



Dworshak Fisheries Complex

Monthly Activity Report



August, 2012

U.S. Fish & Wildlife Service, Region 1

Volume 1, Issue 10

Special points of interest:

- Total Fish on station at Dworshak: 6,449,654
- Total Fish/Eggs on station at Kooskia: 687,281
- Dworshak's [Face-book page](#) is going strong!
- 2.5 million SCS from Clearwater were brought to Dworshak due to a damaged water-line.

Inside this issue:

Hatchery Headlines	2-4
Total Fish on Station	3
Nez Perce Fisheries News	4
I & E Corner	5
Maintenance Activities	6
Fish Health Report	7
Administrative Activities	8-9

Manager's Message....

Crisis....Proud of the response!

On the 15th of August, the primary water supply line from Dworshak Reservoir experienced damage. Water flow was not interrupted; however, the line was compromised leaving uncertainty in the reliability of the water supply. This left our neighbors and partners at the Clearwater Hatchery in a situation where they would not be able to hold all of their production during the time frame to make repairs to the primary line. There was immediate action by staff at Dworshak and

Clearwater Hatcheries to find solutions to help ensure these fish could be reared full term. Plans were made to transfer 2.5 million Spring Chinook Salmon from the Clearwater to Dworshak for rearing until release in the spring of 2013. Simultaneously, staff support was provided by the Nez Perce Tribal Hatchery to assist in the preparation of 25 burrows ponds at Dworshak to accommodate these "Springers". The Lower Snake River Compensation Program (LSRCP) has provided resources for making repairs to the pipeline and to enable us to



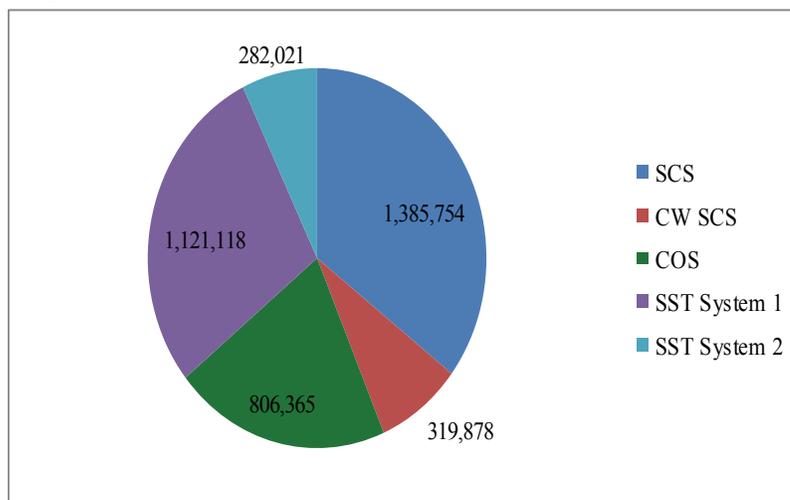
Acting Complex Manager Mark Drobish

accommodate these fish with piping cross-connects and removal of plastic media to allow us to comply with EPA requirements during cleaning operations. LSRCP also provided funding for a backup generator to run additional pumps in the event of a power outage to minimize risk to these fish. The

(Continued on page 5)

Production Summary: Dworshak National Fish Hatchery

Figure 1. Total Production—Fish on Station (8/31/12).



Returning adult Chinook.

Credit: Angela Feldmann/USFWS

SCS=Spring Chinook; CW SCS=Clearwater Hatchery Spring Chinook; SST= Steelhead; COS=Coho





A basket of SCS is dumped on the table for sorting and spawning.

Credit: Angela Feldmann/USFWS

“Teamwork between the NPTH, IDFG, and USFWS was key in moving 2.5 M SCS to Dworshak from Clearwater Hatchery.”



Steelhead parr moving through the fish counter during fish consolidation.

Credit: Angela Feldmann/USFWS

Hatchery Headlines: Dworshak Spring Chinook Salmon (SCS)

Brood Year 2011 (BY11)

At the end of the month there were 1,385,754 BY 11 SCS on station averaging 95 fish per pound (fpp) and 83 mm (3.27 inches) total length. There were 3,082 (0.22%) SCS mortalities in the raceways (RWs) during the month. The raceways were marked and split into their final rearing densities in August. All SCS were AD clipped, 120,090 fish were CWT. All tagging was done by the Columbia River Fisheries Program Office. Fish in the B bank raceways are on serial reuse and average flow is 1038 GPM. Water temperature averaged 46.6 °F in the RWs.

Brood Year 2012 (BY12)

The fish ladder remained open through August. At the end of August there were 414 females, 386 males, and 12 jacks in the Dworshak holding ponds, and 374 females, 221 males, and 33 jacks in the Kooskia holding pond. Spawning began on Aug. 14 and continued through the month. By the end of the month 300 females had been spawned for Dworshak, 210 females for Rapid River, 109 females for Kooskia, and 85 females for Clearwater. Spawning will continue until all egg take goals are met.

Hatchery Headlines: Clearwater Hatchery SCS

Brood Year 2011 (BY11)

System III Burrow's ponds have new, unexpected residents. Due to a break in Clearwater Fish Hatchery's primary pipeline, their BY11 SCS were moved into System III. These fish will remain at Dworshak until release next spring. Fish were trucked over from Clearwater August 27 -30. At the end of August there were 2,534,518 SCS averaging 53 fpp and 96 mm (3.8 inches). Water temperature averaged 46.6 and flow was 600 gpm.

Hatchery Headlines: Dworshak Summer Steelhead (SST)

Brood Year 2012

All takes were moved out of the nursery by the end of August. Take 8 was moved to System 1 Burrow's Ponds (BP) during August after making the trip through the marking trailer. Steelhead from System III had to be consolidated in System II in order to make room for Clearwater Hatchery SCS. At the end of the month there were 2,209,504 BY 12 SST in the BPs averaging 40 fpp and 105 mm (4.10 inches) total length. There were 3079 (0.13%) mortalities this month. System I was switched over to a blend of river and reservoir water temperature averaged 47.6°F and 46.6 °F in Systems II & III (river water).

Hatchery Headlines: Dworshak Coho Salmon (COS)

Brood Year 2011

There were 319,878 Coho at the end of the month in August. Fish averaged 42 fpp and 103 mm (4.07 inches). Total mortality for the month was 462 (.12%). On August 21st 64,119 Coho from BP 74 were split into BPs 76, 78, and 80. BP76 = 21,831, BP 78 = 21,118, and BP 80 = 21,170 added. Fish moved due to Clearwater AFH had their primary pipeline break and Dworshak NFH was chosen as a backup facility to rear their fish. So we had to consolidate our fish into 4 ponds to make more space available. The full Coho report can be seen on page 4.

Hatchery Headlines: Kooskia

Kooskia NFH Monthly Activity Report

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.

Kent Hills began training for the SRBA Coordinator position at Dworshak National Fish Hatchery on July 2 and took over temporary assignment of that position on July 9, following Ed Larson’s Retirement. KNFH was shorthanded on personnel this month because Art Broncheau was out with a fractured hand as well. My thanks goes out to Kenny Simpson in assisting in all report writing, and to Gerald Fogelman and Kenny Simpson for stepping up and keeping the hatchery operations running smoothly in my absence.

Kooskia Adult Trap Operations Brood Year 2012

The Adult trap was closed for the entire month of August.

Kooskia Chinook Brood Year 2011

Fry have been in the Burrows Ponds (BP) for four months and are growing well and mortalities are low. At the end of the month, the fry are 41 fish to the pound and 4.33 inches (110 mm) long. We have a total of 687,281 on station. Total feed consumed this month was 3,662 lbs. BP water temperature for the month has been at 49 to 50° F. Data sheets for feed consumption and fish inventory are attached.

The tagging crew finished tagging BY11 on Aug 3.

About the second week of August, hatchery personnel recorded higher than normal mortality in BP4 and the fish were not eating, Guppy, with Fish Health was called and after an examination of the fish in BP4, it was determined they had low levels of Costia and slight swelling of the gills. On August 16th, as per Guppy’s direction all fish on station were subjected to a 12hr drip of formalin. Although at the time of this report, Guppy has yet to inspect the fish again; it appears the fish are back to normal.

(Continued on page 5)

Total Fish on Station: Dworshak, 8/31/2012

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SCS	11	RWs 1-30	1,385,754	14,547	95	3.3	83
COS	11	System III	319,878	7,569	42	4.1	103
SCS	11	System III	2,534,518	48,566	52	3.8	96
SST	12	System I	806,365	10,445	77	3.3	85
SST	12	System II	1,121,118	48,214	23	5.0	126
SST	12	System III	282,021	13,502	21	5.2	131
SST	12	SST on feed Tot/Avg	2,209,504	120,727	43	4.0	103
Total Fish/Fry on Station EOM			6,449,654	142,843			



Kooskia NFH is owned by the USFWS and managed by Nez Perce Tribal Fisheries.

Credit:USFWS



SCS from Clearwater are trucked to Dworshak Burrow's ponds.

Credit: Angela Feldmnn/USFWS

"Condition data were taken for Coho during the month of August."



Staff sorting SCS

Credit: Liz Steiner/USFWS

Hatchery Headlines: Nez Perce Tribal Fisheries

Performance for July 2012, BY 11 Coho

The inventory of Brood year 2011 Coho on September 1st showed 319,878 Clearwater-stock are being reared in five Burrows Ponds at Dworshak National Fish Hatchery (DNFH) as shown in Table 1 below. On August 21st 64,119 Coho from BP 74 were split into BPs 76, 78, and 80. BP76 = 21,831, BP 78 = 21,118, and BP 80 = 21,170 added. Fish moved due to Clearwater AFH had their primary pipeline break and Dworshak NFH was chosen as a backup facility to rear their fish. So we had to consolidate our fish into 4 ponds to make more space available.

MORTALITY:

- o The average percent mortality for Clearwater stock Coho during August was 0.14%.
- o Total monthly mortality was 462 as collected by staff.

GROWTH:

- o Fish per pound (fpp) decreased from an average of 55.17 fpp to 42.26 fpp.
- o Length increased from an average of 3.73 inches 4.07 inches.

CONDITION FACTOR:

- o 150 fish were sampled for weight and length from each pond. Average length was 97.91 mm, average weight was 10.93 g, and average condition (K) was 1.14.

FEED:

- o Coho fry were fed Bio-Clark's 1.2 mm and 1.5 mm at 1.2% of their body weight.
- o A total of 1,584 pounds of feed was fed during the month of July. The total cost of feed for the month of April was \$2,179.32.

FISH HEALTH:

- o Corrie Samson (USFWS) conducted monthly fish health testing on Coho (case # 12-181)
- o Treated all Coho BPs w/ Chloramine-T (INAD study # 9321-12-207). Treated at 15 mg/l in a standing bath for 1 hour for three consecutive days.

REPORTS:

- o Mike Bisbee submitted Intern Proposal to BPA on 8-27-12.
- o Mike Bisbee submitted INAD data on the AADAP, INAD program management system (online data reporting).

MEETINGS/TRAINING:

- o Mike Bisbee attended weekly supervisor meeting at Dworshak.
- o Coho staff attended daily morning meetings.
- o Tui Moliga attended weekly Fall Coordination Meetings.
- o Mike Bisbee worked on acclimation plans for North Lapwai Valley and Kooskia NFH.

Manager's Message

(Continued from page 1)

Corps has supported the effort as well as the EPA without delay. USFWS contracting and engineering have provided support and quick action resulting in having the backup generator on site within a week of the incident and on-station staff have set up the generator, tested it, and ran through training procedures for operations with staff a couple days following delivery. This is still a work in progress, but it has been a pleasure and privilege to be a part of the solution! I'm proud of ALL who have moved this effort forward. THANK YOU

Mark Drobish

Hatchery Headlines: Kooskia

(Continued from page 3)

Kooskia Spawning Operations for Brood Year 2012

Spring Chinook spawning started August 14, 2012 and continued through the month. At the end of August there were 374 females, 221 males, and 33 jacks in the Kooskia holding pond at Dworshak. Spawning began on Aug. 14 and continued through the month. By the end of the month 109 females had been spawned for Kooskia, and 85 females for Clearwater from Kooskia broodstock. All eggs are being held at Dworshak on chilled water (38 °F). Spawning will continue until all egg take goals are met.

Information and Education Corner

Dworshak

Stats: Tours-0, 0 people; Register- 412 visitors from 18 states, 5 countries; Volunteers- 6 logging 68.5 hours; Website visitors- 286; Blog Visitors- 212 from 10 countries!

On Site:

- Posted 2 articles to the Dworshak Fisheries Complex Blog. Please visit the site: The Fish Ladder: Notes from Dworshak Fisheries Complex; your contributions and comments are always welcome!
- The Dworshak Fisheries Complex Facebook page is getting a lot of views, shares, and has over 50 likes. We are trying to make daily posts about activities, nature sightings, and general goings-on at Dworshak and the Clearwater River area. Take a minute to look at the page: Dworshak Fisheries Complex, and like us!
- Coordinated volunteers for SCS spawning.
- Completed accomplishment section in FIS.
- Updated Dworshak web page.

Off-site:

- Set up video equipment for a special ARC Flash presentation at Dworshak Dam Visitor Center.

Kooskia

Hatchery Personnel are trying to keep a number count of visitors on the grounds. We had approximately 300 visitors for the month by the manual count.



Digging down to expose water lines.

Credit: Angela Feldmann/USFWS

“Chiller repairs were made at Kooskia.”



Pipes behind system II ponds were joined to accommodate discharge increases.

Credit: USFWS

Maintenance Activities

Dworshak

August maintenance activities included:

Public Restroom Painting Completed

Facility Parking Lot lines Painted

Pump #3 delay timer repaired.

Rebuilt pump #2 installed.

Built standpipes for Clearwater Fish

Ordered Effluent pump for Sys II clarifier

Took asbestos samples for Lab Roof.

Repaired Magic Valley pump for use to move CFH Fish

Began installing leased emergency generator.

Performed PM on Air compressors

Performed PM on incubation air filter dryers.

Annual Service performed on backup generator #3.

Installing level probe on main pump #5 VFD

Installed new incubation formalin pump and GFCI.

Kooskia

August 2: Received 6,600 pounds of 2.5 fish feed. Tagging completed.

August 6: Big chiller coil cleaned.

August 7: Aluminum Flat stock picked up from Gateway in Lewiston

August 8: Started the incubation chiller and found a failed compressor.

August 15: Guardian Heating & AC arrived to replace the failed compressor on the Incubation chiller, it was covered under warranty.

August 17: Guardian Heating & AC arrived to replace refrigerant filter dryer on the Incubation chiller.

August 23: Moved travel trailer into pole building.

August 27: Eco Power Systems provided a contractual warranty service on the new Generator, all went according to contract.

August 28: Worked on the brakes on the forklift and replaced charging terminals on the maintenance Cushman.

Idaho Fish Health Center

Complex Hatcheries

Kooskia: Guppy visited Kooskia on 8/22 due to slightly higher mortality in one pond. Costia (Ichthyobodo) was found on the gills of the fish and a successful formalin treatment was performed by production staff.

Dworshak: Additional moribund juvenile SCS were collected from A bank raceways and IHNV was confirmed by cell culture. Rick collected ovarian fluid and Liz collected tissue samples from spring Chinook spawning takes in August for viral, bacterial and BKD screening; No parasites were detected on flashing juvenile steelhead trout in BP29.

Nez Perce Tribe: SCS Adults: 6 Females were culled, 4 from Take 1 and 2 from Take 2 due to ELISA OD values being above the recommended 0.250 level. Laura took volunteer veterinary student Christina to spawn the last day of SCS at Cherry Lane.

SCS Smolts: Fish were transferred from Clearwater State Hatchery earlier than normal due to water complications. These fish were inspected prior to transfer. Epitheliocystis in moderate levels were found on these fish.

Low numbers of coho were seen to have a torn isthmus with examination by Corie, at first thought to be due to a pathogenic cause but no pathogens found associated with the deformity.

Bacteriology: Black Canyon samples were neg. for any reportable pathogens. WFS samples are still pending for API confirmation, but most were normal bacteria found in water and soil.

Virology: Corie plated a total of 969 samples this month. These consisted of Dworshak, Kooskia, and NPTH SCS adults; WFS samples; Hagerman RBT pre-release, U of I; WDFW and Yakima Tribe white sturgeon, and Black Canyon commercial inspection with blind passes also.

PCR: Covered by Rick this month. Rick screened rainbow trout and steelhead trout at Hagerman NFH for Nucleospora salmonis using nested PCR and real time PCR. Rainbow and steelhead monitored in late July were positive for Nucleospora salmonis and the prerelease inspection and monitoring in August for Nucleospora salmonis at Hagerman were negative.

ELISA: Guppy ran 296 samples for BKD testing of spring Chinook salmon female adults from the first two spawning takes for Dworshak, Kooskia, and the Nez Perce Tribal Hatchery.

Parasitology: SCS returning adults were found positive for Ceratomyxa shasta. M. cerebralis is pending on Black Canyon RBT. Rick worked on preparing samples collected from the 2012 wild fish health survey for Mxyobolus cerebralis.

Histology: Guppy processed and read 60 fins to test for White Sturgeon Iridovirus for white sturgeon from the Yakima Tribe's Marion Drain facility, raised in cooperation with the WDFW with spawning adults taken from the Columbia River. Six fish were found positive in low levels by histology, negative by cell culture. Guppy and Corie participated on conference call with many representatives from different agencies on 8/30 to discuss these results.

Other: Laura participated in the Nez Perce Tribe/IDFG annual Red Count Training as an instructor of Bio-security/ ANS in the field and helped run the Disinfection station. There were approximately 130 attendees, many of them new and appreciative of the handouts and ANS cards.

Laura, Rick and Chelsea did a commercial inspection at Black Canyon Trout Farms. 6 lots of fish inspected. This facility was also inspected for New Zealand mud snails and copepod Salmonicola californiensis.

Laura attended the National Wild Fish Health Survey/ Aquatic Animal Health Information Systems Database User Acceptance Team peer to peer meeting in Fort Collins, CO. This was a joint meeting with the USFWS Fish Health Center members and Eric Rank of ECOS. The meeting was very productive. All of team's hard work over the last few months has paid off in giving ECOS a great start on the Business Requirements for the system. The team will be spending the next couple of months finishing up Use Cases.

Rick and Guppy reviewed documents and participated in conference call with the National Veterinary Science Laboratory and other participating laboratories regarding the draft sampling and PCR protocols for the surveillance of infectious salmon anemia virus in the Pacific Northwest.

(Continued on page 9)



Rob Bohn sweeping SCS raceways

Credit: Nate Wiese/USFWS



Visitor restrooms were upgraded

Credit: Nate Wiese/USFWS



A lovely day at Dworshak NFH

Credit: Nate Wiese/USFWS

Meetings....Training....Travel

Dworshak

- 8/7 Jack Christiansen and Mark Drobish participated in the Rehab Team meeting with CH2MHill and the U.S. Army Corps of Engineers (USACE) in Walla Walla, WA. The meeting focused on reviewing the existing options and providing biological criteria for modeling for System I and II utilizing circular tank and modern reuse technology.
- 8/15 The Dworshak Working Group met to review maintenance costs for the year and better identify needs for the future. Greg Parker and Ann Setter, USACE and Mark Drobish and Adam Izbicki participated in the meeting. The group will be developing a formula for cost allocations for joint costs and identify separable costs unique to each program.
- 8/15 The Hatchery notified by the Clearwater State Fish Hatchery that the main water supply line in the reservoir had collapsed. Water flow was not interrupted; however, the pipe has broken off and fallen into about 300 plus feet of water. The hatcheries are working together along with the Lower Snake River Compensation Program, USACE, Nez Perce Tribe and Environmental Protection Agency to provide space and water for these fish.
- 8/22 Jack Christiansen provided an overview to Darren Porter, a DC staff from Senator Risch's office. The focus of the visit was information gathering relative to rehabilitation/upgrading of the facility.
- 8/23-24 Staff from the Nez Perce Tribe spent a couple days working with Dworshak staff to move steelhead on station and prepare burrows ponds for Chinook coming from the Clearwater Hatchery due to the need for repairs of the Primary Reservoir Pipeline.
- 8/25-26 The Dworshak staff worked through the weekend to finish pond preparation and disinfection prior to the Clearwater Hatchery Chinook being transferred to Dworshak.
- 8/28 Greg Parker and Ann Setter, USACE and Mark Drobish and Adam Izbicki met with Rich Johnson in the Regional Office to discuss maintenance costs as part of the Dworshak Working Group. Steve Yundt, Acting Lower Snake River Compensation Program Coordinator and Becky Johnson, Nez Perce Tribe participated in the meeting via teleconference. Jim Fredericks, Economist from the Portland Division Office gave a presentation and provided insight to developing a mechanism for cost allocations.
- 8/31 Steve Yundt, Kent Hills, Mark Drobish met to discuss costs and cost allocations by program. Becky Johnson participated via phone.

Kooskia

- 8/20: Gerry & Kenny travelled to Boise to get their UASAccess cards.
- 8/30: Art and Kent travelled to Spokane for fingerprinting for UASAccess cards.

Administrative Activities

Safety

None Reported for July

Personnel Actions

Production Biologists Tom Tighe, USFWS, and Jeremy Sommer, NPT, reported for duty on 8/27.

Carter Lopez, NPT, reported for duty on 8/6 as a temporary Fish Tech.

Staff Service Anniversaries and Birthdays

August Birthdays

Penny Hasenoehrl

Laura Sprague

Rob Bohn

Years of Service

None reported



(Continued from page 7)

Volunteer veterinary student Christina Der returned to the Idaho FHC for further experience in fish health from Aug. 20-Sept. 1.

Guppy attended the combined AFS-Fish Health Section and Aquatic Animal Drug Approval Program meetings including the continuing education program July 30 to August 4. As chair of the Policy and Position Development Committee, she provided a written report and oral summary of the committee's activities at the AFS-FHS Executive Committee meeting.

Guppy attended the R1 Project Leader conference call on 8/13.

Guppy and Penny submitted required paperwork to convert STEP student Chelsea Weeks to the Pathways program and from full time to a part time employee.

Guppy participated in the AVMA Panel on Humane Slaughter meeting at AVMA headquarters in Schaumburg, IL on Aug 26-27 as representative and author for the food fish section of the guidelines for humane slaughter document being written by the Panel.

Guppy and Laura submitted FIS accomplishments in ECOS.

Guppy and Corie completed inspection certification for the University of Idaho RBT and burbot programs.

Guppy and Mark Drobish held conference call with Ann Setter of the COE to discuss the budget for the Idaho FHC for COE projects.

Guppy participated on fish health policy conference call with project leaders from all 9 USFWS fish health centers on 8/27.

Guppy spoke to new R1 Fish Health Program Director, Andy Goodwin, to fill him in on some issues and concerns for the Idaho FHC on 8/28.

Guppy compiled submitted updated report for R1 and R8 fish health to the PNFHPC (Pacific NW Fish Health Protection Committee) on 8/30.

Guppy participated on conference call for all 9 USFWS fish health centers regarding quality assurance/quality control programs in the development of a national aquatic animal health laboratory network.

Corie participated in Clearwater Production Coordination conference call concerning fish movement from Clearwater State Hatchery on 8/20.

Staff List

Complex Management

Mark Drobish, Acting Complex Manager
Kent Hills, Acting Nez Perce Tribe Co-Manager
Nate Wiese, Acting Hatchery Manager
Assistant Hatchery Manager
Jack Christiansen, Aquatic Engineer

Dworshak Production Staff

Mark Bright, Angela Feldmann, Jill Olson,
Rick Allain, Rob Bohn, Wayne Hamilton,
Ben Wright, Tom Tighe

Nez Perce Tribe Production Program

Mike Bisbee, Tuianna Moliga, Lou Ann
Lasswell, Steve Coomer, Jeremy Sommer,
Clarice Holt, Carter Lopez

Administration

Penny Hasenoehrl, Steve Bradbury

Maintenance

Adam Izbicki, Ben Greene, Terry Weeks,
Rick King, Rob Kellar, James Oatman, Ja-
mie Henderson

Idaho Fish Health Center

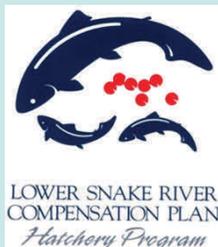
Dr. Marilyn Blair, Liz Steiner, Laura Spra-
gue, Corie Samson, Rick Cordes

Idaho Fishery Resource Office

Howard Burge, Mike Faler, Dr. William
Conner, Ray Jones, Aaron Garcia, Carrie
Bretz, Frank Mullins, Dr. Chris Peery, Jody
Brostrom, Randy Bowen, Ken Bugler

Kooskia National Fish Hatchery

Kent Hills, Art Broncheau, Kenny Simpson,
Gerry Fogelman



Nez Perce Tribe and Dworshak NFH Production, Maintenance, and Administrative staff.

Credit: Angela Feldmann/USFWS



Parting Shot



Ben Wright prepares Chinook females for spawning.

Credit: Angela Feldmann/USFWS