

STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE

**PRIEST RAPIDS COMPLEX
JOHN DAY MITIGATION**

**OPERATIONS AND MAINTENANCE
ANNUAL REPORT**
July 1, 2015 – June 30, 2016



Prepared For
U.S. Army Corps of Engineers

By

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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 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 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 4M 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 un-impounded 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-lined 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 water for the 9-acre pond or discharge directly into the hatchery outlet creek. These 50-year old “temporary” raceways 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 vee-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 (hatchery outlet and adult volunteer channel) at Columbia River mile 397.

Fish Culture Activities (PRH)

Adult Trapping and Brood Stock

The 2015 trapping season occurred at three locations: 1) the Jackson Creek volunteer trap, 2) the Priest Rapids Dam Off-Ladder Adult Fish Trap (OLAFT), which is located on the east side of the dam, and 3) the Hanford Reach Angler Broodstock Collection program (ABC). 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 brood stock for the hatchery.

The 2015 PRH fall chinook collection at the volunteer trap consisted of 60,492 adults and 3,498 jacks (Appendix 1). Of these fish, 6,005 were retained for broodstock and held in three holding ponds. Pond mortality was 796 (1.3%).

Fall chinook collection at the OLAFT and during the ABC consisted of 975 adults. These fish were held in their own pond and the mortality was 240 fish (24.6%).

Total egg take was 13,556,790 green eggs. A total of 7,555,452 eyed eggs were retained for all the PRH programs, including the 1.7M smolt on-site JDM production. A total of 4,212,443 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
10/26/15	592,485	103	164	0
10/27/15	693,522	99	182	0
11/2/15	1,555,538	218	430	0
11/3/15	2,557,981	360	694	0
11/4/15	744,834	104	206	0
11/9/15	2,703,749	234	822	0
11/10/15	1,141,338	108	324	0
11/11/15	25,802*	0	8*	0
11/12/15	1,993,698	257	572	0
11/16/15	991,443	126	271	0
11/23/15	499,756	79	154	0
11/30/15	52,860	14	15	0

12/7/15	3,784	1	1	0
TOTAL	13,556,790	1,703	3,843	0

NOTE: 137 non-viable females are included in table 1. *A fecundity study was done with these eggs and were culled after study.

Rearing Summary

In addition to GCPUD hatchery production, 1,641,623 USACE - JDM fish were reared and released from the channel ponds from June 16-23, 2016. The smolts averaged 48.7 fish per pound (FPP), for a total of 33,708 pounds released. These fish were 100% adipose fin-clipped and 40,000 fish were PIT-tagged by GCPUD and USACE – JDM. The USFWS also PIT-tagged another 3,000 smolts prior to release.

During this production cycle, PRH staff noticed elevated mortality in all channel ponds just prior to release, but the total rearing period mortality was 5.0%...slightly lower than the 5.7% that occurred in 2015. Mortality and inventory adjustments resulted in a 58,800 smolt deficit in the JDM release relative to the 1,700,000 release goal. WDFW’s Fish Health Unit performed a necropsy prior to release and found small levels of the parasite *Ichthyophthirius* (Ich) and *Columnaris* bacterial disease. However, the overall diagnosis for the smolt population as a whole was “healthy and ready for release”. Fish Health’s recommendation was to monitor fish mortality and behavior, but release fish on schedule.

Table 2. USACE JDM Production Summary

Fry Pondered

Total number of fry pondered	1,728,546
Total pounds of fry pondered	1,728 lbs.

Rearing to Smolt Stage

Number of sub-yearling smolts released	1,641,623
Total pounds released	33,708
Percent survival from ponding-to-release	95.0
Average size (fish/lbs.)	48.7

Food Fed and Weight Gain

Total pounds of food fed	22,261
Conversion rate	0.5 to 0.7
Total pounds gained	31,875

Length Frequency Data (Average)

Mean (mm.)	92.22
Standard Deviation	5.66

Fish Health Summary

On February 24, 2016 a WDFW fish health specialist examined seven fish from raceway E3. All fish were diagnosed with no external lesions or parasites found. Gills were normal without bacteria or parasites and internal organs were normal. The overall diagnosis for the fish was “healthy”.

On March 15, PRH staff noted a slight increase in mortality in raceway A6. A WDFW fish health specialist examined nine fish from this raceway and found coagulated yolk, secondary dermatitis, and flag tail. Recommendations were to monitor loss and contact fish health if mortality did not begin to decline. Shortly after the fish health examination, mortality started to decline and returned to “normal”.

On June 15, a final inspection was performed by WDFW Fish Health. The overall diagnosis was “healthy fish and ready for release”. However, a mild infection of *Ich* and *Columnaris* was noted in 5 of the 15 fish examined. Overall, the general population had good body condition, with adequate fat stores. Fish Health recommended releasing the fish as soon as possible. It was also recommended to monitor fish health closely and if mortality began to increase again, then release all fish immediately.

Release Summary

Fish releases occurred between June 16 and June 23, 2016. 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. 2014 PRH Release Summary

POND	DATE	LOCATION	NUMBER	WEIGHT (lbs.)	FISH /LBS
RPE	6/16/15	Columbia R.	1,445,638	31,633	45.7
RPD	6/18/15	Columbia R	1,451,210	29,082	49.9
RPC	6/20/15	Columbia R.	1,507,068	30,323	49.7
RPB	6/22/15	Columbia R.	1,511,615	30,415	49.7
RPA	6/23/15	Columbia R.	1,325,635	27,333	48.5

	TOTALS		7,241,166	148,689	48.7
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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 returning fall chinook at RSRF occurred on a daily basis from mid-September through mid-December. RSRF fish move volitionally through a picket weir (with a V-notch) into Ringold Spring Creek where an upstream picket weir contains the adults. Weekly effort to collect the adults from the trap consists of seining the fish to one corner and sorting them by gender into totes (see appendix 1). Sampling of each fish is performed by a monitoring and evaluation (M&E) 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 20th fish to determine the age and average fork length for each age class. All fall chinook that return to RSRF are surplused, meaning no fish are used as brood stock. Initially the broodstock for the program was Bonneville Hatchery (BH) upriver bright fall chinook stock because the JDM production was produced at BH except for the last 45 days of rearing/acclimation at RSRF before release. The broodstock was switched to Priest Rapids/Hanford Reach stock in 2008 at the urging of the Hatchery Scientific Review Group (HSRG). This broodstock was selected because it is the native stock in the Columbia R. adjacent to RSRF where returning adults may contribute to the natural spawning population in the Hanford Reach.

The 2015 return to the trap consisted of 14,976 adults and 381 jacks. Mortality was disposed of in the local landfill and the remainder was surplused to WDFW's contractor.

Brood information relative to origin, fish size, and condition can be found in the 2015 RSRF M&E report.

Table 4. RSRF Trapping Summary

Adults	Males	Females	Total Adults	Jacks
Mortality	70	51	121	2
Surplused	9,014	5,841	14,855	379
Total	9,084	5,892	14,976	381

Rearing Summary

In May 2016, we received 3,748,650 Priest Rapids stock fall chinook at ≈116 fpp from Bonneville Hatchery. The fish were distributed into the two earthen rearing ponds. The 9-acre pond received 2,667,935 and the 5-acre received 1,080,715. They were sampled often and a

computerized growth projection program assisted in establishing the feeding rate. Fish releases occurred from the two ponds beginning on June 23rd thru July 3rd. JDM smolts were 100% adipose-clipped. A total of 137,572 mortalities occurred during the rearing/acclimation at RSRF. An estimated 90,000 occurred during transport from Bonneville Hatchery. This loss was not included in the total (net) number of fish received above.

An additional 47,572 mortalities were attributed to avian predation losses prior to release. Nevertheless, RSRF staff expended a great amount of effort to deter avian predators. Measures included the use of propane cannons, an electric fence around the perimeter of the ponds, and hand-held revolvers that project anti-bird “screamer” and “banger” pyrotechnics.

Table 5. RSRF Production Summary

Fry Pondered

Total number of fry pondered	3,658,650 ^a
Total pounds of fry pondered	30,702 lbs.

^a Total number pondered less 90,000 from initial transport losses.

Rearing to Sub-yearling Smolt Stage

Number of smolts released	3,611,078
Total pound released	68,198
Percent survival from pondering to release	98.7
Average size (fish/lbs.) of fingerlings released	53.0

Food Fed and Weight Gain

Total pounds of food fed	28,760
Conversion rate	0.767 to 1
Total pounds of gain	37,496

Length Frequency Data (Average)

Mean (mm)	94
Standard Deviation	5.4
Coefficient of Variation	5.75

Fish Health Summary

On June 15, 2016 WDFW’s fish health specialist examined 5 fish from both the 5-acre and the 9-acre pond. 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 Crews

1. Graded hatchery and access roads.
2. Upgraded rotating drum screen on 9-acre rearing pond outlet to include full service, chain replacement and increase rotation speed.
3. WDFW dive crew assisted with removal of an estimated 90,000 in-transit mortalities that were delivered and released into the 9-acre pond by ODFW. Divers removed 100% of these morts about two days after they were inadvertently dumped into the pond. Removal of these mortalities was extremely important to prevent an outbreak of botulism.

Work Performed by the RSRF Staff

1. Spread additional gravel around hatchery grounds.
2. In-stream work removing aquatic vegetation and silt in the primary spring water collection ditch along the county road.
3. Continued noxious weed spraying efforts.
4. Placed shot rock around water supply riser pipes in the 9-acre pond to improve riser structural integrity and for erosion reduction.
5. Tractor disking of both dewatered earthen rearing ponds for disease and weed control.
6. Regular maintenance to earthen pond outlet structure drum screens and stop logs.
7. Additional monofilament and flash ribbon to both the 5-acre and 9-acre rearing ponds to reduce avian predation.

Work Performed by contract vendor

1. Tree pruning and removal at Resident #1 by Top Tree Tree Service, Richland, WA.
2. Septic pumping and repairs to Resident #1 by Roto-Rooter septic service.

Summary

The hatchery operations during this reporting period should be considered typical for these facilities. The BY2015 fall chinook handled the release 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.

Expenditures (PRH)

OFM

477 - Department of Fish and Wildlife

Expenditure Summary Flexible

Report Number: EXF02

Fiscal Months: Jul FY1

Through: Adj FY1

Date Run: Aug 30, 2016 7:23AM

Biennium: 2017

Transactions Through: Aug 29, 2016 8:00PM

	Disbursements	Liquidations	Accruals	Encumbrances	Total
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By Object					
A - Salaries and Wages	148,499.32	0.00	0.00	0.00	148,499.32
B - Employee Benefits	64,167.36	0.00	0.00	0.00	64,167.36
E - Goods and Other Services	355,523.53	0.00	10,238.95	0.00	365,762.48
G - Travel	2,938.25	0.00	406.40	0.00	3,344.65
J - Capital Outlays	4,234.91	0.00	0.00	0.00	4,234.91
T - Intra-Agency Reimbursements	0.00	0.00	35,830.40	0.00	35,830.40
Total for Agency					
By Object	575,363.37	0.00	46,475.75	0.00	621,839.12

If accruals and liquidations are included on the same report, the amounts in the total column may be distorted.

Budgets (RSRF)

USACE JDM @ Ringold Springs								
OPERATIONS AND MAINTENANCE BUDGET REQUEST								
July 1, 2015 through June 30, 2016								
15-Apr-15								
						Direct	Indirect	Grand Total
A. Salaries								
	Regional Fish Program Manager						0	
	Fish Health Supervisor						0	
	Fish Health Specialist						0	
	Complex Manager	0.8 SM	Pos # 70068842	Mikel Lewis		4,290	1,244	
	Hatchery Specialist 4	4 SM		Mike Erickson		17,909	5,194	
	Hatchery Specialist 3	4 SM		Richard French		14,959	4,338	
	Hatchery Specialist 1	4 SM		Nate Roberts		9,113	2,643	
	Hatchery Specialist 2	4 SM		Bruce Ault		12,916	3,746	
	Fish Hatchery Technician	3 SM		TBD		6,228	1,806	
				Salaries SubTotal		65,415	18,970	84,385
B. Benefits								
	Regional Fish Program Manager						0	
	Fish Health Supervisor						0	
	Fish Health Specialist						0	
	Complex Manager	0.8 SM	Pos # 70068842	Mikel Lewis		1,931	560	
	Hatchery Specialist 4	4 SM		Mike Erickson		8,059	2,337	
	Hatchery Specialist 3	4 SM		Richard French		6,732	1,952	
	Hatchery Specialist 1	4 SM		Nate Roberts		4,101	1,189	
	Hatchery Specialist 2	4 SM		Bruce Ault		5,812	1,686	
	Fish Hatchery Technician	3 SM		TBD		2,803	813	
				Benefits SubTotal		29,437	8,537	37,973
E. Goods and Services								
	Supplies and Materials					7,000	2,030	
	Communications					1,800	522	
	Utilities					2,200	638	
	Repairs and Maintenance					0	0	
	Rentals and Leases					350	102	
	Vehicle Maint and operating costs					8,000	2,320	
	NPDES Permit					1,166	338	
	Personnel Services					771	224	
	Training (Pesticide Licencing/CDL)					300	87	
	Formalin					0	0	
	Kelly Services (Security Guards)					0	0	
				SubTotal		21,587	6,260	27,847
	USACE	Fish Food				42,500	N/A	
				Goods & Services SubTotal		64,087	6,260	70,347
G. Travel								
	Lodging, Per Diem, and Mileage					0	0	
				Travel SubTotal		0	0	0
J. Capital Equipment								
	Fish Counter						N/A	0
				Capital Projects and Equipment SubTotal		0	0	0
K. Contract Services								
	Computer rental					0	0	
				Contract Services SubTotal		0	0	0
T. Indirect								
	29% of Total Excluding Fish Food							
				GRAND TOTAL		158,939	33,767	192,706

Figure 9. Ringold Springs Operating Budget

Expenditures (RSRF)

OFM

477 - Department of Fish and Wildlife

Expenditure Summary Flexible

Report Number: EXF02

Fiscal Months: Jul FY1

Through: Adj FY1

Date Run: Aug 30, 2016 7:29AM

Biennium: 2017

Transactions Through: Aug 29, 2016 8:00PM

By Object	Disbursements	Liquidations	Accruals	Encumbrances	Total
A - Salaries and Wages	60,893.85	0.00	0.00	0.00	60,893.85
B - Employee Benefits	25,923.58	0.00	0.00	0.00	25,923.58
E - Goods and Other Services	40,131.63	0.00	3,281.18	0.00	43,412.81
G - Travel	3,725.44	0.00	0.00	0.00	3,725.44
J - Capital Outlays	4,982.45	0.00	0.00	0.00	4,982.45
T - Intra-Agency Reimbursements	15,688.52	0.00	0.00	0.00	15,688.52
Total for Agency					
By Object	151,345.47	0.00	3,281.18	0.00	154,626.65

If accruals and liquidations are included on the same report, the amounts in the total column may be distorted.

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(H)	9/7/15-9/13/15	0	91	2	19	15	First report for season
Priest Rapids(W)	9/7/15-9/13/15	0	0	0	0	0	
Priest Rapids(H)	9/14/15-9/20/15	0	1907	8	324	198	
Priest Rapids(W)	9/14/15-9/20/15	0	0	18	16	0	
Priest Rapids(H)	9/21/15-9/27/15	0	3402	23	1057	288	
Priest Rapids(W)	9/21/15-9/27/15	0	0	0	123	0	
Priest Rapids(H)	9/28/15-10/4/15	0	4385	37	1703	383	
Priest Rapids(W)	9/28/15-10/4/15	0	0	1	228	0	
Priest Rapids(H)	10/5/15-10/11/15	0	5485	23	2272	562	
Priest Rapids(W)	10/5/15-10/11/15	0	0	0	259	0	
Priest Rapids(H)	10/12/15-10/18/15	0	6292	33	2851	399	
Priest Rapids(W)	10/12/15-10/18/15	0	0	0	307	0	
Priest Rapids(H)	10/19/15-10/25/15	0	11016	63	3547	547	
Priest Rapids(W)	10/19/15-10/25/15	0	0	0	328	0	
Priest Rapids(H)	10/26/15-11/1/15	541	10496	111	4014	499	
Priest Rapids(W)	10/26/15-11/1/15	4	0	16	851	0	
Priest Rapids(H)	11/2/15-11/8/15	1943	6367	189	2031	240	
Priest Rapids(W)	11/2/15-11/8/15	34	0	31	859	0	
Priest Rapids(H)	11/9/15-11/15/15	1844	3801	293	1040	248	
Priest Rapids(W)	11/9/15-11/15/15	410	0	34	341	3	
Priest Rapids(H)	11/16/15-11/22/15	251	1148	251	261	34	
Priest Rapids(W)	11/16/15-11/22/15	128	0	94	115	0	
Priest Rapids(H)	11/23/15-11/29/15	162	109	130	21	3	
Priest Rapids(W)	11/23/15-11/29/15	61	0	50	2	0	
Priest Rapids(H)	11/30/15-12/6/15	22	13	1	3	1	
Priest Rapids(W)	11/30/15-12/6/15	7	0	4	3	0	
Priest Rapids(H)	12/7/15-12/14/15	1	0	2	0	0	
Priest Rapids(W)	12/7/15-12/14/15	1	0	2	0	0	Final in season estimate

Table 6. Escapement Estimates for Ringold Springs Rearing Facility Fall Chinook

Stock_ID	Date of report	Lethal Spawned	Adults Shipped	Mortality	On hand	Jack total	Comments
Priest Rapids	9/15/15-9/22/15	0	1636	0	0	74	First report of the season.
Priest Rapids	9/23/15-9/29/15	0	2337	0	0	62	
Priest Rapids	9/30/15-10/6/15	0	534	0	0	22	
Priest Rapids	10/7/15-10/13/15	0	2881	0	0	76	
Priest Rapids	10/14/15-10/20/15	0	1739	0	0	40	
Priest Rapids	10/21/15-10/27/15	0	1688	0	0	37	
Priest Rapids	10/28/15-11/3/15	0	2173	0	0	27	
Priest Rapids	11/4/15-11/10/15	0	1461	26	0	26	.
Priest Rapids	11/11/15-11/17/15	0	388	18	0	14	
Priest Rapids	11/18/15-11/24/15	0	76	9	0	2	
Priest Rapids	11/25/15-12/1/15	0	11	0	0	0	
Priest Rapids	12/2/15-2/14/16	0	0	0	0	0	Final in-season estimate.