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Priest Rapids Complex John Day Mitigation Operations and Maintenance Annual Report Reporting Period July 1, 2012 to June 30, 2013

by Mike Lewis, Glen Pearson, and Mike Erickson

Washington Department of
FISH AND WILDLIFE
Fish Program
Hatcheries Division

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STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE

PRIEST RAPIDS COMPLEX
JOHN DAY MITIGATION

OPERATIONS AND MAINTENANCE
ANNUAL REPORT

July 1, 2012 – June 30, 2013

Prepared For
U.S. Army Corps of Engineers

By

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Table of Contents

List of Figures

List of Tables

Introduction

The U.S. Army Corps of Engineers (USACE) is required to provide mitigation for the loss of fall Chinook salmon spawning habitat caused by the inundation associated with the construction and operation of John Day and The Dalles dams. Specifically, the USACE funds hatchery production of upriver-bright (URB) and tule fall Chinook smolts to replace lost natural production. This hatchery production is known as John Day/The Dalles Mitigation (JDM).

In 1992, the Washington Department of Fish and Wildlife (WDFW) and the USACE, in agreement with Grant County Public Utility District (GCPUD), began rearing and releasing 1.7 million JDM fall Chinook salmon at the Priest Rapids Hatchery (PRH). USACE funding for this program initially was limited to purchasing fish food.

In 1996, a cooperative agreement was signed by USACE, WDFW, the National Marine Fisheries Service (NMFS) and U.S. Bureau of Reclamation (USBR) to share the facilities at Ringold Springs Rearing Facility (RSRF) to increase JDM fall Chinook salmon releases upstream of McNary Dam and the Snake River. The USACE agreed to provide funds to transfer 3.5 million (M) pre-smolts from Bonneville Hatchery (operated by Oregon Dept. of Fish & Wildlife) and to acclimate and release them at RSRF. Subsequent releases demonstrated that RSRF could successfully rear fall Chinook smolts for the JDM program. The RSRF program continues today at the existing capacity, which ranges from 3.5 to 5.5M fall Chinook smolts, depending on fish size. However, the abundant gravity water supply will support substantially more capacity and is currently being studied by USACE for expansion.

In May 2008, Washington, Oregon, Idaho, federal fishery agencies, and the treaty tribes agreed to a new, *U.S. v. Oregon* 10-year Columbia River Fish Management Plan (CRFMP), which is a detailed harvest and hatchery fish production plan. The CRFMP parties jointly develop harvest sharing and hatchery management plans that are entered as orders of the court and are binding on the parties.

In 2009, the WDFW entered into a new funding agreement with the USACE for the production of upriver bright (URB) fall Chinook salmon at both PRH and RSRF. WDFW will produce JDM fish for USACE provided adequate funding, eggs and PRH hatchery space are available annually. Current goals at PRH include rearing and releasing approximately 1.7M smolts on-station. Also, the Hatchery Scientific Review Group (HSRG) finalized their work on the mainstem Columbia River and recommended that the PRH broodstock be used for the RSRF program rather than Bonneville Hatchery mid-Columbia bright fall Chinook. PRH has been trapping adults, spawning, incubating and transferring approximately 3.7M eyed eggs to Bonneville Hatchery for the RSRF program since the fall of 2008.

Project Location

Figure 1. Project Area Map.

The Hanford Reach is a 56-mile segment of the Columbia River located between the upstream end of McNary Dam reservoir and Priest Rapids Dam. It is the only sizeable unimpounded reach of the mainstem Columbia River upstream of Bonneville Dam. Fall Chinook salmon continued to successfully use Hanford Reach spawning and rearing habitat as other production areas became inundated by reservoirs. The Hanford Reach contains the most significant area of URB fall Chinook salmon production in the mainstem Columbia River and are considered a higher quality food fish compared to the lower Columbia River tule fall Chinook salmon.

Broodstock collection, adult holding, spawning, incubation, rearing, and release occur at the PRH on the Columbia River at river mile (RM) 397. Release of sub-yearling smolts from the RSRF is at river mile (RM) 352.

Facilities

Figure 2. RSRF shop and residence, 9-acre pond, vinyl raceways, and fish trap.

The RSRF 9-acre earthen rearing pond gravity water supply is primarily from the "18-inch Diversion" and "Lower Diversion", which divert spring water collected in the ditch along the upstream side of the Ringold Road visible in Fig. 2. The pond has one outlet with direct discharge into the hatchery creek (visible at right). Visible above the 9-acre pond are the 14 vinyl raceways. The gravity water supply for the vinyl raceways comes from the "Main Diversion", which also diverts from the collection ditch above the county road. The raceways can provide re-use for the 9-acre pond or discharge directly into the hatchery outlet creek. These ponds are in need of replacement.

Figure 3. RSRF 9-acre pond, outlet structure, fish trap, 2 concrete raceways and 32 blue round tanks.

RSRF's adult fish trap consists of two picket weirs constructed in the hatchery outlet creek (visible in Fig. 3). The downstream weir has a v-shaped fish entrance which allows upstream movement of fish while preventing downstream movement.

Two concrete raceways are located next to an array of blue plastic round tanks. The concrete raceways were constructed with USACE funding following the signing of the 1996 cooperative agreement. The original purpose was to study the relative smolt-to-adult survival of fall Chinook produced in concrete raceways compared to the 9-acre earthen rearing pond. These raceways are still used primarily for fall Chinook and the round tanks are primarily used for warm water species. The water supply for all these rearing vessels comes from the Lower Diversion.

Figure 4. RSRF – Walter's Ponds and the 5-Acre Pond (upper left), USBR Ringold irrigation wasteway (center), and the five Meseberg warmwater ponds (right).

Ringold's 5-acre rearing pond is a horseshoe-shaped earthen pond. The gravity water supply, known as the "Steelhead Diversion", is also located next to the county road, but is separate from the RSRF Main Diversion and Lower Diversion. This pond has a concrete flume downstream of the outlet structure which allows the use of an electronic fish counter for enumerating steelhead smolts at release.

The Meseberg Warm Water facility has 5 rearing ponds. The water supply for these ponds comes from the Lower Diversion. Two of these ponds are lined and the others have earth bottoms.

Figure 5. Priest Rapids Hatchery and the original spawning channel.

The original spawning channel at PRH was constructed to voluntarily attract adult fall Chinook and provide natural spawning habitat. Fish failed to use the channel as designed and this resulted in modifications to the channel and ultimately 5 rearing ponds were constructed in the upper end of the channel. These ponds are used today for Grant County PUD's mitigation obligation as well as rearing 1.7M fall Chinook for the USACE.

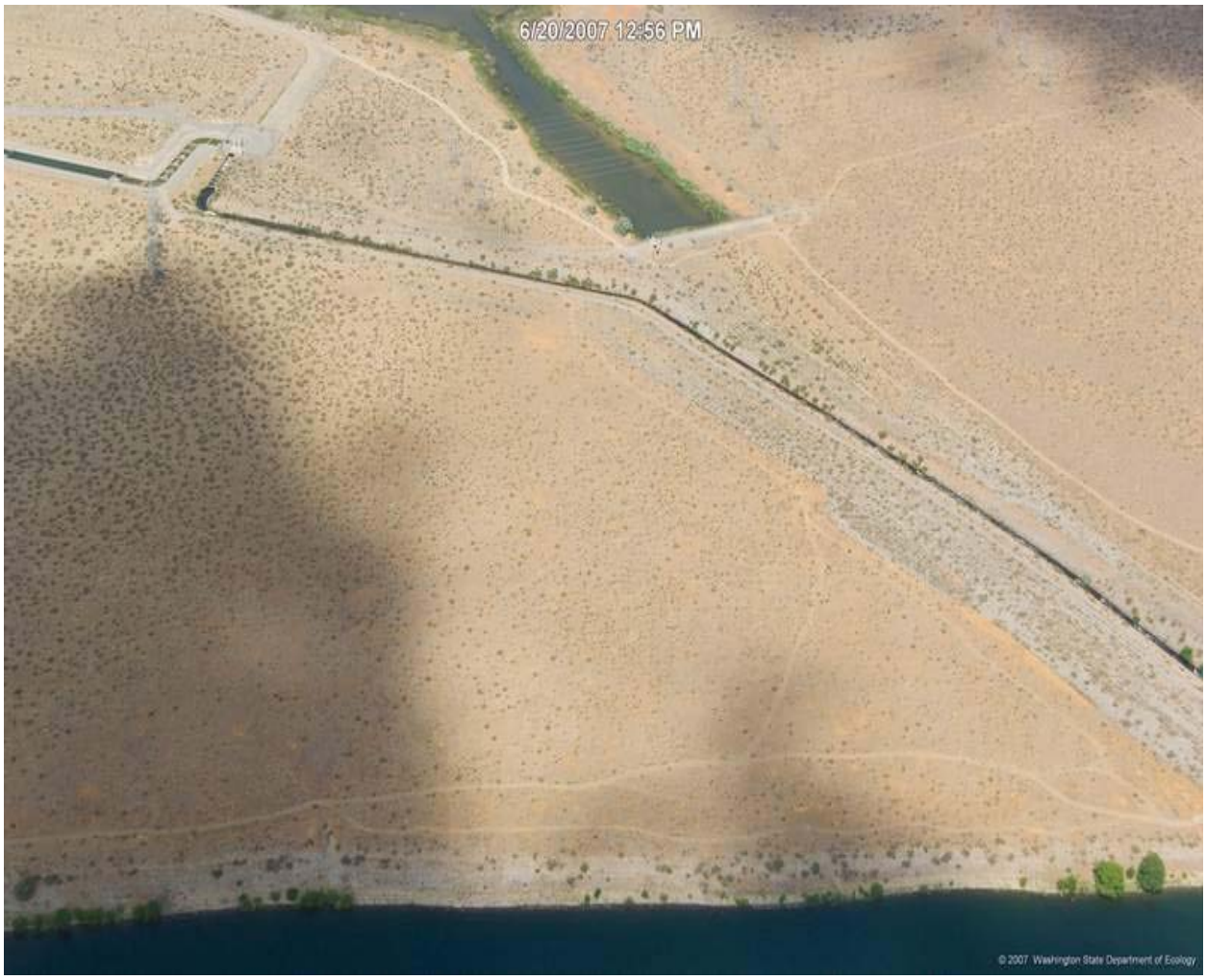

Figure 6. Existing volunteer trap at Priest Rapids Hatchery on Jackson Creek outlet channel.

The adult volunteer trap at PRH is located on the Jackson Creek hatchery outlet channel about one mile from the Columbia River and consists of a barrier weir at the upper end and a finger weir at the lower end.

Figure 7. Jackson Creek

Jackson Creek is the hatchery outlet and is located at Columbia River mile 396.

Fish Culture Activities (PRH)

Adult Trapping and Brood Stock

The 2012 trapping season occurred at three locations: 1) the Jackson Creek volunteer trap, 2) at the Priest Rapids Dam Off-Ladder Adult Fish Trap (OLAFT), which is located on the east side of the dam, and 3) angler-caught fish from the Hanford Reach. The OLAFT's primary function is to conduct research for migrating adult salmon and steelhead, however it is also being used to trap natural-origin broodstock for the hatchery.

The 2012 PRH fall Chinook collection at the volunteer trap consisted of 18,903 adults and 9,155 jacks (Appendix 1). Fish were held in three channel ponds and the season mortality was 2,716(9.6%).

The 2012 PRH fall Chinook collection at the OLAFT and the Hanford Reach consisted of 540 adults and 50 jacks. These fish were held in their own pond and the season mortality was 52 fish (8.8%).

Total egg take was 12.4M green eggs. A total of 7.1M eyed eggs were retained for all the PRH programs, including the 1.7M smolt on-site JDM production. A total of 3.7M eyed eggs were shipped to Bonneville Hatchery for the RSRF JDM program.

Table 1. Spawning Summary.

DATE SPAWNED	NUMBER OF EGGS TAKEN	NUMBER OF MALES	NUMBER OF FEMALES	NUMBER OF JACKS
10/22/12	710,900	193	193	0
10/29/12	1,334,849	386	738	1
11/05/12	2,015,686	266	570	1
11/06/12	2,405,697	249	476	0
11/13/12	3,362,900	372	775	28
11/19/12	565,042	163	333	2
11/26/12	2,605,589	66	142	2
12/03/12	321,393	3	7	0
TOTAL	**12,398,389**	**1,698**	**3,234**	**34**

NOTE: 181 non-viable females are included in this table.

Rearing Summary

In addition to GCPUD hatchery production, 1,730,959 USACE - JDM fish were reared and released from the channel ponds June 12 - 16, 2013. They averaged 46.6 fish per pound (FPP), for a total of 37,145 pounds planted. These fish were 100 percent adipose fin-clipped and 41,091 fish were PIT-tagged by GCPUD and USACE – JDM. Also, USFWS PIT-tagged 2,992 fish prior to release. Predation from birds was typical, with hazing efforts doing little to deter aggressive feeding behavior. Fish loss due to bird predation was estimated at 12,500.

Table 2. Production Summary

Fry Ponded

Total number of fry ponded	1,741,911
Total pounds of fry ponded	1,742 lbs.

Rearing to Fingerling Stage

Number of sub-yearling smolts released	1,730,959
Total pounds released	37,145
Percent survival from ponding to release	97.9
Average size (fish/lbs.)	46.5

Food Fed and Weight Gain

Total pounds of food fed	21,648
Conversion rate	0.61 to 1
Total pounds gained	35,414

Length Frequency Data (Average)

Mean (mm.)	94.5
Standard Deviation	7.26
Coefficient of Variation	7.6

Fish Health Summary

On March 23, 2013, the Fish Health Specialist (FHS) examined 6 fish from channel pond 2. No external lesions or parasites were observed. Gills were clear of bacteria or parasites and internal organs were normal. The overall diagnosis was that the BY12 fish were “healthy”.

On April 29, 2013, the FHS examined 8 fish from channel pond 4. No external lesions or parasites were observed. Gills were clear of bacteria or parasites and internal organs were normal. The overall diagnosis was that the BY12 fish were “healthy”.

On May 28, 2013, the FHS examined 6 fish from channel pond 3, and 5 fish from channel pond 6, the last health check before release. No external lesions or parasites were found. Gills were clear of bacteria or parasites. One fish from channel pond 6 had pale liver, other fish had normal

livers. Other internal organs were normal. The overall diagnosis of fish was "healthy" and the FHS recommended releasing the fish as planned.

Release Summary

Fish releases occurred between June 12 and June 16, 2012. Table 3 provides data specific to rearing pond, dates, number of fish released, weight of the fish, and fish size. All fish released from PRH are volitionally released through the hatchery outlet channel (i.e. Jackson Creek).

Table 3. 2011 PRH Release Summary

POND	DATE	LOCATION	NUMBER	WEIGHT	FISH / LB.
C6	6/12/13	Columbia R.	1,543,229	31,113	49.6
C5	6/13/13	Columbia R	688,840	15,799	43.6
C4	6/14/13	Columbia R.	1,482,305	32,940	45.0
C3	6/15/13	Columbia R.	1,505,063	32,159	46.8
C2	6/16/13	Columbia R.	1,603,424	34,556	46.4
	TOTALS		**6,822,861**	**146,567**	**46.5**

Note: This table includes releases for both the USACE's and GCPUD's programs.

Fish Culture Activities (RSRF)

Adult Trapping and Brood Stock

Trapping of adult fall Chinook was performed at the RSRF hatchery trap on a daily basis from October 1 through mid-December, 2012. RSRF fish move volitionally through a picket weir (with a V-notch) into Spring Creek Channel where an upstream picket weir contains the adults. Weekly efforts (see appendix 1) to collect the adults from the trap consist of seining the fish to one corner of the trap and sorting them by gender into totes. Sampling of each fish is done by a crew checking for a coded wire tag and any visual marks. The fish are categorized as AD-ONLY, AD+CWT, CWT-ONLY and UM (unmarked). Scales and lengths were collected from every twentieth fish to determine age and to develop the "size-at-age" relationship for each age class. All fall Chinook that return to RSRF are surplused, meaning none of the returns are currently used for broodstock. Initially, broodstock for the RSRF program was collected at Bonneville Hatchery, but it was switched to Priest Rapids Hatchery/Hanford Reach stock in 2008. This broodstock was selected because it was derived from the native Hanford Reach natural population.

The 2012 RSRF trap return consisted of 5,324 adults and 2,067 jacks. Mortality was disposed of in the local landfill and the remainder donated (surplused).

Brood information relative to origin, fish size, and condition can be found in the 2012 RSRF Hatchery M&E report.

Table 4. RSRF Trapping Summary

Adults	Males	Females	Jacks
Mortality	69	42	46
Carcass Distribution	3,789	1,424	2,021
Total	3,858	1,466	2,067

Rearing Summary

In May 2013 we received 3,328,672 Priest Rapids stock Fall Chinook at ≈127 FPP from Bonneville Hatchery. The fish were distributed into two rearing ponds, the 9-acre pond received 2,331,945 and the 5-acre received 996,727. The fish were sampled often and a computerized growth projection program assisted in establishing the feeding rate. Fish releases occurred from the 9 and 5-acre ponds on Jun 19th thru July 3rd 2013. These fish were 100% adipose fin clipped.

Staff put forth great efforts deterring avian predators using propane cannons, electric fence around the perimeter of the ponds, and two types of noise makers---pistols that fire "screamers" and bird "bangers". Still, a 5 percent loss was mostly attributed to avian predation. Fish health was excellent and growth was consistent with the projected estimates.

Table 5. Production Summary

Fry Ponded

Total number of fry ponded	3,328,672
Total pounds of fry ponded	26,127

Rearing to Fingerling Stage

Number of fingerlings released	3,247,373
Total pounds of fingerlings released	65,249
Percent survival from ponding to release	95.1
Average size (fish/lb.) of fingerlings released	49.8

Food Fed and Weight Gain

Total pounds of food fed	28,688
Conversion rate	0.73 to 1
Total pounds of gain	39,122

Length Frequency Data (Average)

Mean (mm.)	96.07
Standard Deviation	5.99
Coefficient of Variation	6.23

Fish Health Summary

On May 30, 2013 the Fish health Specialist examined 6 fish from both the 9-acre and the 5-acre ponds. No external parasites or lesions were found. Gills were normal without bacteria or parasites and internal organs were normal. The overall diagnosis of fish was “Healthy”. It was recommended to release fish as planned.

Maintenance and Capital Projects

Work Performed by WDFW Maintenance Crew

1. The maintenance crew constructed a new domestic pump house replacing the old one in November 2012.
2. The crew performed road grading activities around hatchery grounds and added gravel at south trap access gate to control dust.
3. Re-wired irrigation pump for resident #2; performed by contract vendor August 2012.
4. Cleaned carpets in resident #2; performed by contract vendor July 2012.
5. Installed water level alarm upstream of trap due to vegetation build up in the spring creek between the trap and gravity water source.
6. Replaced utility box on GMC 1-ton pickup truck with flat bed for more versatility around hatchery grounds, including the use of a blow feeder.

Work Performed by the RSRF Staff

1. Spread additional gravel around trap area.

2. Continued to control trees and vegetation from around RSRF's Main Intake above-ground pipelines.

3. In-stream work removing aquatic vegetation and silt in the primary spring water collection ditch along the county road.

4. Continued noxious weed spraying efforts.

5. Applied calcium chloride in front of RSRF shop and office to control dust.

6. Added 3-24' galvanized poles to center of 9 acre rearing pond to string additional monofilament across pond with flash ribbon in an effort to deter avian predators.

7. Replaced irrigation pump at Resident #2

8. Painted interior of resident #2.

9. Tractor disking of both dewatered earthen rearing ponds for disease and weed control.

10. Regular maintenance to earthen pond outlet structure drum screens and stop logs.

11. Electric fence maintenance around 9-acre pond to deter wading bird predation.

12. Replaced outlet boards for 9 acre pond.

Summary

The hatchery operations during this reporting period should be considered typical for these facilities. The brood year 2012 fall Chinook handled the release extremely well. The extremely large earthen ponds at RSRF continue to be challenging to staff in preventing avian predation. We will continue normal fish culture practices to include frequent growth sampling and monitoring feed practices, adjusting as needed.

Budgets (PRH)

Priest Rapids Hatchery July 1, 2012 – June 30, 2013

PRIEST RAPIDS HATCHERY							
OPERATIONS AND MAINTENANCE BUDGET REQUEST							
July 1, 2012 through June 30, 2013							
A. Salaries					**Direct**	**Indirect**	**Grand Total**
		Regional Fish Program Manager	0.7 MM	Pos # 70069636	1,756	498	
		Fish Health Staff	1.33 MM	Pos # 70068264	2,438	691	
		Complex Manager	10 MM	Pos # 70068842	20,758	5,887	
		Hatchery Specialist 4	12.24 MM	Pos # 70068703	19,719	5,592	
		Hatchery Specialist 3	12.24 MM	Pos # 70068705	16,991	4,819	
		Hatchery Specialist 2	12.24 MM	Pos # 70069141	14,673	4,161	
		Hatchery Specialist 2	9 MM	Pos # 70068709	9,914	2,812	
		Fish Hatchery Technician (3)	27.54MM	Pos # 70068887	21,603	6,127	
				Salaries SubTotal	**107,853**	**30,587**	**138,439**
B. Benefits							
		Regional Fish Program Manager	0.7 MM	Pos # 70069636	790	224	
		Fish Health Specialist	1.33 MM	Pos # 70068264	1,097	311	
		Complex Manager	10 MM	Pos # 70068842	9,341	2,649	
		Hatchery Specialist 4	12.24 MM	Pos # 70068703	8,873	2,516	
		Hatchery Specialist 3	12.24 MM	Pos # 70068705	7,646	2,168	
		Hatchery Specialist 2	12.24 MM	Pos # 70069141	6,603	1,873	
		Hatchery Specialist 2	9 MM	Pos # 70068709	4,461	1,265	
		Fish Hatchery Technician (3)	27.54MM	Pos # 70068887	9,722	2,757	
				Benefits SubTotal	**48,534**	**13,764**	**62,298**
E. Goods and Services							
		Supplies and Materials			3,139	890	
		NPDES Permit			1,260	357	
		Utilities			4,097	1,162	
		Repairs and Maintenance			3,780	1,072	
		Personnel Services			1,188	337	
		Training (Pesticide Licencing/CDL)			540	153	
		Formalin			30,588	8,675	
		Kelly Services (Security Guards)			10,196	2,892	
		Fish Health			896	254	
	ACOE	Fish Marking (1.717M Ad only 48/1000)			82,416	23,373	
	ACOE	Pass thru			161,993	45,941	
				SubTotal	**300,093**	**85,106**	
	ACOE	Fish Food			40,597	N/A	
				Goods & Services SubTotal	**340,690**	**85,106**	**425,796**
G. Travel							
		Lodging, Per Diem, and Mileage			1,080	306	
				Travel SubTotal	**1,080**	**306**	**1,386**
J. Capital Equipment							
					0	N/A	
				Capital Projects and Equipment SubTotal	**0**	**N/A**	**0**
K. Contract Services							
		Computer rental			360	102	
				Contract Services SubTotal	**360**	**102**	**462**
T. Overhead							
		28.36% of Total Excluding Fish Food				129,866	
		and Capital Projects					
				GRAND TOTAL	**498,516**	**129,866**	**628,382**

Figure 8. Priest Rapids Hatchery Operating Budget

Expenditures (PRH)

Priest Rapids hatchery July 1, 2012 – June 30, 2013

Allotment Expenditure Status by Program Index

Report Number: AE04 — Date Run: Oct 11, 2013 1:31 PM
Biennium: 2013 — Transactions Through: Oct 10, 2013 8:00PM

Program Index: 53327 — Allotment Content: Approved & Adjusted — As of Fiscal — Adj FY2 * — Expenditure Content: Cash, Accr(all), Encum
(For a complete listing of all input parameter values, please see the last page of the report)

Program Index 53327 - Priest Rapids O&m John D Mit Fy13

	BTD Allot/Act/Var	FY1TD Allot/Act/Var	FY2TD Allot/Act/Var	Total Bien Allot - Bien Actual = Bien	Amounts by (FY2) Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun *
Total for Program Index By Staff																
Allotment:	**30.35**	**0.00**	**30.35**		**30.35**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**
Actual:	**25.11**	**0.00**	**25.11**		**25.11**	**1.08**	**1.18**	**2.31**	**2.05**	**2.23**	**2.35**	**2.11**	**2.38**	**3.49**	**2.38**	**2.38**
Variance:	**5.24**	**0.00**	**5.24**		**5.24**	**1.45**	**1.35**	**0.22**	**0.48**	**0.30**	**0.18**	**0.42**	**0.15**	**(0.96)**	**0.15**	**0.15**
By FTE																
Total for Program Index By FTE																
Allotment:	**1.26**	**0.00**	**2.53**		**1.26**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**	**2.53**
Actual:	**1.05**	**0.00**	**2.09**		**1.05**	**1.08**	**1.18**	**2.31**	**2.05**	**2.23**	**2.35**	**2.11**	**2.38**	**3.49**	**2.38**	**2.38**
Variance:	**0.22**	**0.00**	**0.44**		**0.21**	**1.45**	**1.35**	**0.22**	**0.48**	**0.30**	**0.18**	**0.42**	**0.15**	**(0.96)**	**0.15**	**0.15**
By Account/Expenditure Authority																
001 - General Fund																
020 - Gf-Federal-Salaries and Expenses	0		498,516	498,516	27,385	27,385	27,926	39,062	39,062	39,064	35,664	28,063	41,595	82,803	82,597	
	498,516			480,257	7,117	8,301	13,019	63,345	15,701	49,997	79,971	44,601	22,705	21,045	121,430	
	480,257	0	480,257	18,259	20,268	19,084	14,907	(24,283)	23,361	(10,933)	(44,307)	(16,538)	18,890	61,758	(38,833)	
	18,259	0	18,259													
Total for Program Index By Account/Expenditure Authority																
Allotment:	**498,516**	**0**	**498,516**	**498,516**	**27,385**	**27,385**	**27,926**	**39,062**	**39,062**	**39,064**	**35,664**	**28,063**	**41,595**	**82,803**	**82,597**	
Actual:	**480,257**	**0**	**480,257**	**480,257**	**7,117**	**8,301**	**13,019**	**63,345**	**15,701**	**49,997**	**79,971**	**44,601**	**22,705**	**21,045**	**121,430**	
Variance:	**18,259**	**0**	**18,259**	**18,259**	**20,268**	**19,084**	**14,907**	**(24,283)**	**23,361**	**(10,933)**	**(44,307)**	**(16,538)**	**18,890**	**61,758**	**(38,833)**	
By Object																
A - Salaries and Wages	0		99,439	99,439	7,847	7,847	8,314	8,393	8,393	8,393	8,393	8,432	8,432	8,432	8,432	8,252
	99,439			96,666	5,067	5,451	6,031	8,474	7,700	7,990	8,582	7,763	8,614	14,580	8,401	
	96,666	0	96,666	2,773	2,780	2,396	2,283	(81)	693	403	(189)	669	(182)	(6,148)	(149)	
	2,773	0	2,773													
B - Employee Benefits	0		43,922	43,922	3,595	3,595	3,667	3,678	3,678	3,678	3,678	3,684	3,684	3,684	3,684	3,657
	43,922			40,777	1,989	2,142	2,248	3,807	3,380	3,801	3,764	3,406	3,694	5,599	3,517	
	40,777	0	40,777	3,145	1,606	1,453	1,419	(129)	298	(123)	(86)	278	(10)	(1,915)	140	
	3,145	0	3,145													
E - Goods and Other Services	0		355,155	355,155	15,943	15,943	15,945	26,991	26,991	26,993	23,593	15,947	29,479	70,687	70,688	
	355,155			341,482	61	614	4,486	51,064	4,591	37,968	67,495	33,431	10,255	694	109,371	
	341,482	0	341,482	13,673	15,882	15,329	11,459	(24,073)	22,400	(110,975)	(43,902)	(17,484)	19,224	69,993	(38,683)	
	13,673	0	13,673													
G - Travel	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	0			993	993	95	140	0	31	185	130	0	142	0	141	
	993	0	993	(993)	0	(95)	(140)	0	(31)	(185)	(130)	0	(142)	0	(141)	
	(993)	0	(993)													
J - Capital Outlays	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
	0			339	339	0	114	0	0	53	0	0	0	172	0	
	339	0	339	(339)	0	0	(114)	0	0	(53)	0	0	0	(172)	0	
	(339)	0	(339)													
Total for Program Index By Object																
Allotment:	**498,516**	**0**	**498,516**	**498,516**	**27,385**	**27,385**	**27,926**	**39,062**	**39,062**	**39,064**	**35,664**	**28,063**	**41,595**	**82,803**	**82,597**	
Actual:	**480,257**	**0**	**480,257**	**480,257**	**7,117**	**8,301**	**13,019**	**63,345**	**15,701**	**49,997**	**79,971**	**44,601**	**22,705**	**21,045**	**121,430**	
Variance:	**18,259**	**0**	**18,259**	**18,259**	**20,268**	**19,084**	**14,907**	**(24,283)**	**23,361**	**(10,933)**	**(44,307)**	**(16,538)**	**18,890**	**61,758**	**(38,833)**	

Figure 9. Priest Rapids Expenditures

RINGOLD SPRINGS REARING FACILITY							
OPERATIONS AND MAINTENANCE BUDGET REQUEST							
July 1, 2012 through June 30, 2013							
A. Salaries					**Direct**	**Indirect**	**Grand Total**
		Complex Manager	.5 MM	Pos # 70068842	297	84	
		Hatchery Specialist 4	2.5 MM	Pos # 70068703	10,850	3,077	
		Hatchery Specialist 3	3.5 MM	Pos # 70068705	13,090	3,712	
		Hatchery Specialist 2	3.5 MM	Pos # 70069141	11,305	3,206	
				Salaries SubTotal	**35,542**	**10,080**	**45,621**
B. Benefits							
		Complex Manager	.5 MM	Pos # 70068842	133	38	
		Hatchery Specialist 4	2.5 MM	Pos # 70068703	4,883	1,385	
		Hatchery Specialist 3	3.5 MM	Pos # 70068705	5,891	1,671	
		Hatchery Specialist 2	3.5 MM	Pos # 70069141	5,087	1,443	
				Benefits SubTotal	**15,994**	**4,536**	**20,529**
E. Goods and Services							
		Supplies and Materials			29,374	8,330	
		NPDES Permit			0	0	
		Utilities			0	0	
		Repairs and Maintenance			0	0	
		Personnel Services			0	0	
		Training (Pesticide Licencing/CDL)			0	0	
		Formalin			0	0	
		Kelly Services (Security Guards)			0	0	
		Fish Health			0	0	
				SubTotal	**29,374**	**8,330**	
	ACOE	Fish Food			36,195	N/A	
				Goods & Services SubTotal	**65,569**	**8,330**	**73,899**
G. Travel							
		Lodging, Per Diem, and Mileage			0	0	
				Travel SubTotal	**0**	**0**	**0**
J. Capital Equipment							
					0	N/A	
				Capital Projects and Equipment SubTotal	**0**	**N/A**	**0**
K. Contract Services							
		Computer rental			0	0	
				Contract Services SubTotal	**0**	**0**	**0**
T. Overhead							
		28.36% of Total Excluding Fish Food				22,946	
		and Capital Projects					
				GRAND TOTAL	**117,104**	**22,946**	**140,050**
Budget is up 11K due to fish food increase and increase in indirect							

Figure 10. Ringold Springs Operating Budget

Expenditures (RSRF)

Ringold Springs Rearing Facility July 1, 2012 – June 30, 2013

Report Number: AE04
Biennium: 2013

Date Run: Oct 11, 2013 1:10: PM
Transactions Through: Oct 10, 2013 8:00PM

Program Index: 53349

Allotment Content: Approved & Adjusted
As of Fiscal
Adj FY2*
Expenditure Content: Cash, Accr(all), Encum
(For a complete listing of all input parameter values, please see the last page of the report)

Program Index: 53349 - Ringold Springs John Day Mit Fy13

	BTD Allot/Act/Var	FY1TD Allot/Act/Var	FY2TD Allot/Act/Var	Total Bien Allot - Bien Actual = Bien	Amounts by (FY2) Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun *
Total for Program Index By Staff																
Allotment:	**10.00**	**0.00**	**10.00**	**10.00**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**
Actual:	**7.87**	**0.00**	**7.87**	**7.87**	**0.72**	**0.67**	**0.61**	**0.73**	**0.66**	**0.62**	**0.71**	**0.67**	**0.66**	**0.69**	**0.60**	
Variance:	**2.13**	**0.00**	**2.13**	**2.13**	**0.11**	**0.16**	**0.22**	**0.10**	**0.17**	**0.21**	**0.12**	**0.16**	**0.17**	**0.14**	**0.23**	
By FTE																
Total for Program Index By FTE																
Allotment:	**0.42**	**0.00**	**0.83**	**0.42**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**	**0.83**
Actual:	**0.33**	**0.00**	**0.66**	**0.33**	**0.72**	**0.67**	**0.61**	**0.73**	**0.66**	**0.62**	**0.71**	**0.67**	**0.66**	**0.69**	**0.60**	
Variance:	**0.09**	**0.00**	**0.18**	**0.09**	**0.11**	**0.16**	**0.22**	**0.10**	**0.17**	**0.21**	**0.12**	**0.16**	**0.17**	**0.14**	**0.23**	
By Account/Expenditure Authority																
001 - General Fund																
020 - Of-Federal-Salaries and Expenses	117,104	0	117,104	117,104	6,724	6,724	6,724	6,724	6,724	6,724	6,724	6,724	6,724	6,724	6,724	33,869
	112,565	0	112,565	112,565	4,672	4,719	6,247	6,955	4,440	4,865	5,034	5,456	7,170	7,502	6,337	
	4,539	0	4,539	4,539	2,052	2,005	477	(231)	2,284	1,859	1,690	1,268	(446)	(778)	27,532	
Total for Program Index By Account/Expenditure Authority																
Allotment:	**117,104**	**0**	**117,104**	**117,104**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**33,869**
Actual:	**112,565**	**0**	**112,565**	**112,565**	**4,672**	**4,719**	**6,247**	**6,955**	**4,440**	**4,865**	**5,034**	**5,456**	**7,170**	**7,502**	**6,337**	
Variance:	**4,539**	**0**	**4,539**	**4,539**	**2,052**	**2,005**	**477**	**(231)**	**2,284**	**1,859**	**1,690**	**1,268**	**(446)**	**(778)**	**27,532**	
By Object																
A - Salaries and Wages	35,983	0	35,983	35,983	2,985	2,985	2,985	2,985	2,985	2,985	2,985	2,985	2,985	2,985	2,985	2,985
	31,986	0	31,986	31,986	2,946	2,680	2,534	2,972	2,641	2,501	2,780	2,771	2,649	2,714	2,476	
	3,997	0	3,997	3,997	39	305	451	13	344	484	205	214	336	271	509	
B - Employee Benefits	15,060	0	15,060	15,060	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
	13,478	0	13,478	13,478	1,233	1,153	1,095	1,259	1,105	1,081	1,124	1,142	1,106	1,138	1,033	
	1,582	0	1,582	1,582	17	97	155	(9)	145	169	126	108	144	112	217	
E - Goods and Other Services	66,061	0	66,061	66,061	2,489	2,489	2,489	2,489	2,489	2,489	2,489	2,489	2,489	2,489	2,489	29,634
	59,580	0	59,580	59,580	493	886	2,618	2,433	693	1,283	1,130	1,543	2,304	3,381	2,829	
	6,481	0	6,481	6,481	1,996	1,603	(129)	56	1,796	1,206	1,359	946	185	(892)	26,805	
J - Capital Outlays	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4,077	0	4,077	4,077	0	0	0	292	0	0	0	0	1,111	270	0	0
	(4,077)	0	(4,077)	(4,077)	0	0	0	(292)	0	0	0	0	(1,111)	(270)	0	0
T - Intra-Agency Reimbursements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3,444	0	3,444	3,444	0	0	0	0	0	0	0	0	0	0	0	0
	(3,444)	0	(3,444)	(3,444)	0	0	0	0	0	0	0	0	0	0	0	0
Total for Program Index By Object																
Allotment:	**117,104**	**0**	**117,104**	**117,104**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**6,724**	**33,869**
Actual:	**112,565**	**0**	**112,565**	**112,565**	**4,672**	**4,719**	**6,247**	**6,955**	**4,440**	**4,865**	**5,034**	**5,456**	**7,170**	**7,502**	**6,337**	
Variance:	**4,539**	**0**	**4,539**	**4,539**	**2,052**	**2,005**	**477**	**(231)**	**2,284**	**1,859**	**1,690**	**1,268**	**(446)**	**(778)**	**27,532**	

Figure 11. Ringold Springs Expenditures

Appendix 1: Weekly Escapement Estimates

Table 6. Escapement Estimates for Priest Rapids Hatchery Fall Chinook

Stock_ID	Date of report	Lethal Spawned	Adults Shipped	Mortality	On hand	Jack total	Comments
Priest Rapids	11-Sep-12	0	640	8	225	327	First report of the season.
Priest Rapids -W	10-Sep-12	0	0	0	74	7	
Priest Rapids -W	17-Sep-12	0	0	0	125	16	
Priest Rapids	19-Sep-12	0	2406	41	722	1405	
Priest Rapids-W	23-Sep-12	0	0	3	160	22	
Priest Rapids	24-Sep-12	0	4076	51	1066	1884	
Priest Rapids-W	30-Sep-12	0	0	5	249	33	
Priest Rapids	30-Sep-12	0	6241	136	1180	3264	
Priest Rapids -W	8-Oct-12	0	0	6	326	35	
Priest Rapids	9-Oct-12	0	11391	582	2361	5409	
Priest Rapids-W	11-Oct-12	0	0	10	344	37	
Priest Rapids	14-Oct-12	0	12772	920	2259	2134	
Priest Rapids-W	22-Oct-12	4	0	11	410	42	
Priest Rapids	23-Oct-12	382	15965	1298	3794	7251	
Priest Rapids-W	30-Oct-12	17	0	14	484	46	
Priest Rapids	30-Oct-12	1494	18295	1735	3150	7896	
Priest Rapids-W	6-Nov-12	104	0	15	433	51	
Priest Rapids	7-Nov-12	2969	19621	2104	2023	8556	
Priest Rapids-W	10-Nov-12	104	0	21	427	51	
Priest Rapids	9-Nov-12	2969	20261	2155	2122	8903	
Priest Rapids-W	17-Nov-12	473	0	45	68	51	
Priest Rapids	18-Nov-12	3775	20632	2395	1117	9142	
Priest Rapids-W	26-Nov-12	531	0	46	13	51	
Priest Rapids	26-Nov-12	4425	20965	2573	48	9155	
Priest Rapids-W	3-Dec-12	536	0	51	4	51	
Priest Rapids	3-Dec-12	4430	20966	2664	0	9155	

Table 7. Escapement Estimates for Ringold Springs Rearing Facility Fall Chinook

Stock_ID	Date of report	Adults Shipped	Mortality	On hand	Jack total	Total Eggtake	Comments
Priest Rapids	24-Oct-12	4268	3	1078	0	0	First report of the season.
Priest Rapids	31-Oct-12	5713	11	0	1433	0	
Priest Rapids	7-Nov-12	6714	37	0	1787	0	
Priest Rapids	14-Nov-12	7172	64	0	2032	0	
Priest Rapids	28-Nov-12	7172	151	0	2048	0	
Priest Rapids	30-Nov-12	7234	156	0	2066	0	
Priest Rapids	8-Dec-12	7234	157	0	2067	0	