# Dworshak Fisheries Complex

***Monthly Activity Report***

U.S. Fish & Wildlife Service, Region 1

November 2014

Volume 4, Issue 1


**Highlights:**

- **Total Fish on station at Dworshak: 6,935,183**
- **Total Fish on station at Kooskia: 661,902**

**Thank YOU to all of the Veterans serving at the Dworshak Fisheries Complex!**

Your dedication, both past and present, does NOT go unnoticed or unappreciated!

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## Manager's Message

**Steve Rodgers, Complex Manager**

Another year of fisheries work is coming to a close in the Dworshak Complex. This month, I'd like to share a few thoughts about change and the work you're all doing.

After my first full year here, I feel good about where we are today and where we're going in the future. We've implemented significant changes, some of which were difficult. We've made these changes on behalf of a better workplace, even though it may not always feel that way. As a new Complex Manager, I've made some good decisions, and I've made some mistakes. I acknowledge that and always try to learn and do better the next time. I see that same philosophy in you, my coworkers here.

We've assigned fish groups to small production teams, in an attempt to empower our employees with ownership in the fish they produce. The Field Research Office was completely reorganized, with an end goal of clarifying responsibilities and growing the program. Even the basic work schedule was "tightened up" for a variety of sound business reasons. All of these changes have been challenging, some more than others. I appreciate the fact you've all continued doing your jobs with grace and passion. It's clear to me that you care about your work, and it shows in your continued dedication despite an ever-changing workplace.

Many of you have been involved with development and incorporation of the broodstock calculator into our operations, which is now being used basin-wide. That's been a significant change in how we manage fish production. This tool will maximize the value of every returning adult salmon and steelhead, whether for broodstock or the fishery or for other valued purpose. It will be shaped by all of you that use and refine it in the coming year.

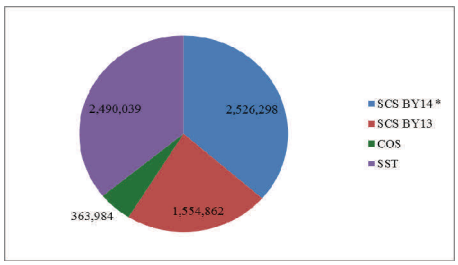
Co-management of DNFH has continued to advance and evolve. As directed by SRBA, we've maintained an even ratio of FWS and Nez Perce Tribal employees in fish production and maintenance. From my perspective, our Service-Tribal partnership has never been stronger. You are responsible for making this a success, and now others are looking to us as an example of what can be accomplished between Federal agencies and Tribal governments. We are far stronger united than when we stand alone.

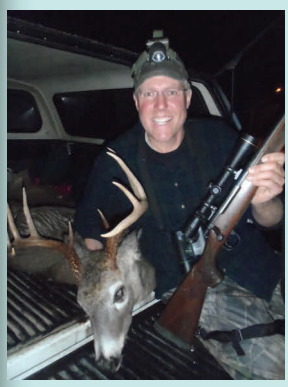
The Complex has great relationships with our funding entities and partners in fish production. We've built trust through commitment and follow-through and transparency, and I expect our relations will continue to flourish.

There has been a mountain of changes here over the last year. We will face many more challenges in the days ahead. Some of those include major infrastructure changes at both DNFH and KNFH, new direction and growth in the FRO, and a major reorganization of the Fish Health Center.

What I'm most excited about is how you've all adapted to change, carrying your portion of the load with good attitudes and unwavering dedication. Adaptability and flexibility are powerful employee traits. You've certainly called on those traits many times in 2014, and you will have to do so again in the future. I want to thank each of you for a job well done. Your excellence is why we are succeeding today, and why we're capable of great things in the future. Enjoy the upcoming holidays, and then we'll crank it up again next year.

**Figure 1. November 30, 2014: total fish on station.**





Credit: :Tom Tighe

U.S. Army Veteran Tom Tighe, Fisheries Biologist served in 11th Armored Cavalry Regiment from 1987 to 1991, Operation Desert Storm, Germany

## Hatchery Headlines: *Dworshak Spring Chinook Salmon*

### Brood Year 2013 (BY13)

At the end of November there were 1,554,862 fish in 30 RWs averaging 34 fpp (4.6 inches). Mortality was 0.10% (1,565). There are three distinct ponding groups: Low-density, high-density, and flow study. Each group can be identified through parental based tagging (PBT). Raceway flow averaged 740 gpm and water temperature was 49 degrees.

### Brood Year 2014 (BY14)

BY2014 Chinook eggs eyed and were enumerated in November. There are 2.53 million eyed eggs currently in Dworshak production. Percent eye up was 77.4%. There was a surplus of approximately 400,000 eggs that will be out-planted to O'Hara Creek in early December. Eggs are being incubated on secondary reservoir water chilled to 39 degrees. Formalin treatments are occurring twice weekly.

## Hatchery Headlines: *Dworshak Summer Steelhead (SST)*

### Brood Year 2014

There were 2,485,510 SST in the Burrow's Ponds at the end of September averaging 13 fpp (6.09 inches). There were 4,529 mortalities (0.2%). IHNV that was in ponds 2-50 dropped off this month. All fish are being reared on river water at about 700 gpm and water temperature was 49 degrees.

### Brood Year 2015

The ladder was opened again in November. There were a total of 533 adults (165 1-Ocean, and 368 2/3 Ocean) inventoried for the month.

Credit: Jill Olson USFWS

U. S,. Army Veteran Ray Jones ,Fisheries Biologist with Idaho FRO served with the 25th Infantry Division 1968-1972 in Vietnam, Fort Hood, Texas, and Germany.

## Hatchery Headlines: *Dworshak Coho Salmon (COS)*

### Brood Year 2013

At the end of November there were 363,845 Coho in 5 Burrow's ponds. Coho averaged 39 fpp (4.18"). Mortality was 0.07% (271 individuals). The full Coho report can be seen on page 4.

***Table 1. Total Production—Fish on Station (11/31/14).***

| SP | BY | Location | Number | Wt (lbs) | FPP | L in | L mm |
|---|---|---|---|---|---|---|---|
| SCS* | 14 | eggs/incubation | 2,526,298 | | | | |
| COS | 13 | BP 74-82 | 363,984 | 9,346 | 39 | 4.2 | 107 |
| SCS | 13 | RWs 1-30 | 1,554,862 | 45,606 | 34 | 4.6 | 117 |
| SST | 14 | Systems | 2,490,039 | 197,077 | 13 | 6.1 | 155 |
| **Total Fish/Fry on Station** | | | **6,935,183** | **252,029** | | | |

* SCS BY14 includes DNFH and KNFH egg production

## Hatchery Headlines: *Kooskia*

This activity report is implemented by the Tribal Fish Hatchery Manager, Kent Hills. All information in this report was collected and or performed by the hatchery staff during the preceding month.

Under SRBA and the Clearwater Annual Operating Plan, the Tribe, Service and Idaho Fish & Game have agreed to implement other fish production actions related to KNFH mitigation. Reports will include additional information about other species reared, processed and released in relation to KNFH operations.

Kooskia Chinook Brood Year 2013

There are 661,902 Chinook smolts on station at 31.2 fish per pound; they are 4.75 inches (120 mm). These fish were fed 805 pounds of feed. Total mortality was 421. The fish were on creek water at an average of 40 degrees. Due to the cold weather we have lost weight and length in the fish this month lost 1492 pounds and .10 inches in length. We have seen a slight increase in mortality in pond 1. The Idaho Fish Health Center completed the fish evaluation for November and believes that the mortality was caused by the colder weather, pond freezing and less feed this month. We will monitor pond 1 to look for any changes this coming month.

Kooskia Chinook Brood Year 2014

Eggs from 243 females were enumerated. Total eggs 942,190, good eggs 900,168 and bad eggs 42,022 with 96% eyed eggs, and the average fecundity was 3,877. Good eggs were transported to Kooskia Hatchery this month. Most of this work was done during swing shifts at Dworshak. There are 900,168 eyed eggs on station; they are on 40 degree water in 17 incubation stacks. These eggs have been picked once since arriving at the hatchery. Formalin treatments are being done twice a week to inhibit fungal growth in the trays. The eggs will start hatching in December.

Kooskia Adult Coho Trap Operations:

Trap was operated until November 19, 2014. The trap was then closed and the fish cleaned out. Clear Creek flows were decreasing and we had not had any rain. Adult Coho were removed from the trap November 2, 5, 6, 13 and 19. Total fish transported were 30 males and 30 females to Dworshak. A total of 1,473 fish were out-planted, 1,133 males, 226 females and 114 jacks.

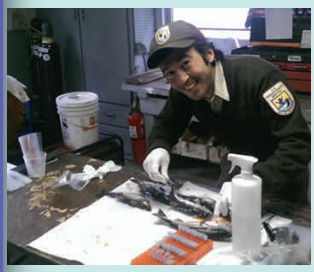
## Information and Education Corner

Tours– We had 122 visitors from 6 states, Website Stats: 197 Page Loads, 143 Unique Visits, 22 First Time visitors; Facebook Reach 632

**Dworshak–** No Tours or Off-site Engagements Reported

**Kooskia-**

***On-site:*** There were 125 visitors to the hatchery during this month; this figure is compiled by staff.



Credit: Rick Cordes USFWS

Matt Stinson, on detail from the Lower Columbia Fish Health Center, indulging in a few ice cold kokanee.

Credit: Rick Cordes USFWS

Jenna Roseman, a veterinary intern from Western University, stripping eggs from a fall Chinook salmon.

# Hatchery Headlines: Nez Perce Tribal Fisheries At Dworshak

## Performance November 2014

The inventory of BY13 Coho on December 1st showed a total of 363,845 Clearwater stock Coho in five Burrows Ponds (74, 76, 78, 80, and 82).

Table 1. Brood year 2013 Coho inventory as of December 1, 2014.

| | Number of Fish | Weight (lbs.) | FPP (average) | Length (inch) |
|---|---|---|---|---|
| **BP 74** | 80144 | 2016 | 39.75 | 4.16 |
| **BP 76** | 79638 | 1979 | 40.24 | 4.14 |
| **BP 78** | 79994 | 2025 | 39.51 | 4.17 |
| **BP 80** | 51786 | 1214 | 42.65 | 4.06 |
| **BP 82** | 72283 | 2112 | 34.22 | 4.37 |
| **TOTALS** | **363,845** | **9346** | **39.27** | **4.18** |

**MORTALITY:**

- The average percent mortality for Clearwater stock Coho for the month was 0.07%.
- Total monthly mortality after inventory was 271 collected by staff.

**GROWTH:**

*DNFH*

- Average fish per pound (fpp) decreased from 47.50 fpp to 40.50 fpp.
- Average length increased from 3.92 inches to 4.10 inches.

*KNFH*

- Average fpp decreased from 38.92 fpp to 34.22 fpp.
- Average length increased from 4.19 inches to 4.37 inches.
- Overall average fpp decreased from 45.78 fpp to 39.27 fpp.
- Overall average length increased from 3.97 inches to 4.18 inches.

**FEED:**

- A total of 1276 pounds Bio-Oregon's BioPro starter 1.2mm feed was fed for the month.

**FISH HEALTH:**

- Monthly fish health samples were collected by Corrie Samson. See fish health report 15-048

**REPORTS: N/A**
**MEETINGS/TRAINING**: NA

BY 14:

- 11-23-14 – Take #1 shocked
- 11-24-14 & 11-25-14 Take #1 enumerated

## Idaho Fish Health Center—November 2014

**Bacteriology:** Five cases were received for bacteriology including samples from Dworshak juvenile steelhead, the Wild fish Health Survey program, Nez Perce Tribal Hatchery FCS adults, Nez Perce Tribal Coho at Dworshak, and Kootenai Tribe Rainbow Trout.

**Virology:** Corie, and intern Jenna Roseman ran a total of 134 samples representing 371 fish from Dworshak NFH, Nez Perce Tribal Hatchery, Kootenai Tribe of Idaho and the Wild Fish Health Survey. They also ran 269 blind passes representing 917 fish from Dworshak NFH, Nez Perce Tribal Hatchery, Nez Perce Tribe Coho program, and the Wild Fish Health Survey.

**PCR:** Rick confirmed by PCR a suspect Flavobacterium psychrophilus bacteria culture from a sample collected from Hagerman NFH STT collected during monthly monitoring. Corie provided Rick with nine COS and three IHNv suspect cell culture samples for confirmation by RT-rtPCR. Only the FCS samples were positive by PCR. Rick screened takes 1 and 2 river fresh steelhead trout trapped in October for IHNv by RT-rtPCR. Only one positive from the first take was detected by PCR. Rick demonstrated nucleic acid extraction techniques for DNA and viral RNA for the veterinarian intern, Jenna Roseman.

**ELISA:** Guppy analyzed 944 samples by the ELISA test for Bacterial Kidney Disease (Renibacterium salmoninarum) in two separate runs on 11/4-11/5 and on 11/20-11/21. These runs primarily included samples from the Nez Perce Tribe Coho spawning adults and the Nez Perce Tribal Hatchery Fall Chinook spawning adults.

**Parasitology:** Rick screened 60 adult COS and FCS each collected during spawning operations for Myxobolus cerebralis by pepsin-trypsin digest.

**Histology:** Guppy read slides from 118 white sturgeon larva for the WDFW to test for the White Sturgeon Iridovirus and processed 144 more samples.

### FWS Hatcheries

**Kooskia:** Guppy and Jenna visited Kooskia on 11/20. One pond had increased mortality due to being frozen over for several days.

**Hagerman:** Rick visited Hagerman NFH, November 25 to conduct the monthly monitoring. Ichthyophthirius (Ich) levels were checked in the 3 raceway decks and only one Ich was observed from the middle deck. It also appears from observations that the flashing is decreasing, but was still prevalent in the lower deck. Samples were also collected from the RAS and RAS controls.

**Dworshak:** Matt Stinson examined steelhead from system 2 due to report by production of some flashing in the ponds. Very low levels of external parasites were detected on the skin and no treatment was recommended at this time.

Rick and Jenna conducted the monthly monitoring of the low and high density SCS raceway project. SCS in both densities are in good condition at this time.

Rick, Corie, and Guppy attended Dworkshak steelhead pre-spawning meeting on 11/10.

Rick, Corie, Jill, Guppy, and Matt Stinson took nonlethal samples from steelhead adults fresh from the river on 11/13 or 11/25 for IHNV study.

**NEZ PERCE TRIBE:** Laura injected 132 adult FCS females with Ovaplant on Nov 4, while Rick sampled adults at the Nez Perce Tribal Hatchery.

Rick and Matt also collected inspection samples from adult FCS during the last two spawn dates in November at the Nez Perce Tribal Hatchery.

With Rick and intern Jenna's assistance Corie examined the coho for their monthly monitoring. Damaged eyes had been

**(Continued page 7)**

Credit: Terry Weeks

Veteran Terry Weeks served with the US Army 1985-1989 in the 237th Engineer Battalion stationed in Heilbronn, Germany

Credit Rick King

Veteran Rick King served in the US Army 1971-1974 Nuclear Weapons Security in Germany

Credit Jill Olson, USFWS

Veteran Joe Livesay served US Marine Corps 1999-2003 at the Air Station in Miramar, California, in Operation Iraqi Freedom

## Maintenance Activities November 2014

### Dworshak Maintenance and Operations

We have invested a large portion of our days cleaning up the Hatchery complex, sorting, taking inventory and deposing or surplus-ing of unused, broken and outdated material and equipment. We have, as a team, filled two 20 yard roll-off dumpsters with scrap metals and outdated items that have accumulated over the years. This has made a huge improvement at our facility as far as the appearance of our complex, identifying much needed storage space and even eliminating some possible safety concerns. We will be receiving at least one more dumpster to complete this much needed assignment. During this project we have also disposed of three, and counting, full dumpsters of trash.

Roof inspections along with staff from Walla Walla to plan future needs.

We have also been working on work order requests from our staff such as;

Install additional hose bib in the spawning area to enhance clean-up

Repair of fuel gauge on our fish transport truck

Repair of speedometer on our Boom Truck

Plan, design, and procurement of materials for 20 inch discharge pipe replacement on system three.

Replace electrical junction box near system 1 pump building.

Repair of cables supporting bird netting over raceways

Repair and inspection of Grover man-lift.

Completion of pole lighting fixture replacement throughout the facility.

Fall clean-up of hatchery grounds.

Beginning phases of electrical shop re-organizing and work area remodel.

Repair of spare chiller recirculation pump.

Fabricated a chute cover to keep area cleaner during spawning.

### Kooskia Maintenance and Operations

Nov 3: Kent shocked takes 1 & 2 Chinook eggs at Dworshak.

Nov 4: Kent & Art to Dworshak to assist in Coho spawning also began working swing shift enumerating eggs from take 1and shocked take 3.

Nov 5: Kenny & Art to Dworshak on swing shift to enumerate take 3 and transport takes 1, 2 and part of take 3 eggs back to Kooskia for incubation. State and Coho personnel arrived to out plant Coho.

(continued on page 7)

## Idaho Fish Health Center (continued from page 5)

reported and were observed on examination. It appears to be caused by their cohorts nipping at their eyes. Reduced feed rations had been implemented approximately 2 weeks prior to examination.

Matt Stinson took fish health samples from spawning Coho salmon on 11/4.

**Kootenai Tribe:** Matt and Jenna took samples from Kootenai Rainbow trout for inspection on 11/19.

**Wild Fish Survey:** Laura worked to get all data results for 2014 into the database for submission to Norm. Rick and Matt traveled to Northern Idaho to sample 60 salmonids from Clark Fork River as part of the Cutthroat trout/Bull trout movement programs. Laura sampled 60 lake trout from Lake Pend Oreille also.

Laura attended the monthly UAT call.

**Other:**

Veterinary student Jenna Roseman visited the Idaho FHC for 2 weeks from 11/10-11/21 to gain fish health experience with the USFWS.

Guppy attended Hatchery Managers Training Workshop on 11/12-11/14 in Richland, WA.

All available staff including Laura, Rick, Matt and Guppy attended a national fish health center conference call hosted by Joel Bader, National Aquatic Animal Health Coordinator on 11/3.

Laura and Corie took the first aid and CPR refresher course offered November 5th.

Jill submitted annual youth reports to the RO for the Dworshak Complex, including the Idaho FHC.

All staff completed Individual Development Plans, and performance plans for 2015 were discussed and signed. Guppy submitted the 2015 org chart for the Idaho FHC for signature as requested by the RO.

Guppy attended a Region 1 project leader conference call on 11/10 and a Dworshak managers meeting on 11/6. She completed mandatory safety training in DOI Learn.

**Kooskia Maintenance and Operations (continued from page 6)**

Nov 6: State and Coho personnel arrived to out plant Coho.

Nov 8: Kenny to Dworshak to enumerate take 3 eggs.

Nov 10: Kenny & Art to Dworshak to shock take 4 eggs and transport some of take 3 eggs to Kooskia.

Nov 12: Kent & Art to Dworshak to count eggs.

Nov 13: Kent & Art to Dworshak to count eggs.

Nov 14: Kent handled a low creek water alarm at 2345 hrs.

Nov 17: Kent & Art to Dworshak to count eggs.

Nov 18: Kent & Art to Dworshak to count eggs.

Nov 19: Kent worked at Dworshak teaching class.

## Aquatic Conservation November 2014

*Mike Faler—Ahsahka, Idaho*

- Completed field work associated with the Mountain Whitefish Response to Climate Change project in the upper Lochsa River. Disassembled and packed out 2 remote radio telemetry fixed stations on Colt Killed Creek.
- Participated in the monthly NWR Climate Change monitoring conference call, and provided an update for monitoring on Kootenai NWR.
- Participated in the region-wide ACT conference call, and provided a station update of recent activities.
- Downloaded hobo temperature loggers on Myrtle Creek for the aquatic climate change monitoring program on National Wildlife Refuges.
- Participated in the KVRI (Kootenai Valley Resource Initiative) meeting on Nov. 17th.
- Participated in the bi-annual White Sturgeon Recovery Team meeting in Coeur d'Alene.
- Solicited for, and received 3 fish passage proposals for NFPP funding from the Idaho Panhandle and Clearwater National Forests.

Credit: Frank Mullins

Veteran Frank Mullins, Fisheries Biologist with Idaho FRO, served with the US Army 1989-1991 in Ayers Kaserne, Germany and Operation Desert Shield/Storm

*Jody Brostrom –Salmon, Idaho*

- Worked with the Shoshone-Bannock Tribe to submit a proposal for Flex Funding. The proposal is to collect baseline Freshwater Mussel Distribution and Abundance information in Idaho, particularly those in the Middle Fork Salmon River and other areas where the Shoshone-Bannock people historically harvested them.
- Committed to working on Idaho's revision of their State Wildlife Action Plan. Specifically, I am working with Beth Waterbury, Idaho Fish and Game, to update the Beaverhead Ecological Area section. Species we are concentrating on include Westslope Cutthroat trout and alpine species.

Credit: Jill Olson/USFWS

Veteran Randy Bowen, our IT Specialist, served with the US Navy 1969-1991. Randy served in Vietnam, Operation Desert Storm, and Thailand

## Hatchery Monitoring and Evaluation November 2014

1) Participated in Co-Manager discussions related to the development of modeling predictions of adult salmon and steelhead returns to the Snake River Basin. Predictions are essential input to the US v Oregon process (Technical Advisory Committee), as they recommend down-river harvest strategies, as well as to upriver Co-Managers in shaping harvest seasons, share allocations, and broodstock collection strategies.

2) Completed extracting, reading, and verifying coded-wire tags recovered from adult spring Chinook salmon spawning. The completed tag file was submitted to the Western Washington Fisheries Resource Office for finalization and uploading into the RMIS database.

(continued page 9)

## Hatchery Monitoring and Evaluation (continued from page 8)

3) The trapping data for BY15 steelhead was submitted to the FINS database.

4) Two FONS proposals were submitted to the FIS to obtain Resource Management funds for M and E hatchery operations activities: 1) Funding to purchase a CWT/Data Collection trailer, and 2) Funding for PIT tagging steelhead smolts.

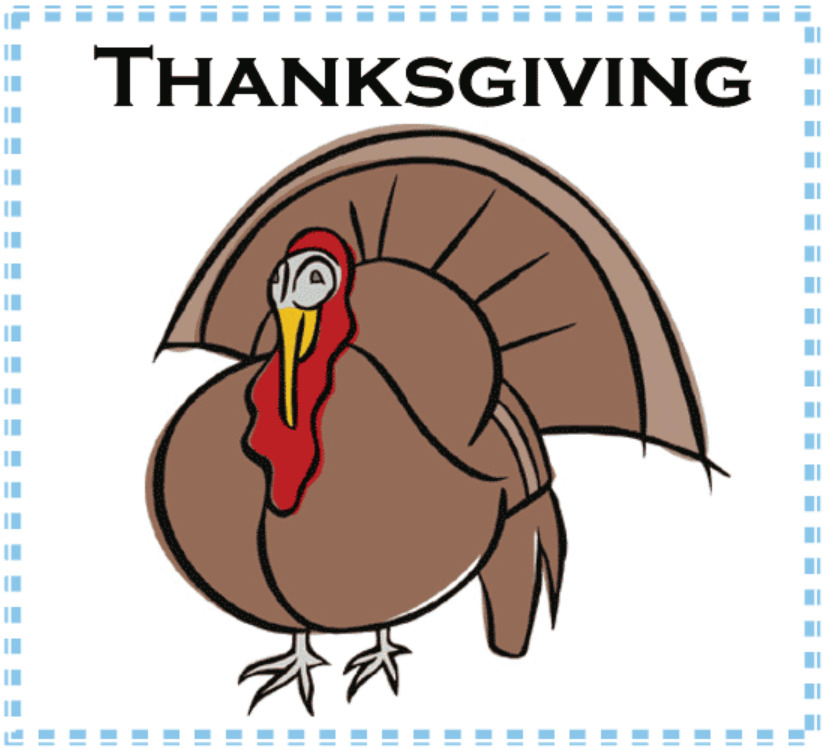
5) A coordination meeting for BY15 steelhead broodstock collection and spawning was held on November 10.

6) The final data submission for the Idaho Salmon and Steelhead Supplementation Study was completed.

7) Sampling spring Chinook salmon juveniles for the density and flow evaluation studies was completed. Raceways 16-20 were put on re-use as of November 25. They had not been put on re-use at the time of final ponding because of the presence of IHN in the A Bank raceways providing the re-use water.

8) The annual progress report for the Flow Evaluation Study comparing normal flow in A bank with high flow in B bank is near completion. Preliminary data indicate no differences in growth, mortality, or smolt performance between the two treatments.

9) The M and E data for both steelhead and chinook at Dworshak and Kooskia NFHs were summarized for entry into the final 2014 Clearwater AOP production tables in preparation for the December 10 meeting of the Co-Managers to finalize the 2014 production program in the Clearwater Basin.



## Administrative Activities November 2014

### Meetings....Training....Travel

**Kooskia**

Nov 3: Kent to a Production meeting in Lapwai.

Nov 19: Kent worked at Dworshak teaching class

### Personnel Actions :

DNFH: 1

### Safety Incidents:

None Reported

### Staff Birthdays

Brad Beuchel
Mike Faler
Frank Mullins

### Service Comp Anniversaries:

None to report this month

## Staff List

**Complex Management**

Steve Rodgers, Complex Manager
Mark Drobish, Dworshak NFH Manager
Mike Tuell, SRBA Coordinator
Dr. Marilyn "Guppy" Blair, Idaho Fish Health Ctr.
Mike Faler, Aquatic Conservation Lead
Adam Izbicki, Maintenance Supervisor
Dr. William Conner , Fall Chinook Research Lead
Kent Hills, Kooskia NFH Manager
Dr. Chris Peery, Fish Production M&E Lead

**Dworshak Production Staff**

Adam Izbicki, Jeremy Sommer, Jill Olson,
Angela Feldmann, Tom Tighe, Rob Bohn, Wayne Hamilton, Mike Bisbee, Tui Moliga,
Lou Ann Lasswell, Steve Coomer, Carter Lopez, Casey Mitchell

**Administration**

Penny Hasenoehrl, Steve Bradbury, Randy Bowen

**Maintenance**

Scott Koehler, Terry Weeks, Rick King, Rob Kellar, James Oatman, James Paddelty, Melissa Wright, Joe Livesay

**Idaho Fish Health Center**

Laura Sprague, Corie Samson, Rick Cordes,

**Idaho Fishery Resource Office**

Ray Jones, Aaron Garcia, Carrie Bretz, Frank Mullins, Jody Brostrom, Ken Bugler, John Hook, Brad Buechel

**Kooskia National Fish Hatchery**

Art Broncheau, Kenny Simpson, Gerry Fogelman