

# Annual Report for Dworshak National Fish Hatchery

**Ahsahka, Idaho  
Fiscal Year 2005**



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Acting Complex Manager

Date 1/24/06

# Table of Contents

<b>Introduction.....</b>	<b>1</b>
<b>FY 2005 Production Summary . . . . .</b>	<b>6</b>
<b>Fish Culture Operations.....</b>	<b>8</b>
Steelhead.....	8
Brood Year 2004.....	8
Brood Year 2005.....	14
Spring Chinook Salmon.....	19
Brood Year 2003.....	19
Brood Year 2004.....	19
Brood Year 2005.....	21
Coho Salmon.....	25
Brood Year 2003.....	25
Brood Year 2004.....	25
Rainbow Trout.....	26
Brood Year 2004.....	26
Brood Year 2005.....	26
Production Photos . . . . .	
<b>Administration.....</b>	<b>27</b>
Meetings.....	27
Training.....	29
Safety & Wellness.....	29
Staffing.....	31
Personnel Actions.....	32
Photos. . . . .	
<b>Facilities Maintenance . . . . .</b>	<b>33</b>
Photos . . . . .	
<b>Outreach &amp; Visitor Activities.....</b>	<b>43</b>
Visitor Use Statistics . . . . .	43
Table Summary . . . . .	43
Photos . . . . .	
<b>Cooperative Programs.....</b>	<b>46</b>
Photos . . . . .	

## Introduction



**Dworshak National Fish Hatchery at the confluence of the North Fork and main stem of the Clearwater River, below Dworshak Dam.**

Dworshak National Fish Hatchery (DNFH) is located in North Central Idaho down river from Dworshak Dam, at the confluence of the North Fork and the main stem of the Clearwater River. Dworshak Dam was constructed by the Corps of Engineers (COE) between 1966-70. Operations of the hatchery was authorized by a 1969 COE Memorandum of Understanding with the United States Fish & Wildlife Service (USFWS). The hatchery has since served primarily as a mitigation hatchery for steelhead trout (*Oncorhynchus mykiss*), a unique run of the North Fork “B” strain threatened by the construction of Dworshak Dam. The USFWS has endeavored, over the past 30 years, to meet the “mitigation goal” of providing 20,000 adult steelhead to the Clearwater River and maintain the unique genetics of the stock.

In June, 1982, under the Lower Snake River Compensation Plan (LSRCP), DNFH was expanded from its primary function as a steelhead mitigation facility to include spring Chinook (*Oncorhynchus tshawytscha*) trapping, spawning and rearing. The new facilities were designed to rear 70,000 pounds of spring chinook to 20 fish per pound (fpp) for a total of 1.4 million smolts. Smolt numbers have since been reduced to 1.05 million because of reduced densities and rearing to a large size. The adult return goal for DNFH is 9,135 spring chinook (calculated using the 15 fpp smolt size, total rearing capacity, and 0.87 percent adult return rate guideline).

DNFH consists of a mechanical, electrical, water reuse and reconditioning system employing filtration, biological nitrification, pollution control and monitoring facilities, alarm system, water chillers, heaters, and numerous pumps. Initial construction at DNFH included 84 Burrow’s ponds, 64 nursery tanks, and 9 adult holding ponds. Twenty-five Burrow’s ponds (System I) were operated on a heated recycle water flow, for rearing steelhead smolts to the initial target size of 180 mm in only one year. In 1973, System II (25 ponds) and System III (34 ponds) were converted from single-pass, 2-year rearing cycle, to water reuse and heating for accelerated production growth. This second phase construction, with added mechanical systems (biological filters, electric grid, sand filters, U.V. lamps, chillers, and boilers), increased production capacity and allowed all three water systems to be environmentally controlled. In the late 1980's, the target size for steelhead smolts was changed to 200 mm, based on data developed by FWS.

During the mid-1970's, with DNFH not meeting either production or mitigation goals, major operational changes were made. Review and studies of the reuse systems, water temperature regime, water quality, and fish culture techniques were done by hatchery staff and university scientists. Corrective measures followed which removed the computerized pneumatic feed system, eliminated the ultraviolet treatment of water reuse, redesigned the water flows to maximize single-pass use and a return to a more hands-on basic fish culture. Selecting cooler water temperatures from Dworshak Reservoir during the summer, adding minerals (sodium chloride and potassium chloride) to a soft water supply, removing supersaturated nitrogen gas, along with other designed mechanical changes and more involvement of hatchery staff in

monitoring fish culture, all contributed positively towards improving the hatchery's program.

Further construction in the early 1980's added 18,000 square feet of nursery building, doubling the number of inside rearing tanks to 128. A new concept of biological filtration, known as a fluidized sand filter, replaced the oyster shell media in System I. This filtration system has proven to be unworkable, and the ability to operate reuse in System I is no longer available. In FY03-04 (Fiscal Year), the COE replaced and upgraded System I biofilters with a new plastic bead media filtration system. This system was operated successfully for a short period (3 months) in 2004. Also in the 1980's, an additional thirty 8'x80' raceways were constructed under the LSRCF to provide production facilities for spring Chinook salmon. Additionally in the 1980's, 5 of the 9 adult holding ponds were converted to raceways for needed rainbow trout mitigation for Dworshak Reservoir.

The uniqueness of DNFH's water systems provides several options for egg incubation and rearing. Three temperature options are available for egg development through the incubators. Different temperature regimes are also available to the nursery tanks. The outside steelhead ponds are furnished single-pass river water from May into November, when desired temperatures can be obtained through selector gates at Dworshak Dam. A pump station on the North Fork Clearwater River, one mile down river from the Dam, is capable of providing 92,500 gpm of water. In Systems II and III, water reuse and heating is used during the colder months of November through March, enabling the hatchery to get the desired fish growth. During reuse, 10-percent new water enters the system to make up for loss. Temperatures in each of the three outside steelhead rearing systems can be controlled independently when reuse and heated water are available.

Beginning in 1992, the hatchery was supplied with an additional 6400 gpm of gravity flow Dworshak Reservoir water directly by pipeline. This "clean" water, furnishing egg incubators and nursery rearing, has afforded disease protection from *Infectious Hematopoietic Necrosis Virus* (IHNV) in the early production stages. During 1998, a water line was completed between Mechanical Building I and the main water line from the large boilers in Mechanical Building II. This line now enables us to heat all the nursery reservoir water for better steelhead production.

A Dworshak National Fish Hatchery Rehab Plan was prepared in 1990-91 by the COE. This rehab plan detailed major upgrades and needs of the then 20-year-old hatchery. The hatchery continues to work with the COE on line items identified in the rehab plan. Some of the rehabilitation project items will be accomplished with Operations & Maintenance (O&M) funding. Larger items will be funded directly by the COE.

Future projects requested from the COE include converting Burrow's ponds (BP's) to raceways, structural work on the Main Hatchery Building and replacing the Nursery Building roof.

Kooskia National Fish Hatchery (KNFH), 35 miles upriver from Dworshak on the Clearwater River, has operated as a Complex with Dworshak since 1978. Kooskia hatchery mitigates for water development in the Columbia River. The administrative headquarters for the Dworshak-Kooskia Complex is located at the Dworshak hatchery. The Idaho Fishery Resource Office (IFRO) is also included in the Dworshak Complex. The Idaho Fish Health Center (IFHC) is a separate entity functioning on DNFH grounds.

DNFH has the capacity to produce 2.1 million steelhead smolts at 6 fpp (200 mm in length) and

1.05 million yearling Chinook salmon smolts at 18 to 20 fpp (140 to 145 mm in length). The hatchery's annual production capacity exceeds 500,000 pounds. Mitigation goals to the Clearwater River are 20,000 returning adult steelhead and 9,135 adult spring Chinook. Steelhead goals are being satisfied in some years but were not in 2003. Spring Chinook adult returns before 2000 were well below mitigation, but for the past three years have been near or over mitigation goals. Estimated adult returns for 2003 were 8,064, about 1,000 short of the 9,135 goal for Dworshak.

Rainbow mitigation for Dworshak Reservoir is in an interim phase, with fish exchange with Idaho Fish and Game (IDFG) and use of production at Hagerman National Fish Hatchery (NFH). The IDFG now stock catchable size, sterile rainbow in reduced numbers because of fish health and species interaction concerns with native cutthroat trout, while the FWS produce replacement fish to stock other Idaho managed waters.

This report covers the period of hatchery activities from October 1, 2004, to September 30, 2005.

## **FY 2005 Highlights**

### **Dworshak Hatchery Production Summary FY2005**

#### Brood Year 2004 (BY04) Steelhead

There were 1.87 million steelhead smolts released from Dworshak in April, 2005. The steelhead at release averaged 198 mm in total length. Under the Harvest Settlement Agreement with the Columbia River Tribes, there were approximately 152,000 smolts released without an adipose fin clip to designate them as a hatchery fish. None of these fish were marked or tagged. The smolts were outplanted to the South Fork of the Clearwater River the week of April 11, 2005, and direct-released from Dworshak the following week of April. There were 311,796 pounds of steelhead produced with BY04 SST.

#### Brood Year 2005 Steelhead

There were 4,362 adult steelhead returned to Dworshak NFH in the fall of 2004 and spring of 2005. A total of 2.87 million eyed eggs went into Dworshak's production program. Dworshak provided 1.2 million eyed eggs for the Clearwater Fish Hatchery (CWH). Also, 1.6 million green eggs were taken for Magic Valley Hatchery (MVH) and another 10,000 eyed eggs for Potlatch Pulp & Paper school projects. As in 2004, spawning of Take 1 began the final week of January, resulting with a 30 percent increase in eyed egg survival. The timing for spawning the mid and late returning adults remained the same, maintaining the entire spectrum of the run. At the end of Fiscal Year 2005 (FY2005) there were 2.26 million BY05 Summer Steelhead (SST) on station.

There will be approximately 200,000 BY05 SST released in 2006 for the Nez Perce Tribe (NPT) which will have no external mark designating it as a hatchery fish. These fish will be counted in the Dworshak SST production program.

#### Brood Year 2003 Chinook Salmon

Dworshak National Fish Hatchery (DNFH) released 1.07 million BY03 spring Chinook salmon (SCS) weighing 55,877 pounds. These fish were released on April 4 and 6, 2005.

#### Brood Year 2004 Chinook Salmon

At the beginning of FY2005, all BY04 SCS eggs were incubating at Dworshak. During October and November, 2004, there were 596,000 eyed-eggs of Dworshak stock and 774,000 eyed-eggs of Kooskia stock shipped to Kooskia for final incubation and early rearing. There were also 625,000 eyed eggs of Dworshak stock which remained at Dworshak for incubation using a newly installed chiller. During May 2005, there were 550,000 Dworshak stock SCS returned to Dworshak from Kooskia National Fish Hatchery (KNFH). At the end of FY2005, there were 1.02 million BY04 SCS on station, averaging 67 fish per pound (fpp) and 93 mm (3.7 inches) total length.

#### Brood Year 2005 Chinook Salmon

Adult returns of BY05 SCS produced 882 Chinook adults to Dworshak. Kooskia trapped 270 adult fish, 17 of which were passed over the weir as Idaho Supplementation Study fish (ISS), and 252 transferred to Dworshak for spawning. There were 200,000 Dworshak eyed eggs and 431,984 Kooskia eyed eggs transferred from Dworshak to Kooskia for incubation. There were also 156,594 eyed eggs shipped to CWH for Idaho Fish and Game Department (IDF&G).

#### Brood Year 2003 Coho Salmon

The coho salmon (COS) at Dworshak are being reared in a cooperative program with the NPT. There were 290,000 BY03 produced at Dworshak. These fish were transferred to Kooskia during April, 2005.

#### Brood Year 2004 Coho Salmon

Adult coho were trapped at Dworshak and various tributaries on the Clearwater River. Personnel from the NPT conducted the spawning at Dworshak with assistance from Dworshak staff. The eggs were incubated at Dworshak. There were 419 females spawned from the Clearwater Basin. The last information reported to Dworshak by the NPT concerning these fish was May, 2005. At that time there were 207,544 BY04 coho on station weighing 690 lbs at 301 fpp and 55 mm long.

#### Rainbow Trout (RBT) - Open House

##### Brood Year 2004

Dworshak raised approximately 16,000 BY04 RBT. There were 11,500 stocked into a fishing pond at Dworshak for Open House in June, 2005 and about 4,200 shipped to Kooskia for their Open House. There were 497 participants at the Open House for Dworshak. The remaining RBT were then stocked into tribal and public fishing lakes.

##### Brood Year 2005

On January 19, 2005, Dworshak received eyed Shasta RBT eggs from Ennis, Montana. At the end of FY2005, there were 8,000 RBT in BP 49 and 4,000 in each of two C-bank raceways. These fish are for Open House 2006 at Dworshak.

**Steelhead  
Brood Year 2004**

At the beginning of October, 2004, all of the SST from BY04 were outside in BP's). Overall mortality from October 1, 2004 through final release on April 22, 2005 was about 16 percent. The final release number was 1.87 million SST smolts with an average total length of 7.8 inches (198 mm) (Table 1).

Table 1. Fish inventory summary for BY04 SST on October 1, 2004 and final release summary in April, 2005.

October 1, 2004				Oct 1 - April 22 % loss	Final Release April 11 - 22, 2005			
Number	Wt (lbs)	Lgth in	Lgth mm		Number	Wt (lbs)	Lgth in	Lgth mm
686,383	55,297	6.1	156	2.0	672,922	124,699	8.1	205
659,053	30,123	5.1	129	12.4	577,289	109,383	8.2	207
888,496	20,824	4.1	103	29.9	622,973	77,714	7.1	180
2,233,932	106,244	5.1	131	16.1	1,873,184	311,796	7.8	198

Source: DNFH - Final Release Summary, May 2005.  
Monthly Inventory Summary (MIS), October 1, 2004.  
Production Narrative, May, 2005.

BY04 SST were reared entirely in BP's. Table 2 illustrates the survival rates of various stages of development for BY04 SST along with a five-year comparison. FY1991 was the first year that a direct water-line from Dworshak Dam to the incubators and nursery was available, helping reduce health problems in the early rearing stages of SST.

Table 2. Survival summary from green eggs to released smolts, BY00 through BY04 SST reared at DNFH.

Brood Year	% Survival from Previous Stage				Cumulative % Survival		
	(Green to) Eyed Egg <sup>1</sup>	Tanked Fry	Ponded Fingerlings	Smolt Release	Green Egg to Smolt <sup>2</sup>	Eyed Egg to Smolt	Tanked Fry to Smolt
2000*	91.9	94.9	93.2	94.3	50.3	83.0	87.9
2001	90.7	90.0	91.3	96.8	61.1	80.7	84.6
2002	87.6	91.2	92.8	97.0	58.0	82.0	90.0
2003	92.5	93.4	90.6	91.8	56.1	77.8	83.2
2004	93.2	89.1	91.7	82.1	48.3	67.0	75.2
5 Yr Ave	91.2	91.7	91.9	92.4	54.8	78.1	84.2
2005 YTD	91.6	95.5	88.6				

Note: Data are only for SST reared entirely at DNFH. \*Due to malfunction with egg picker, numbers are estimated.

1 % Survival Green to eyed = Enum eyed eggs / Enum eyed eggs + enum dead eggs. i.e. survival after culling bad trays, females.

2 Green eggs to smolt = Tot green eggs (incl females culled during enum) – MVH grn eggs –

CFH eggs.

Source: DNFH- Egg Enumeration and Disposition Summary- EgEnumST04.wk4  
Nursery Loss-nulo04st.wpd; Spawning/Egg Take Plan, BY04 SST

Outside ponding of SST was similar to FY2004, with System I receiving SST from Takes 1-4, System II being stocked with Takes 5-8, and System III receiving Takes 9-13.

Reuse and the boilers for heated water were turned on January 4, 2005, for Systems II and III. Due to a heavy infestation of *Ichthyophthirius multifiliis* (ICH), heated water and reuse was turned off in System III on Feb 1 and 2, respectively. Reuse was never turned back on in this system during the rearing cycle. The boilers were turned off in System II on March 10 and reuse was turned off March 14. System I did not use reuse during the rearing season.

Some SST in all Systems received coded-wire tags (CWT's) and left ventral (LV) clips. As in FY2004, there were no freeze brands placed on the SST this year because enough data is available from branding in past years to assess the needed information. The various marks are used for studies concerning system contribution of these fish to later adult returns, offsite release contribution, broodstock evaluations, and early-run predictions at Lower Granite Dam. Fish which received PIT tags will be monitored for residual studies and fish passage center studies. A total of 133,687 BY04 SST received CWT's, and 1,498 received PIT tags. See the marking/tagging tables under each System for details.

There were 151,726 BY04 SST which were unmarked and untagged released from Dworshak. This represents about 8 percent of the BY04 SST released at Dworshak. These are the sixth group of SST released from Dworshak since 1984 without an external mark specifying a hatchery fish. This is being done under the Harvest Settlement Agreement between the U.S. Fish & Wildlife Service (USFWS) and the Columbia River Tribes.

#### System I

For BY04 SST, System I production included 24 BP's. This System had 686,383 SST in it at the start of the fiscal year and 672,922 at release in April, 2005 (Table 3).

Table 3. System I BP production, BY04 SST, FY2005.

Month	Year	1st of Month			Growth During Previous Month		% Mortality for Month	Ave Temp F for Month
		Number	fpp	L mm	L in	L mm		
October	04	686,383	12.4	156	0.74	19	0.32	47.9
November	04	684,174	9.9	168	0.48	12	0.55	46.9
December	04	680,405	8.4	177	0.37	9	0.32	46.4
January	05	678,257	7.5	184	0.27	7	0.25	42.8
February	05	676,553	6.8	191	0.25	6	0.24	41.6
March	05	674,900	6.2	196	0.22	6	0.19	42.8
April	05	673,593	5.5	204	0.31	8	0.10	42.6
Release	05	672,922	5.4	205	0.05	1	1.98	44.4

\* System under heated reuse water for part or all of month - see note below

October mortality adjusted from CWT inventory

Source: DNFH - MIS, Sept 2004-May 2005

Final Release summary, BY04 SST

Production Narratives Sept-May, 2004-2005

Daily Water Temperature Records, Oct-April, 2004-2005

No reuse or heated water was needed this year on SST in System I as the fish reached the target release size of 200mm on river water alone. Adipose fins were clipped on BY04 SST in System I from May 26, 2004 until July 1, 2004. Other marking of BY04 SST in System I is summarized in Table 4.

Table 4. Marking and tagging of BY04 SST, System I, FY2004.

Released from BP #	Date	Number CWT	Number PIT tags	Fin Clips	Study	Release Site
BP 1	10/12/04	21,457		AD LV	Early Return Progeny	Dworshak
BP 1	01/08/05		250		Smolt Monitoring @ Fish Passage Ctr	Dworshak
BP 41	10/13/04	22,396		AD LV	System I Contribution	Dworshak
BP 41	01/08/05		249		Smolt Monitoring @ Fish Passage Ctr	Dworshak
Total		43,853	499			

Fin Clips = AD-Adipose fin; LV-Left ventral fin

Source: DNFH- MIS System I, November 2004

IFRO- MRKLPN05.wk4

During the 10 months of outside rearing of fish in System I, SST were occasionally treated with formalin for small outbreaks of parasites. Mortality for fish in System I from October 1, 2004 until final release in April, 2005 was approximately 2.0 percent. Details of the formalin treatments are in the chemical treatment log at DNFH.

On April 11-12, 2005, there were 166,263 SST outplanted from System I. The Corps of

Engineers (COE) assisted in outplanting the SST to Clear Creek and the South Fork of the Clearwater River at River Mile 8.7, Red House hole.

Direct release of 506,659 SST from System I took place on April 18-19 into the mainstem of the Clearwater River. The total release from System I was 672,922 BY04 SST (Final Release Summary, BY04 SST).

**System II**

For BY04 SST, System II production included 25 BP's. This System had 659,053 SST in it at the start of the fiscal year and 577,289 at release in April, 2005 (Table 5).

Table 5. System II production, BY04 SST, FY2005.

Month	Year	1st of the Month			Growth During Previous Month		% Mortality for Month	Ave Temp F for Month
		Number	fpp	L mm	L in	L mm		
October	04	659,053	21.9	129	0.73	19	7.11	47.4
November	04	612,171	14.9	146	0.69	18	1.83	47.9
December	04	600,972	11.9	158	0.45	11	0.58	46.4
January	05	597,490	9.9	168	0.39	10	1.10	50.7*
February	05	590,916	8	180	0.49	12	1.21	51.9*
March	05	583,751	6.7	191	0.43	11	1.04	46.2*
April	05	577,702	5.5	204	0.51	13	0.07	42.5
Release	05	577,289	5.28	207	0.11	3	12.41	47.6

\* System under heated reuse water for part or all of month

October mortality adjusted from CWT inventory

DNFH - MIS, Sept 2004-May 2005

Final Release summary, BY04 SST

Production Narratives Sept-May, 2004-2005

Daily Water Temperature Records, Oct-April, 2004-2005

Adipose fin clipping was done on BY04 SST in System II from July 6 through August 6, 2004. Other marking of BY04 SST in System II is summarized in Table 6.

Table 6. Marking and tagging of BY04 SST, System II, FY2005

Released from BP #	Date	Number CWT	Number PIT tags	Fin Clips	Study	Release Site
BP 2	10/15/04	22,262		AD LV	System II Contribution	Dworshak
BP 2	1/8/05		250		Smolt Monitoring @ Fish Passage Ctr	Dworshak
BP 42	10/18/04	22,544		AD LV	System II Contribution	Dworshak
BP 44	1/8/05		250		Smolt Monitoring @ Fish Passage Ctr	Dworshak
Total		44,806	500			

in Clips = AD-Adipose fin; LV-Left ventral fin

Source: DNFH- MIS System II, November 2004, January 2005  
IFRO- MRKLPN05.wk5

System II converted to reuse and the boilers for heated water on January 4, 2005. The boilers were turned off in System II on March 10 and reuse was turned off March 14.

Mortality was approximately 12.4 percent from October 1, 2004 until release in April, 2005.

On April 12-15, there were 270,353 SST outplanted from System II. The COE assisted in outplanting the SST to Clear Creek and the South Fork of the Clearwater River at River Mile 8.7, Red House hole.

Direct release of 306,936 SST from System II took place on April 21-22 into the mainstem of the Clearwater River. The total release from System II was 577,289 BY04 SST (Final Release Summary, BY04 SST).

### System III

System III has 34 BP's. This System had 888,496 SST at the start of the fiscal year and 622,973 at release in April, 2005 (Table 7).

Table 7. System III production, BY04 SST, FY2005.

Month	Year	1st of the Month			Growth During Previous Month		% Mortality for Month	Ave Temp F for Month
		Number	fpp	L mm	L in	L mm		
October	04	888,496	42.7	103	0.65	17	1.67	47.4
November	04	841,931	24.2	125	0.85	21	3.05	47.9
December	04	816,248	17.2	140	0.59	15	1.04	46.4
January	05	807,772	13.1	153	0.52	13	0.32	50.6*
February	05	805,189	10.6	164	0.44	11	17.13	42
March	05	667,274	10	167	0.13	3	6.33	42.8
April	05	625,031	8.3	178	0.42	11	0.33	42.7
Release	05	622,973	8.02	180	0.08	2	29.87	45.7

\* System under reuse part or all of month.

October mortality adjusted from CWT inventory

Source: DNFH - MIS, Sept 2004-May 2005

Final Release summary, BY04 SST

Production Narratives Sept-May, 2004-2005

Daily Water Temperature Records, Oct-April, 2004-2005

Adipose fin clipping was done on BY04 SST in System III from August 6 until August 24, 2004. Other marking of BY04 SST in System III is summarized in Table 8.

Table 8. Marking and tagging of BY04 SST, System III, FY2005.

Released from BP #	Date	CWT	Number PIT tags	Fin Clips	Study	Release Site
BP 71	10/20/04	22,257		AD LV	System III Contribution	Dworshak
BP 71	1/8/05		250		Smolt Monitoring @ Fish Passage Ctr	Dworshak
BP 72	10/19/04	22,771		AD LV	System III Contribution	Dworshak
BP 72	1/8/05		249		Smolt Monitoring @ Fish Passage Ctr	Dworshak
Total		45,028	499			

Fin Clips = AD-Adipose fin; LV-Left ventral fin

Source: DNFH- MIS System II, December 2004, January 2005,

IDFG- Fish Marking Summary 2003

There were a total of 151,726 BY04 SST from System III stocked into Newsome Creek and American River. These were fish raised and released from System III which received no fin clips to designate them as hatchery fish. These are the sixth generation of SST which will be released from Dworshak since 1984 without an external mark specifying a hatchery fish. This is being done under the Harvest Settlement agreement with the Columbia River Tribes.

System III converted to reuse and heated water on January 4, 2005. The boilers remained on in this System until February 1 and reuse was turned off February 2. Disease and mortality

remained low until February, at which time both ICH and IHN infestations caused significant mortality.

On April 11-15, there were 314,504 SST outplanted from System III (this includes the 151,726 unmarked tribal fish). The COE assisted in outplanting the SST to American River, Newsome Creek, Clear Creek and the South Fork of the Clearwater River at River Mile 8.7, Red House hole.

Direct release of 308,469 SST from System III took place on April 20-21 into the mainstem of the Clearwater River. The total release from System III was 622,973 BY04 SST (Final Release Summary, BY04 SST).

### Distribution Summary

Release of BY04 SST began April 11 and ended April 22, 2005. Final release numbers are illustrated in Table 9.

Table 9. Fish distribution summary by site, BY04 SST, April 11 to April 22, 2005.

Site	Number	Weight	fpp	Length	
				in	mm
<b>Outplants 4/11 - 4/15</b>					
Clearwater R. - Red House Hole	317,032	52,627	6.0	7.8	198
Clear Creek	282,362	51,045	5.5	8.0	204
Newsome Ck Unmarked SST	72,406	8,638	8.4	7.0	177
American R. - Unmarked SST	79,320	11,544	6.9	7.5	190
Subtotal	751,120	123,854	6.1	7.8	198
<b>Direct Release 4/18 -4/22</b>					
Main Stem of the Clearwater River	1,122,064	187,942	6.0	7.8	199
<b>Totals/Averages</b>	<b>1,873,184</b>	<b>311,796</b>	<b>6.0</b>	<b>7.8</b>	<b>198</b>

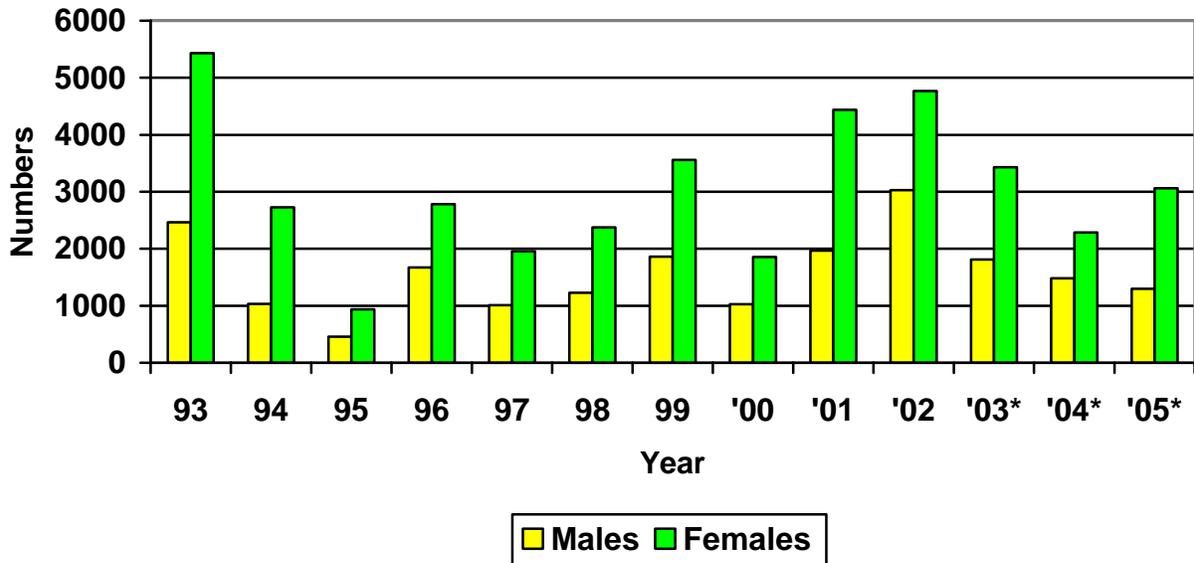
Source: Final Release Summary, BY04 SST

### Brood Year 2005

#### Adult Collection

Adult summer steelhead (SST) for BY05 were collected in the fall of 2004 and in the winter and spring of 2005 to represent the entire run. The ladder was first opened on October 4, 2004, until October 27 for collection of early-return SST. During this 23 day period there were 628 early-run steelhead collected, 534 of which were kept for spawning in the spring of 2005. The ladder was also opened intermittently during the fall for collection of coho salmon for the NPT. There were an excess of 191 BY05 SST trapped during this process and anesthetized with carbon dioxide. They were then loaded onto NPT trucks and transported to Hog Island near Lewiston, Idaho, for release in the Clearwater River. The ladder was closed for the final time during the fall on November 16, 2004. The ladder was reopened intermittently from February 18, 2005 throughout the spring to limit the number of SST entering the hatchery, and closed for the final time on May 3. During this staggered ladder operation, a total of 4,362 adult SST entered the hatchery,

including 352 jacks. There were also 14 wild SST trapped which were released back into the mainstem of the Clearwater River the day they were examined. Figure 1 illustrates the numbers of returning SST adults since 1993.



**Figure 1. Dworshak adult SST returns 1989-2005**

\*Ladder only opened part of season

Source:DNFH -Spawning Report SST BY05

Spawning/Egg Take Plan SST BY05, ST05EgTk.wk4

IFRO - SST Rack Returns, Sth05ent.wk4

There were 35 fish of the 534 early returns which died before spawning began. Formalin treatments were started on October 21, 2004, and appeared to control fungus.

#### Spawning numbers/ratio

There were 1,964 SST spawned over the BY05 season, 894 males (including 240 jacks) and 1,070 females. Females have always outnumbered males in returns to Dworshak so the goal of a 1:1 male:female spawning ratio is difficult to achieve. While the male:female return ratio was 1:2.4 for BY05 SST, the spawning ratio was reduced to 1:1.2. There were 240 jacks spawned during the season, 181 for Dworshak, 26 for CWH, and 33 for MVH.

#### Idaho Fish Health Center Disease Sampling

On January 11, 2005, there were 50 adult males and 10 jacks from the early-returned BY05 SST injected with luteinizing hormone-releasing hormone analogue (LHRH). This was done to induce gamete maturation for spawning the following two weeks. These fish were transferred from Holding Pond 1 (HP) into HP2 after injection. Of these injected males, there were 27 adult males and five jacks spawned during Take 1 and 21 adult males and 4 jacks spawned during Take 2. The remaining two adults and one jack which were injected were mortalities before being used. All carcasses from injected males were disposed of in the landfill.

Approximately 6.7 percent (16/240) of the females sampled for MVH (Takes 7-8-9) tested

positive for *infectious hematopoietic necrosis virus*(IHNV). Testing was done by personnel from the Idaho Fish Health Center (IFHC). Disease testing on eggs for CWH was done by the IDF&G Eagle Creek Laboratory. Approximately 1.6 percent (3/187) of the females from Takes 5-6 for CWH tested positive for IHNV. All eggs taken for either MVH or CWH which tested positive for IHNV were discarded. There were 19.7 percent (26/132) sampled for Dworshak which tested positive for IHNV. Twenty of the 26 fish which tested positive were from the first two egg Takes which were fish that were held from October until January at Dworshak. Dworshak does not cull eggs which may test positive for IHNV in its production program.

### Spawning Summary

A total of 13 egg Takes were spawned for BY05 SST this season, beginning on January 25, 2005, and ending on May 3. There were 1,070 females and 894 males spawned and the average fecundity of SST enumerated at DNFH was 6,874 eggs/female. Early-returning adults (October) were spawned in Takes 1-2, and later returning adults (February-May) were spawned from Takes 3-13.

### Egg Disposition

There were an estimated 7.35 million green eggs from BY05 SST taken for all the programs at Dworshak. As was done for BY2004 SST, Dworshak incubated the CWH eggs until eye-up, at which time personnel from CWH shocked and transported the eggs for enumeration at the CWH facility.

There were approximately 1.2 million eggs shipped to CWH from Takes 5-6. After enumeration, personnel from CWH stated there were 1.0 million eyed eggs available for their program, exceeding the 960,000 eyed egg target.

There were an estimated 1.6 million green eggs shipped from Dworshak to CWH for MVH from Takes 7-8-9. These eggs were shipped to CWH the same day spawning took place. Dworshak also provided 10,000 eyed eggs for IDF&G and Potlatch Pulp & Paper Mill School Outreach Program. These eggs were taken from Take 8 of Dworshak production and picked up by personnel from Potlatch at Dworshak hatchery on April 14. The hatchery also provided an estimated 1,000 eyed eggs for aquarium-rearing at various elementary schools for the Information and Education program at Dworshak.

After shipping eggs for CWH, MVH, and Potlatch, Dworshak put an estimated 2.87 million eyed eggs into either hatching jars or incubator trays for its production.

### Research

Dworshak provided opportunities for two university research projects during BY05 SST spawning, both from the University of Idaho. A summary of their research is in the BY05 Steelhead Spawning Report.

Dworshak provided Matt Campbell from the IDF&G's Eagle Fish Genetics Lab in Eagle Idaho, with fin clips from a total of 91 adult males and 100 females during egg Takes 12 and 13. The department is attempting to develop a genetic sampling and monitoring plan for Idaho's steelhead

programs.

### Adult Disposition

There were 1,564 hatchery adults outplanted from Dworshak during the return run of BY05 SST. None returned to the hatchery. This outplanting was done by staff from Dworshak and the NPT. There were also 14 wild fish which were trapped and returned to the river the same day they were examined.

Usable fish carcasses from spawning and culling activities were provided to a processor to be packaged for human consumption under either a Food Bank program or a cooperative program with the Federal Bureau of Prisons. Complete adult disposition is illustrated in Table 1.

Table 1. Adult disposition of BY05 SST from Dworshak.

DESTINATION	NUMBER	COMMENTS
Bear/Eagle Program	143	WSU captive bear/rapture rehab program
Food Bank/Fed Bureau of Prisons	2,567	Latham Processing, Orofino, Idaho
Outplanted	1,564	None returned to Dworshak
Research	0	University research, School programs
Tribe	0	Couer d' Alene
Landfill	88	Carcasses deteriorated beyond use
<b>Total</b>	<b>4,362</b>	

Source: DNFH-Spawning Activity Report BY2005 SST, Final for BY05 SST Spawning and Run Summary, BY2005 SST

### Nursery and Early Rearing

The first two egg-Takes were from early-return adults. Eggs were put into hatching jars in the nursery at an average rate of 18,000 eggs/tank. All eggs/fry were loaded at final rearing densities in the nursery so that no Takes needed to be subsequently split. This method reduced the amount of handling on the fish and will be repeated for BY06 SST. When approximately 70 percent of the fry had hatched, the remaining fry were poured into the tank. Due to lack of nursery space, Takes 11-13 were hatched in Heath trays (6,000 per tray). These were moved as fry from the incubation trays into tanks vacated once Take 1- 2 were transferred outside. Dead eggs and fry were picked and enumerated from each tank and tray. There was a 95 percent survival from the eyed-egg stage to feeding fry for BY05 SST.

This year the fry from the nursery averaged 90 fpp when moved out of the nursery into BP's. Fish which will not receive a CWT were transferred from the nursery directly to the adipose fin (AD) clipping trailer. From the trailer, fish were then distributed to the appropriate BP. Steelhead which will receive a CWT went directly from the nursery to a BP and will be tagged later in the fall of 2005. IDF&G provided the trailer and AD clipping crew.

A total of 2.45 million BY05 SST were moved from the nursery to the BP's beginning with Take 1 on May 23, 2005, and ending with Take 13 on August 25.

Feed

All steelhead in the nursery were fed Moore-Clark feed for the third straight year with good results. Starter feed size #3 was omitted from the regime again this year, as it clogged the nursery tank screens. There appeared to be no detrimental effects by skipping this feed size.

### Projected Release

Historical losses indicate a projected release number of approximately 2.1 million SST in the spring of 2006. Table 4 illustrates the steelhead on station at the end of FY2005 and projected release numbers. Fish in numerous BP's in each system were either suspect or confirmed positive for IHNV by the end of FY2005.

Table 4. BY05 SST on station and projected release summary, (9/30/2005).

As of September 30, 2005					Projected to Release - April 2006		
System	Number	Weight (lbs)	fpp	L mm	Proj % Loss to Release	Projected Release Number	Proj Size at Release mm *
System I	572,847	42,195	13.6	151	5	544,205	210
System II	721,418	26,832	26.9	120	9	656,490	205
System III	969,395	23,594	41.1	104	11	862,762	190
<b>Total/Ave</b>	<b>2,263,660</b>	<b>92,621</b>	<b>24.4</b>	<b>124</b>	<b>8.3</b>	<b>2,063,457</b>	<b>200</b>

\*Projected length based on Systems II & III going on reuse January through March 1.

Source: DNFH - MIS data, October 1, 2005

DNFH - Production Narrative, September, 2005

### System I

System I received 687,800 BY05 SST during the summer of 2005. Steelhead in System I were moved out of the nursery beginning with Take 1 on May 23, 2005 and ending with Take 4 on July 6. Except for two ponds of SST which will receive CWT's in the fall of 2005, fish were moved from the nursery to the IDF&G marking trailer. All fish were hand-clipped this year without using the automatic marking trailer.

### System II

System II received 754,378 SST during July and August, 2005. Fish in System II were moved out of the nursery beginning with Take 5 on July 7 and ending with Take 8 on July 25. Steelhead from Takes 5-8 were loaded from the nursery into a transport tank and moved directly to the AD clipping trailer. From the trailer, fish were marked and stocked at final densities to the outside BP's. Steelhead in BP's 2 and 42 will be coded-wire tagged and AD clipped in the fall of 2005.

### System III

System III received 983,090 SST from Takes 9 through 13 beginning with Take 9 on July 27 and ending with Take 13 on August 25. These fish were loaded directly from the nursery to the marking trailer and then stocked at final rearing densities into System III BP's. Fish in BP's 73,

and 74 will be coded wire tagged and AD clipped in November, 2005.

Fish in BP's 61, 62, 63, 64, 69, 70, 71 and 72 (approximately 236,000 fish) will receive no AD clip to designate them as hatchery fish and no CWT before release. These fish are under the U.S. vs. OR Harvest Settlement Agreement.

### Spring Chinook Salmon

#### Brood Year 2003

On October 1, 2004, there were 1,076,219 BY03 SCS on station at Dworshak. All of these fish were from females with low Bacterial kidney disease (BKD) status.

In February, 2005, there were 51,677 BY03 SCS which received PIT tags. This study is for a survival comparison of barging vs. trucking of smolts in the Columbia Basin.

Release dates of the BY03 SCS were the evenings of April 4 and 6, 2005. There were 1,072,359 BY03 SCS released from Dworshak into the North Fork of the Clearwater River (Table 1). The release was performed late in the day to assist the smolts with predator avoidance.

Table 1. BY03 SCS in System I Raceways, 9/30/04, and release data, 04/04 - 04/06, 2005.

October 1, 2004				% Loss 9/30/04 to 4/06/05	Release April 4 & 6, 2005			
Number	Wt (lbs)	fpp	L mm		Number	Weight lbs	fpp	L mm
1,076,219	15,790	68.2	93	0.4	1,072,359	55,877	19.2	142

Source: DNFH- MIS, Oct 1, 2004  
 Production Narrative, March, 2005  
 Final Release Summary, BY03 SCS

BY03 SCS had an enumerated survival of green egg to eyed egg of 94.9 percent. As was done with BY99-02 SCS, all BY03 Kooskia stock SCS eggs were shipped to Kooskia for incubation after eye-up and enumeration at Dworshak. Approximately 1/2 of Dworshak stock SCS went to Kooskia during the fall and 1/2 remained at Dworshak for incubation. Dworshak fry were then shipped back to Dworshak in the spring and placed directly into outside rearing ponds. Survival from eyed-egg to smolt was also 94.9 percent for BY03 SCS of Dworshak stock.

#### Brood Year 2004

There were 2,356 adult BY04 SCS which returned to Dworshak and 718 returned to Kooskia, for a total of 3,074 to the Dworshak Complex. Adults spawned and eggs produced from BY04 SCS are represented in Table 1.

Table 1. Dworshak and Kooskia adult spawners and both green & eyed egg numbers, BY04 SCS.

Location of Adult Returns	Males Spawned	Females Spawned	Females Culled BKD	Dead Egg Trays Culled	# Eggs/Female	Total Eggs Enumerated	# Eyed Eggs Enumerated	% Surv Enum Eye-up
Dworshak	376	437	49	12	3,813	1,376,360	1,221,685	88.8
Kooskia	206	260	19	13	3,638	829,480	774,195	93.3
Total/Average	582	697	68	25	3,745	2,205,840	1,995,880	90.5

Source: DNFH - Final BY04 SCS Enumeration and % Survival of Eggs. SC04EGEN.xls  
BY04 SCS Spawning Report

For large-scale incubation, the water temperature in the incubation stacks at Dworshak can usually be reduced to approximately 40-45°F. The incubation temperature at Kooskia can be maintained at approximately 37°F over the winter. As was done with BY99-03 SCS, all BY04 Kooskia stock SCS eggs were shipped to Kooskia for incubation after eye-up and enumeration at Dworshak. Also approximately ½ of Dworshak stock SCS went to Kooskia during the fall and ½ remained at Dworshak for incubation using a chiller. This chilling delays hatching approximately three months compared to non-chilled water at Dworshak and assists in reaching the desired 20 fpp size at release in the spring of the year 2006.

Kidneys were sampled for BKD by personnel from the IFHC from all females spawned. The IFHC also took ovarian fluid from all females spawned for viral inspection. For the first time since 2000, Dworshak used an ELISA test for BKD which employed a base-line test to compare all samples to a given ELISA reading. No longer were fish tested relative to all others within the test group only. Eggs from females which tested high for both Dworshak and Kooskia stocks were culled out of the production cycle.

After eye-up and enumeration, there were 596,330 BY04 SCS eyed eggs of Dworshak stock shipped to Kooskia during October/November 2004 and 625,355 eyed eggs remained at Dworshak. There were a total of 774,195 eyed eggs of Kooskia stock also shipped to Kooskia during this time.

Fry of Dworshak stock were transferred from Kooskia to Dworshak on May 18-19, 2005. Fry of Dworshak stock were moved from Dworshak incubators to outside raceways April 20-25. There were a total of 1.06 million BY04 SCS fry stocked into outside raceways at Dworshak.

The USFWS fish marking trailer from the Columbia River Fisheries Program Office began coded wire tagging the BY04 SCS on August 10 and ended on August 17, 2005. The tagging is being done for contribution research. Personnel from the marking trailer also clipped AD fins on all BY04 SCS and split fish into several raceways during the tagging operation.

By the end of FY 2005, there were 1,016,480 BY04 SCS at Dworshak. Table 2 illustrates the size and number of BY04 SCS on station at the end of the fiscal year and projected release numbers.

Table 2. BY04 SCS at the end of the FY and projected release from Dworshak, April, 2006.

As of September 30, 2005					Projected to Release - April 2005		
Stock	Number	Weight (lbs)	fpp	L mm	Proj % Loss to Release	Projected Release Number	Proj Size at Release mm
Dworshak	1,016,480	15,168	67	93	2	996,150	145

Source: DNFH - MIS, October 2004

DNFH - Production Narrative, September 2004.

### Brood Year 2005

Fish traps at both Dworshak and Kooskia were operated to collect BY05 SCS. The fish ladder at Dworshak was opened on May 18, 2005, and closed June 6. The ladder was reopened June 9 and closed September 20. There were 882 BY05 SCS returned to Dworshak and 270 SCS returned to the Kooskia trap by the end of the spawning season (Table 1).

Table 1. Adult returns, BY05 SCS. (09/30/05).

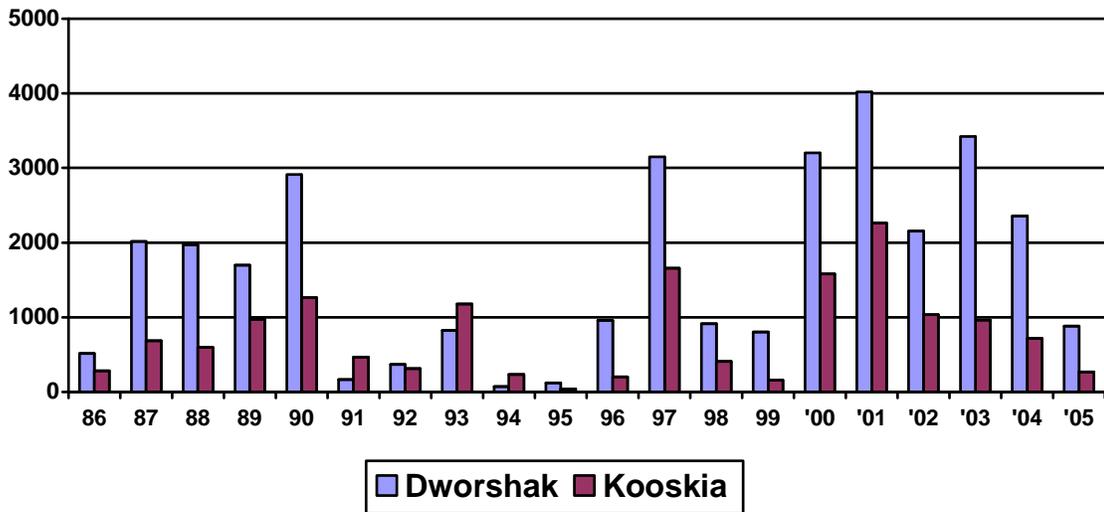
Age	Number/Dworshak	Number/Kooskia*	Total
I - Ocean	74	29	103
II - Ocean	686	202	888
III - Ocean	122	39	161
Unknown	0	0	0
Total	882	270	1,152

\*17 of these fish were passed over weir into Clear Creek - ISS fish

Source: IFRO - Dworshak/Kooskia Complex SCS News-2005 Edition

DNFH - Spawning Activity Report BY2005 SCS

There were 84 adults outplanted from Dworshak by the NPT, 79 of Dworshak stock and five of Kooskia stock. Chinook were also harvested by the NPT in Clear Creek below the Kooskia trap. Of those returning to Kooskia, 252 were transferred to Dworshak for spawning and 17 were passed above the weir at Clear Creek as ISS fish. One fish died in the trap. Figure 1 displays the SCS returns to the Dworshak Complex since 1986.



**Figure 1. SCS returns to Dworshak/Kooskia 1986-2005**

Source: IFRO - SCS rack returns

Adult returns for BY05 SCS were enough to meet the production requirements for Dworshak. A sport fishery took place in the Clearwater River in the spring of 2005. IDF&G reported that the harvest was 942. A tribal harvest also took place along the Clearwater River and Clear Creek at Kooskia during the spring and summer of 2005. At the time of this writing no harvest numbers have been reported to Dworshak from the NPT.

#### Adult Holding

Dworshak stock was kept in HP 1 and 9, Kooskia stock was held in HP3. Kooskia transported 252 adults to Dworshak as spawning stock. Kooskia stock received a right opercule punch in order to distinguish between the two stocks. Formalin treatments were administered to the adults in order to retard fungus infection. Incoming females were also injected with erythromycin at a dosage of 20 mg/kg body weight as a preventative against vertical transmission of BKD.

#### Adult Mortality

There were 27 adult SCS of Dworshak stock and 12 of Kooskia stock which died before spawning began on August 16 (prespawning mortality). Table 2 depicts the mortality for BY05 SCS held at Dworshak.

Table 2. Mortality of adult BY05 SCS held at Dworshak.

Mortality	Dworshak		Kooskia	
	Number	Percent of Total run at Dworshak	Number	Percent of Total run at Kooskia
Prespawning	27	3.1	12	4.8
During Spawning	36	4.1	12	4.8
Total	63	7.1	24	9.5

Source: Spawning Activity Report, BY05 SCS  
IFRO-SCent.wk4

## Adult Disposition

There were 60 adult males and 19 jacks of BY05 SCS returning to Dworshak which were excess to spawning needs and were outplanted. There were also four jacks and one spent female of Kooskia stock SCS which were excess to spawning needs and also outplanted from Dworshak. Dworshak and NPT personnel sorted and loaded NPT transport trucks with these 84 fish to be stocked in the lower Selway River. This outplanting was for supplementation purposes. Table 3 illustrates details of the adult outplants.

Table 3. Adult BY05 SCS outplants from Dworshak NFH.

Date 2005	Site	Adult Male	Adult Female	Jacks	Total Number
20-Sep	Lower Selway	60	1	23	84

\*79 were Dworshak stock outplants, 5 of these fish were Kooskia stock

Source: DNFH- BY05 SCS Spawning Activity Reports  
IFRO- AdultOutplantBY05SCS.wk4

Tables 4 illustrates BY05 SCS adult disposition from Dworshak.

Table 4. Dworshak stock SCS BY05 adult disposition.

Location	Number	Comments
Outplant	79	See Table 3
Outside Research	3	NMFS, University Research
Washington State University	0	Captive Bear & Eagle Rehab
Landfill	800	Carcasses Deteriorated
<b>Total</b>	<b>882</b>	

Source: BY05 SCS Spawning Activity Report

## Adult Spawning Numbers/Ratio

The BY05 Dworshak/Kooskia SCS spawning season began August 16, 2005 and ended on September 20 for Dworshak stock and September 13 for Kooskia stock. Fish from each HP were sorted and spawned once/week along with new fish coming up the ladder into HP9.

There were 346 males (including 37 jacks) and 385 females (1:1.1 ratio) of Dworshak stock spawned during the season. There were 94 males (including 16 jacks) and 128 females (1:1.4 ratio) of Kooskia stock spawned during the season.

The females averaged 3,863 eggs/female for Dworshak stock and 3,617 eggs/female for Kooskia stock.

## Spawning Procedures

The spawning procedure was similar to past years; adults were crowded from the holding ponds into a crowding channel, moved into a channel basket, and placed into an anesthetic bin conditioned with 150 mg Tricaine methanesulfonate (MS-222). Also added to each bin was 250 ml of Pro-Polyaqua to reduce stress and susceptibility to infection. Oxygen was provided at a rate of 1.5 L/minute. Spinal columns of ripe females were severed using a pneumatic knife. The females were then placed on a table for 3-15 minutes for blood drainage. The ventral side was then cut open using a spawning knife and eggs were collected in disinfected colanders. After ovarian fluid was drained, the eggs were poured into a clean bucket. Milt from ripe males was stripped into Styrofoam cups and a one-percent saline solution was added to assist in milt motility. The milt solution was poured onto the eggs and swirled for more complete fertilization. The eggs remained in the bucket for one to two minutes to allow complete fertilization to take place, and then were rinsed of sperm, blood, and other organic matter.

After rinsing, eggs were placed in Heath incubator trays at an overall average of 3,801 eggs per tray (one female). In the tray was a 75 mg/l iodophor solution buffered with sodium bicarbonate. Eggs were maintained in this solution for approximately 30 minutes as a precaution against disease transmission. After sufficient time had elapsed for disinfection, the egg trays were then pushed into the incubator. Water flow rate was approximately five gallons/minute/tray. On October 4, 2004 a chiller was made available and incubation temperature in A/B bank went from 41.4°F to 39.0°F. Eggs in C/D bank were incubated with no chiller on this same intake line and temperature averaged 41.4°F during incubation. The number of adult spawners, eggs produced, and survival of BY05 SCS are illustrated in Table 6.

Table 6. Dworshak and Kooskia adult spawners and both green & eyed eggs, BY05 SCS.

Location of Broodstock Return	Males Spawned	Females Spawned	Females Culled BKD	# Eggs/Female	Total Eggs Enumerated	# of Eyed Eggs	% Enum Eye-up
Dworshak	346	385	7	3,863	1,460,348	1,407,946	96.4
Kooskia	94	128	0	3,617	462,989	431,984	93.3
Total/Ave	440	513	7	3,745	1,923,337	1,839,930	95.7

Source: DNFH - Spawning Activity Report BY05 SCS  
DNFH - BY05 SCS Spawning Report

### Idaho Fish Health Center (IFHC)

On July 26, personnel from IFHC injected all Dworshak and Kooskia stock females on station with erythromycin. This was done to help prevent vertical disease transmission to the egg.

During spawning, the IFHC took ovarian fluid for viral inspection from 150 of Dworshak stock and 107 of Kooskia stock females. They also took spleen samples from 60 Dworshak males and 63 Kooskia males for viral inspection (see IFHC Broodstock Assessment report for results). Kidneys were also sampled for BKD from all females spawned. As in 2004, Dworshak used an ELISA test for BKD which employed a base-line test to compare all samples to a given ELISA reading. The results of the testing for adult females were 1.8 percent (7/385) greater than 0.213 ELISA for Dworshak stock and 0.0 percent (0/128) for Kooskia stock. Eggs from females which

were above 0.213 ELISA were culled.

#### University Research

Dworshak continued to coordinate with researchers from the University of Idaho. Rolf Ingermann, Professor of Zoology from the University of Idaho, is studying motility and fertility of SCS semen along with egg fertility under various hormone applications. Dworshak provided a total of 55 ml milt from eight Dworshak males and 900 eggs from three partially green females. All milt samples were from excess spawning requirements at Dworshak. The eggs were from females which were discarded and not used in Dworshak production.

#### Spawning Summary

BY05 SCS adult return numbers were adequate to fulfill Dworshak's production goals. Kooskia will only be able to rear slightly more than half of their production goal due to the lack of broodstock trapped at Kooskia. Projected release of BY05 smolts in the year 2007 is approximately 950,000 smolts of Dworshak stock.

There were 79 adult male BY05 SCS of Dworshak stock outplanted for supplementation purposes by the NPT.

#### **Coho Salmon Brood Year 2003**

Coho salmon (COS) are being reared in raceways in C-bank in a cooperative program with the NPT.

There were approximately 294,980 BY03 COS on station at the beginning of the FY2005. During April, 2005, approximately 289,000 BY03 COS from Dworshak were transferred to Kooskia by the NPT with help from Dworshak staff.

#### **Brood Year 2004**

BY04 COS were trapped at DNFH, Clear Creek, Potlatch, Lolo, Eldorado and Lapwai creeks in the Clearwater Basin. Personnel from the NPT conducted the spawning at Dworshak with assistance from Dworshak staff. The eggs were incubated at Dworshak.

Spawning of BY04 COS began on October 20, 2004 and ended November 10. There were a total of 419 female COS spawned, producing an estimated 879,900 eggs based on 2,100 eggs/female (NPT Nov. Monthly Rpt). Program goals at Dworshak call for 320,000 eggs to produce 280,000 smolts.

Coho were transferred from the egg trays to Dworshak's nursery during February 2005. The last information reported to Dworshak by the NPT concerning these fish was May, 2005. At that time there were 207,544 BY04 coho on station weighing 690 lbs at 301 fpp and 55 mm long.

**Rainbow Trout  
Brood Year 2004**

There were a total of 16,500 BY04 RBT divided into BP49 and raceways (RW's) 9 and 10 in C-bank at the beginning of FY2005. On May 24, 2005 there were approximately 3,500 BY04 RBT transferred from DNFH to KNFH for their June Open House program. There were also 696 RBT sent to Kooskia on June 14, also for Open House. On May 25-26, there were approximately 11,500 RBT transferred to the Dworshak settling pond for the annual Open House held on June 10. Approximately 1,000 were caught by the 497 kids 12 years of age and under who took part in the activities.

Table 1 illustrates outplanting of BY04 RBT from the Open House fishing pond at Dworshak.

Table 1. Fish Distribution Summary BY04 RBT (06/30/2005).

<b>Date 2005</b>	<b>Number</b>	<b>Wt (lbs)</b>	<b>fpp</b>	<b>L in</b>	<b>L mm</b>	<b>Location</b>
24-May	3,500	2,885	1.2	12.7	323	Kooskia NFH
10-Jun	994	828	1.2	12.8	324	Dworshak Open House
14-Jun	696	600	1.2	12.9	328	Kooskia NFH
22-Jun	2,749	2,370	1.2	12.9	328	Talmac Lake NPT
23-Jun	1,714	1,478	1.2	12.9	328	Worley Pond CDA Tribe
23-Jun	3,074	2,650	1.2	12.9	328	Mud Springs NPT
23-Jun	498	429	1.2	12.9	328	Tunnel Pond NPT
24-Jun	1,570	1,353	1.2	12.9	328	Agency Pond CDA Tribe
28-Jun	1,135	979	1.2	12.9	328	Spring Valley Reservoir IDFG
<b>Total/Ave</b>	<b>15,930</b>	<b>13,572</b>	<b>1.2</b>	<b>12.9</b>	<b>327</b>	

Source: DNFH - RBT MIS, June 2005; Production Narrative, February, June 2005.

DNFH - Fish and Egg Fiscal Year 2005 Distribution Summary

IFRO - Rainbow Trout Planting, Dworshak and Kooskia. RBTPLN05.wk4

**Brood Year 2005**

Rainbow Trout from BY05 will be used for Open House Fishing Day 2006. On January 19, 2005, Dworshak received Shasta strain RBT eyed eggs from Ennis NFH. For ease of record keeping at Dworshak, these RBT will be recorded as BY05. At the end of FY05 there were approximately 16,052 BY05 RBT in raceways C9-10 and BP49.

## Administration

### Meetings

#### *October 2004*

- Aaron Garcia presented a report to hatchery employees on SST and SCS juveniles.
- Diane Praest received a pin and certificate for 20 years of service with the government.
- Howard Burge participated in a Snake River Basin Adjudication (SRBA) meeting in Lapwai.
- Dave Owsley attended a regional community drinking water system meeting in the main building conference room.
- Dave Owsley met with Knight Construction on a roofing contract for the Incubator Room.
- Howard Burge and Bob Semple attended a Project Leader's meeting in Boise.
- Howard Burge participated in a SRBA meeting at the Nez Perce Tribal Hatchery.
- Howard Burge attended a meeting hosted by IDF&G on the potential fertilization of Dworshak Reservoir.
- Dave Owsley attended the annual Uniform Committee meeting in Plymouth, MA.

#### *November 2004*

- Howard Burge participated in a SRBA conference call.
- Dave Owsley assisted the U.S. Army Corps of Engineers (USACE) personnel from Walla Walla and Dworshak Dam staff with a "Real Property" inventory.
- Dave Owsley, Bob Semple and Howard Burge attended the Hatchery Manager's Workshop in Richland, WA. Dave Owsley made a presentation on, "Uniforms."
- Dave Owsley attended the Regional Drinking Water meeting held at Dworshak NFH.
- Dave Owsley and Diane Praest met with Duane Millard from the Orofino Rural Fire District to set up service for the hatchery complex.
- DNFH hosted the Clearwater Basin/Fall AOP Coordination meeting.
- Dave Owsley assisted the IDF&G-Clearwater Fish Hatchery crew with the moving/setting up of a donated trailer for storage at the Hunter Education range.
- Dave Owsley met with Knight Construction on the repair/replace of the Incubator Room roof.
- Dave Owsley assisted the hatchery tenants with the Annual Quarters Review.

#### *December 2004*

- Dave Owsley met with the foreign exchange students from WSU and gave a brief presentation on operations of the hatchery.
- Dave Owsley attended an awards banquet in Lewiston where he was presented with the Region 2, "Instructor of the Year," award from the IDF&G for Hunter Education.
- Supervisor meeting held to discuss new performance appraisal system. In attendance: Howard Burge, Kathy Clemens, Hubert Sims, Mike Faler, Susan Sawyer, Diane Praest, Dave Owsley and Bob Semple.
- Dave Owsley met with Louise Bruce, U of I graduate student and discussed using ozone to control mud snails. The study is being done to help the Hagerman NFH.
- Complex annual Christmas Party held at the Red Lion in Lewiston – 25 people attended.
- Employee Christmas potluck/finger food party held on Dec. 15 with a great turnout and

food for all.

### ***January 2005***

- Dave Owsley met with Russ Thornton, USACE, Walla Walla, WA for the incubator room roof inspection that was completed.
- Dave Owsley, Bob Semple and Hubert Sims met with Rick Jones, a private contractor on a BPA energy program.
- Chili feed potluck was held in the Conference Room for staff.

### ***February 2005***

- AOP meeting held in the Main Building Conference room.
- Employee potluck spaghetti feed.
- Dave Owsley's last day was Feb. 27. He retired with a roast/toast on Feb. 19 at the Ponderosa Restaurant in Orofino.

### ***March 2005***

- Howard Burge and Bob Semple attended the Lower Snake River Compensation Plan (LSRCP) Coordination meeting in Boise, ID.
- Howard Burge participated in numerous conference calls throughout the month finalizing the SRBA plan.
- Howard Burge participated in a briefing for the Regional Office on the SRBA.

### ***April 2005***

- Howard Burge participated in a Partners meeting in Portland, Oregon.
- All employee staff meeting held to discuss the SRBA plan.
- Howard Burge gave State Senator, Joyce Broadsword (Dist. 2) a tour of DNFH and a briefing on the SRBA changes.

### ***May, 2005***

- Cinco de Mayo potluck and going away potluck held in honor of Craig Eaton, KNFH, who is transferring to Alchesay/Williams Creek NFH in Whiteriver, AZ.

### ***June 2005***

- A Pre-Open House meeting held for staff. I & E provided refreshments and discussed last minute suggestions, questions, scheduling, etc.

### ***July 2005***

- Howard Burge participated on the first of monthly conference calls on implementation of the SRBA plan.
- Howard Burge, Acting Complex Manager participated in a Technical Management Team (TMT) conference call to explain the impact of 43<sup>0</sup>F water releases from Dworshak Dam on BY2005 steelhead production.

### ***August 2005***

- Howard Burge participated on a conference call on the SRBA implementation.
- Conference call regarding FY2005 Year-End procedures attended by Joan Sperber, Diane Praest, Howard Burge and Kathy Clemens.

- Penny Hasenoehrl and Bob Semple met with Betty Asbjornsen of the Walla Walla District USACE regarding proper property inventory procedures.
- DNFH staff participated in FIS accomplishment training.

### ***September 2005***

- Howard Burge, Acting Complex Manager and Hubert Sims, Maintenance Supervisor, met with the Bonneville Power Administration (BPA) and lighting contractors to discuss and view lighting changes for energy savings at DNFH.
- Howard Burge met with LSRCP and IDF&G to discuss clipping and tagging of SST at DNFH.

## **Training**

- Penny Hasenoehrl attended Medic First Aid instructor training in Grangeville, ID.
- Maintenance Worker, G. Stretsbery attending computer training at Lewis & Clark State College, twice weekly.
- Diane Praest completed a 16 hour on-line course, “*Using GSA Schedules-Customers*” to maintain her warrant.
- Diane Praest, Adam Izbicki, Mark Bright and Thomas Trock attended an Excel computer course in Lewiston, ID.
- Susan Sawyer, Jim Minnick, Jody Brostrom and Jill Olson attended retirement training in Boise, ID.
- Joan Sperber, Bob Semple and John Vargas attended Admin training in Portland, OR.
- Attending Microsoft Word training at Orofino High School sponsored by New Horizons in Spokane, WA were Adam Izbicki and Thomas Trock.
- I/E Assistant, Megan Johnson, attended Certified Interpretive Guide training in Clarkston, WA, sponsored by The River Society.
- Penny Hasenoehrl and Thomas Trock attended Power Point training at Orofino High School sponsored by New Horizons in Spokane, WA.
- Penny Hasenoehrl attended, “*Safety & Security Measures for Front Desk Personnel,*” in Spokane, WA.
- GSA Purchase Training was taught by Donna Snyder (GSA in Auburn, WA) at DNFH. Those in attendance were: Penny Hasenoehrl, Ray Rosales, Mark Bright, Holly Stanton-Smith, John Vargas, Joan Sperber, Ben Greene, Terry Weeks, Hubert Sims, Aaron Garcia, Thomas Trock, Bob Semple, Howard Burge, Diane Praest, Randy Bowen, Megan Johnson, Carrie Gass, Frank Mullins, Rick Allain, Steve Bradbury, Kathy Clemens, Corie Samson, Stuart Rosenberger and Wayne Hamilton.
- Penny Hasenoehrl, OAC, attended Internet Web Site Development for USFWS training at the National Conservation Training Center (NCTC).
- I/E Assistant Megan Johnson attended Volunteer Management training at NCTC.
- Diane Praest attended the Ann Fagelson retirement class in Portland, OR.

## **Safety & Wellness**

### ***October 2004***

Safety meeting on home fire safety was presented to the staff.

***November 2004***

Colin Junkin from the Tate Foundation gave a presentation to the staff on “Anti-Terrorism” techniques.

***December 2004***

Dr. William Brown of Clearwater Valley Hospital & Clinic presented to the staff, “*Wheezes & Sneezes.*”

Complex fire drill held in the afternoon.

Oxygen tank operation training presented to staff by Dave Owsley.

***January 2005***

CPR training held in the conference room by Mary Anne McLaughlin and Wendell Stark, Clearwater County EMT’s for the following 16 employees: Frank Mullins, Carrie Gass, Dave Trainor, Bob Semple, Hubert Sims, Holly Stanton, Susan Sawyer, Wayne Hamilton, Ben Wright, John Vargas, Stuart Rosenberger, Steve Bradbury, Rick Allain, Randy Bowen, Jim Minnick and Billy Connor.

***February 2005***

Oxarc performed Personal Protective Equipment (PPE) face mask fit testing. Maintenance and Production crews attended.

***March 2005***

Gene Fish, Clearwater County Sheriff’s Dpt. and Anti-Terrorism Coordinator for Clearwater County gave a presentation to the staff.

***April 2005***

All employee safety meeting held in honor of National Safety Week. A short safety video was shown and refreshments served.

Automatic External Defibrillator (AED) training given by instructor Patty Richards. Attending were: Penny Hasenoehrl, Diane Praest, Dave Trainor, Thomas Trock, Randy Bowen, Carrie Gass, Holly Stanton and Corie Samson.

***May 2005***

Dave Trainor, Safety Committee Chairman created a video of staff staging safety hazards which was viewed by the staff. A score sheet was given to employees to write down how many safety violations they could see in each scene. The employee who got the most correct won a coffee mug.

***June 2005***

Susan Sawyer spoke to staff regarding Open House safety considerations, treatment for heat stroke, blood sugar reactions and injuries. She reminded the staff where the First Aid kit would be located, drinking water containers, oxygen and injury forms for staff and visitors.

***July 2005***

Staff safety meeting held with a presentation by Dr. Paul Smith titled, “*Bugs, Bites, Snakes & Such.*”

### **August 2005**

Staff attended a safety meeting with guest speaker, Jeanette Gorman, Clearwater Valley Hospital & Clinic who gave a demonstration of a health care web site title, "Medline," that is recommended by the hospital for layman use.

### **September 2005**

Staff safety meeting held with viewing of office safety video.

## **Staffing**

### **DNFH Employees, FY 2005.**

<b>Name</b>	<b>Position Title</b>	<b>Period of Employment</b>	<b>Status</b>
Allain, Richard E.	Animal Caretaker	10/01/04-09/30/05	Permanent
Bright, Mark G.	Fishery Biologist	10/01/04-09/30/05	Permanent
Greene, Benny C	Electronics Mechanic	10/01/04-9/30/05	Permanent
Hamilton, William W.	Animal Caretaker	10/01/04-09/30/05	Permanent
Hasenoehrl, Penny	Office Automation Clerk	10/01/04-09/30/05	Permanent
Izbicki, Adam H.	Fishery Biologist	10/01/04-09/30/05	Permanent
Johnson, Megan	Information/Education Asst.	10/01/04-09/30/05	Permanent
Kellar, Robbie D.	Animal Caretaker	10/01/04-09/30/05	Permanent
King, Rick A	Maintenance Worker	10/01/04-09/30/05	Permanent
Minnick, Jim	Animal Caretaker	10/01/04-9/30/05	Temporary
Ochszner, Dennis J	Animal Caretaker	10/01/04-09/30/05	Permanent
Owsley, David E	Environmental Engineer/ Assistant Complex Manager	10/01/04-02/27/05	Permanent
Praest, Diane E	Supv. Admin Support Assistant	10/01/04-09/30/05	Permanent
Rosales, Raymundo A	Maintenance Worker	10/01/04-09/30/05	Permanent
Sawyer, Susan D	Information/Education Specialist	10/01/04-09/30/05	Permanent
Semple, Robert A	Supv. Fishery Biologist	10/01/04-09/30/05	Permanent
Sims, Hubert M	Maintenance Mechanic	10/01/04-09/30/05	Permanent
Sperber, Joan	Budget Technician	10/01/04-09/30/05	Permanent
Stretsbery, Gerald	Laborer	10/01/04-09/30/05	Permanent
Trainor, David A	Maintenance Worker	10/01/04-09/30/05	Permanent
Trock, Thomas J.	Fishery Biologist	10/01/04-09/30/05	Permanent
Vargas, John J	Animal Caretaker Leader	10/01/04-09/30/05	Permanent

Weeks, Terry C.	Maintenance Worker	10/01/04–09/30/05	Permanent
Wright, Benjamin A	Animal Caretaker	10/01/04–09/30/05	Permanent

## Personnel

- Megan Johnson, I/E Assistant, changed tour of duty to Tuesday through Saturday, 8 a.m. – 4:30 p.m. for the summer through Labor Day weekend.
- Adam Izbicki, Fishery biologist, 120-day detail to KNFH as Assistant Hatchery Manager.
- Robert Bohn, WG-5048, Animal Caretaker hired as an Emergency Hire.
- Tasha Emery, GS-0186, Social Services Assistant, entered on duty (EOD) as Crew Leader for The Clearwater Youth Program.
- The Clearwater Youth Program began an 8-week program with six high school students at Dworshak Complex and three high school students at Clearwater State Fish Hatchery (CFH). Enrollees at DNFH are: Jessica Lott, McKenzie Snyder, Sean Diffin, Zain Hixson, Matt Sanchez and Kayla Warden. Enrollees at CFH are: Amanda McGehee, Sonny Telecky and Rebekah Waltman.
- Herbert G. Lawler, WG-2805, Electrical Worker, EOD 6/26/05.
- Robert R. Bohn, WG-5048, Animal Caretaker, end of appointment on 6/30/05.
- Adam Izbicki returned to duty at DNFH on 8/29/05 after completing a detail to KNFH.

## Facilities Maintenance

### *October 2004*

- Hauled reuse pump to Lewiston for repairs. Reinstalled after return.
- Replaced broken flights on scraper chain System III reuse filter beds.
- Added steps for pond access on “B” bank raceways.
- Constructed a steel foot bridge for fishermen access from visitor parking lot.
- Moved salt from System III to System II with front loader.
- Performed periodic maintenance on boiler.
- Winterized grounds, laws, etc.
- Installed and connected reuse pump in System III.
- Took boom truck to Lewiston for repair.
- Replaced adult counters at Holding Pond (HP) 9.
- Repaired #2 Egg Sorter in Incubator Room.
- Prepared pumps, boilers, etc. to begin heating main buildings for winter.
- Assessed and repaired passageway heater.
- Troubleshoot System I filter bed #3 & #4 and the scraper chain drive.
- Built control cable for Pumper trailer used in grounds maintenance.
- Troubleshoot and repaired area lighting.
- Troubleshoot and repaired block heaters in generators #1 & #3.
- Replaced both front tires on Cart #4.
- Repaired flat tire on left front of Cart #11.
- Built and installed end gate plugs for System I reuse ponds #1-6.
- Changed scrubbing brushes on drive shafts for pond scrubber.
- Built and installed four new stands for new chemical pumps for System II and III reuse.
- Changed oil, oil filter, serpentine belt and spark plugs in 1999 Dodge Caravan.
- Changed brushes on shafts and pond scrubber again.
- Installed new air compressor in place of old compressor for heating and air condition unit in Furnace room.
- Installed new Zone 2 cooling pump for air conditioning unit in Furnace room.
- Built and installed aluminum cover for #2 conduit junction box in System I reuse.
- Replaced right front tire on Cart #10.
- Exercised #1, 2 & 3 standby generators.

### *November 2004*

- Built and installed hooks and chains to secure gas cylinders in gas cylinder storage.
- Did preventative maintenance check on Kalamazoo band saw. This check includes clean metal cuttings from entire band saw, lube all bearings and pivot points, removing cooling reservoir and clean inside, remove cooling pump and clean the intake, reinstall cooling reservoir and pump, refill reservoir with water soluble oil and install new blade.
- Replaced muffler on Generator #3 in main pump house.
- Welded four 1 ¼” metal cross pieces into handle of feed cart for Production.
- Installed a new battery on crowder, built and installed a battery box.
- Installed temperature control valves in heating unit in Spawn Shop and the heating unit in

hallway in upstairs lobby of main complex building.

- Removed engine from pond scrubber, repaired broken oil drain line and reinstalled engine.
- Removed motor from new air compressor in furnace room. Cleaned centrifugal switch in the motor and re-installed motor on compressor.
- Installed grader blade and tire chains on John Deere tractor for snow removal.
- Installed snow plow on Dodge 4 x 4 one-ton truck for snow removal.
- Replaced shear pins in traveling water screens #1 and #3 in main pump house.
- Replaced both windshield wipers on Information & Education (I & E) Blazer.
- Installed winter tires on Dodge Caravan.
- Plowed and removed snow from hatchery streets and parking areas.
- Connected motor terminals to System III Reuse Pump #11.
- Assisted with moving new autoclave into the Idaho Fish Health Center.
- Adjusted and tuned Egg Sorter in Nursery.
- Repaired engine block heaters on Gen-Sets #1 and #3.
- Began installation of new lighting in Idaho Fish Health Center.
- Assessed and repaired heater in main pumphouse, east building.
- Assessed and repaired outside lighting on Complex grounds.
- Repaired outside lighting for Residence #3.
- Troubleshooting of heater in the Visitor parking lot restroom.
- The new John Deere tractor and backhoe arrived at the Complex 11/9/04.

#### ***December 2004***

- Removed traction tires from Cart #8 and installed on Cart #4.
- Replaced motor in parking lot restroom heaters.
- Installed winter tires on the Dodge Grand Caravan.
- Repaired flat tire on right rear of Dodge Caravan.
- Filled shop oil heater reservoir with used motor oil. Cleaned the intake tray to same.
- Welded broken brace to rear deck on the FRO Custom Weld jet boat.
- Built a new handle for stand pipe on pond #54.
- Idaho Truck Sales in Lewiston replaced a faulty speedometer in the boom truck.
- Replaced the hydraulic jack on the FRO scale press.
- Put up Christmas decorations along the river behind the feed building.
- Replaced two broken marker light lenses on the back of boom truck.
- Replaced a battery in the garden truck.
- Drilled holes in fork lift lifting jib for extinction tube.
- Set up transformer for power to USFWS marking trailer.
- Replaced faucet in kitchen sink in Residence #4.
- Built and installed a fisherman's bridge from the visitor parking lot to Hwy. 7.
- Entered new upgrades for alarm system and re-started.
- Repaired the carport light in Residence #3.
- The alarm in the Nursery room feeder got tripped, repaired and reset alarm.
- Repaired street light in residential cul-de-sac.
- Made changes to alarm system call-back order.
- Fabricated and connected new chemical pumps in System II & III.
- Installed new motor on air compressor in the furnace room.

### ***January 2005***

- Switched System II & III from raw water to reuse.
- Put together a desk and shelves and installed in R. Bowen's office in FRO.
- Drilled hole in one fork of new forklift for towing ball installation.
- Installed brushes on pond scrubber shafts and mounted on pond scrubber.
- Snow removal from parking areas and streets.
- Replaced broken bolts in front axle of Cart #6.
- Changed tires from regular to traction on Carts #4 & 5.
- Repaired flat tire on right front of Cart #6.
- Changed oil and filter in shop truck, John Deere lawnmower and call back truck.
- Replaced controller on #4 boiler in Mech II.
- Installed chemical showers in Incubator room and chemical room in Mech 1.
- Replaced batteries on Generators 1, 2, 3.
- Realigned the chain scraper in nursery sludge pond.
- Replaced left front tire on Cart #10.
- Removed stumps, brush and rocks and leveled the grounds in tribal church yard. Spread and packed gravel for a new Sunday school building.
- Pruned fruit trees along the river that were planted last year.
- Replaced air compressor in shop with new Ingersoll Rand compressor.
- Moved, cleaned, repaired and rearranged the welding shop equipment.
- Designed and built a new welding table for the welding shop.
- Brought new backhoe to shop from storage building and removed the front bucket. Hard surfaced the bit on the bucket and replaced bucket onto backhoe.
- Unloaded and installed new file cabinets for Fish Health Center.
- Repaired broken rubber seal on roll up door in welding shop.
- Fabricated new skids for Gator snow plow.
- Placed new rubber matting for walkway safety in Nursery room.
- Terminated and crimped connectors for Category Five wire for additional computer in Maintenance office.
- Replaced burned out lights on overpass and in the housing areas.
- Created and installed new Local Area Network (LAN) line for new computer in Maintenance shop.
- Replaced burned fuses in System III channel pump control and restarted pumps.
- Replaced motor heaters in System I, 33 & 4 scraper conveyor motor breakers.
- Added Freon and adjusted #2 chiller compressor in Incubator room.
- Assisted with infrared scan inspection of motor control centers, boilers and electrical gear.
- Made and installed power cord for production barrel pump.
- Replaced liquid level control for System II & III make up sump.
- Repaired failed circuit for lab roof top lighting.
- Defrosted and adjusted ice harvesters in ice machine in feed building.

### ***February 2005***

- Repaired flat tire on left front of cart #10.
- Replaced windshield in cart #10.
- Cleaned and bubbled System II filter beds and drew off sludge to settling ponds daylily.
- Sanded and painted door frames and doors in break room, production office, employee

- restroom and hallway to Incubator Room.
- Repaired broken air lines in System III filter beds.
  - Lowered water level and removed drive chains and scrapers from System III filter bed #9.
  - Cleaned and repaired control circuit to Chinook sump pumps.
  - Changed System III from reuse to raw water.
  - Adjusted control parameters and replaced pilot lights for make up water sump in Mech II.
  - Installed Omega temperature controller for heated water for nursery in Mech II.
  - Soldered in new battery for adult fish counter in HP 9.
  - Repaired air valve on west diverter gate in Spawning Room.
  - Started work on upgrade of domestic water control.
  - Built eight pond cleaning broom heads for production.
  - Built cover screens for round tank for fall Chinook study.
  - Rebuilt and hard surfaced skids for snow plow on Dodge 4 x 4.
  - Cleaned welding shop and hauled scrap metal to COE bone yard.
  - Cut ¼” off the outside of door to employee restroom and installed 1 1/4” square tubing in door.
  - Fabricated and installed hose rack in Incubator Room.
  - Cleaned and mopped floors in Main Building, FHC, Fisheries Resource Office (FRO) and Feed Building. Cleaned all restrooms and replaced supplies as needed.
  - Repaired and reinstalled tour sign by FHC.
  - Replaced broken hot water flex line in ELISA room in the FHC.
  - Refilled domestic water tank after tank went dry and filled with air.
  - Installed and plumbed fall Chinook tank at the end of A bank for FRO study.
  - Built sign frames and installed signs in frames for I & E.
  - Changed oil and oil filter in 305-G portable welder.

### ***March 2005***

- Washed and vacuumed Grand Caravan.
- Adjusted and reset restrictor valves on both diverter gates on spawning table.
- Replaced right rear tire on shop cart and replaced left front tire on Cart #11.
- Checked oil leak in gear box on trash rake at main pump house, cleaned and replaced leaking seal.
- Removed snow plows from John Deere Gator and Dodge 1-ton pickup.
- Repaired and relined wheel on sliding wall in Conference Room, main building.
- Replaced burned battery cable on Cart #9.
- Bled air from breaks on Production’s forklift.
- Quality Heating and Air Conditioning replaced the air conditioning unit for Production office.
- Replaced diaphragm in clay valve for No. 1 traveling water screen in main pump house.
- Painted and replaced restroom door on employee restroom.
- Allied Security re-keyed all door locks in all hatchery buildings.
- Built and installed stand pipe puller for the fall Chinook round tank at the end of A-bank.
- Fabricated frames and extensions for signs on viewing balcony in main building.
- Built screened boxes for FRO boat crews.
- Repaired and hard surfaced skids for 1-ton pickup snow plow.
- Built and installed power cord rack for the new Magic Valley fish pump.

- Designed and fabricated handle for opening System I, II, and III inlet water valves.
- Removed and dismantled plexiglass guard from fish lift. Built and installed new aluminum bar barrier in the same area.
- Switched System II from reuse to raw water.
- Randed #1, 2 and 3 generators for their monthly exercise.
- Built information signs and installed along visitor self-guided tour for I & E.
- Repaired damage to roll up door in the chemical shed.
- Installed keyboard holder on desk in Admin Office.
- Pumped water from main pump house vault and repaired a broken pipe on vault sump pump.
- Installed license plates on I & E's new Blazer.
- Replaced ballast in light fixture in the Fish Health Center.
- Replaced 2" ball valve in FRO fish tank in Chevy 1-ton truck.
- Replaced belt on air compressor in furnace room.
- Repaired float switch and replaced fuses in Chinook sump pump.
- Repaired and recharged refrigeration system for cool room in feed building.
- Removed existing conduits and wire for installation of new door in chiller room.
- Shut down main pump house air compressor and lock out alarm point. (Main Pump House air compressor is no longer needed).
- Assisted Clearwater Power with unexpected power outage on 3/31/05.
- Applied weed and feed to lawns.
- Replaced fan and bearing on vacuum and lawn mower on John Deere lawn mower.

### *April 2005*

- Operated fish pumps for pumping Nez Perce tribal fish into tanker trucks for outplanting.
- Allied Security installed door openers on front and rear doors in main building.
- Put up and removed two tents on front lawn for private group function.
- Hauled three loads of fall Chinook from Lyons Ferry Fish hatchery to DNFH.
- Repaired flat tire on the left front of Cart #11.
- Removed winter tires and installed summer tires on Caravan and Grand Caravan.
- Participated in reservoir water valve exercise with the Clearwater hatchery staff.
- Adjusted reservoir water cold line to lower incubator water temperature.
- Readjusted water flows in HP9 after shut down of System III water flows.
- Replaced broken door knob on front door to Mech Bldg #1.
- Adjusted and re-started ice machine in feed building after water filter replacement.
- Replaced Lan cable R-45 jacks in shop office and FHC.
- Disconnected all conduits and wire runs for installation of new double door in block wall to chiller room.
- Replaced defective plug and receptacle on 480 volt feed for pond cleaning pump.
- Repaired damage to pond aerator motor after it had been dropped.
- Installed new cord, contactor and plug and test ran the new Magic Valley Fish Hatchery (MVFH) fish pump.
- Repaired burned and broken wire to #3 and #4 scraper conveyor and auger drive feeder circuits in System I reuse.
- Repaired fluorescent light in upstairs kitchen in main building.
- Replaced guillotine blade on fish table in Spawning Room.

- Built and installed a book shelf for OAC's desk.
- Replaced wheel studs and lug nuts on left front axel of Cart #11.
- Removed two trees from the front yard of Residence #2.
- Cut asphalt and dug up valves with backhoe on HP's 74 and 76 for repair.
- Installed power cord reel on new MVFH fish pump.
- Relocated cabinet in the water quality room for the FHC.
- Fabricated portable steps for use in raceways in A and B bank.
- Removed autoclave from FHC and loaded on COE truck.
- Hard surfaced backhoe bucket on John Deere backhoe.
- Repaired a burned battery cable on Cart #9.
- Built and installed net and pond cleaning broom rack for fall Chinook ponds.
- Built gravel walkway to the new fishermen bridge from the visitor parking lot to Hwy 7.

### ***May, 2005***

- Worked with Clearwater Power during the annual power outage on 5/17/05.
- Built a new anchor for the FRO boat crew.
- Built 12 lids for small fish holding boxes which are used to hold small fish to be pit tagged by the boat crews.
- Modified trailer moving adapter to accept larger forks on the new fork lift.
- Installed sump pump in System I reuse man hole to assist with System I channel wash down.
- Modified new Magic Valley fish pump to accept 8" drain hose. Repaired crack in discharge line and modified same to prevent further breakage.
- Built and installed shelf paper roll dispenser in the FHC.
- Cleaned carpet in main building.
- Cut asphalt and removed dirt and rock from around water supply valves in Ponds #74 and 76. Cut holes in supply lines and removed media from inside the pipe. Welded cover over a hole in supply pipe and covered pipe with dirt and rock.
- Replaced garbage disposal in House #2 and replaced vent hood over stove in House #1.
- Hauled five loads of Chinook fry from KNFH to DNFH.
- Hauled two loads of rainbow trout to KNFH for Open House.
- Hauled fish to pond on point for Open House.
- Pumped rain water from all the manholes on hatchery.
- Repaired sink hole by steps going into Feed Bldg.
- Cleaned the bridge and washed down the overpass with the distribution truck.
- Used an applicator to spray hatchery for weeds and unnecessary grasses.
- Shut down and dewatered the holding ponds and ladder.
- Did fault location with the help of Clearwater Power to the lighting at the hatchery entrance sign.
- Set up transformer for power to Biomark Tagging trailer.
- Repaired burned wiring to underpass sump pump.
- Added Freon and adjusted Feed Bldg. cool room compressor.
- Replaced two mercury vapor ballasts in Mech I.

### ***June 2005***

- Ten inmates from Idaho Correctional Institute performed hatchery grounds maintenance for Open House.
- Staff inventoried the shop tool box.
- Changed oil and serviced the FHC Explorer, DNFH Dodge Caravan and a fork lift.
- Checked Cart #3 for bad brakes and ordered a new master cylinder.
- Filled the FHC Ford pickup with windshield washer fluid.
- Serviced and cleaned the shop cart.
- Lubed rollers and drive chains on #1, 2 & 3 traveling water screens.
- Serviced the intake trash rake at the main pump house.
- Serviced the #3 generator's radiator fan motor and belts.
- Changed oil and filters on the Ford Ranger, 8 portable welder and portable air compressor motor and pump.
- Repaired a broken garden tiller tine.
- Erected and disassembled the parachute that is used as a canopy for Open House as well as various other structures.
- Dug up stumps, rocks, roots and old bark with a backhoe in front of the Main Bldg. and hauled to the dump. Prepared the ground for new sod and repaired broken sprinklers.
- Prepared ground for planting of Lewis and Clark plants behind the Fire & Maintenance building.
- Dug up stumps, roots, rocks and old bark from lawns in visitor parking lot. Tilled lawns, raked and prepared ground. Four maple trees and 21 Alaska Blue cedar plants were planted. This also required repair and installation of new sprinklers. The lawn is now ready for new sod.
- Removed four trees and stumps from House #1 and removed five trees and stumps from House #3. Trimmed and pruned trees around Houses #1, 2, and 3.
- Removed and reinstalled fences on the north side of House #1 and 3 for tree trimmers.
- Moved and set up marking trailers for IDF&G and BioMark using a fork lift.
- Removed and soldered wires to totalizer and reinstalled on HP9 fish counter.
- Repaired and tested submersible pump for Incubator Room.
- Replaced lighting ballast in Mech I.
- Repaired wiring for drive system on manlift.
- Changed out bad circuit breaks in lighting panel in FHC.
- Checked out man hole routing for cabling for new internet service.
- Cleaned drain line for Nursery Room C-bank.
- Hauled rainbow trout to KNFH and to Coeur d'Alene tribal fish ponds at Worley, ID.
- Hauled adult Chinook from KNFH to DNFH.
- Washed and cleaned windows in Main Building.

### ***July 2005***

- Replaced a burned-out ballast for a light fixture in Mech II.
- Repaired ground fault interrupter (GFI) for sludge pump on System II-III sludge pond.
- Repositioned light standard by new water fall in front of Main Building.
- Troubleshoot and repaired drive motor on pond crowder.
- Repaired broken wire to adult fish counter in HP9.
- Replaced broken GFI and started the fountain pump that supplies water for waterfall.

- Rebuilt the waterfall in front of Main Building.
- Repaired defective drum switch on scraper drive motor in System II reuse.
- Troubleshoot and repaired a breaker tripping problem from the main pumphouse to the Fire and Maintenance pumphouse.
- Troubleshoot a loss of power and failure to start #3 generator during an unscheduled power outage.
- Repaired a damaged conduit near the hatchery entrance signs.
- Repaired a Freon leak in cool room evaporator coil and recharged system.
- Replaced coolant and water pump on #2 generator.
- Repaired and replaced broken chains and broken flights in System III #4 sludge scraper pond.
- Transferred media from System II reuse #2 sludge basin to #1 sludge basin.
- Repaired broken chains and scrapers and transferred media back.
- Repaired door for storage room in visitor parking lot restroom.
- Changed oil in all six main pumps in main pump house.
- Changed the oil, oil filter, lubed, vacuumed and washed the Dodge 1-ton pickup, Dodge Caravan and Ford Ranger.
- Repaired the left front tire on Cart #10 and replaced the left front tire on Cart #11.
- Changed oil in gear drive boxes on traveling water screens in main pump house.
- Replaced the tail pipe clamp and did a brake inspection on Dodge 1-ton flat bed pick-up. In addition changed the oil, oil filter and lubed vehicle.
- Installed new drive belts and belt adjusting rods on the shop cart.
- Installed a new brake master cylinder on Cart #10.
- Removed, cleaned and repaired the right front king pin from Cart 311.
- Removed part of the concrete sidewalk and repaired a sprinkler system water leak in the visitor parking lot.
- Repaired two damaged water lines at the hatchery entrance.
- Cut asphalt and removed root from House #3 garage. Hauled in gravel and prepared for new asphalt.
- Removed sod and prepared a two foot extension for asphalt to the driveway at House #2.
- Trimmed and pruned shrubs around hatchery grounds and hauled off brush.
- Cut down and hauled off a dead pine tree from hatchery grounds.

### ***August 2005***

- Removed #2 incubator pump for dip, bake and bearing replacement which was done by Strom Electric in Troy, ID.
- Did pump down, Freon recovery, disconnect and removal of incubator chiller compressors in preparation for replacement of compressors.
- Troubleshooting commercial main break in Main Pump House for tripping out.
- Troubleshooting and repaired control circuits for Chinook sump pumps.
- Re-soldered battery into count totalizer on HP9 adult counter.
- Removed and replaced flat tires on left front Carts #10 & 11.
- Cut and installed new aluminum crossover screens for effluent #2.
- Transferred media from effluent #1 to effluent pond 32.
- Removed and replaced flat tire on Cart 36.
- Built and installed guide collars for idler sprockets on effluent ponds #4 & 5.

- Lubed System I reuse gear boxes and idler shafts bearings.
- Changed oil and lubed make up pumps in Mech II, System II & III channel pumps and System II and III reuse pumps.
- Changed oil in System II and III sludge scraper gear boxes and lubed all shaft bearing in same.
- Changed oil in air compressors in Mech II and Incubator Room.
- Prepared and painted outside walls of Nursery room.
- Replaced bearing in #1 Generator building exhaust fan.
- Changed oil, filters and lubed John Deere gator.
- Replaced twelve inch valve and broken twelve inch flange and related piping for reservoir cold water line in Nursery room.
- Serviced Carts #3, 4, 5, 6, 10 and 11.
- Serviced electric forklift in Feed Bldg.
- Changed oil, filter and lubed John Deere lawnmower.
- Changed oil and lubed trash rake at intake to main pump house.
- Swept and mopped #1 Generator room.
- Removed and replaced stabilizer screw jacks on pond crowder.
- Cleaned shop work bench and used floor scrubber to clean floor by work bench.
- Changed oil and filter in the “Tiger” trucks.
- Installed two new tires on the front of Cart #5 and one new tire on Cart #11.
- Replaced transmission output seal, repositioned hoist cradle and squared on frame, tightened pin retaining bolters, and replaced hydraulic return hose on boom of boom truck.
- Changed oil in gas powered pressure washer.
- Changed oil, filter, lubed, washed, and vacuumed the Lab Ford pick-up.
- Riverview Construction installed a new curb and gutter in the driveway to House #3.
- Hauled twelve loads of dirt, rock, and chunks of asphalt to the dump.

### *September 2005*

- Cleaned and organized the carpenter, mechanic and welding shops.
- Replaced the hydraulic pump outgoing seal, telescoping guide bushings and attached the man basket swivel handle lock on AMZ-50 man-lift.
- Replaced drive belts on Incubator room’s roof mounted exhaust fans.
- Labeled System I & III effluent ponds draw off valves according to direction of flow.
- Replaced burned out light bulbs in #1 & #2 tunnels.
- Removed old storm door and replaced with new storm door on rear of House #4.
- Removed and replaced weight/load label on hook and mounted plaques for proper hand signals on boom truck.
- Disassembled and removed equipment from old fall Chinook study in incubator room.
- Replaced burned out lights in lab.
- Replaced drive belts on ventilators for rest rooms in the main building.
- Sorted and stowed pipe fittings in pipe storage in Mech I annex.
- Removed old chilled water manifold and replaced with new header system for incubator stacks in incubator room.
- Used the man-lift to vacuum and dust spiders out from around lights and windows of the main Pump House.
- Removed and replaced left engine water heater thermostat on Generator #2.

- Lubed and serviced the overhead crane in the in the main Pump house.
- Vacuumed and cleaned floors in the main Pump house.
- Removed four broken gas bubblers and two broken valves from the nursery drain valve pit.
- Serviced and cleaned battery cables on Cushman Carts #4, 5, and 6.
- Stripped and waxed the stairs, downstairs hallway, break room and maintenance shop office.
- Loaded and hauled eight loads of a mixture of rock, dirt, asphalt and roots to the dump.
- Installed ladders and used the man-lift to help roofing contractors inspect re-roofing project.
- Varnished and installed a new back door and sanded and varnished front door to House #2.
- Sanded and varnished front door to House #1.
- Hauled 3 loads to the dump and one large load to COE bone yard and cleaned up our bone yard.
- Installed covers on trunks of new trees in the visitor parking lot for protection from deer.
- Set out thirteen new shrubs along the left fence of visitor parking lot.
- Built and installed new valve cover plates in walkway in front of main building.
- Replaced brushes on the pond scrubber.
- Made and installed brackets for an underwater camera. Installed the camera in the fish ladder and ran wiring from the fish ladder to a T.V. in the visitor lobby.
- Installed a new valve in chilled water line to furnish chilled water to egg pickers in the Incubator room.
- Installed a new rope on the flag pole.
- Brazed bubbler cans for gas bubblers for Nursery room drain valve pit.
- Refitted clamps and fittings on each end of the rubber hose on the propane fill tank.
- Replaced incubator chiller compressors in the Incubator room.

## Outreach and Visitor Activities

### Statistics

#### Dworshak NFH Visitor Use Statistics, FY2005

Program Type	# of Contacts	% Change From FY2003
<b>On-site</b> Hatchery Visitors (Visitor Register and self-guided tour)	<b>6,710 *</b>	<b>(-8%)</b>
Guided Tours	<b>80 □</b>	<b>+8%</b>
Tour Visitors	<b>1,431 *</b>	<b>+8%</b>
Open House (children 12 & under)	<b>497 *</b>	<b>(-26%)</b>
Open House (other visitors)	<b>994 *</b>	<b>(- 20%)</b>
<b>Total On-Site Contacts (all * )</b>	<b>9,632</b>	<b>(-8%)</b>
<b>Off-site</b> Programs/Displays/Events	<b>210 □</b>	<b>+32%</b>
<b>Total Off-Site Contacts</b>	<b>13,418 * *</b>	<b>+11%</b>
<b>Total FY2005 Programs ( total all □)</b>	<b>290</b>	<b>+24%</b>
<b>Total FY2005 Contacts (* + * *)</b>	<b>23,050</b>	<b>+3%</b>

#### Table Summary

Hatchery visitation (as measured by visitor log and self-guided tours) decreased by 8% from FY04. The decrease was most likely a result of the skyrocketing fuel costs, making Idaho one of the most expensive states to purchase gas/diesel. Those visitors who made the journey to the hatchery were greeted by a full information kiosk in the main hatchery parking lot, and in cases of time or weather constraints, were able to acquire adequate information without completing the self-guided tour.

The Information/Education Office (I/E) provided more guided tours (80) to more visitors (1,431) this year, mainly due to proactive school outreach and scheduling, and the regional interest in Lewis/Clark related events and programs. More tours were possible with newly trained and returning Volunteer Hatchery Hosts. A total of 44 volunteers contributed 381 hours of service towards hatchery programs, including spawning, field work, outreach events and public contact duties. An appreciation/recognition potluck was held for these volunteers at the hatchery in August. I/E Assistant Johnson attended a week-long Volunteer Management Training in August at the FWS training center in West Virginia in order to enhance and build this part of the I/E program.

In contrast to the guided tour/attendance increase, the annual Open House/Kids Fishing Day saw a marked decrease, even though weather and fishing conditions were ideal. One possible

explanation was public confusion over free fishing events sponsored by the Idaho Fish & Game (IDFG), which were held the day after Dworshak's event. Number of children registered was down by 26%, and non-fishing adults/others dropped accordingly by 20%. This was the second lowest attendance since the event was begun in 1991. But those who attended or worked the event felt it went very well, with vendors, exhibitors, staff and volunteers pleased with the manageable, steady turnout.

Outreach and off-site programs continued to grow in all areas this year, with a significant increase in programs offered (+32%; 60 more presentations than FY04). Many of these off-site venues focused on the Lewis and Clark bicentennial theme, as schools and fairs and communities hosted related events. Once again, I/E staffed a learning station at the 4<sup>th</sup> Grade Rendezvous for 1,000+ students at the Nez Perce County Fairgrounds; two 2-day 6<sup>th</sup> grade environmental programs; school outdoor career fairs; public meetings; interagency Earth Day events; the 8<sup>th</sup> Idaho Salmon and Steelhead Days in Boise for 2,300+ 5<sup>th</sup> graders, and the Clearwater County Fair booth (winning a second place ribbon!).

A new after-school program, "Dworshak Extreme Explorers Club" was implemented in Orofino Elementary school, coordinated by DNFH I/E Assistant Johnson, U.S. Army Corps of Engineers (COE)- Dworshak Dam and Idaho State Park (Dworshak) education staff designing curriculum activities and schedules for monthly student programs. Initial participation was overwhelming, averaging 50 students each session. Plans for FY05 are to limit the number and grade level of students.

Probably the most time and effort for outreach in FY05 was spent planning for and coordinating programs for schools from 17 towns for the National Park Service - Corps of Discovery II event in Kamiah. Over 3,400 K – 12<sup>th</sup> grade students attended the 11-day event, along with over 6,000 general public. FWS staff alone presented 57 scheduled talks to 1,425 students out of the new traveling "Lewis and Clark Wildlife Tales" exhibit van from the Regional Office, staffed by an Americorps volunteer. The entire event was tightly coordinated with Federal, state, local and tribal entities, and turned out to be one of the most successful and well-attended in the entire Corps of Discovery II cross-country tour (per National Park Service coordinator and manager).

Other I/E business: public contact and outreach team meetings; training and travel to specific events; editing and evaluating various outreach and education plans and drafts for FWS Fisheries Strategic Plan, other agencies and programs; and completing a new draft of the Region 1-FWS Communications Plan.

Dworshak Spawn Shop sales for FY05 (Oct 1 – Sept 30) were 23% less than FY04, with sales totals of \$1,342, down from \$1,750 last year. Lower revenues could be from lack of the usual brisk sales at the annual Open House event, due to the low overall turnout

Grant projects (all I/E program grants managed by the Friends of Northwest Hatcheries, Inc):

- \$2,500 Idaho Community Foundation (ICF) grant for development of a Lewis/Clark Natural Science education trunk –supplies and trunks purchased, curriculum and activities assembled, completion during winter 2005-06.
- ICF \$1,500 grant for an underwater camera system; all supplies purchased, waiting for lobby TV system to be re-installed in the fall '05, for final connection.
- \$18,500 grant from Idaho Governors Lewis/Clark committee: grant zeroed out by final purchase

of Lewis/Clark native plants for visitor parking lot garden area by kiosk;

- Challenge Cost Share \$10,000 grant remains in the Friends account, and will be combined with new grant (below) for completion of interior visitor balcony exhibit project.
- New Grant: ID Governors L/C Trail Committee, \$13,650 to complete indoor fish and history exhibit on visitor viewing balcony, by June 06.

Hatchery in The Classroom projects went well in all schools, either with their own or DNFH equipment. Only one school had negative results, due to mechanical failure of the air pump and loss of all fry. However, the classroom was restocked with additional fry in time for a field trip and stream release in May. Egg to fry release success averaged 81% - all had post-project release activities at end of the school year with the students and hatchery staff participating. More schools have contacted the hatchery with interest in obtaining their own classroom incubation systems or applying for the HIC project.

Travel and training for the Information/Education staff included:

- Annual fisheries outreach meeting in November '04, Richland, WA
- Hatchery Managers Workshop and Outreach presentation and exhibit in Richland, Wa – Nov.
- Idaho Environmental Education Association annual conference planning committee and presentation in Moscow – University of Idaho (UI) - March.
- Coordinate and staff Idaho Sportsman's Show exhibit booth in Boise – March.
- Annual Open House/Kids Fishing Day event , Dworshak – June.
- Salmon and Steelhead Days in Boise - September.
- Annual Friends of Northwest Hatcheries, Inc. business meeting and membership banquet, Leavenworth, WA – August.
- Corps of Discovery II community event, Kamiah – September (National Park Service and National Guard, + 8 other state, federal, tribal and local agencies).
- Soil Conservation District environmental education outreach events - April and May.
- Governors Lewis and Clark Trail Committee board of directors annual meeting, tour and dinner on hatchery grounds –April.
- Customer Service training, Lewiston – October.

## Cooperative Programs

Dworshak Fisheries Complex personnel (Dworshak National Fish Hatchery, Kooskia National Fish Hatchery, and Idaho Fishery Resource Office) worked closely with the following agencies and groups to accomplish various activities throughout the year:

### Federal Agencies

- Federal Emergency Management Administration (FEMA)
- National Marine Fisheries Service (NMFS)
- National Park Service (NPS)
  - Nez Perce National Historical Park
  - Corps of Discovery II National Planning Team
- National Weather Service
- United States Department of Agriculture (USDA)
  - Clearwater National Forest
  - Clearwater County Extension Office
  - Nez Perce County Extension Office
  - Natural Resource Conservation Service (NRCS)
- United States Army Corps of Engineers (COE), Walla Walla District
  - Dworshak Dam and Reservoir Project
- United States Fish & Wildlife Service (USFWS)
  - Hagerman National Fish Hatchery
  - Lower Snake River Compensation Plan Office
- United States Geological Survey (USGS)
  - Biological Services Division
  - Seattle Research Center
  - Columbia River Research Laboratory

### State Of Idaho

- Idaho Department of Employment
  - Job Service - Orofino
- Idaho Department of Fish & Game (IDFG)
  - Boise Headquarters Office
  - Lewiston Office
  - Salmon Office
  - Clearwater State Hatchery
- Idaho Department of Lands
- Idaho Environmental Education Association
- Idaho Parks and Recreation Department
  - Dworshak State Park
- Idaho State Historical Preservation Office (SHPO)
- Idaho Historical Society
- Lewis-Clark State College
- Clearwater Economic Development Association
- University of Idaho (U of I)
  - Cooperative Fishery Research Unit (CFRU)
  - School of Forestry, Wildlife and Range Sciences
  - Aquaculture Research Center

## Idaho Water Resources Research Institute

### **State of Washington**

- Washington State University (WSU)  
Bear and Eagle Research Unit

### **Tribal Entities**

- Coeur d'Alene Tribe
- Nez Perce Tribe
  - Fisheries
  - Cultural and Natural Resources Division
  - Nez Perce Tribe Executive Council
- Kootenai Tribal Fisheries

### **Public Utilities**

- Bonneville Power Administration (BPA)
- Clearwater Power Company (CPC)
- Idaho Power

### **Local Government**

- Clearwater County Sheriff's Office (CCSO)
- Clearwater County Soil Conservation District
- Joint School District #171
- Latah Soil Conservation District
- Nez Perce Soil Conservation District
- Orofino Chamber of Commerce

### **Special Interest Groups**

- Friends of Northwest Hatcheries, Inc.
- Idaho Community Foundation
  - Northern Region Grant Program
- Idaho Food Commodity Program
- Kiwanis Club
- Orofino Lewis/Clark Bicentennial Committee
- Project WET, Idaho
- Pulp and Paperworkers Resource Council (PPRC)
- Retired Senior Volunteer Program (RSVP)
- Rotary Club

### **Other**

- Lewis-Clark Recyclers
- Latham's Meats
- NADL/Simmons Recycling