (Pahsimeroi Integrated)

Release Goal – 200,000 Planned Release – 200,000 Marks – 200,000CWT PIT – 4,200

### 2.4.2.3 Rapid River (Rapid River)

#### 2.4.2.3.1 Rapid River

Release Goal – 2,500,000 Planned Release – 2,500,000 Marks – 2,380,000AD, 120,000ADCWT PIT -52,000

#### 2.4.2.3.2 Hells Canyon

Release Goal – 350,000 Planned Release – 350,000 Marks – 350,000AD

#### 2.4.2.3.3 Little Salmon

Release Goal – 150,000 Planned Release - 150,000 Marks – 150,000AD

#### 2.4.2.4 Sawtooth

#### 2.4.2.4.1 Sawtooth Weir (Sawtooth Segregated)

Release Goal – 1,300,000 Planned Release – 1,300,000 Marks – 1,180,000AD, 120,000CWT PIT -19,000

#### 2.4.2.4.2 Sawtooth Weir (Sawtooth Integrated)

Release Goal – 200,000 Planned Release – 200,000 Marks – 200,000CWT PIT – 4,200

#### 2.4.2.4.3 Yankee Fork (Sawtooth Segregated)

Release Goal – 200,000 Planned Release – 200,000 Marks – 200,000CWT Pit -2,400

# 3 Fall Chinook language to be provided...

# 4 Sockeye

## 4.1 BY2008 RELEASES IN 2011

# 4.1.1 Captive Reared Adult Releases (stock in parenthesis)

## 4.1.1.1 Eagle (Snake River)

#### 4.1.1.1.1 Redfish Lake

Release Date – 9/14/11 Release Goal - 0 Projected Release – 350 Marks – 350AD PIT – 350

Comments: Brood Year 2008 captive adults to be released to Redfish Lake for volitional spawning. These adults are expected to be in excess of required broodstock needed to meet eyed-egg production goals at Eagle Fish Hatchery.

## 4.1.1.2 NOAA: Burley Creek (Snake River)

#### 4.1.1.2.1 Redfish Lake

Release Date – 9/14/11 Release Goal - 250 Projected Release – 250 Marks – 250AD PIT – 250

Comments: Brood Year captive reared adults to be released to Redfish Lake for volitional spawning. These adults are part of NOAA's normal adult release program.

## 4.2 BY2009 RELEASES IN 2011

# 4.2.1 Smolt Releases (stock in parenthesis)

## 4.2.1.1 Oxbow (Snake River)

#### 4.2.1.1.1 Redfish Lake Creek

Release Date – 5/12/11 Release Goal – 100,000 Projected Release – 52,000 Marks: 52,000CWT PITS – 10,000

Comments: All smolts are currently scheduled to be released at Redfish Lake Creek below the smolt out-migration trap. 10,000 will be PIT tagged as part of a downstream smolt survival study. An additional 400 smolts will be fitted with radio transmitters as part of a smolt survival study from Sawtooth Basin to Lower Granite Dam.

## 4.2.1.2 Sawtooth (Snake River)

#### 4.2.1.2.1 Redfish Lake Creek

Release Date – 5/12/11 Release Goal – 100,000

Projected Release –130,000 Marks – 130,000ADCWT PIT – 52,000

Comments: All smolts are currently scheduled to be released at Redfish Lake Creek below the smolt out-migration trap. 52,000 will be PIT tagged as part of a downstream smolt survival study. An additional 400 will be fitted with radio transmitters as part of a smolt survival study from the Sawtooth Basin to Lower Granite Dam.

## 4.3 BY2010 releases in 2011

# 4.3.1 Pre-smolts (stock in parenthesis)

## 4.3.1.1 Eagle (Snake River)

#### 4.3.1.1.1 Alturus Lake

Release Date - 7/26/11 Release Goal – 15,000 Projected Release – 10,000 Marks – 10,000AD PIT – 1,000

Comments: Production eggs reared at Eagle Fish Hatchery due to spawn crosses from anadromous adults that tested positive for Infectious Hematopoietic Necrosis (IHNv). Swim-up fry mortalities and presmolts will be tested throughout rearing cycle at Eagle Fish Hatchery. This group will not be released if found to be positive for IHNv.

#### 4.3.1.1.2 Redfish Lake

Release Date – 7/26/11 Release Goal – 45,000 Projected Release – 40,000 Marks – 40,000AD PIT – 1,000

Comments: Production eggs reared at Eagle Fish Hatchery due to spawn crosses from anadromous adults that tested positive for Infectious Hematopoietic Necrosis (IHNv). Swim-up fry mortalities and presmolts will be tested throughout rearing cycle at Eagle Fish Hatchery. This group will not be released if found to be positive for IHNv.

#### 4.3.1.2 Sawtooth (Snake River)

#### 4.3.1.2.1 Pettit Lake

Release Date – 10/05/11 Release Goal – 15,000 Projected Release – 15,000 Marks – 15,000AD PIT - 1,000

Comments: Normal Production

## 4.4 BY-2011 PRODUCTION PLANNING

#### 4.4.1 Sawtooth

## 4.4.1.1 Redfish Lake Creek (Snake River)

Adult Return forecast – 660. Operate trap from July 10 –Oct 15. Trap all returning adults Transfer to Eagle Fish Hatchery for incorporation into spawning matrix (100 anadromous adults will be incorporated into spawning design). Release remaining anadromous adults to Redfish Lake.

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- a. Forecast Return 660 to Sawtooth and Redfish Lake Creek combined.
- b. Trapping Period -July 15-Oct 15
- c. Broodstock Need 100 anadromous adults
- d. Adult Distribution Plan additional adults released into Redfish Lake.

#### 4.4.1.2 Sawtooth (Snake River)

Adult return forecast – 660. Trap all returning adults. Operate trap from mid-June through October 1, 2011. Transfer to Eagle Fish Hatchery for incorporation into spawning matrix (100 anadromous adults will be incorporated into spawning design). Release remaining anadromous adults to Redfish Lake.

- a. Forecast Return 660 to Sawtooth and Redfish Lake Creek combined, above.
- **b. Trapping Period –** mid-June-October 1
- c. Broodstock Need included with Broodstock need for Redfish Lake Creek, above.
- d. Adult Distribution Plan included with Broodstock need for Redfish Lake Creek, above.

## 4.4.1.3 Eagle/Burley Creek (Snake River)

Spawn 271 females to provide 542,000 green eggs. After eye-up, production eggs will be transferred off station for release as eyed-eggs or for production rearing at another facility. The following numbers represent current production release goals: 50,000 eyed eggs, 75,000 presmolts, 200,000 smolts, and 250 adults.

- a. Forecast Return 660 to Sawtooth and Redfish Lake Creek combined, above.
- b. Trapping Period -
- c. Broodstock Need Spawn 271 females to produce 542,000 green eggs.
- d. Adult Distribution Plan -

# 4.5 MY/BY2011 RELEASES IN 2011

# 4.5.1 Eyed Egg Release BY2011

## 4.5.1.1 Eagle/Burley Creek (Snake River)

#### 4.5.1.1.1 Alturus Lake

Release Date – 12/14/11 Release Goal – 50,000 Planned Release - 50,000

# 4.6 BY2011 RELEASES IN 2012

#### 4.6.1 Pre-smolts

#### 4.6.1.1 Sawtooth Fish Hatchery (Snake River)

#### 4.6.1.1.1 Alturus Lake

Release Goal - 15,000 Planned Release - 15,000 Marks - 15,000AD PIT - 1,000

#### 4.6.1.1.2 Pettit Lake

Release Goal - 15,000 Planned Release – 15,000 Marks – 15,000AD PIT – 1,000

#### 4.6.1.1.3 Redfish Lake

Release Goal - 45,000 Planned Release – 45,000 Marks – 45,000AD

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# 4.7 BY2011 RELEASES IN 2013

## 4.7.1 Smolts

# 4.7.1.1 Sawtooth Fish Hatchery (Snake River)

#### 4.7.1.1.1 Redfish Lake Creek

Release Goal -100,000 Planned Release – 100,000 Marks – 100,000ADCWT PIT – 1,000

## 4.7.1.2 Oxbow Fish Hatchery: ODFW (Snake River)

#### 4.7.1.2.1 Redfish Lake Creek

Release Goal -100,000 Planned Release – 100,000 Marks – 100,000CWT PIT – 1,000

# 4.8 BY2011 RELEASES IN 2014

## 4.8.1 Adults

# 4.8.1.1 Burley Creek Hatchery: NOAA (Snake River)

#### 4.8.1.1.1 Redfish Lake

Release Goal -250 Planned Release - 250 Marks – 250AD PIT – 250

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