Fish Passage Center

Weekly Report #13 - 04

April 12, 2013

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Summary of Events:

Water Suply: Precipitation throughout the Columbia Basin has varied between 112% and 242% of average at individual sub-basins over the first portion of April. Precipitation above The Dalles has been 165% of average over April. Over the 2013 water year, precipitation has ranged between 80% and 119% of average.

Table 1. Summary of April precipitation and cumulative October through April 8, 2013 precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2013 April 1-8, 2013		Water Year 2013 October 1, 2012 to April 8, 2013	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.67	151	16.72	114
Snake River Above Ice Harbor	0.60	155	10.22	96
Columbia Above The Dalles	0.72	165	15.02	102
Kootenai	0.75	161	17.94	119
Clark Fork	0.37	112	9.87	106
Flathead	0.47	112	14.52	115
Pend Oreille/ Spokane	1.00	165	20.95	101
Central Washington	0.41	242	6.19	102
Snake River Plain	0.34	122	5.12	80
Salmon/Boise/ Payette	0.70	163	11.82	90
Clearwater	1.07	151	19.27	100
SW Washington Cascades/Cowlitz	3.06	215	54.25	99
Willamette Valley	2.47	191	47.96	103

Snowpack within the Columbia Basin has generally been slightly below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 92% of average, for Snake River Basins the average snowpack is 76% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 80% of average.

Table 2 displays the March 7th and April 7th ESP runoff volume forecasts for multiple reservoirs. The April 7th forecast at The Dalles between January and July is 94,287 Kaf (93% of average).

Table 2. March and April ESP Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	March 7, 2013 ESP		April 7, 2013 ESP	
	% Average (1971-2000)	Runoff Volume (Kaf)	% Average (1971-2000)	Runoff Volume (Kaf)
The Dalles (Jan-July)	88	89675	93	94287
Grand Coulee (Jan-July)	91	54403	101	60415
Libby Res. Inflow, MT (Apr-Aug)	97	5727 *6315	102	6001 *6189
Hungry Horse Res. Inflow, MT (Jan-July)	92	1937	99	2084
Lower Granite Res. Inflow (Apr- July)	84	16612	83	16485
Brownlee Res. Inflow (Apr-July)	70	3834	62	3376
Dworshak Res. Inflow (Apr-July)	93	2239 *2128	96	2319 *2036

*** Denotes COE Forecast**

Grand Coulee Reservoir is at 1278.0 feet (4-11-13) and drafted 1.5 feet over the last week. The current April 30th FC Elevation at Grand Coulee is 1258.5 feet. Outflows at Grand Coulee have ranged between 101.2 and 176.5 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2398.7 feet (4-11-13) and has refilled 3.2 feet last week. The current April 30th FC Elevation at Libby is 2411.8 feet. Outflows at Libby Dam have been 4.0 Kcfs last week.

Hungry Horse is currently at an elevation of 3536.0 feet (4-11-13) and has drafted 0.6 feet last week. The current April 30th FC Elevation at Hungry Horse is 3532.6 feet. Outflows at Hungry Horse have ranged between 6.1and 9.3 Kcfs last week.

Dworshak is currently at an elevation of 1566.0 feet (4-11-13) and has refilled 3.7 feet last week. The current April 30th Flood Control Elevation is 1568.5 feet. Outflows from Dworshak have been 9.9 Kcfs over past week.

The Brownlee Reservoir was at an elevation of 2058.1 feet on April 11th, 2013 refilling 1.7 feet over the last week. The current April 30th FC Elevation at Brownlee is 2071.2 feet. Over the last week, inflows at Brownlee have ranged between 12.3 and 14.0 Kcfs.

The Biological Opinion flow period began on April 3rd in the lower Snake River (Lower Granite). According to the April Final Water Supply Forecast, the flow objective this spring is 85 Kcfs at Lower Granite. Flows at Lower Granite Dam from April 3-11 have averaged 66.6 Kcfs.

Based on the April Final Water Supply Forecast, the Spring Biological Opinion Flow Objectives will be 226 Kcfs at McNary Dam (began April 10th) and 135 Kcfs at Priest Rapids Dam (began April 10th). Flows at McNary Dam have averaged 271.0 Kcfs between April 10-11. Flows at Priest Rapids Dam have averaged 205.8 Kcfs between April 10-11.

Spill: Spill for fish passage began on April 3rd at the lower Snake River projects.

Project	Spill Level Day/Night
Lower Granite	20 Kcfs/20 Kcfs
Little Goose	30%/30%
Lower Monumental	Gas Cap/Gas Cap
Ice Harbor	April 3-April 28: 45 kcfs/Gas Cap April 28-June 20: 30%/30% vs. 45 kcfs/Gas Cap

At Lower Granite Dam, spill to the Court Order began on April 3rd and has been approximately 20 Kcfs, with some higher spill levels on April 8-9. At Little Goose Dam spill has been provided to the 30% of instantaneous flow level as specified in the Court Order, with some hours exceeding the 30% on April 8-9. At Lower Monumental Dam the Court Order calls for spill to the gas cap. The COE increased spill to 30 Kcfs, which has resulted in total dissolved gas (TDG) levels less than the gas cap of 120% TDG in the tailrace, and less than 115% at the Ice Harbor forebay. At Ice Harbor Dam the Court Order calls for 45 Kcfs spill during the day and gas cap spill at night. At present flows all water in excess of the operation of one turbine unit is being spilled at night as allowed by the Court Order. TDG levels have remained far below the gas cap in the Ice Harbor tailrace.

Spill for fish passage at the Lower Columbia projects began on April 10th.

Project	Spill Level Day/Night
McNary	40%/40%
John Day	**Pre-test:** 30%/30% **Testing:** 30%/30% vs. 40%/40%
The Dalles	40%/40%
Bonneville	100 Kcfs/100 Kcfs

Spill has exceeded the Court Order at McNary Dam over the past week as a result of unit outages and flow in excess of hydraulic capacity. At John Day Dam spill either met or exceeded the Court Order. At The Dalles and Bonneville dams, spill met the Court Order.

There have been no TDG measurements that exceed the waiver limits at the Snake River projects since spill began on April 3rd. The McNary Dam tailwater monitor exceeded the 120% waiver on April 9th as a result of uncontrolled spill, but no other exceedences occurred this past week in the lower Columbia River.

Smolt Monitoring: This week marked the beginning of Smolt Monitoring Program activities at McNary Dam (MCN). MCN was the last SMP site to begin monitoring activities for the 2013 season.

This week's bypass samples at BON were dominated by Coho juveniles. The daily average passage index for coho was about 2,900 per day this week, which a large increase from last week's daily average passage index of about 110 per day. The majority (98.6%) of the coho in this week's collections were clipped, which indicates that they were of hatchery origin. Yearling Chinook passage at BON also

increased this week. This week's daily average passage index at BON for yearling Chinook was about 1,440 per day. The daily average passage index from last week was only 150 per day. Although still relatively low, passage numbers for sockeye and steelhead also increased this week. This week's daily average passage index for sockeye and steelhead at BON were about 90 and 350 per day, respectively. Subyearling Chinook passage also increased this week. The daily average passage index for subyearling Chinook this week was about 725 per day. As with past weeks, nearly all (97.5%) subyearling Chinook collected at BON this week were fry. Finally, BON collected both pacific lamprey ammocoetes and macropthalmia this week. Pacific lamprey ammocoete collections were relatively low this week. The daily average collection for pacific lamprey macropthalmia was about 50 per day this week. This is an increase from last week's daily average collection of about 35 per day.

Among salmonids, yearling Chinook were the dominate species at JDA this week. This week's daily average passage index for yearling Chinook was about 1,125 per day, which is an increase over last week's daily average passage index of about 100 per day. Steelhead passage also increased this week. This week's daily average passage index for steelhead was about 700 per day. Last week's daily average passage index was only abot 100 per day. As with last week, only a few sockeye, coho, and Chinook fry were sampled this week at JDA. Both pacific lamprey ammocoetes and macropthalmia were sampled at JDA this week. However, the majority of the lamprey that were sampled this week were macropthalmia. In fact, passage of pacific lamprey macropthalmia increased this week, when compared to last week. The daily average collection for pacific lamprey macropthalmia this week was nearly 840 per day.

McNary Dam (MCN) began sampling this week, with the first sample available on April 7th. Sampling occurs every-other-day at MCN until transportation begins in the summer. So far, yearling Chinook have dominated the bypass sample at MCN. For the three samples that were conducted this week, the daily average passage index for yearling Chinook was just over 1,500 per day. Steelhead were the second most dominant species in this week's samples, with a daily average passage index of about 475 per day. The daily average passage index for coho was nearly 200 per day this week. Chinook fry had a daily average passage index of about 60 per day this week. To date, no sockeye/kokanee have been collected at MCN this year. Finally, the only juvenile lamprey that have been collected at MCN were pacific lamprey macropthalmia. This week's daily average collection for pacific lamprey macropthalmia was 50 per day.

Yearling Chinook continued to dominate the bypass sample at LGR this week, with a daily average passage index of nearly 15,000 per day. Passage of yearling Chinook at LGR increased this week, as last week's daily average passage was about 4,000 per day. As with previous weeks, about 76% of the yearling Chinook juveniles sampled at LGR this week were of known hatchery origin, which means that they either had fin clips or were unclipped but had coded-wire-tags. Steelhead passage also increased this week, when compared to last week. This week's daily average passage index for steelhead was about 4,325 per day. Last week's daily average was only about 640 fish per day. Chinook fry, coho, and sockeye/kokanee passed LGR in relatively low numbers this week. Finally, both pacific lamprey ammocoetes and macropthalmia were collected at LGR this week. Pacific lamprey ammocoetes were collected on April 7th while pacific lamprey macropthalmia were collected on April 7th and April 11th.

Sampling at LMN and LGS remains limited until transportation begins. This limited sampling is every three days at LMN (for condition subsample only) and every five days at LGS (full 24-hour sample). At both sites, yearling Chinook and steelhead dominated the samples this week. Finally, both sites had pacific lamprey macropthalmia in their samples this week but no pacific lamprey ammocoetes.

Collections at Rock Island Dam continued to be relatively low this week. Of the few salmonids that were collected at RIS this week, subyearling Chinook and steelhead tended to dominate. Nearly all (99%) of the subyearling Chinook that were collected at RIS this week were fry. Although subyearling Chinook and steelhead dominated the collections this week, at least a few of all the other species (i.e., yearling Chinook, coho, and sockeye) were also collected this week. Finally, both pacific lamprey ammocoetes and macropthalmia were collected this week. One pacific lamprey ammocoete was collected on April 7th. Pacific lamprey macropthalmia collections were low but at least one was macropthalmia was collected nearly every day this week.

The Grande Ronde Trap continued to collect mostly yearling Chinook this week. However, the daily average collections for yearling Chinook at GRN continued to decrease this week. This week's daily average collection for yearling Chinook was about 450, compared to last week's daily average collection of about 680 per day. Of the yearling Chinook that were collected at this trap this week, approximately 85% were of known hatchery origin, which means that they either had fin clips or were unclipped but had coded-wire-tags. In addition to yearling Chinook, the Grande Ronde Trap sampled a few Chinook fry and steelhead juveniles this week. However, steelhead collections at GRN seem to be increasing in recent days.

The Salmon River Trap continued to collect mostly yearling Chinook this week. In fact, yearling Chinook collections increased this week, when compared to last week. The daily average collection for yearling Chinook this week was about 1,970 per day. Last week's daily average collection for yearling Chinook was about 1,625 per day. Although still relatively low, steelhead collections at the Salmon River Trap also increased this week. The daily average collection for steelhead this week was 60 per day.

Yearling Chinook and steelhead dominated the collections at the Snake River Trap this week. The daily average collections for yearling Chinook and steelhead this week were 20 and 67 per day, respectively. These daily average collections represented a decrease in passage for yearling Chinook and in increase in passage for steelhead, when compared to last week. A few Chinook fry and coho were also collected at the Snake River Trap this week.

Yearling Chinook collections increased significantly on March 31st and remained high through April 5th. These increased collections coincided with a release of hatchery yearling Chinook to the Imnaha River. In fact, approximately 97% of the yearling Chinook that were collected between March 31st and April 5th were clipped, indicating hatchery origin. Steelhead collections have increased over the past two weeks. Finally, a total of five pacific lamprey ammocoetes were collected at the Imnaha Trap over the last couple of weeks, one on April 1st, one on April 2nd, one on April 5th, and two on April 8th. The Imnaha Trap has not collected any pacific lamprey macropthalmia since March 18th.

Hatchery Release:

Snake River Zone: The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. Approximately 639,000 yearling fall Chinook were scheduled for release into this zone this week. Of these, about 77% were scheduled for release from Lyons Ferry Hatchery, below Little Goose Dam. The remaining 23% were scheduled to be released from Pittsburg Landing Acclimation Facility, which is located on the Snake River above Lower Granite Dam. In addition, approximately 266,000 yearling spring Chinook juveniles were scheduled for release into this zone this week. Of these, approximately 51% were scheduled for release into the Grande Ronde River and 49% were scheduled for release into the Wallowa River. Finally, nearly 4.0 million summer steelhead juveniles were scheduled for release into this zone this week. These steelhead releases were scheduled throughout the Snake River Zone, including: 1) the Salmon River (40%), 2) the Clearwater River and its tributaries (37%), 3) the Grande Ronde River (13%), and 4) the Wallowa River (9%).

On or around April 14th, approximately 150,000 yearling fall Chinook will be released from the Big Canyon Creek Acclimation Facility on the Clearwater River. This is the last release of yearling fall Chinook for this zone in 2013. The only other new releases that are scheduled for this zone over the next two weeks are of summer steelhead. In all, just over 2.7 million summer steelhead are scheduled to be released in this zone over the next two weeks. These releases are scheduled to take place throughout this river zone, including: 1) the Clearwater River (54%) and its tributaries, 2) the Salmon River (39%), 3) the Snake River below Hells Canyon Dam (5%), and 4) the Tucannon River (2%).

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. There were only a three new releases of juvenile salmonids scheduled for this week. The first was a release of about 25,000 yearling fall Chinook from Prosser Acclimation Pond. These yearling fall Chinook are 100% unmarked but are tagged with PIT-tags. The second was a release of about 186,000 summer steelhead from Ringold Spring Hatchery, which began on April 12th. Finally, 84,000 summer steelhead were scheduled to be released from the Dayton Acclimation

Pond on the Touchet River on or around April 10th.

There are several releases of juvenile salmonids scheduled for this zone over the next two weeks. Just over 3.4 million yearling spring Chinook are scheduled for release to this zone over the next two weeks. Of these, about 64% are scheduled for release into the Wenatchee River while the remaining 36% are scheduled for release into the Methow River. In addition, nearly 3.1 million yearling summer Chinook are scheduled for release into this zone over the next two weeks. These summer Chinook releases are scheduled to occur throughout the Upper Columbia, including: directly to the Upper Columbia River (30%), the Wenatchee River (25%), the Okanogan River (19%), the Methow River (14%), and the Entiat River (12%).

For 2013, the Yakama Tribal Program to reintroduce coho to the Yakima, Methow, and Wenatchee rivers is expected to release approximately 2.56 million coho juveniles. Of these, approximately 40% will be released to the Yakima River, 38% will be released to the Wenatchee River, 18% will be released to the Methow River, and 4% will be released directly to the Mid-Columbia River from Wells Hatchery. All coho juveniles that are released as part of this program are unclipped but most (~85%) are tagged with coded-wire and/or blank wire tags. Most of these coho releases are volitional, many of which are scheduled to begin in the next two weeks. Over the next two weeks, nearly 1.7 million of these coho are expected to be released in this zone. Of the releases that are expected to begin over the next two weeks, approximately 42% are scheduled for the Yakima River, 40% are scheduled for the Wenatchee River, and 18% are scheduled for the Methow River.

Finally, just over 754,000 summer steelhead are scheduled for release into this zone over the next two weeks. These steelhead releases are spread throughout this river zone, including: 1) the Methow River (34%), 2) the Wenatchee River (33%), 3) the Okanogan River (14%), 4) the Walla Walla River (13%), and 5) the Touchet River (5%).

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. Approximately 8.3 million subyearling fall Chinook tules were released into this this zone this week. These fall Chinook tules were released on April 11th from Spring Creek NFH (78%) and Little White Salmon NFH (22%). In addition, approximately 674,000 yearling spring Chinook were scheduled for release into this zone this week. Of these, approximately 89% were scheduled for release into the Umatilla River while the remaining 11% were scheduled for release into Hood River. Finally, 162,000 summer steelhead were scheduled to be released into the Deschutes River, beginning on or around April 8th.

Beginning next week, approximately 2.2 million yearling spring Chinook will be released to the Little White Salmon (47%) and Wind (52%) rivers. In addition, about 253,500 summer steelhead are scheduled for release to this zone over the next two weeks. These releases are scheduled to take place on the Umatilla (59%), Klickitat (36%), and Deschutes (5%) rivers.

Adult Fish Passage:

Bonneville Dam uses video counts from January 1st through March 31st and direct counting after this period. Bonneville Dam counts adult salmon and steelhead year round. Lower Granite Dam uses video counts from March 1st through March 31st and direct counting after this period. Lower Granite Dam counts adult salmon and steelhead through December 30th each year. Willamette Falls Dam also uses video counts and reports adult counts year round.

Adult counts at Bonneville Dam have been updated through April 11th. Daily adult spring Chinook counts at Bonneville Dam ranged from 40 to 177 adult salmon per day. As of April 11th, a total of 1,314 spring Chinook have been counted at Bonneville Dam. In 2012, 138 adult spring Chinook were counted at Bonneville Dam for the same time period. The 2013 adult spring Chinook count at Bonneville Dam is about 9.5 times greater than the 2012 count, while being only about 17% of the 10 year average count. At Willamette Falls Dam 502 adult spring Chinook has been counted so far this year.

The 2013 Bonneville Dam adult steelhead count of 2,283 is about 66% of the 2012 count of 3,452 and 74.4% of the 10 year average count of 3,067. The 2013 Bonneville Dam adult wild steelhead count of 713 is about 64.6% of the 2012 count of 1,104 and has 44 fewer fish then the 10 year average count of 757. This year's Lower Granite steelhead count of 6,064 is about 91.3% of the 2012 count of 6,640 and 79.8% of the 10 year average count of 7,597. The 2013 Lower Granite Dam adult wild steelhead count of 2,463 is about 97% of the 2012 count of 2,534, while being about 1.2 times greater than the 10 year average count of 2,081. At

Willamette Falls Dam, the 2013 count for steelhead was 5,276 as of April 9th. This year's steelhead count is about 87.8% of the 2012 count of 6,003 and about 89.3% of the 10 year average count of 5,910.

Based on video counts, the criteria (2 fish for 2 days) to open the Corner Collector at Bonneville Dam was met on March 20, 2013. The Corner Collector was opened early in the afternoon on March 22, 2013.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: 3/29/2013 to 04/11/13

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2013	1,085,487	03-27-13	04-03-13	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2013	72,367	04-09-13	04-09-13	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2013	143,982	04-11-13	04-11-13	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2013	153,360	04-10-13	04-11-13	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2013	208,845	03-28-13	04-10-13	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2013	258,399	04-09-13	04-10-13	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	93,439	04-10-13	04-11-13	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	93,731	04-09-13	04-10-13	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	94,200	04-11-13	04-12-13	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2013	294,568	03-21-13	04-05-13	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2013	460,000	04-11-13	04-24-13	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2013	782,532	03-25-13	04-05-13	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2013	168,595	04-01-13	04-18-13	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2013	847,203	04-01-13	04-18-13	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2013	2,500,000	03-11-13	04-26-13	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2013	134,200	04-05-13	04-05-13	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2013	653,300	04-05-13	04-05-13	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SU	2013	1,014,000	04-01-13	04-15-13	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game Total					**9,058,208**				
Nez Perce Tribe	Kooskia NFH	CO	UN	2013	323,000	04-01-13	04-07-13	Clear Creek	Clearwater River M F
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2013	135,000	03-21-13	04-01-13	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2013	150,000	04-01-13	04-01-13	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	McCall Hatchery	CH1	SU	2013	130,284	04-01-13	04-02-13	Johnson Cr Idaho	South Fork Salmon River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2013	205,000	04-01-13	04-13-13	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe Total					**943,284**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	320,000	04-11-13	05-08-13	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	360,000	04-10-13	04-10-13	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2013	250,000	03-14-13	04-14-13	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2013	420,000	03-30-13	04-05-13	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2013	162,000	04-08-13	04-08-13	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					**1,512,000**				
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2013	1,380,000	04-01-13	04-02-13	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2013	307,902	04-08-13	04-17-13	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2013	400,400	04-08-13	04-17-13	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2013	843,890	04-11-13	04-25-13	S Fk Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH0	FA	2013	1,863,113	04-11-13	04-11-13	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2013	6,441,575	04-11-13	04-11-13	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2013	772,000	04-02-13	04-11-13	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					**12,008,880**				
Umatilla Tribe	Carson NFH	CH1	SP	2013	250,000	04-01-13	04-03-13	Walla Walla River	Walla Walla River
Umatilla Tribe	Cascade Hatchery	CO	UN	2013	1,000,000	03-25-13	04-22-13	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2013	134,514	03-21-13	04-14-13	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2013	135,324	04-06-13	04-14-13	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2013	155,264	03-20-13	04-01-13	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2013	178,400	04-08-13	04-15-13	Imeques Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2013	195,500	04-08-13	04-15-13	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2013	225,000	04-08-13	04-15-13	Imeques Acclim Pond	Umatilla River
Umatilla Tribe Total					**2,274,002**				
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2013	75,000	04-09-13	04-24-13	W Fk Hood River	Hood River
Warm Springs Tribe Total					**75,000**				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2013	489,000	04-10-13	04-15-13	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	84,000	04-10-13	04-20-13	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	206,000	04-10-13	04-30-13	Cottonwood Acclim Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2013	260,000	04-01-13	04-27-13	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2013	2,550,000	04-01-13	04-07-13	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife Total					**3,589,000**				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	249,305	03-15-13	05-15-13	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	255,745	03-15-13	05-15-13	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	266,311	03-15-13	05-15-13	Jack Creek Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2013	322,100	04-01-13	07-01-13	Prosser Acclim Pond	Yakima River
Yakama Tribe Total					**1,093,461**				
Grand Total					**30,553,835**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: 4/12/2013 to 4/25/2013

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Wells Hatchery	ST	SU	2013	9,189	04-13-13	04-27-13	Omak Creek	Okanogan River
Colville Tribe Total					**9,189**				
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2013	121,863	04-12-13	04-12-13	Newsome Creek	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	94,200	04-11-13	04-12-13	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	218,909	04-16-13	04-19-13	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	219,739	04-19-13	04-23-13	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	465,286	04-23-13	04-26-13	Yankee Fk (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2013	460,000	04-11-13	04-24-13	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2013	168,595	04-01-13	04-18-13	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2013	847,203	04-01-13	04-18-13	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2013	2,500,000	03-11-13	04-26-13	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SU	2013	1,014,000	04-01-13	04-15-13	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game Total					**6,109,795**				
Nez Perce Tribe	Dworshak NFH	ST	SU	2013	65,770	04-16-13	04-16-13	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	ST	SU	2013	140,000	04-16-13	04-16-13	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2013	130,500	04-12-13	04-22-13	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2013	150,000	04-12-13	04-12-13	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2013	150,000	04-14-13	04-14-13	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2013	205,000	04-01-13	04-13-13	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe Total					**841,270**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	320,000	04-11-13	05-08-13	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2013	250,000	03-14-13	04-14-13	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Opal Springs Hatchery	ST	SU	2013	5,500	04-15-13	04-15-13	Wychus Creek	Deschutes River
Oregon Dept. of Fish and Wildlife	Opal Springs Hatchery	ST	SU	2013	8,000	04-15-13	04-15-13	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2013	50,000	04-22-13	04-29-13	Meacham Creek	Umatilla River
Oregon Dept. of Fish and Wildlife Total					**633,500**				
U.S. Fish and Wildlife Service	Carson NFH	CH1	SP	2013	1,170,000	04-17-13	04-17-13	Carson Hatchery	Wind River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2013	307,902	04-08-13	04-17-13	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2013	400,400	04-08-13	04-17-13	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2013	1,248,146	04-15-13	04-19-13	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SU	2013	356,500	04-17-13	04-17-13	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2013	155,941	04-25-13	04-30-13	East Fk Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2013	843,890	04-11-13	04-25-13	S Fk Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Leavenworth NFH	CH1	SP	2013	1,280,000	04-20-13	04-20-13	Leavenworth Hatchery	Wenatchee River
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2013	750,000	04-18-13	04-18-13	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Willard Hatchery	CH1	SP	2013	296,000	04-18-13	04-18-13	Willard Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2013	375,800	04-15-13	04-26-13	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2013	55,500	04-15-13	05-24-13	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2013	59,300	04-15-13	05-24-13	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					**7,299,379**				
Umatilla Tribe	Cascade Hatchery	CO	UN	2013	1,000,000	03-25-13	04-22-13	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2013	134,514	03-21-13	04-14-13	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2013	135,324	04-06-13	04-14-13	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2013	178,400	04-08-13	04-15-13	Imeques Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2013	195,500	04-08-13	04-15-13	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2013	225,000	04-08-13	04-15-13	Imeques Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2013	50,000	04-22-13	04-29-13	Minthorn Acclimation Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2013	50,000	04-22-13	04-29-13	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe Total					**1,968,738**				
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2013	75,000	04-09-13	04-24-13	W Fk Hood River	Hood River
Warm Springs Tribe Total					**75,000**				
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2013	645,000	04-15-13	04-15-13	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2013	275,000	04-15-13	05-01-13	Chiwawa Hatchery	Wenatchee River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	ST	SU	2013	223,000	04-25-13	05-05-13	Chiwawa Hatchery	Wenatchee River

Hatchery Releases Next Two Weeks, continued

Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2013	600,000	04-15-13	05-10-13	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2013	771,000	04-20-13	04-25-13	Dryden Acclim Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	ST	SU	2013	24,000	04-25-13	06-20-13	Blackbird Island Acc Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2013	489,000	04-10-13	04-15-13	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	39,000	04-20-13	04-30-13	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	84,000	04-10-13	04-20-13	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	100,000	04-15-13	04-20-13	Walla Walla River	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	145,000	04-15-13	05-20-13	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2013	206,000	04-10-13	04-30-13	Cottonwood Acclim Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2013	18,200	04-20-13	04-30-13	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2013	93,400	04-20-13	04-25-13	Chewuch Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2013	397,100	04-20-13	04-25-13	Methow Hatchery	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2013	435,000	04-20-13	04-30-13	Carlton Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	ST	SU	2013	50,000	04-20-13	04-30-13	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	ST	SU	2013	95,000	04-25-13	05-05-13	Methow Hatchery	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2013	186,153	04-12-13	04-18-13	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2013	90,000	04-25-13	05-05-13	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2013	260,000	04-01-13	04-27-13	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2013	58,000	04-15-13	04-20-13	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2013	290,000	04-15-13	04-25-13	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2013	9,500	04-15-13	04-15-13	Omak Creek	Okanogan River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2013	90,000	04-20-13	05-20-13	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife Total					**5,673,353**				
Yakama Tribe	Cascade Hatchery	CO	UN	2013	130,722	04-22-13	06-15-13	Nason Wetlands	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2013	130,867	04-15-13	06-15-13	Icicle Creek	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2013	306,946	04-15-13	06-15-13	Icicle Creek	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	249,305	03-15-13	05-15-13	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	255,745	03-15-13	05-15-13	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	266,311	03-15-13	05-15-13	Jack Creek Acclim Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2013	102,975	04-15-13	07-01-13	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2013	104,059	04-15-13	07-01-13	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2013	237,043	04-15-13	07-01-13	Easton Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CH1	FA	2013	25,000	04-12-13	04-12-13	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2013	124,425	04-15-13	07-01-13	Lost Creek Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2013	131,858	04-15-13	07-01-13	Stiles Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2013	322,100	04-01-13	07-01-13	Prosser Acclim Pond	Yakima River
Yakama Tribe	Willard Hatchery	CO	UN	2013	30,343	04-15-13	06-15-13	Icicle Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2013	40,957	04-22-13	06-15-13	Winthrop Hatchery	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2013	73,036	04-15-13	06-15-13	Icicle Creek	Wenatchee River
Yakama Tribe	Winthrop NFH	CO	UN	2013	253,485	04-15-13	06-15-13	Winthrop Hatchery	Methow River
Yakama Tribe Total					**2,785,177**				
Grand Total					**25,395,401**				

CH = Chinook, ST = Steelhead, CO = Coho, SO = Sockeye, CT = Cutthroat Trout, CM = Chum

Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projects

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/29/2013	97.6	0.0	96.6	0.0	102.0	0.0	103.3	0.0	107.7	0.0	119.3	0.4	117.3	0.3
03/30/2013	67.5	0.0	66.1	0.0	79.3	0.0	88.2	0.0	95.9	0.0	104.6	0.0	100.7	0.0
03/31/2013	64.6	0.0	69.9	0.0	71.7	0.0	68.9	0.0	73.2	0.0	90.9	0.0	98.0	0.0
04/01/2013	84.4	0.0	86.0	0.0	86.9	0.0	86.8	0.0	92.0	0.0	93.7	0.0	91.9	0.0
04/02/2013	95.3	0.0	87.8	0.0	---	---	83.0	0.0	89.5	0.0	95.0	0.0	95.2	0.2
04/03/2013	125.8	0.0	124.0	0.0	123.7	0.0	121.0	0.0	126.2	0.0	119.0	2.1	100.3	0.0
04/04/2013	123.5	0.0	123.0	0.0	127.8	4.6	129.3	3.7	136.4	0.6	141.9	4.4	132.8	4.0
04/05/2013	120.3	0.0	120.9	0.0	125.8	4.0	125.3	3.2	134.8	1.4	142.6	6.7	141.5	8.6
04/06/2013	107.3	0.0	103.5	0.0	112.1	1.1	118.1	3.3	131.2	2.1	144.6	6.3	138.4	5.5
04/07/2013	101.2	0.0	108.8	0.0	114.3	1.0	113.0	0.8	125.5	0.0	128.1	1.9	127.0	0.0
04/08/2013	135.1	0.0	136.7	9.2	142.4	22.2	142.4	18.4	148.0	15.4	156.3	34.0	143.7	26.6
04/09/2013	156.1	0.0	158.9	14.0	168.3	31.1	167.3	32.4	169.9	32.2	185.7	62.9	186.9	72.1
04/10/2013	169.0	6.3	164.1	14.4	174.8	40.4	176.5	43.8	177.9	44.1	194.2	61.5	195.3	83.5
04/11/2013	176.5	19.7	173.0	25.1	186.2	52.3	189.1	47.9	190.4	52.7	212.0	87.7	216.2	108.2

Daily Average Flow and Spill (in kcfs) at Snake Basin Projects

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/29/2013	1.6	0.0	---	---	37.7	0.0	35.8	0.0	39.0	0.0	38.8	0.0
03/30/2013	1.6	0.0	---	---	36.8	0.0	36.1	0.0	37.2	0.0	38.7	0.0
03/31/2013	3.2	0.0	---	---	42.9	0.0	46.1	0.0	48.8	0.0	48.2	0.0
04/01/2013	8.4	0.0	---	---	45.7	0.0	50.8	0.0	54.2	0.0	55.8	0.0
04/02/2013	9.9	0.0	---	---	57.0	0.0	54.6	0.0	59.5	0.0	61.7	0.2
04/03/2013	9.9	0.0	---	---	57.5	20.1	55.9	16.9	58.7	27.8	57.8	47.3
04/04/2013	9.9	0.0	---	---	56.5	20.3	58.2	17.4	60.9	28.0	61.3	50.8
04/05/2013	10.0	0.0	---	---	64.6	20.3	63.6	19.1	67.5	28.0	67.8	51.0
04/06/2013	9.9	0.0	---	---	72.3	20.4	74.0	22.2	75.9	27.9	76.7	54.4
04/07/2013	9.9	0.0	---	---	75.3	20.3	72.9	22.0	74.9	27.9	75.3	54.4
04/08/2013	9.9	0.0	---	---	75.8	23.8	77.0	25.8	80.1	28.7	81.9	58.0
04/09/2013	9.9	0.0	---	---	71.6	23.7	70.4	23.9	72.1	30.0	72.0	51.6
04/10/2013	9.9	0.0	---	---	62.7	20.3	59.0	17.7	61.0	29.9	63.1	45.5
04/11/2013	9.9	0.0	---	---	62.7	20.4	62.3	18.8	66.4	29.9	67.2	48.4

Daily Average Flow and Spill (in kcfs) at Lower Columbia Projects

	McNary		John Day		The Dalles				Bonneville	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
03/29/2013	148.3	0.0	128.1	0.0	122.2	0.0	137.8	1.2	29.5	94.6
03/30/2013	148.7	0.0	157.1	0.0	156.2	0.0	179.1	1.1	65.8	99.8
03/31/2013	148.5	0.0	165.3	0.0	162.5	0.0	177.1	1.2	64.3	99.2
04/01/2013	139.2	11.8	157.7	0.0	158.0	0.0	182.5	1.2	65.5	103.3
04/02/2013	168.4	38.8	162.8	0.0	158.3	0.0	169.1	1.2	52.5	102.9
04/03/2013	169.8	38.8	174.6	0.0	169.4	0.0	171.2	1.4	52.3	105.1
04/04/2013	171.2	46.0	185.9	0.0	182.7	0.0	196.6	1.5	74.9	107.8
04/05/2013	218.7	99.6	211.2	0.0	206.4	0.0	222.4	1.4	84.4	124.2
04/06/2013	225.4	86.7	217.9	0.0	211.4	0.0	219.9	1.3	83.6	122.6
04/07/2013	219.9	81.2	228.2	0.0	226.0	0.0	251.4	17.7	84.4	136.9
04/08/2013	224.9	116.8	232.8	28.5	226.1	23.3	247.0	33.8	84.5	116.3
04/09/2013	268.7	142.3	279.7	92.5	269.1	95.7	286.5	75.0	84.7	114.4
04/10/2013	264.6	128.8	269.8	88.0	248.0	100.2	287.1	100.0	75.0	99.6
04/11/2013	277.4	138.0	289.3	86.7	271.8	108.4	284.3	99.7	70.0	102.2

Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank: Rank 1	Rank 2	Rank 3	Rank 4
Lower Granite Dam											
	04/09/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	04/07/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	04/04/13	Chinook + Steelhead	4	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	04/08/13	Chinook + Steelhead	18	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
Rock Island Dam											

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	102.2	102.3	102.7	22
3/30	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	101.8	102.2	102.4	24
3/31	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	102.7	103.1	103.2	24
4/1	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	102.7	102.8	103.1	15
4/2	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/3	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	104.1	104.3	104.7	19
4/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	103.8	104.0	104.3	24
4/5	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	103.4	103.6	103.9	24
4/6	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	103.1	103.2	103.6	24
4/7	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	103.5	103.8	104.0	24
4/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	102.6	102.9	103.2	24
4/9	---	---	---	0	---	---	---	0	96.6	96.9	97.5	24	98.8	99.2	99.5	24	101.9	102.2	102.5	24
4/10	---	---	---	0	---	---	---	0	96.1	96.4	96.8	24	97.5	98.1	98.4	24	102.9	103.2	103.8	24
4/11	---	---	---	0	---	---	---	0	96.5	96.7	96.8	23	96.1	96.5	96.8	22	102.3	102.4	102.6	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	99.7	100.9	103.6	22	---	---	---	0	---	---	---	0	104.0	104.2	104.3	24	104.0	104.4	107.0	24
3/30	99.1	100.0	103.9	24	---	---	---	0	---	---	---	0	105.1	106.4	107.0	24	104.8	105.9	106.6	24
3/31	99.4	100.0	100.7	24	103.8	103.8	103.8	1	103.9	103.9	103.9	1	106.5	106.7	106.9	24	106.0	106.3	106.5	24
4/1	100.4	100.6	101.3	15	104.1	104.5	104.9	23	104.4	105.0	105.4	23	106.1	106.3	106.6	24	105.7	105.9	106.1	24
4/2	---	---	---	0	104.0	104.4	104.7	23	104.3	104.8	105.3	23	105.5	105.7	105.8	24	105.2	105.3	105.5	24
4/3	104.0	104.4	104.8	18	103.6	104.0	104.3	22	103.9	104.3	104.7	22	105.3	105.4	105.5	24	105.0	105.2	105.4	24
4/4	103.9	104.3	104.5	24	104.6	104.9	105.3	20	105.2	106.0	109.2	20	105.6	105.7	105.9	24	106.1	107.0	111.7	24
4/5	103.4	103.8	104.4	24	103.9	104.0	104.5	19	105.2	105.8	111.0	19	105.1	105.3	105.4	22	105.7	107.2	112.9	22
4/6	103.6	104.1	104.9	24	103.5	103.7	103.9	20	104.5	105.1	109.1	20	106.1	106.5	107.0	24	107.5	109.0	112.8	24
4/7	103.7	104.0	104.5	24	103.5	103.8	104.5	21	103.7	104.1	104.7	21	106.2	106.4	107.0	24	105.9	106.2	106.9	24
4/8	105.3	108.0	109.1	24	102.3	102.6	103.0	23	107.3	111.7	125.2	23	103.8	104.6	105.6	24	108.2	112.3	116.1	24
4/9	106.6	108.5	109.2	24	102.3	102.7	102.8	20	109.0	110.5	111.7	20	104.0	105.8	114.1	24	114.2	115.8	121.3	24
4/10	106.8	109.4	110.2	24	103.5	103.9	104.4	20	111.0	112.3	115.0	20	110.4	111.5	113.8	24	118.8	121.0	123.2	24
4/11	109.9	110.2	110.5	23	102.9	103.0	103.4	18	114.5	115.7	126.1	18	110.3	110.4	110.5	23	119.0	120.0	121.6	23

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	103.3	103.7	103.9	24	103.5	103.9	104.3	24	103.2	103.4	103.5	24	103.6	103.9	104.5	24	104.1	104.6	105.9	24
3/30	103.4	104.0	105.1	24	103.8	104.2	105.5	24	103.8	104.6	105.1	24	103.8	104.3	104.6	24	104.3	104.6	104.9	24
3/31	106.2	106.7	107.1	24	106.5	107.0	107.2	24	105.1	105.7	106.0	24	104.8	105.4	105.9	24	105.2	105.8	106.0	24
4/1	105.8	106.1	106.4	24	106.0	106.3	106.6	24	105.9	106.3	106.7	24	105.4	105.8	106.0	24	105.7	105.9	106.0	24
4/2	105.0	105.2	105.4	24	105.2	105.3	105.5	24	105.1	105.3	105.7	24	105.0	105.4	105.9	24	105.2	105.5	105.7	24
4/3	104.7	105.0	105.2	24	104.9	105.2	105.4	24	105.0	105.4	105.8	24	105.5	106.5	110.6	24	105.1	105.5	105.7	24
4/4	104.8	105.0	105.2	24	105.0	105.2	105.4	24	106.5	106.7	106.9	24	107.0	107.3	108.5	24	106.2	106.5	107.0	24
4/5	105.1	105.4	106.3	22	105.2	105.4	107.3	21	106.4	106.5	106.7	24	106.6	107.3	109.3	24	106.2	106.4	106.7	24
4/6	105.4	106.1	106.3	24	106.1	106.8	108.2	24	105.6	105.9	106.1	24	105.8	106.6	108.9	24	105.8	106.2	107.0	24
4/7	105.3	106.0	106.5	24	105.4	106.1	106.8	24	105.9	106.2	106.4	24	105.9	106.4	107.5	24	106.1	106.8	107.1	24
4/8	103.9	104.4	104.7	24	106.1	107.9	111.2	24	104.6	104.9	105.4	24	109.5	114.4	122.9	24	104.2	104.5	105.1	24
4/9	106.3	106.8	107.0	24	110.7	112.5	114.2	24	103.7	103.9	104.1	24	113.3	115.5	118.8	24	113.1	116.8	118.5	24
4/10	112.3	115.4	116.1	24	117.5	119.5	121.8	24	---	---	---	0	---	---	---	0	---	---	---	0
4/11	111.7	113.3	113.9	23	118.0	119.3	119.6	23	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia and Snake River Sites

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	103.5	103.8	104.6	24	---	---	---	0	103.7	104.7	105.6	24	---	---	---	0	102.6	103.5	104.7	24
3/30	103.4	103.7	103.8	24	---	---	---	0	103.6	104.9	106.4	24	---	---	---	0	102.6	103.8	105.1	24
3/31	104.2	104.7	104.9	24	---	---	---	0	104.5	105.8	106.7	24	92.2	93.2	96.0	20	102.8	103.9	105.2	24
4/1	104.8	105.0	105.3	24	---	---	---	0	98.5	101.2	104.8	24	93.2	93.2	95.6	8	102.3	103.2	104.5	23
4/2	104.5	104.6	104.8	24	---	---	---	0	95.4	95.8	96.2	24	---	---	---	0	102.2	103.2	104.4	24
4/3	104.2	104.4	104.5	24	---	---	---	0	95.5	95.8	95.9	24	99.9	99.9	100.6	10	102.2	103.1	104.2	24
4/4	105.6	106.3	107.2	24	---	---	---	0	95.9	96.2	96.3	24	98.5	98.7	99.2	23	101.9	102.2	102.6	24
4/5	106.9	107.8	108.9	24	---	---	---	0	95.7	95.8	96.0	24	98.0	98.6	99.1	24	102.0	102.5	103.1	24
4/6	106.2	106.8	107.4	24	---	---	---	0	95.6	95.7	95.8	24	98.4	98.8	99.2	24	101.9	102.3	102.6	24
4/7	105.5	106.0	106.1	24	---	---	---	0	95.9	96.2	96.4	24	96.1	97.0	97.4	24	102.1	102.4	102.7	24
4/8	104.8	106.3	110.2	24	---	---	---	0	94.9	95.2	95.5	24	93.6	94.0	94.6	24	101.2	101.6	102.1	24
4/9	114.4	116.3	116.8	24	---	---	---	0	94.2	94.5	94.9	24	94.2	95.8	97.0	24	101.9	102.9	103.8	24
4/10	---	---	---	0	---	---	---	0	94.7	95.1	95.4	24	92.2	92.7	93.7	24	102.1	102.5	103.0	24
4/11	---	---	---	0	---	---	---	0	94.6	94.8	95.0	23	91.1	91.1	92.0	11	101.9	102.6	103.0	23

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	---	---	---	0	102.5	102.8	103.0	24	101.9	102.3	102.6	24	102.3	102.6	103.0	24	100.7	100.9	101.2	24
3/30	---	---	---	0	104.1	105.1	105.7	24	103.2	103.9	104.5	24	102.0	102.5	102.8	24	101.0	101.8	102.4	24
3/31	---	---	---	0	105.8	106.1	106.8	24	104.8	105.0	105.1	24	104.3	104.9	105.7	24	102.3	102.7	102.9	24
4/1	---	---	---	0	104.9	105.2	105.9	24	104.4	104.6	104.8	24	104.1	104.6	105.2	24	102.8	103.4	105.1	24
4/2	---	---	---	0	104.2	104.4	104.6	24	103.6	103.8	104.0	24	103.6	103.9	104.0	24	102.2	102.9	103.2	24
4/3	102.0	102.0	103.4	12	104.3	104.5	104.9	24	110.4	111.2	111.6	24	104.0	104.5	104.7	24	109.0	110.3	110.6	24
4/4	100.1	100.6	101.0	24	104.7	104.9	105.1	24	111.2	111.4	112.3	23	105.4	105.7	106.1	23	110.3	110.5	110.8	23
4/5	100.2	101.1	101.9	24	103.2	103.4	104.1	24	111.4	111.8	112.5	24	105.8	105.9	106.1	24	109.5	109.7	109.9	24
4/6	100.1	100.6	101.2	24	102.6	102.8	103.1	24	110.5	110.8	110.9	24	106.0	106.3	106.7	24	109.5	109.8	110.3	24
4/7	100.5	101.1	101.9	24	102.2	102.5	102.7	24	109.8	110.1	110.6	24	107.9	108.2	108.3	24	110.3	110.4	110.6	24
4/8	99.5	100.0	100.8	24	100.8	101.2	101.7	24	110.9	112.1	116.1	24	107.2	107.5	108.0	24	111.2	112.1	115.4	24
4/9	100.1	101.6	102.6	24	99.8	100.0	100.1	24	110.6	111.9	115.8	24	106.2	106.4	106.6	24	110.9	112.1	115.6	24
4/10	100.3	101.0	101.7	24	100.7	100.9	101.1	24	109.6	110.1	110.6	24	106.8	107.1	107.4	24	110.0	110.2	110.6	24
4/11	99.9	100.8	101.9	23	100.4	100.5	100.7	23	110.0	110.5	111.2	23	106.3	106.5	106.8	21	109.9	110.2	110.3	21

Total Dissolved Gas Saturation Data at Snake and Lower Columbia River Sites

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	102.0	102.4	102.7	24	101.7	102.0	102.5	24	103.4	103.7	104.0	24	103.7	104.2	104.9	24	---	---	---	0
3/30	102.5	102.9	103.6	24	101.9	102.4	102.7	24	103.9	104.1	104.2	24	103.8	104.3	104.6	24	---	---	---	0
3/31	103.8	104.1	104.3	24	103.2	103.8	104.1	24	104.6	104.9	105.1	24	104.7	105.3	105.8	24	---	---	---	0
4/1	104.0	104.2	104.5	24	103.4	103.7	104.1	24	105.1	105.3	105.6	24	104.9	105.1	105.4	24	---	---	---	0
4/2	102.8	103.0	103.1	24	102.3	102.6	103.2	24	104.7	104.8	105.0	24	104.4	104.8	105.4	24	---	---	---	0
4/3	103.4	103.5	103.7	24	116.2	117.0	117.2	24	104.7	104.8	105.0	24	113.6	115.2	115.9	24	---	---	---	0
4/4	104.2	104.4	104.6	23	117.3	117.5	117.8	24	105.0	105.1	105.5	23	115.1	115.7	115.9	23	---	---	---	0
4/5	104.7	105.4	107.2	24	116.9	117.1	117.4	20	107.4	109.3	111.0	24	115.3	115.7	116.1	24	---	---	---	0
4/6	108.6	108.9	109.3	24	117.4	117.6	117.8	24	111.6	112.0	112.1	24	115.5	115.9	116.2	24	---	---	---	0
4/7	109.0	109.4	109.7	24	117.7	118.0	118.6	22	111.9	112.5	112.8	24	115.4	116.1	116.5	24	---	---	---	0
4/8	107.0	107.3	108.0	24	118.4	119.5	121.1	24	109.5	109.8	110.5	24	115.6	115.8	115.9	24	---	---	---	0
4/9	106.8	107.1	107.4	24	119.4	119.6	119.8	24	109.1	109.7	110.4	24	115.3	115.6	115.8	24	---	---	---	0
4/10	109.6	110.4	111.2	24	118.9	119.4	119.8	24	111.8	112.4	112.9	24	114.7	115.5	115.8	24	---	---	---	0
4/11	110.6	110.8	111.1	23	119.2	119.4	119.8	23	112.0	112.3	112.6	23	115.2	115.6	115.9	23	---	---	---	0

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
3/29	105.4	105.8	106.2	24	104.7	104.9	105.4	24	103.8	104.0	104.2	24	103.4	103.7	104.2	24	103.9	104.2	104.6	24
3/30	105.8	106.3	106.6	24	105.0	105.3	106.0	24	105.4	106.6	107.9	24	104.6	105.5	106.2	24	104.3	104.8	105.3	24
3/31	106.5	106.9	107.8	24	105.7	105.9	106.4	24	107.5	108.1	110.1	24	106.3	107.0	107.7	24	105.6	106.1	106.4	24
4/1	106.4	106.5	106.7	24	106.7	107.5	110.7	24	107.8	108.4	108.8	24	106.8	107.0	107.3	24	106.2	106.4	106.6	24
4/2	106.3	106.3	106.5	24	110.0	111.3	111.7	24	106.6	106.8	107.2	24	106.0	106.2	106.5	24	105.7	105.9	106.2	24
4/3	106.4	106.7	107.8	24	111.1	111.4	111.7	24	106.9	107.4	107.8	24	106.1	106.5	106.6	24	106.5	107.0	107.3	24
4/4	107.2	107.3	107.6	23	110.8	111.2	111.6	24	108.5	108.7	109.0	24	107.4	107.6	108.0	24	107.7	108.0	108.3	24
4/5	106.3	106.7	106.9	24	116.0	118.2	120.5	24	108.2	108.3	108.4	24	107.1	107.2	107.3	24	107.1	107.3	107.4	24
4/6	106.5	107.1	107.3	24	116.1	116.9	120.0	24	107.6	107.8	108.1	24	106.4	106.5	106.8	24	106.9	107.2	107.7	24
4/7	105.7	105.8	105.9	24	116.0	116.3	116.7	24	107.7	107.9	108.1	24	106.8	107.0	107.4	24	106.7	107.1	107.5	24
4/8	104.3	104.7	105.4	24	116.3	117.8	121.4	24	106.2	106.5	107.1	24	109.6	113.7	117.7	24	104.8	105.1	105.7	24
4/9	103.4	103.9	104.4	24	121.3	121.5	121.6	24	105.4	106.0	106.5	24	116.2	119.5	120.1	24	106.9	108.7	114.7	24
4/10	104.4	104.8	105.2	24	118.6	120.0	121.2	24	106.5	106.8	107.2	24	115.9	117.9	119.4	24	113.0	114.3	115.2	24
4/11	105.5	107.1	109.1	23	117.6	117.8	118.1	23	105.0	105.2	105.4	23	115.6	116.0	117.3	23	107.0	107.6	108.1	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/29	104.1	104.5	105.0	24	105.2	105.5	105.6	24	108.7	108.9	109.3	24	108.3	109.7	110.8	24	108.8	109.3	109.7	24
3/30	104.3	104.9	105.4	24	105.6	106.1	106.4	24	107.7	108.8	109.4	24	108.1	109.1	109.9	24	109.9	110.4	111.3	24
3/31	105.4	106.1	106.5	24	106.2	106.5	106.9	24	107.3	107.9	108.6	24	107.0	108.6	109.9	24	112.6	112.9	113.8	24
4/1	106.1	106.4	106.7	24	105.8	106.0	106.3	24	106.4	106.5	106.8	24	106.8	107.3	107.7	24	110.9	111.4	111.7	24
4/2	105.5	105.8	106.0	24	105.2	105.5	105.9	24	106.6	106.8	106.9	24	106.8	108.2	109.3	24	111.8	112.3	113.2	24
4/3	106.2	106.9	107.1	24	106.1	106.8	107.1	24	107.8	108.3	108.8	24	107.3	108.7	110.0	24	112.4	112.8	113.2	24
4/4	107.4	107.7	107.8	24	107.3	107.3	107.6	24	108.0	108.3	108.6	24	107.5	107.8	108.3	24	113.1	113.6	114.1	24
4/5	106.9	107.0	107.0	24	106.8	107.0	107.4	24	106.8	107.1	107.3	24	106.4	106.8	107.0	24	111.1	111.6	111.8	24
4/6	106.6	106.8	107.2	24	106.7	107.0	107.4	24	106.9	107.1	107.3	24	106.2	106.5	106.8	24	111.0	111.3	111.7	24
4/7	106.5	106.9	107.2	24	106.6	107.1	107.8	24	106.7	107.1	107.9	24	105.5	105.8	106.5	24	110.5	110.8	111.7	24
4/8	106.3	107.7	108.4	24	104.6	104.8	105.4	24	105.3	105.5	105.8	24	104.6	105.1	105.5	24	109.2	109.9	110.3	24
4/9	111.4	115.8	117.1	24	104.9	106.0	107.7	24	107.2	108.5	109.9	24	105.2	106.4	107.0	24	115.9	118.4	119.2	24
4/10	117.7	118.6	119.5	24	109.6	112.3	113.4	24	111.3	112.3	113.8	24	108.5	109.3	109.8	24	118.4	118.9	119.6	24
4/11	114.3	114.8	115.6	23	112.7	113.0	113.7	23	114.3	114.4	114.6	23	112.0	113.9	114.5	23	118.6	119.1	122.0	23

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 4/12/2013 15:32

Two-Week Summary of Passage Indices

* One or more of the sites on this date had an incomplete or biased sample.
See Sampling Comments: http://www.fpc.org/currentDaily/smpcomments.htm
For clip information see: http://www.fpc.org/CurrentDaily/catch.htm
For sockeye and yearling chinook (Snake only) race information see: http://www.fpc.org/smoltqueries/currentsmpsubmitdata.asp

				COMBINED YEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/29/2013	*	769	26	201	5	1,310	---	---	---	---	---	28
03/30/2013		1,733	45	656	6	3,530	---	---	---	---	---	11
03/31/2013	*	1,192	3,315	1,284	9	4,380	---	---	---	---	---	117
04/01/2013	*	1,222	32,515	570	15	4,260	---	49	1	---	124	144
04/02/2013	*	1,520	10,033	440	108	5,580	---	---	4	---	60	149
04/03/2013	*	2,500	2,387	592	6	4,286	219	---	14	---	72	183
04/04/2013	*	2,447	769	1,030	23	4,622	---	16	14	---	136	414
04/05/2013	*	2,955	869	491	14	4,339	---	---	8	---	308	456
04/06/2013	*	3,114	---	354	23	6,433	---	---	4	---	528	702
04/07/2013	*	1,919	137	146	21	19,053	---	34	4	1,234	764	945
04/08/2013	*	3,047	148	214	14	15,093	1,668	---	10	---	1,080	1,525
04/09/2013	*	474	136	311	15	25,114	---	---	9	1,473	1,827	1,414
04/10/2013	*	919	109	958	41	17,900	---	39	15	---	1,657	2,440
04/11/2013	*	1,338	98	695	15	16,175	---	---	9	1,856	1,716	2,615
04/12/2013	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**25,149**	**50,587**	**7,942**	**315**	**132,075**	**1,887**	**138**	**92**	**4,563**	**8,272**	**11,143**
# Days:		**14**	**13**	**14**	**14**	**14**	**2**	**4**	**11**	**3**	**11**	**14**
Average:		**1,796**	**3,891**	**567**	**23**	**9,434**	**944**	**35**	**8**	**1,521**	**752**	**796**
YTD		**34,862**	**51,798**	**14,899**	**346**	**134,665**	**1,887**	**138**	**92**	**4,563**	**8,272**	**17,573**

				COMBINED SUBYEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/29/2013	*	0	0	1	1	0	---	---	---	---	---	169
03/30/2013		0	0	0	3	0	---	---	---	---	---	216
03/31/2013	*	0	0	1	2	0	---	---	---	---	---	380
04/01/2013	*	0	2	1	5	0	---	0	4	---	0	282
04/02/2013	*	0	0	1	3	0	---	---	16	---	0	265
04/03/2013	*	0	1	0	3	22	0	---	0	---	0	238
04/04/2013	*	0	0	0	0	31	---	0	0	---	4	261
04/05/2013	*	0	3	1	17	0	---	---	8	---	4	442
04/06/2013	*	0	---	0	12	29	---	---	12	---	8	565
04/07/2013	*	0	0	0	7	55	---	0	0	33	8	614
04/08/2013	*	0	3	0	0	274	0	---	7	---	5	616
04/09/2013	*	0	1	0	1	0	---	---	23	23	6	651
04/10/2013	*	0	1	2	7	426	---	2	39	---	42	1,049
04/11/2013	*	0	0	0	17	151	---	---	58	122	0	1,143
04/12/2013	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**11**	**7**	**78**	**988**	**0**	**2**	**167**	**178**	**77**	**6,891**
# Days:		**14**	**13**	**14**	**14**	**14**	**2**	**4**	**11**	**3**	**11**	**14**
Average:		**0**	**1**	**1**	**6**	**71**	**0**	**1**	**15**	**59**	**7**	**492**
YTD		**2**	**15**	**19**	**95**	**998**	**0**	**2**	**167**	**178**	**77**	**11,958**

Two-Week Summary of Passage Indices

COMBINED COHO

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/29/2013	*	0	0	0	0	0	---	---	---	---	---	11
03/30/2013		0	0	0	0	0	---	---	---	---	---	22
03/31/2013	*	0	0	0	0	0	---	---	---	---	---	124
04/01/2013	*	0	0	0	0	10	---	0	1	---	0	62
04/02/2013	*	0	0	0	0	20	---	---	4	---	0	97
04/03/2013	*	0	0	0	0	0	0	---	0	---	0	189
04/04/2013	*	0	0	0	0	0	---	0	3	---	4	267
04/05/2013	*	0	0	0	1	31	---	---	3	---	8	442
04/06/2013	*	0	---	0	1	0	---	---	0	---	8	792
04/07/2013	*	0	0	0	0	0	---	0	3	250	8	1,213
04/08/2013	*	0	0	0	1	0	0	---	7	---	5	2,250
04/09/2013	*	0	0	0	0	0	---	---	2	23	6	3,735
04/10/2013	*	0	0	0	0	0	---	0	6	---	27	6,302
04/11/2013	*	0	0	0	0	0	---	---	15	305	36	5,482
04/12/2013	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**3**	**61**	**0**	**0**	**44**	**578**	**102**	**20,988**
# Days:		**14**	**13**	**14**	**14**	**14**	**2**	**4**	**11**	**3**	**11**	**14**
Average:		**0**	**0**	**0**	**0**	**4**	**0**	**0**	**4**	**193**	**9**	**1,499**
YTD		**0**	**0**	**0**	**4**	**71**	**0**	**0**	**44**	**578**	**102**	**21,376**

COMBINED STEELHEAD

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/29/2013	*	0	536	0	3	100	---	---	---	---	---	17
03/30/2013		0	686	2	3	110	---	---	---	---	---	6
03/31/2013	*	2	841	0	5	230	---	---	---	---	---	15
04/01/2013	*	1	254	2	8	390	---	7	1	---	112	7
04/02/2013	*	1	518	3	4	480	---	---	0	---	92	39
04/03/2013	*	5	507	3	4	1,362	37	---	1	---	64	43
04/04/2013	*	28	459	0	9	1,799	---	0	3	---	124	67
04/05/2013	*	54	669	0	17	2,263	---	---	9	---	316	70
04/06/2013	*	56	---	2	14	1,096	---	---	17	---	292	28
04/07/2013	*	112	540	1	26	3,926	---	19	20	233	400	219
04/08/2013	*	112	389	2	69	3,019	1,208	---	10	---	705	550
04/09/2013	*	32	565	14	56	8,947	---	---	45	553	881	668
04/10/2013	*	21	312	174	58	5,269	---	100	19	---	1,224	405
04/11/2013	*	36	201	77	226	5,744	---	---	28	632	1,164	505
04/12/2013	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**460**	**6,477**	**280**	**502**	**34,735**	**1,245**	**126**	**153**	**1,418**	**5,374**	**2,639**
# Days:		**14**	**13**	**14**	**14**	**14**	**2**	**4**	**11**	**3**	**11**	**14**
Average:		**33**	**498**	**20**	**36**	**2,481**	**623**	**32**	**14**	**473**	**489**	**189**
YTD		**463**	**6,575**	**295**	**526**	**34,885**	**1,245**	**126**	**153**	**1,418**	**5,374**	**2,700**

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/29/2013	*	0	0	0	0	0	---	---	---	---	---	0
03/30/2013		0	0	0	0	0	---	---	---	---	---	0
03/31/2013	*	0	0	0	0	0	---	---	---	---	---	0
04/01/2013	*	0	0	0	0	0	---	0	0	---	0	0
04/02/2013	*	0	0	0	0	20	---	---	0	---	0	6
04/03/2013	*	0	0	0	0	0	0	---	1	---	4	24
04/04/2013	*	0	0	0	0	0	---	0	0	---	4	13
04/05/2013	*	0	0	0	0	0	---	---	2	---	0	28
04/06/2013	*	0	---	0	0	0	---	---	4	---	16	48
04/07/2013	*	0	0	0	0	0	---	3	7	0	20	49
04/08/2013	*	0	0	0	0	0	0	---	27	---	10	88
04/09/2013	*	0	0	0	0	0	---	---	9	0	0	94
04/10/2013	*	0	0	0	0	0	---	0	9	---	0	218
04/11/2013	*	0	0	0	0	0	---	---	26	0	0	88
04/12/2013	*	---	---	---	---	---	---	---	---	---	0	---
Total:		**0**	**0**	**0**	**0**	**20**	**0**	**3**	**85**	**0**	**54**	**656**
# Days:		**14**	**13**	**14**	**14**	**14**	**2**	**4**	**11**	**3**	**12**	**14**
Average:		**0**	**0**	**0**	**0**	**1**	**0**	**1**	**8**	**0**	**5**	**47**
YTD		**0**	**0**	**0**	**0**	**30**	**0**	**3**	**85**	**0**	**54**	**662**

				COMBINED LAMPREY JUVENILES								
		WTB	IMN	GRN	LEW	LGR†	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)
03/29/2013	*	0	0	0	0	0	---	---	---	---	---	20
03/30/2013		0	0	0	0	0	---	---	---	---	---	8
03/31/2013	*	0	0	0	0	0	---	---	---	---	---	32
04/01/2013	*	0	1	0	0	0	---	1	0	---	428	56
04/02/2013	*	0	1	0	0	0	---	---	2	---	252	36
04/03/2013	*	0	0	0	0	0	33	---	0	---	164	52
04/04/2013	*	0	0	0	0	0	---	1	0	---	272	36
04/05/2013	*	0	1	0	0	0	---	---	0	---	604	36
04/06/2013	*	0	---	0	0	0	---	---	3	---	836	28
04/07/2013	*	0	0	0	0	40	---	2	5	20	924	28
04/08/2013	*	0	2	0	0	0	60	---	1	---	720	84
04/09/2013	*	0	0	0	0	0	---	---	4	50	1,095	60
04/10/2013	*	0	0	0	0	0	---	4	3	---	942	56
04/11/2013	*	0	0	0	0	300	---	---	7	80	833	60
04/12/2013	*	---	---	---	---	---	---	---	2	---	---	---
Total:		**0**	**5**	**0**	**0**	**340**	**93**	**8**	**27**	**150**	**7,070**	**592**
# Days:		**14**	**13**	**14**	**14**	**14**	**2**	**4**	**12**	**3**	**11**	**14**
Average:		**0**	**0**	**0**	**0**	**24**	**47**	**2**	**2**	**50**	**643**	**42**
YTD		**0**	**7**	**0**	**0**	**350**	**93**	**8**	**25**	**150**	**7,070**	**1,440**

Two-Week Summary of Passage Indices

* See sampling comments http://www.fpc.org/currentDaily/smpcomments.htm

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's,) subyearling chinook (chinook 0's), steelhead, coho, sockeye, and lamprey juveniles. Two classes of fish counts are shown in these tables:
Two classes of fish counts are shown in these tables:
Collection counts (Coll), which account for sample rates but are not adjusted for flow;
Passage indices (INDEX), which are collection counts divided by the proportion of water passing through the sampled powerhouse.
Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations.
The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.
Combined lamprey juvenile collection counts are provided for all sites. Combined lamprey juveniles is a combination of pacific lamprey ammocoetes, brook lamprey ammocoetes, unknown lamprey ammocoetes, pacific lamprey macropthalmia, and unidentified lamprey species.
† Caution should be used with interpreting lamprey juvenile collection counts at LGR because of the possibility that lamprey may escape the sample tank before being sampled

Definitions for Smolt Index Counts
WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts
IMN (Collection) = Imnaha River Trap : Collection Counts
GRN (Collection) = Grande Ronde River Trap : Collection Counts
LEW (Collection) = Snake River Trap at Lewiston : Collection Counts
LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}
MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.
RIS data collected for the FPC by Chelan Co. PUD.
LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.
LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.
IMN data collected for the FPC by the Nez Perce Tribe.
Fall (post SMP season) trapping at the Imnaha River Fish Trap (IMN) is funded by the Lower Snake River Compensation Program (LSRCP)
WTB and LEW data collected for the FPC by Idaho Dept. of Fish and Game.

Two Week Transportation Summary

Source: Fish Passage Center Updated: 4/12/13 8:46 AM

03/29/13 TO 04/12/13

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	700	97,313	50	24,177	20	122,260
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	697	97,269	50	24,175	20	122,211
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	3	34	0	2	0	39
	Sum of FacilityMorts	0	10	0	0	0	10
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	3	44	0	2	0	49
LGS	Sum of NumberCollected		1,362		875		2,237
	Sum of NumberBarged		0		0		0
	Sum of NumberBypassed		1,360		875		2,235
	Sum of Numbertrucked		0		0		0
	Sum of SampleMorts		1		0		1
	Sum of FacilityMorts		1		0		1
	Sum of ResearchMorts		0		0		0
	Sum of TotalProjectMorts		2		0		2
LMN	Sum of NumberCollected	1	101		75	2	179
	Sum of NumberBarged	0	0		0	0	0
	Sum of NumberBypassed	1	101		75	2	179
	Sum of Numbertrucked	0	0		0	0	0
	Sum of SampleMorts	0	0		0	0	0
	Sum of FacilityMorts	0	0		0	0	0
	Sum of ResearchMorts	0	0		0	0	0
	Sum of TotalProjectMorts	0	0		0	0	0
MCN	Sum of NumberCollected	90	2,285	310	688		3,373
	Sum of NumberBarged	0	0	0	0		0
	Sum of NumberBypassed	89	2,279	310	686		3,364
	Sum of Numbertrucked	0	0	0	0		0
	Sum of SampleMorts	1	2	0	1		4
	Sum of FacilityMorts	0	4	0	1		5
	Sum of ResearchMorts	0	0	0	0		0
	Sum of TotalProjectMorts	1	6	0	2		9
Total Sum of NumberCollected		791	101,061	360	25,815	22	128,049
Total Sum of NumberBarged		0	0	0	0	0	0
Total Sum of NumberBypassed		787	101,009	360	25,811	22	127,989
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		4	37	0	3	0	44
Total Sum of FacilityMorts		0	15	0	1	0	16
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		4	52	0	4	0	60

YTD Transportation Summary

Source: Fish Passage Center Updated: 4/12/13 8:46 AM

TO: 04/12/13

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	710	99,903	60	30	24,327	125,030
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	707	99,856	60	30	24,325	124,978
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	3	37	0	0	2	42
	Sum of FacilityMorts	0	10	0	0	0	10
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	3	47	0	0	2	52
LGS	Sum of NumberCollected		1,362			875	2,237
	Sum of NumberBarged		0			0	0
	Sum of NumberBypassed		1,360			875	2,235
	Sum of NumberTrucked		0			0	0
	Sum of SampleMorts		1			0	1
	Sum of FacilityMorts		1			0	1
	Sum of ResearchMorts		0			0	0
	Sum of TotalProjectMorts		2			0	2
LMN	Sum of NumberCollected	1	101		2	75	179
	Sum of NumberBarged	0	0		0	0	0
	Sum of NumberBypassed	1	101		2	75	179
	Sum of NumberTrucked	0	0		0	0	0
	Sum of SampleMorts	0	0		0	0	0
	Sum of FacilityMorts	0	0		0	0	0
	Sum of ResearchMorts	0	0		0	0	0
	Sum of TotalProjectMorts	0	0		0	0	0
MCN	Sum of NumberCollected	90	2,285	310		688	3,373
	Sum of NumberBarged	0	0	0		0	0
	Sum of NumberBypassed	89	2,279	310		686	3,364
	Sum of NumberTrucked	0	0	0		0	0
	Sum of SampleMorts	1	2	0		1	4
	Sum of FacilityMorts	0	4	0		1	5
	Sum of ResearchMorts	0	0	0		0	0
	Sum of TotalProjectMorts	1	6	0		2	9
Total Sum of NumberCollected		801	103,651	370	32	25,965	130,819
Total Sum of NumberBarged		0	0	0	0	0	0
Total Sum of NumberBypassed		797	103,596	370	32	25,961	130,756
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		4	40	0	0	3	47
Total Sum of FacilityMorts		0	15	0	0	1	16
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		4	55	0	0	4	63

Cumulative Adult Passage at Mainstem Dams Through: 04/12

		Spring Chinook						Summer Chinook						Fall Chinook					
		2013		2012		10-Yr Avg.		2013		2012		10-Yr Avg.		2013		2012		10-Yr Avg.	
DAM	ENDDATE	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	**04/11**	**1314**	**11**	**138**	**2**	**7694**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TDA	**04/11**	**490**	**7**	**47**	**2**	**4154**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
JDA	**04/11**	**282**	**4**	**5**	**0**	**2521**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
MCN	**04/11**	**103**	**0**	**4**	**0**	**1134**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IHR	**04/11**	**58**	**4**	**6**	**0**	**515**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LMN	**04/11**	**27**	**2**	**1**	**0**	**284**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGS	**04/11**	**21**	**1**	**1**	**1**	**138**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGR	**04/11**	**9**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PRD		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WAN		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RIS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RRH		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WEL		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WFA	**04/09**	**502**	**2**	**4**	**0**	**514**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

		Coho						Sockeye			Steelhead						Lamprey		
		2013		2012		10-Yr Avg.													
DAM	ENDDATE	Adult	Jack	Adult	Jack	Adult	Jack	2013	2012	10-Yr Avg.	2013	2012	10-Yr Avg.	Wild 2013	Wild 2012	10-Yr Avg.	2013	2012	10-Yr Avg.
BON	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2283**	**3452**	**3067**	**713**	**1104**	**757**	**-1**	**0**	**0**
TDA	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**368**	**1325**	**2050**	**179**	**761**	**642**	**0**	**0**	**0**
JDA	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**442**	**699**	**5163**	**240**	**452**	**1353**	**0**	**0**	**0**
MCN	**04/11**	**1**	**0**	**-1**	**0**	**0**	**0**	**0**	**0**	**0**	**990**	**3672**	**5271**	**492**	**1576**	**1584**	**0**	**1**	**0**
IHR	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2931**	**731**	**4134**	**1131**	**258**	**1030**	**2**	**0**	**0**
LMN	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1443**	**1508**	**8106**	**823**	**651**	**2115**	**0**	**1**	**0**
LGS	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1153**	**1534**	**7801**	**594**	**849**	**2131**	**0**	**0**	**0**
LGR	**04/11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6064**	**6640**	**7597**	**2463**	**2534**	**2081**	**0**	**0**	**0**
PRD		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WAN		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RIS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RRH		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WEL		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WFA	**04/09**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5276**	**6003**	**5910**	**0**	**0**	**0**	**0**	**0**	**0**

PRD does not post wild steelhead numbers.
These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.
Wild steelhead numbers are included in the total. Wild Steelhead are defined as unclipped fish.
Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.
Historic counts 1997 to present were obtained from the Corps of Engineers.

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