



Fish Passage Center

Weekly Report #13 - 07

May 3, 2013

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 39% and 125% of average at individual sub-basins over April. Precipitation above The Dalles has been 87% of average over April. Over the 2013 water year, precipitation has ranged between 75% and 104% of average.

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

Location	Water Year 2013 April 1-30, 2013		Water Year 2013 October 1, 2012 to April 30, 2013	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	2.98	114	25.0
Snake River Above Ice Harbor	1.26	64	12.3	77
Columbia Above The Dalles	1.83	87	16.6	85
Kootenai	3.27	123	26.5	104
Clark Fork	1.36	58	14.1	78
Flathead	3.64	125	24.5	101
Pend Oreille Basin	2.56	98	19.8	89
Snake Basin abv Hells Canyon	1.00	62	9.8	75
Salmon River Basin	1.00	39	14.5	73
Clearwater	3.07	87	27.2	91
Willamette River abv Portland	4.33	83	48.4	89

Snowpack within the Columbia Basin has generally been average to below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 104% of average, for Snake River Basins the average snowpack is 74% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 77% of average.

Table 2 displays the April 7th and May 2nd ESP runoff volume forecasts for multiple reservoirs. The May 2nd forecast at The Dalles between January and July is 94,778 Kaf (93% of average).

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

Location	April 7, 2013 ESP		May 2, 2013 ESP	
	% Average (1971- 2000)	Runoff Volume (Kaf)	% Average (1971- 2000)	Runoff Volume (Kaf)
The Dalles (Jan-July)	93	94287	93	94778
Grand Coulee (Jan-July)	101	60415	103	61543
Libby Res. Inflow, MT (Apr-Aug)	102	6001 *6189	102	6002 *6535
Hungry Horse Res. Inflow, MT (Jan-July)	99	2084	102	2138
Lower Granite Res. Inflow (Apr- July)	83	16485	74	14781
Brownlee Res. Inflow (Apr-July)	62	3376	55	3022
Dworshak Res. Inflow (Apr-July)	96	2319 *2036	90	2170

* Denotes COE Forecast

Grand Coulee Reservoir is at 1256.5 feet (5-2-13) and drafted 4.0 feet over the last week. Outflows at Grand Coulee have ranged between 117.3 and 147.1 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2402.9 feet (5-2-13) and has held steady last week. Outflows at Libby Dam have increased from 4.0 Kcfs to 12.8 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3526.4 feet (5-2-13) and has drafted 0.5 feet last week. Outflows at Hungry Horse have decreased from 10.6 Kcfs to 7.8 Kcfs over the last week.

Dworshak is currently at an elevation of 1565.1 feet (5-2-13) and has refilled 1.0 foot last week. Outflows from Dworshak have been 9.9 Kcfs over past week.

The Brownlee Reservoir was at an elevation of 2053.4 feet on May 2nd, 2013 drafting 1.1 feet over the last week. Over the last week, inflows at Brownlee have ranged between 8.8 and 10.0 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 have averaged 57.3 Kcfs from April 3rd-May 2nd and 55.4 Kcfs over the last week.

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 239.1 Kcfs between April 10th and May 2nd and 224.2 Kcfs last week. Flows at Priest Rapids Dam have averaged 173.1 Kcfs between April 10th and May 2nd and 156.5 last week.

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 28-June 20: 30%/30% vs. 45 kcf/Gas Cap

At Lower Granite Dam, spill to the Court Order began on April 3rd and has been approximately 20 Kcfs. At Little Goose Dam spill has been provided to the 30% of instantaneous flow level as specified in the Court Order. At Lower Monumental Dam the Court Order calls for spill to the gas cap. Early in the week the COE decreased spill from 28 Kcfs to 26 Kcfs, and then increased spill again to 30- 31 Kcfs. The total dissolved gas (TDG) levels have varied around the 120% TDG in the tailrace, and the 115% at the Ice Harbor forebay. At Ice Harbor Dam the Fish Operations Plan calls for the test schedule of 45 Kcfs spill during the day and gas cap spill at night versus a constant 30% day and night. At present, due to low flows the project is either providing

spill as flow in excess of one turbine unit on the 45Kcfs/ Gas Cap days, or the straight 30% (4/29-30). 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	Testing: 30%/30% vs. 40%/40%
The Dalles	40%/40%
Bonneville	100 Kcfs/100 Kcfs

At McNary dams spill has met the court order over the past week. At John Day Dam the COE is implementing the test conditions of 30% versus 40%. At The Dalles Dam spill was less than the Court Order on 4/26 and 4/27, but met the Court Order on the other days. At Bonneville Dam spill was less than the Court Order 4/26 through 4/29, and then was increased to the Court Order on 4/30. The restriction on spill at Bonneville Dam was to decrease the TDG at the Camas/Washougal monitor, in spite of the fact that this is not a point of monitoring for TDG compliance. The Action Agencies regard this monitor as necessary as part of the “rolled over” Court Order.

In the past week, TDG standards have been exceeded in the Lower Monumental forebay and tailrace monitors. One fish (4/27) was detected with minor signs of gas bubble trauma (GBT) in the sample at McNary Dam, and one at Bonneville Dam (4/28). At Rock Island Dam one fish was detected on 4/30 and two on 5/2 with minor signs of GBT.

Smolt Monitoring: Smolt monitoring is ongoing at all seven SMP dams (BON, JDA, MCN, RIS, LMN, LGS, and LGR) and all four SMP traps (SNK, GRN, IMN, WTB). However, SMP sampling at LGS has been limited up until late this week and at LMN into next week. Finally, sampling at MCN is every-other-day.

Passage of yearling Chinook at BON increased again this week. Furthermore, yearling Chinook were the dominant species of salmonids again this week. This week’s daily average passage index for yearling

Chinook at BON was nearly 40,000 per day, compared to last week's daily average passage index of about 13,400 per day. Passage of steelhead also increased this week, when compared to last week. The daily average passage index for steelhead at BON was nearly 16,600 per day this week. Last week's daily average passage index was just over 2,100 per day. Passage of subyearling Chinook this week was very similar to last week. However, Spring Creek NFH released about 4.8 million subyearling fall Chinook tules on the morning of May 2nd. As of the morning of May 3rd, these subyearling Chinook tules had not arrived at BON yet. With the expected arrival of these subyearling Chinook tules, subyearling Chinook passage should increase significantly in the next day or so. Passage of coho at BON decreased this week. This week's daily average passage index for coho at BON was nearly 6,900, compared to last week's daily average passage index of about 7,800 per day. Sockeye passage increased slightly this week, with a daily average passage index of nearly 300 per day. Finally, only pacific lamprey macrophthalmia were collected at BON this week. The daily average collection for pacific lamprey macrophthalmia was about 15 per day this week, which is a decrease over last week's daily average collection of about 25 per day.

Yearling Chinook continued to dominate the bypass sample at JDA this week. This week's daily average passage index for yearling Chinook was about nearly 38,500 per day, which is an increase over last week's daily average passage index of about 17,625 per day. Steelhead, coho, and sockeye passage also increased this week. This week's daily average passage indices for steelhead, coho, and sockeye were about 19,600, 950, and 1,250 per day, respectively. Last week's daily average passage indices were about 4,400, 450, and 560 per day, respectively. All subyearling Chinook that were sampled at JDA this week were fry. Finally, only pacific lamprey macrophthalmia were sampled at JDA this week. Passage of pacific lamprey macrophthalmia increased week. The daily average collection for pacific lamprey macrophthalmia this week was about 1,100 per day, compared to last week's daily average collection of about 725 per day.

Sampling at MCN is every-other-day until transportation begins in the summer. As with last week, this week's bypass samples were dominated by yearling Chinook and steelhead. Passage of both of these species increased this week, when compared to

last week. This week's daily average passage indices for yearling Chinook and steelhead at MCN were about 47,300 and 32,200 per day, respectively. Last week's daily average passage indices were about 18,000 and 14,150 per day, respectively. Passage of sockeye also increased this week when compared to last week. This week's daily average passage index for sockeye was about 16,850 per day. Last week's daily average passage index for sockeye was only 6,900 per day. Passage of coho this week was very similar to last week, with a daily average passage index of 735 per day. All subyearling Chinook juveniles that were collected at MCN this week were fry. Finally, pacific lamprey macrophthalmia continue to be the only species and life-stage collected at MCN so far this year. This week's daily average collection for pacific lamprey macrophthalmia was about 670 per day, which is very similar to last week's daily average collection.

Yearling Chinook dominated the bypass samples at LGR this week. This week's daily average passage index for yearling Chinook was about 65,550 per day, which is an increase over last week's daily average passage index of about 23,850 per day. Approximately 88% 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. Passage of steelhead at LGR decreased this week, when compared to last week. This week's daily average passage index for steelhead at LGR was about 35,850 per day. Last week's daily average passage index was just over 44,500 per day. Approximately 93% of the steelhead in the bypass sample this week were of known hatchery origin, which means that they either had clipped fins or had eroded fins, which is indicative of hatchery rearing practices. Chinook fry passed LGR in relatively low numbers this week and no sockeye/kokanee were sampled this week. Coho passage at LGR has seemed to have increased over the last three days. As with last week, no pacific lamprey juveniles were sampled at LGR this week. Finally, transportation from LGR began this week. Collections for transportation began on April 27th, with the first barge leaving on April 28th. So far, transportation barges are being loaded every-other-day at LGR.

Sampling at LMN and LGS remained limited most of this week. This limited sampling is every three days at LMN (for condition subsample only) and every five days at LGS (full 24-hour sample). However,

collections for transportation from LGS began on May 2nd, with the first barge leaving on May 3rd. Given that transportation has begun at LGS, sampling will no longer be limited. Limited sampling at LMN is expected to run through May 8th, when transportation is expected to begin. After transportation begins, sampling at LMN will no longer be limited. As with last week, yearling Chinook and steelhead dominated the bypass samples this week. Finally, no lamprey juveniles were collected at either site this week.

Yearling Chinook continued to dominate the collections of salmonids this week. This week's daily average passage index for yearling Chinook at RIS was just over 300 per day, which was an increase over last week's daily average of just over 100 per day. Sockeye passage increased again this week. This week's daily average passage index for sockeye at RIS was nearly 150 per day, compared to last week's average of only about 60 per day. Although still relatively low, passage of coho and steelhead also increased this week. Subyearling Chinook passage this week was very similar to last week. The majority of subyearling Chinook that were collected this week were fry. Finally, both Pacific lamprey ammocoetes and macrophthalmia were collected at RIS this week, although in very low numbers.

The Grande Ronde Trap continued to collect mostly yearling Chinook this week. The daily average collection for yearling Chinook at GRN was about 190 per day this week. This is a decrease over last week's daily average collection of about 540 per day. Of the yearling Chinook that were collected at this trap this week, approximately 77% were of known hatchery origin, which means that they either had fin clips or were unclipped but had coded-wire-tags. Collections of steelhead also decreased this week, when compared to last week. This week's daily average collection for steelhead at GRN was about 50 per day. Last week's daily average collection was about 120 per day. Finally, only a few subyearling Chinook juveniles were collected this week.

As in past weeks, the Salmon River Trap collected 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 1,060 per day. Last week's daily average collection for yearling Chinook was only about 275 per day. Steelhead collections at the Salmon River Trap increased slightly

this week. The daily average collection for steelhead this week was about 175 per day, compared to last week's daily average collection of nearly 110 per day.

Collections at the Snake River Trap were dominated by steelhead again this week. The daily average collection for steelhead this week was about 450 per day, which is an increase from last week's daily average collection of about 190 per day. Collections of yearling Chinook also increased this week. This week's daily average collection for yearling Chinook at the Snake River Trap was nearly 50 per day, compared to last week's daily average of about 23 per day. Finally, only a few Chinook fry and coho were collected at the Snake River Trap this week.

At this time, data from the Imnaha Trap are only available through April 27th. For the period of April 21-27, passage of steelhead and yearling Chinook both decreased, when compared to the April 14-20 period. The daily average collections for steelhead and yearling Chinook since April 21st were 79 and 221 per day, respectively. These averages for the April 14-20 period were 109 and 308, respectively. Finally, the Imnaha River Trap has not collected any lamprey juveniles since April 8th.

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. Several releases of summer steelhead juveniles were scheduled to begin this week. In all, just over 746,000 summer steelhead juveniles were scheduled for release this week. These steelhead releases were scheduled to take place throughout the Snake River basin, including: the Salmon River (46%), the Imnaha River (29%), and the Pahsimeroi River (25%).

Several releases of juvenile salmonids are scheduled to for this zone over the next two weeks. Approximately 500,000 subyearling fall Chinook are scheduled for release into Lapwai Creek, a tributary of the Clearwater River, on or around May 10th. Approximately 40% of these subyearling Chinook are unmarked and, thus, are undistinguishable from wild subyearling Chinook. On or around May 9th, approximately 271,000 sockeye smolts will be released into Redfish Lake Creek, a tributary of the Salmon River. The only other new releases of salmonids that are scheduled over the next two weeks are of summer steelhead. In all, about 120,000 summer steelhead

juveniles are scheduled for release into the Wallowa River on or around May 4th.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. Several releases of subyearling fall and summer Chinook were scheduled for this week. First, nearly 324,000 subyearling fall Chinook were scheduled for release this week. The vast majority (98%) of these subyearling fall Chinook were to be released into the Yakima River this week. The remaining 2% were scheduled to be released by WDFW Cooperatives into the Mid-Columbia River (above McNary Dam) and the Wenatchee River. WDFW Cooperatives were also scheduled to release a total of 450 subyearling summer Chinook into the Methow (50%) and Okanogan (50%) rivers. Finally, the Yakama Tribal coho reintroduction program was scheduled to release a total of about 387,000 coho juveniles this week. These coho releases were scheduled for the Methow (45%), Wenatchee (28%), and Mid-Columbia (26%) rivers.

Approximately 1.57 million subyearling fall Chinook are scheduled for release to the Yakima River over the next two weeks. In addition, about 484,000 subyearling summer Chinook are scheduled for release from Wells Hatchery into the Mid-Columbia River. This release is scheduled to occur on or around May 15th. Wells Hatchery is also scheduled to release about 140,000 summer steelhead juveniles, on or around May 15th. Finally, approximately 182,000 coho juveniles are scheduled for release into the Wenatchee River over the next two weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were several releases of juvenile salmonids scheduled for this zone this week. First, Spring Creek NFH released just over 4.8 million subyearling fall Chinook tules into Bonneville Dam pool on the morning of May 2nd. As of the morning of May 3rd, these Spring Creek tules had not arrived at the Bonneville Dam Juvenile Fish Facility. Finally, about 40,500 steelhead juveniles were scheduled for release into this zone this week. Of these, about 93% were winter steelhead that were scheduled to be released into Hood River. The remaining 7% were summer steelhead that were scheduled to be released into the Little White Salmon River.

There are only two new releases of juvenile salmonids scheduled for this zone over the next two

weeks. The first is a release of approximately 240,000 yearling spring Chinook to the Deschutes River, which is planned for May 11th. The second is a release of about 12,500 winter steelhead to Hood River. This winter steelhead release is scheduled to take place on or around May 14th.

Adult Fish Passage:

Adult counts at Bonneville Dam have been updated through May 2nd. Daily adult spring Chinook counts at Bonneville Dam ranged from 2,123 to 5,346 adult salmon per day. As of May 2nd, a total of 35,880 spring Chinook have been counted at Bonneville Dam. In 2012, 27,486 adult spring Chinook were counted at Bonneville Dam for the same time period. The 2013 adult spring Chinook count at Bonneville Dam is about 1.3 times greater than the 2012 count, while being 54.6% of the 10 year average count of 65,750. The 2013 spring Chinook jack count of 3,447 is 11.7 times greater than the 2012 count of 295 and 2.8 times greater than the 10 year average count of 1,226. At Willamette Falls Dam 7,706 adult spring Chinook has been counted so far this year. In 2012, 1,860 adult spring Chinook were counted at Willamette. This year's count is 4.1 times greater than the 2012 count. However, the 2013 Willamette Falls adult spring Chinook count is 77.4% of the 10 year average count of 9,956. As of May 2nd, a total of 21,852 adult spring Chinook have been counted at The Dalles Dam and 8,256 have been counted at McNary Dam. The Dalles Dam 2013 adult spring Chinook count is 2.1 times greater than the 2012 count while being 55.6% of the 10 year average count. The 2013 McNary Dam adult spring Chinook count is about 2.4 times greater than the 2012 count, while being only 39.5% of the 10 year average count.

The 2013 Bonneville Dam adult steelhead count of 2,667 is about 62.6% of the 2012 count of 4,262 and 66.5% of the 10 year average count of 4,009. The 2013 Bonneville Dam adult wild steelhead count of 817 is about 60.7% of the 2012 count of 1,344 and 77.3% of the 10 year average count of 1,057. At upriver sites, adult steelhead continue to move through the hydro system to reach their tributaries and spawning sites. The majority of these fish over-wintered in pools and will complete their trip to their spawning grounds in March through early May. Daily adult steelhead counts at Lower Granite Dam ranged from 27 to 41 adults per day last week. This year's Lower Granite steelhead count of 7,197 is about 85.3% of the 2012 count of 8,436 and

77.3% of the 10 year average count of 9,315. The 2013 Lower Granite Dam adult wild steelhead count of 3,077 is about 85.9% of the 2012 count of 3,581, while being about 1.03 times greater than the 10 year average count of 2,976. At Willamette Falls Dam, the 2013 count for steelhead was 7,031 as of April 30th. This year's steelhead count is about 69.4% of the 2012 count of 10,135 and about 79.5% of the 10 year average count of 8,845.

Hatchery Releases Last Two Weeks

Hatchery Release Summary									
From:	4/19/2013		to		05/02/13				
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	Magic Valley Hatchery	ST	SU	2013	63,298	05-01-13	05-02-13	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	124,875	05-02-13	05-03-13	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	188,145	04-26-13	05-01-13	Squaw Creek	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	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 Total					3,561,343				
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2013	130,541	04-12-13	04-22-13	Lostine Accim Pond	Wallowa River
Nez Perce Tribe Total					130,541				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	50,000	04-29-13	04-29-13	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	165,000	04-29-13	04-29-13	L Sheep Acclim Pond	Imnaha River
								Big Canyon Acclim.Pd	
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	320,000	04-11-13	05-08-13	(Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2013	300,000	05-01-13	05-01-13	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2013	52,707	04-24-13	04-24-13	Meacham Creek	Umatilla River
Oregon Dept. of Fish and Wildlife Total					887,707				
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2013	127,363	05-01-13	05-10-13	Salmon River (ID)	Salmon River (ID)
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	215,523	05-01-13	05-10-13	Yankee Fk (Salmon R)	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	Spring Creek NFH	CH0	FA	2013	4,801,111	05-02-13	05-02-13	Spring Creek Hatchery	L Col R (D/s McN Dam)
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					7,914,428				
Umatilla Tribe	Cascade Hatchery	CO	UN	2013	675,125	04-20-13	04-24-13	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2013	52,255	04-20-13	04-25-13	Minthorn Acclimation Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2013	52,276	04-20-13	04-24-13	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe Total					779,656				
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2013	25,000	04-30-13	04-30-13	Trap	Hood River
Warm Springs Tribe	Parkdale Acclim. Pond	ST	WI	2013	12,500	04-30-13	04-30-13	Parkdale Acclim Pond	Hood River
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					112,500				
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
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	175	05-01-13	05-31-13	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	225	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	4,500	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	18,975	05-01-13	05-31-13	Yakama River	Yakima River
Washington Dept. of Fish and Wildlife	COOP	CH0	SU	2013	225	05-01-13	05-31-13	Methow River	Methow River
Washington Dept. of Fish and Wildlife	COOP	CH0	SU	2013	225	05-01-13	05-31-13	Similkameen Acclim Pd	Okanogan River
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

Hatchery Releases Last Two Weeks, continued

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	Skamania Hatchery	ST	SU	2013	3,000	05-01-13	05-10-13	Drano Lake	Little White Salmon 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	90,000	04-20-13	05-20-13	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife Total					4,371,025				
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	Klickitat Hatchery	CO	NO	2013	1,080,000	05-01-13	05-01-13	Klickitat Hatchery	Klickitat River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2013	25,000	04-26-13	04-26-13	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2013	300,000	04-27-13	04-27-13	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	35,838	05-01-13	06-15-13	Methow River	Methow 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	66,881	05-01-13	06-15-13	Biddle Pond	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2013	72,764	05-01-13	06-15-13	Twisp Acclim Pond	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2013	73,036	04-15-13	06-15-13	Icicle Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2013	101,818	05-01-13	06-15-13	Wells Hatchery	Mid-Columbia River
Yakama Tribe	Willard Hatchery	CO	UN	2013	109,826	05-01-13	06-15-13	Wenatchee River	Wenatchee River
Yakama Tribe	Winthrop NFH	CO	UN	2013	253,485	04-15-13	06-15-13	Winthrop Hatchery	Methow River
Yakama Tribe Total					4,552,304				
Grand Total					22,318,693				

Hatchery Releases Next Two Weeks

Hatchery Release Summary									
From:	5/3/2013	to	5/16/2013						
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2013	124,875	05-02-13	05-03-13	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Oxbow-Oregon	SO	UN	2013	100,000	05-09-13	05-09-13	Redfish Lake Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	SO	UN	2013	1,300	05-09-13	05-09-13	Redfish Lake Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	SO	UN	2013	170,000	05-09-13	05-09-13	Redfish Lake Creek	Salmon River (ID)
Idaho Dept. of Fish and Game Total					396,175				
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2013	500,000	05-10-13	05-10-13	Lapwai Creek	Clearwater River M F
Nez Perce Tribe Total					500,000				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	120,000	05-04-13	05-04-13	Wallowa Acclim Pond	Wallowa River
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	Round Butte Hatchery	CH1	SP	2013	240,000	05-11-13	05-11-13	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					680,000				
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2013	127,363	05-01-13	05-10-13	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2013	215,523	05-01-13	05-10-13	Yankee Fk (Salmon R)	Salmon River (ID)
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					457,686				
Warm Springs Tribe	Parkdale Acclim. Pond	ST	WI	2013	12,500	05-14-13	05-14-13	Parkdale Acclim Pond	Hood River
Warm Springs Tribe Total					12,500				
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	ST	SU	2013	223,000	04-25-13	05-05-13	Chiwawa Hatchery	Wenatchee River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	175	05-01-13	05-31-13	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	225	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	4,500	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish and Wildlife	COOP	CH0	FA	2013	18,975	05-01-13	05-31-13	Yakama River	Yakima River
Washington Dept. of Fish and Wildlife	COOP	CH0	SU	2013	225	05-01-13	05-31-13	Methow River	Methow River
Washington Dept. of Fish and Wildlife	COOP	CH0	SU	2013	225	05-01-13	05-31-13	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2013	600,000	04-15-13	05-10-13	Similkameen Acclim Pd Blackbird Island Acc	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	ST	SU	2013	24,000	04-25-13	06-20-13	Pond	Wenatchee 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	Methow Hatchery	ST	SU	2013	95,000	04-25-13	05-05-13	Methow Hatchery	Methow River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2013	3,000	05-01-13	05-10-13	Drano Lake	Little White Salmon 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	Wells Hatchery	CH0	SU	2013	484,000	05-15-13	05-31-13	Wells Hatchery	Mid-Columbia 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	Wells Hatchery	ST	SU	2013	140,000	05-15-13	05-25-13	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife Total					1,918,325				
Yakama Tribe	Cascade Hatchery	CO	UN	2013	65,362	05-13-13	06-15-13	Rolfings Acclim Pond	Wenatchee River
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 Jack Creek Acclim	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2013	266,311	03-15-13	05-15-13	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	Marion Drain Hatchery	CH0	FA	2013	70,000	05-14-13	05-14-13	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2013	1,500,000	05-04-13	05-04-13	Prosser Acclim Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2013	124,425	04-15-13	07-01-13	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	35,838	05-01-13	06-15-13	Methow River	Methow 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	56,507	05-15-13	06-15-13	Coulter Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2013	59,798	05-13-13	06-15-13	Rolfings Acclim Pond	Wenatchee River

Hatchery Releases Next Two Weeks, continued

Yakama Tribe	Willard Hatchery	CO	UN	2013	66,881	05-01-13	06-15-13	Biddle Pond	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2013	72,764	05-01-13	06-15-13	Twisp Acclim Pond	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2013	73,036	04-15-13	06-15-13	Icicle Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2013	101,818	05-01-13	06-15-13	Wells Hatchery	Mid-Columbia River
Yakama Tribe	Willard Hatchery	CO	UN	2013	109,826	05-01-13	06-15-13	Wenatchee River	Wenatchee River
Yakama Tribe	Winthrop NFH	CO	UN	2013	253,485	04-15-13	06-15-13	Winthrop Hatchery	Methow River
Yakama Tribe Total					4,898,971				
Grand Total					8,863,657				

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

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

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
04/19/2013	138.3	0.0	141.9	0.0	156.8	17.8	155.2	14.6	158.9	20.1	166.8	28.5	161.2	43.2
04/20/2013	128.5	0.0	128.9	0.0	135.0	10.0	132.5	0.0	139.0	14.2	157.6	19.4	162.8	22.4
04/21/2013	139.2	0.0	136.4	0.0	139.2	10.0	130.9	0.0	136.6	15.7	154.3	18.4	152.7	21.6
04/22/2013	148.5	0.0	151.5	0.0	153.9	12.9	151.2	11.7	154.9	19.2	155.2	18.2	148.5	21.8
04/23/2013	153.9	0.0	151.2	0.0	164.6	15.1	162.1	14.6	167.1	16.0	160.9	32.4	152.8	24.3
04/24/2013	144.0	0.0	149.8	0.0	161.3	17.5	158.0	10.0	163.5	16.1	175.3	37.4	169.2	31.6
04/25/2013	144.8	0.0	147.1	0.0	157.8	14.5	154.9	7.9	160.0	17.3	160.1	33.4	153.5	36.3
04/26/2013	139.6	0.0	140.8	0.0	146.6	10.0	147.9	0.0	154.3	15.0	167.0	30.1	165.5	32.4
04/27/2013	117.3	0.0	119.1	0.0	132.3	10.0	135.4	0.0	145.3	15.3	157.1	24.0	157.4	28.1
04/28/2013	124.4	0.0	122.4	0.0	131.7	9.7	127.0	0.0	132.8	14.4	150.9	18.9	148.4	26.4
04/29/2013	136.0	0.0	137.5	0.0	145.8	9.5	138.6	0.0	145.3	16.1	147.8	18.9	145.8	26.1
04/30/2013	147.1	0.0	147.8	0.0	154.7	9.9	153.5	3.7	159.0	18.2	155.6	20.4	150.7	27.2
05/01/2013	143.2	0.0	147.9	0.0	155.4	10.0	159.5	6.0	168.4	14.4	172.6	33.3	165.5	33.6
05/02/2013	142.1	0.0	145.2	0.0	153.6	10.0	150.1	2.4	157.8	14.5	168.0	28.1	165.1	30.8

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

Date	Dworshak		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
04/19/2013	9.9	0.0	---	---	45.8	20.4	47.0	14.1	49.5	31.1	50.1	39.9
04/20/2013	9.9	0.0	---	---	48.8	20.4	48.8	14.6	50.4	31.0	51.4	41.0
04/21/2013	9.9	0.0	---	---	51.8	20.4	53.7	16.1	58.1	31.0	59.8	45.5
04/22/2013	9.9	0.0	---	---	54.7	20.3	58.2	17.5	60.7	31.0	61.5	47.7
04/23/2013	9.9	0.0	---	---	49.8	20.2	48.5	14.5	49.3	31.0	48.6	38.7
04/24/2013	9.9	0.0	---	---	45.0	20.2	46.1	13.9	48.8	31.0	50.4	40.6
04/25/2013	9.9	0.0	---	---	45.2	20.4	44.9	13.5	47.4	29.6	47.0	37.0
04/26/2013	9.9	0.0	---	---	47.8	20.2	48.1	14.4	52.3	28.0	55.3	45.3
04/27/2013	9.9	0.0	---	---	52.6	20.2	52.4	15.8	54.6	28.0	52.7	42.1
04/28/2013	9.9	0.0	---	---	51.7	20.3	51.6	15.5	53.1	26.7	51.8	21.6
04/29/2013	9.8	0.0	---	---	61.2	20.3	62.6	18.8	65.2	26.0	64.9	19.5
04/30/2013	9.9	0.0	---	---	63.5	20.2	63.7	19.2	65.7	26.7	64.8	41.7
05/01/2013	9.8	0.0	---	---	61.2	20.2	61.7	18.5	64.7	29.9	66.0	47.9
05/02/2013	9.9	0.0	---	---	59.8	20.3	59.3	17.8	60.1	31.2	59.4	44.2

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
04/19/2013	217.6	88.0	212.3	63.6	195.2	78.0	226.1	100.1	16.4	97.2
04/20/2013	223.2	90.1	225.3	67.4	211.7	84.4	227.9	100.3	15.6	99.7
04/21/2013	233.2	93.5	234.3	70.5	217.5	86.9	235.0	100.4	21.9	100.3
04/22/2013	232.2	93.2	251.0	75.3	231.9	92.9	258.8	100.4	41.0	105.1
04/23/2013	207.8	83.8	214.0	64.2	201.4	80.3	233.8	99.9	24.8	96.7
04/24/2013	217.1	86.7	216.7	65.1	198.2	79.5	211.9	99.7	1.4	98.5
04/25/2013	211.3	85.1	214.4	64.6	195.5	78.1	215.6	97.6	0.0	105.6
04/26/2013	219.1	87.8	219.6	65.9	203.3	76.1	211.6	94.8	4.9	99.4
04/27/2013	226.9	90.9	222.0	66.4	206.6	76.2	223.7	92.8	19.4	99.1
04/28/2013	223.7	89.9	221.6	66.7	202.5	80.7	229.2	89.6	24.7	102.4
04/29/2013	220.9	88.7	217.2	69.0	203.6	81.2	219.4	96.1	19.1	91.9
04/30/2013	219.6	88.2	229.7	91.9	210.1	83.1	239.2	99.7	35.2	91.9
05/01/2013	234.0	94.0	244.3	93.8	227.5	91.0	251.7	99.5	55.2	84.6
05/02/2013	237.9	95.7	232.2	69.8	210.2	84.1	231.1	99.6	37.5	81.6

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											
	04/24/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/30/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	04/22/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/27/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	04/22/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/25/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	04/22/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/26/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/28/13	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/02/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	04/20/13	Chinook + Steelhead	57	0	0	0.00%	0.00%	0	0	0	0
	04/23/13	Chinook + Steelhead	84	0	0	0.00%	0.00%	0	0	0	0
	04/27/13	Chinook + Steelhead	94	1	1	1.06%	0.00%	1	0	0	0
	04/30/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	04/23/13	Chinook + Steelhead	42	0	0	0.00%	0.00%	0	0	0	0
	04/25/13	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	04/30/13	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/02/13	Chinook + Steelhead	100	2	2	2.00%	0.00%	2	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 Upper Columbia River Sites

Date	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		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
4/19	---	---	---	0	---	---	---	0	105.3	105.8	106.6	24	102.7	102.9	103.1	24	103.3	103.5	103.8	24
4/20	---	---	---	0	---	---	---	0	104.3	104.5	104.7	24	102.5	102.8	103.1	24	103.2	103.5	103.7	24
4/21	---	---	---	0	---	---	---	0	103.9	104.0	104.1	24	101.9	102.1	102.4	24	102.8	103.1	103.2	24
4/22	---	---	---	0	---	---	---	0	103.5	103.8	103.9	24	101.1	101.7	102.0	24	102.4	102.6	103.0	24
4/23	---	---	---	0	---	---	---	0	104.5	105.0	105.4	24	102.4	103.0	105.0	24	102.9	103.4	110.1	24
4/24	---	---	---	0	---	---	---	0	105.4	105.8	106.2	24	102.7	103.4	104.0	24	103.3	103.8	104.0	24
4/25	---	---	---	0	---	---	---	0	106.2	106.3	106.6	24	103.7	103.9	104.1	24	104.2	104.5	104.9	24
4/26	---	---	---	0	---	---	---	0	105.7	106.0	106.3	24	103.4	103.7	103.9	24	104.3	104.6	104.7	24
4/27	---	---	---	0	---	---	---	0	106.0	106.3	106.6	24	104.1	104.7	105.2	24	104.6	104.9	105.2	24
4/28	---	---	---	0	---	---	---	0	105.9	106.3	106.5	24	103.7	104.4	104.8	24	104.8	105.1	105.2	24
4/29	---	---	---	0	---	---	---	0	106.3	106.6	106.8	24	104.4	104.6	104.8	24	104.7	105.0	105.3	24
4/30	---	---	---	0	---	---	---	0	105.3	105.5	105.6	24	102.9	103.1	103.3	24	103.8	104.0	104.2	24
5/1	---	---	---	0	---	---	---	0	104.4	104.6	104.8	24	102.1	102.4	102.5	24	102.6	102.7	102.8	24
5/2	---	---	---	0	---	---	---	0	105.2	106.1	106.8	23	102.8	103.3	103.6	23	103.4	103.9	104.1	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	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		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
4/19	103.5	104.1	104.9	24	104.1	104.6	105.0	23	107.5	108.9	109.8	23	110.3	110.6	110.8	24	114.7	117.3	118.4	24
4/20	103.6	104.2	104.8	24	103.3	103.6	103.8	23	105.4	105.9	106.4	23	108.7	109.0	109.4	24	108.8	109.1	109.8	24
4/21	102.7	103.0	103.6	24	102.6	103.0	103.9	22	104.6	105.0	105.9	22	105.9	106.6	107.8	24	106.0	106.6	107.9	24
4/22	101.9	102.2	102.7	24	101.8	102.1	102.4	20	104.4	105.0	107.3	20	104.0	104.5	104.8	24	109.4	110.1	110.4	24
4/23	102.3	102.9	104.8	24	102.6	102.7	103.4	19	105.7	106.3	107.4	19	104.7	105.0	105.2	24	111.7	112.5	113.9	24
4/24	102.9	103.6	104.0	24	103.1	103.6	103.8	21	106.3	107.6	110.4	21	106.8	107.5	107.8	24	111.7	113.7	115.7	24
4/25	103.9	104.2	105.1	24	104.3	104.7	105.2	23	107.2	108.4	109.8	23	107.2	108.1	109.0	24	110.0	112.6	113.6	24
4/26	104.4	104.8	105.4	24	104.3	104.6	104.9	22	106.8	107.2	107.6	22	106.7	107.2	107.8	24	107.1	107.6	110.1	24
4/27	105.3	105.6	106.1	24	104.8	105.0	105.6	20	107.1	107.4	107.7	20	107.4	107.6	107.8	24	107.3	107.4	107.5	24
4/28	104.9	105.2	105.7	24	104.8	105.2	105.6	22	107.1	107.5	107.8	22	106.8	107.1	107.3	24	106.7	107.0	107.3	24
4/29	104.8	105.3	106.0	24	104.4	104.8	105.2	19	106.5	106.8	107.3	19	106.7	106.9	107.3	24	106.7	106.9	107.3	24
4/30	103.5	104.0	104.7	24	102.8	103.0	103.6	19	105.2	105.5	106.2	19	105.0	105.3	106.1	24	105.8	106.9	112.5	24
5/1	102.1	102.4	103.1	24	102.4	102.6	102.8	23	104.8	105.2	105.7	23	103.8	104.1	104.4	24	106.7	109.2	112.1	24
5/2	102.8	103.4	103.7	23	103.0	103.4	103.6	19	105.4	105.9	106.3	19	104.9	105.8	106.3	23	106.3	107.3	109.0	23

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	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		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
4/19	110.8	111.7	112.3	24	113.1	114.0	114.5	24	112.7	113.1	113.3	24	112.9	113.2	113.5	24	112.4	112.6	112.8	24
4/20	108.5	109.1	110.7	24	110.2	111.1	113.2	24	111.7	112.2	112.7	24	111.2	111.7	112.0	24	111.0	111.5	112.0	24
4/21	106.3	107.2	107.7	24	109.0	109.8	110.5	24	109.6	109.8	110.4	24	110.1	110.3	110.6	24	109.2	109.6	110.2	24
4/22	104.4	105.5	105.8	24	107.0	107.9	108.7	24	108.9	109.4	109.7	24	109.5	109.6	109.9	24	109.1	110.1	110.6	24
4/23	106.0	106.9	107.6	24	108.1	109.1	110.0	24	108.9	109.2	109.4	24	109.8	110.2	110.9	24	110.3	110.6	110.9	24
4/24	107.7	109.7	110.9	24	109.8	111.8	113.9	24	108.5	109.2	109.4	24	109.7	110.2	110.4	24	110.3	110.8	111.1	24
4/25	106.7	107.6	109.0	24	109.5	110.7	112.9	24	109.1	109.2	109.4	24	110.8	111.3	112.0	24	110.3	110.5	111.1	24
4/26	107.2	108.0	108.5	24	109.5	110.6	111.7	24	109.0	109.5	109.6	24	110.6	111.2	111.5	24	110.2	110.9	111.9	24
4/27	106.5	106.8	107.0	24	109.2	109.5	110.5	24	108.9	109.1	109.5	24	110.2	110.4	110.6	24	110.3	110.6	111.0	24
4/28	106.4	106.6	106.7	24	109.2	109.9	110.8	24	108.7	108.8	109.0	24	109.8	110.1	110.2	24	109.9	110.3	110.5	24
4/29	105.7	106.0	106.6	24	108.7	109.6	111.3	24	107.7	108.4	108.8	24	108.9	109.3	109.7	24	108.8	110.0	110.8	24
4/30	104.6	105.0	105.2	24	107.8	108.4	109.6	24	105.7	106.2	106.6	24	107.8	108.2	109.0	24	106.4	106.7	106.8	24
5/1	103.9	104.3	104.9	24	106.2	106.6	107.4	24	---	---	---	0	---	---	---	0	---	---	---	0
5/2	105.0	105.5	105.8	23	107.3	107.7	108.5	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

Date	Priest R. Dnst			Pasco			Dworshak			Clrwr-Peck			Anatone							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
4/19	115.2	115.5	116.1	24	---	---	---	0	95.6	95.8	96.2	24	98.5	98.8	99.0	24	102.2	102.7	103.2	24
4/20	113.0	113.4	114.1	24	---	---	---	0	95.1	95.3	95.6	24	98.6	99.1	99.4	24	102.0	102.8	103.8	24
4/21	111.3	111.6	112.0	24	---	---	---	0	95.1	95.5	95.9	24	98.7	99.2	100.0	24	102.0	102.9	104.0	23
4/22	110.9	111.6	111.8	24	---	---	---	0	94.6	94.9	95.2	24	98.3	99.1	99.8	24	101.6	102.7	103.6	24
4/23	112.2	112.4	112.6	24	---	---	---	0	95.0	95.3	95.8	24	98.4	99.1	99.9	24	101.8	102.7	103.7	24
4/24	112.7	113.4	113.8	24	---	---	---	0	95.3	95.8	96.0	24	98.9	99.9	100.6	24	102.4	103.9	105.0	24
4/25	112.9	113.1	113.3	24	---	---	---	0	96.0	96.4	96.8	24	99.2	100.0	100.7	24	102.7	103.8	104.9	24
4/26	112.5	112.6	112.8	24	---	---	---	0	95.6	96.0	96.3	24	98.9	99.9	100.7	24	102.6	104.0	105.2	24
4/27	112.5	112.7	112.8	24	---	---	---	0	95.6	95.9	96.2	24	98.7	99.2	99.4	24	102.3	103.0	103.6	23
4/28	112.1	112.5	112.7	24	---	---	---	0	96.0	96.3	96.6	24	99.3	100.1	100.6	24	102.5	103.5	104.5	24
4/29	111.4	112.3	112.8	24	---	---	---	0	96.3	96.6	97.3	24	99.8	100.2	100.6	24	102.4	103.1	104.2	22
4/30	109.6	109.8	110.0	24	---	---	---	0	95.3	95.6	95.8	24	98.9	99.3	99.8	24	101.4	101.9	102.4	24
5/1	---	---	---	0	---	---	---	0	94.5	94.8	95.1	24	98.9	99.7	100.4	24	102.3	103.5	104.5	24
5/2	---	---	---	0	---	---	---	0	94.8	95.2	95.5	23	99.3	100.3	100.9	23	103.3	104.6	105.6	23

Total Dissolved Gas Saturation Data at Snake River Sites

Date	Clrwr-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	#					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
4/19	98.5	99.4	99.9	24	101.3	101.5	101.7	24	112.6	113.0	113.9	24	109.0	109.2	109.3	24	111.4	111.5	111.7	24
4/20	98.4	99.0	99.6	24	101.7	102.0	102.3	24	112.7	113.1	113.3	24	108.4	108.5	108.9	24	111.0	111.2	111.3	24
4/21	98.1	98.9	99.5	24	102.4	102.5	102.7	24	112.5	112.9	113.4	24	108.1	108.4	108.8	24	110.7	111.0	111.4	24
4/22	97.3	98.5	99.5	24	101.4	101.7	102.2	24	111.6	111.9	112.3	24	107.3	107.6	107.9	24	110.4	110.6	110.9	24
4/23	96.8	97.8	98.6	24	101.8	102.0	102.2	24	111.9	112.3	112.5	24	107.9	108.2	108.3	24	111.0	111.3	111.7	24
4/24	97.5	99.2	100.1	24	102.4	102.6	103.1	24	112.2	112.9	113.8	24	109.1	110.2	111.3	24	111.8	112.3	112.7	24
4/25	97.8	98.8	99.5	24	103.2	103.4	103.6	24	112.5	112.9	113.6	24	111.3	111.7	112.0	24	112.9	113.3	113.7	24
4/26	96.8	97.9	98.7	24	103.1	103.3	103.4	24	112.4	112.8	113.9	24	112.2	112.6	113.1	24	112.7	113.0	113.4	24
4/27	96.0	96.6	97.0	24	103.1	103.3	103.5	24	112.1	112.4	112.7	24	114.0	114.9	115.6	24	112.6	113.0	113.5	24
4/28	95.7	96.6	97.1	24	103.5	103.8	104.7	24	112.3	112.6	113.6	24	113.8	114.2	114.6	24	112.8	113.1	113.5	24
4/29	96.0	96.2	96.4	24	104.0	104.4	104.7	24	111.2	111.9	112.6	24	112.2	112.9	113.6	24	111.4	111.8	112.3	24
4/30	96.5	97.1	97.7	24	102.3	102.9	103.4	24	110.9	111.2	111.6	24	109.9	110.3	110.7	24	110.7	111.3	115.0	24
5/1	97.1	98.5	99.2	24	100.7	100.9	101.2	24	110.3	110.8	111.7	24	107.9	108.3	108.8	24	110.2	110.4	110.8	24
5/2	98.4	99.7	100.5	23	101.0	101.4	101.6	23	111.0	111.4	111.8	23	108.7	109.5	110.2	23	110.9	111.1	111.4	23

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

Date	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	#					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
4/19	110.0	110.2	110.3	24	119.1	119.5	119.8	24	115.2	115.6	116.0	24	113.0	113.2	113.4	24	---	---	---	0
4/20	109.7	109.9	110.1	24	119.2	119.4	119.7	24	114.4	114.6	114.9	24	113.2	113.6	114.3	24	---	---	---	0
4/21	109.4	109.6	109.7	24	119.5	119.9	120.3	24	113.8	114.0	114.2	24	114.8	115.4	115.9	24	---	---	---	0
4/22	108.3	108.7	109.1	24	119.4	119.8	120.1	24	112.4	112.7	113.1	24	114.7	115.2	115.6	24	---	---	---	0
4/23	109.1	109.4	109.5	24	119.4	119.8	120.3	23	113.9	114.4	114.7	24	113.3	113.8	115.4	24	---	---	---	0
4/24	110.3	110.9	111.2	24	119.6	120.2	120.8	24	115.2	116.1	116.8	24	113.6	114.0	114.4	24	---	---	---	0
4/25	112.0	112.2	112.5	24	119.1	119.5	119.9	24	117.2	117.4	117.7	24	113.6	114.1	114.3	24	---	---	---	0
4/26	111.8	111.9	112.0	24	118.0	118.3	118.6	24	117.9	118.2	118.4	24	115.0	115.5	115.9	24	---	---	---	0
4/27	112.5	112.8	113.1	24	118.6	118.8	119.2	24	118.6	118.9	119.1	24	114.3	115.2	116.2	24	---	---	---	0
4/28	113.0	113.2	113.4	24	117.8	118.0	118.4	24	117.3	117.4	117.7	24	113.4	114.3	116.2	24	---	---	---	0
4/29	112.5	113.1	113.6	24	117.8	118.0	118.2	24	115.1	115.9	116.6	24	112.7	113.6	114.6	24	---	---	---	0
4/30	110.3	110.6	111.3	24	117.6	118.1	118.7	24	112.2	112.6	113.2	24	114.7	115.1	115.4	24	---	---	---	0
5/1	108.6	109.0	109.6	24	119.1	120.1	120.7	24	110.9	111.2	111.4	24	114.8	115.5	115.8	24	---	---	---	0
5/2	109.6	110.2	110.8	23	119.9	120.5	120.9	23	112.8	113.8	114.6	23	114.9	115.9	116.7	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

Date	<u>McNary-Wash</u>			#	<u>McNary Tlwr</u>			#	<u>John Day</u>			#	<u>John Day Tlwr</u>			#	<u>The Dalles</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
4/19	113.3	113.7	113.9	24	115.3	116.0	116.4	24	108.8	109.3	109.5	24	114.0	114.3	114.6	24	109.6	110.0	110.4	24
4/20	110.9	111.3	112.2	24	114.0	114.2	114.4	24	108.9	109.2	109.4	24	114.3	114.5	114.8	24	108.4	108.8	109.1	24
4/21	109.0	109.2	109.8	24	113.9	114.3	114.6	24	108.7	108.8	109.0	24	113.5	113.9	114.4	24	109.1	109.3	109.6	24
4/22	108.2	109.0	109.6	24	113.6	113.8	114.3	24	107.6	108.0	108.6	24	113.6	114.2	115.5	24	109.4	110.3	110.7	24
4/23	109.1	109.3	109.6	24	113.5	113.8	114.1	24	107.9	108.2	108.6	24	113.4	113.6	114.0	24	110.5	110.7	110.9	24
4/24	110.0	110.8	111.3	24	113.7	114.1	114.7	24	108.3	109.0	109.5	24	112.8	113.2	113.7	24	110.5	111.1	111.5	24
4/25	111.9	112.1	112.6	24	114.2	114.5	114.8	24	109.7	109.9	110.1	24	113.2	113.7	114.2	24	111.3	111.5	111.8	24
4/26	112.2	112.4	112.9	24	114.7	115.2	115.6	24	109.8	110.4	110.6	24	113.5	113.9	114.3	24	110.6	111.0	111.3	24
4/27	112.3	112.7	113.1	24	114.7	115.0	115.3	24	111.1	111.7	111.8	24	114.1	114.5	115.0	24	111.3	111.4	111.6	24
4/28	110.7	110.9	111.2	24	114.1	114.3	114.8	24	111.1	111.2	111.5	24	114.0	114.4	115.2	24	110.8	111.1	111.2	24
4/29	108.6	109.4	110.4	24	113.7	113.9	114.2	24	109.9	110.5	111.1	24	114.4	115.0	115.9	24	109.6	110.5	111.3	24
4/30	106.7	106.9	107.4	24	113.5	113.7	113.8	24	107.5	107.9	108.5	24	115.2	116.1	117.2	24	107.7	108.6	109.0	24
5/1	105.7	106.3	107.1	24	113.2	113.4	113.7	24	105.5	105.8	106.1	24	115.8	117.1	117.9	24	109.6	110.7	111.3	24
5/2	108.0	108.8	109.7	23	113.5	113.8	115.2	23	106.3	106.7	107.4	23	113.2	113.7	114.4	23	110.7	111.1	111.3	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			#	<u>Bonneville</u>			#	<u>Warrendale</u>			#	<u>Camas\Washougal</u>			#	<u>Cascade Island</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
4/19	115.0	115.4	115.8	24	111.9	112.2	112.4	24	115.3	115.5	115.6	24	113.1	113.6	114.2	24	118.4	118.5	118.6	24
4/20	114.4	114.6	114.7	24	110.3	110.6	110.8	24	114.9	115.1	115.2	24	112.6	113.4	113.9	24	118.3	118.4	118.5	24
4/21	114.8	115.1	115.3	24	110.2	110.4	110.5	24	114.5	114.7	115.0	24	112.0	112.5	112.9	24	118.3	118.4	118.5	24
4/22	115.2	115.9	116.1	24	111.1	112.1	112.7	24	114.4	115.0	115.3	24	112.2	113.3	113.6	24	118.1	118.2	118.3	24
4/23	116.0	116.4	116.7	24	114.4	115.4	115.9	24	116.4	117.1	117.6	24	113.6	115.5	116.5	24	118.6	118.8	119.0	24
4/24	116.2	117.0	117.9	24	115.4	116.1	116.7	24	117.0	117.7	118.2	24	114.7	116.0	116.7	24	118.7	118.9	119.1	24
4/25	116.2	116.6	117.3	24	115.6	115.9	116.4	24	117.1	117.5	117.8	24	116.5	117.6	118.5	24	118.7	118.9	119.1	24
4/26	115.0	115.2	115.4	24	114.1	114.5	114.8	24	116.6	117.1	117.6	24	115.7	117.0	117.8	24	118.1	118.4	118.5	24
4/27	115.2	115.6	116.1	24	113.2	113.5	113.8	24	115.9	116.4	116.9	24	115.1	115.9	116.7	24	117.9	118.3	118.4	24
4/28	115.4	115.6	115.8	24	111.8	112.2	112.6	24	114.7	115.0	115.3	24	113.4	113.8	114.2	24	116.8	116.9	117.1	24
4/29	114.7	115.0	115.2	24	110.4	110.9	111.8	24	114.3	114.7	115.2	24	111.5	112.3	112.8	24	117.9	118.5	118.6	24
4/30	113.1	113.7	114.0	24	108.3	108.6	109.0	24	113.4	113.8	114.1	24	110.8	111.3	111.9	24	118.1	118.2	118.4	24
5/1	115.5	116.5	116.8	24	109.3	110.0	111.1	24	113.3	113.6	114.5	24	110.8	112.0	112.7	24	118.0	118.1	118.2	24
5/2	116.7	117.2	117.5	23	112.7	113.9	115.3	23	115.1	115.9	116.0	23	111.0	112.5	113.6	23	118.4	118.5	118.7	23

Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 5/3/2013 8:38

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/currentsmppsubmitdata.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)	(INDEX)
04/19/2013 *	154	70	166	14	19,829	---	184	46	19,908	12,934	6,234	
04/20/2013 *	147	65	373	6	25,347	---	---	26	---	12,471	9,541	
04/21/2013 *	555	72	1,421	6	23,577	---	---	39	16,695	17,351	15,299	
04/22/2013 *	214	87	894	19	31,799	---	174	184	---	21,877	14,401	
04/23/2013 *	339	80	418	69	18,095	14,734	---	67	14,591	21,763	16,870	
04/24/2013 *	272	109	386	25	23,154	---	---	189	---	20,100	13,740	
04/25/2013 *	253	57	150	22	25,149	---	225	191	20,112	16,877	17,468	
04/26/2013 *	128	81	40	16	17,207	---	---	334	---	22,557	17,070	
04/27/2013 *	91	68	29	25	25,577	---	---	411	31,303	25,877	19,498	
04/28/2013 *	584	---	38	17	21,184	27,490	234	448	---	32,480	31,207	
04/29/2013 *	585	---	56	21	48,305	---	---	318	48,110	48,336	34,397	
04/30/2013 *	4,952	---	320	33	181,060	---	---	199	---	47,385	53,398	
05/01/2013 *	740	---	548	96	66,985	---	331	249	62,432	45,322	64,157	
05/02/2013 *	330	---	297	123	98,524	---	---	252	---	47,211	58,520	
05/03/2013	---	---	---	---	---	---	---	---	---	---	---	
Total:	9,344	689	5,136	492	625,792	42,224	1,148	2,953	213,151	392,541	371,800	
# Days:	14	9	14	14	14	2	5	14	7	14	14	
Average:	667	77	367	35	44,699	21,112	230	211	30,450	28,039	26,557	
YTD	49,907	53,301	23,163	928	885,465	67,011	1,790	3,470	239,012	434,242	417,446	

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)	(INDEX)
04/19/2013 *	0	0	1	2	0	---	3	4	444	0	8,417	
04/20/2013 *	0	0	0	3	90	---	---	4	---	0	4,399	
04/21/2013 *	0	0	0	0	68	---	---	5	0	0	6,305	
04/22/2013 *	0	0	1	1	0	---	0	11	---	0	4,652	
04/23/2013 *	0	0	0	1	163	0	---	39	2,210	0	3,597	
04/24/2013 *	0	0	0	0	0	---	---	20	---	0	2,643	
04/25/2013 *	0	0	0	0	92	---	0	10	1,183	0	2,651	
04/26/2013 *	0	0	3	0	0	---	---	8	---	0	1,948	
04/27/2013 *	0	0	5	0	0	---	---	6	339	0	1,888	
04/28/2013 *	0	---	1	1	0	288	0	3	---	143	3,705	
04/29/2013 *	0	---	2	0	328	---	---	4	170	143	4,531	
04/30/2013 *	0	---	2	0	0	---	---	31	---	153	6,089	
05/01/2013 *	0	---	0	0	0	---	0	34	0	0	7,717	
05/02/2013 *	0	---	1	0	151	---	---	19	---	0	5,338	
05/03/2013	---	---	---	---	---	---	---	---	---	---	---	
Total:	0	0	16	8	892	288	3	198	4,346	439	63,880	
# Days:	14	9	14	14	14	2	5	14	7	14	14	
Average:	0	0	1	1	64	144	1	14	621	31	4,563	
YTD	2	16	43	106	2,475	288	18	537	6,043	585	1,276,369	

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)
04/19/2013 *	0	0	0	0	46	---	0	0	1,156	669	13,947
04/20/2013 *	0	0	0	0	45	---	---	6	---	465	7,081
04/21/2013 *	0	0	0	0	0	---	---	7	851	502	9,634
04/22/2013 *	0	0	0	0	0	---	0	5	---	802	6,828
04/23/2013 *	0	0	0	0	0	0	---	2	510	644	7,833
04/24/2013 *	0	0	0	1	0	---	---	5	---	429	4,875
04/25/2013 *	0	0	0	1	0	---	0	10	676	431	4,623
04/26/2013 *	0	0	0	1	0	---	---	13	---	501	3,427
04/27/2013 *	0	0	0	0	0	---	---	17	339	215	3,643
04/28/2013 *	0	---	0	0	0	288	0	18	---	286	3,044
04/29/2013 *	0	---	0	1	0	---	---	24	510	717	4,167
04/30/2013 *	0	---	0	0	511	---	---	6	---	917	7,494
05/01/2013 *	0	---	0	2	447	---	0	23	1,356	1,338	12,304
05/02/2013 *	0	---	0	6	1,660	---	---	7	---	2,658	14,039
05/03/2013	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	12	2,709	288	0	143	5,398	10,574	102,939
# Days:	14	9	14	14	14	2	5	14	7	14	14
Average:	0	0	0	1	194	144	0	10	771	755	7,353
YTD	0	0	0	19	2,927	288	0	213	7,716	12,416	213,202

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)
04/19/2013 *	40	187	12	275	19,100	---	288	6	10,252	1,861	1,402
04/20/2013 *	99	141	34	130	19,323	---	---	6	---	1,751	2,310
04/21/2013 *	147	184	139	142	33,042	---	---	16	11,752	1,757	2,072
04/22/2013 *	129	290	565	140	116,785	---	338	13	---	5,097	1,575
04/23/2013 *	103	242	43	286	52,492	31,423	---	7	13,314	6,586	1,679
04/24/2013 *	140	249	41	120	25,041	---	---	20	---	6,509	2,066
04/25/2013 *	90	126	19	246	45,838	---	379	16	21,292	7,038	3,671
04/26/2013 *	37	176	28	583	33,339	---	---	41	---	11,099	10,685
04/27/2013 *	28	281	20	33	24,620	---	---	33	15,597	11,039	11,337
04/28/2013 *	114	---	10	523	15,622	13,537	188	27	---	17,742	14,353
04/29/2013 *	193	---	21	461	39,284	---	---	54	29,393	20,941	20,544
04/30/2013 *	352	---	94	405	44,006	---	---	52	---	19,565	19,322
05/01/2013 *	349	---	141	716	34,630	---	98	60	51,538	18,731	29,043
05/02/2013 *	159	---	58	434	59,446	---	---	66	---	37,988	10,875
05/03/2013	---	---	---	---	---	---	---	---	---	---	---
Total:	1,980	1,876	1,225	4,494	562,568	44,960	1,291	417	153,138	167,704	130,934
# Days:	14	9	14	14	14	2	5	14	7	14	14
Average:	141	208	88	321	40,183	22,480	258	30	21,877	11,979	9,352
YTD	2,806	10,683	1,817	5,359	759,893	95,000	1,676	697	159,935	183,916	139,298

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)	
04/19/2013	*	0	0	0	0	---	0	12	2,845	215	77	
04/20/2013	*	0	0	0	0	---	---	34	---	429	74	
04/21/2013	*	0	0	0	0	34	---	107	1,873	932	225	
04/22/2013	*	0	0	0	0	---	0	77	---	630	225	
04/23/2013	*	0	0	0	0	0	---	10	12,079	143	79	
04/24/2013	*	0	0	0	0	---	---	168	---	286	111	
04/25/2013	*	0	0	0	0	---	0	36	10,817	503	204	
04/26/2013	*	0	0	0	0	---	---	199	---	501	135	
04/27/2013	*	0	0	0	0	---	---	261	3,725	430	202	
04/28/2013	*	0	---	0	0	0	0	68	---	859	0	
04/29/2013	*	0	---	0	0	0	---	148	28,146	1,434	0	
04/30/2013	*	0	---	0	0	---	---	86	---	1,223	234	
05/01/2013	*	0	---	0	0	---	0	225	18,681	2,007	1,052	
05/02/2013	*	0	---	0	0	---	---	52	---	2,345	394	
05/03/2013		---	---	---	---	---	---	---	---	---	---	
Total:		0	0	0	0	34	0	1,483	78,166	11,937	3,012	
# Days:		14	9	14	14	14	2	5	14	7	14	
Average:		0	0	0	0	2	0	106	11,167	853	215	
YTD		0	0	0	0	64	0	3	1,789	83,134	12,229	4,856

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)	
04/19/2013	*	0	0	0	0	0	---	21	0	1,100	1,050	0
04/20/2013	*	0	0	0	0	0	---	---	0	---	1,350	33
04/21/2013	*	0	0	0	0	0	---	---	0	900	1,375	37
04/22/2013	*	0	0	0	0	0	---	11	0	---	560	33
04/23/2013	*	0	0	0	0	0	---	0	200	---	300	0
04/24/2013	*	0	0	0	0	0	---	---	0	---	250	71
04/25/2013	*	0	0	0	0	0	---	4	0	500	200	0
04/26/2013	*	0	0	0	0	0	---	---	2	---	800	0
04/27/2013	*	0	0	0	0	0	---	---	0	1,000	1,150	0
04/28/2013	*	0	---	0	0	0	---	1	1	---	300	33
04/29/2013	*	0	---	0	0	0	---	---	0	200	3,200	0
04/30/2013	*	0	---	0	0	0	---	---	1	---	1,700	0
05/01/2013	*	0	---	0	0	0	---	3	2	800	300	4
05/02/2013	*	0	---	0	0	0	---	---	0	---	200	67
05/03/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		0	0	0	0	0	0	40	6	4,700	12,735	278
# Days:		14	9	14	14	14	2	5	14	7	14	14
Average:		0	0	0	0	0	0	8	0	671	910	20
YTD		0	7	0	0	692	613	60	37	6,610	29,162	2,712

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 macrophthalmia, 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:

5/3/13 8:43 AM

		04/19/13 TO 05/03/13						
		Species						
Site	Data	CH0	CH1	CO	ST	SO	LU	Grand Total
LGR	Sum of NumberCollected	540	397,513	1,800	342,984		20	742,857
	Sum of NumberBarged	294	285,063	1,750	137,917		0	425,024
	Sum of NumberBypassed	244	112,279	50	205,057		20	317,650
	Sum of Numbertrucked	0	0	0	0		0	0
	Sum of SampleMorts	1	32	0	6		0	39
	Sum of FacilityMorts	1	136	0	4		0	141
	Sum of ResearchMorts	0	3	0	0		0	3
	Sum of TotalProjectMorts	2	171	0	10		0	183
LGS	Sum of NumberCollected	200	29,380	200	31,328			61,108
	Sum of NumberBarged	0	0	0	0			0
	Sum of NumberBypassed	200	29,377	200	31,327			61,104
	Sum of Numbertrucked	0	0	0	0			0
	Sum of SampleMorts	0	1	0	0			1
	Sum of FacilityMorts	0	2	0	1			3
	Sum of ResearchMorts	0	0	0	0			0
	Sum of TotalProjectMorts	0	3	0	1			4
LMN	Sum of NumberCollected	1	510		517		1	1,029
	Sum of NumberBarged	0	0		0		0	0
	Sum of NumberBypassed	1	509		516		12	1,038
	Sum of Numbertrucked	0	0		0		0	0
	Sum of SampleMorts	0	1		1		0	2
	Sum of FacilityMorts	0	0		0		0	0
	Sum of ResearchMorts	0	0		0		0	0
	Sum of TotalProjectMorts	0	1		1		0	2
MCN	Sum of NumberCollected	2,550	125,189	3,151	90,057	46,029		266,976
	Sum of NumberBarged	0	0	0	0	0		0
	Sum of NumberBypassed	2,550	125,086	3,150	90,041	45,993		266,820
	Sum of Numbertrucked	0	0	0	0	0		0
	Sum of SampleMorts	0	9	0	0	5		14
	Sum of FacilityMorts	0	94	1	16	31		142
	Sum of ResearchMorts	0	0	0	0	0		0
	Sum of TotalProjectMorts	0	103	1	16	36		156
Total Sum of NumberCollected		3,291	552,592	5,151	464,886	46,049	1	1,071,970
Total Sum of NumberBarged		294	285,063	1,750	137,917		0	425,024
Total Sum of NumberBypassed		2,995	267,251	3,400	326,941	46,013	12	646,612
Total Sum of Numbertrucked		0	0	0	0	0	0	0
Total Sum of SampleMorts		1	43	0	7	5	0	56
Total Sum of FacilityMorts		1	232	1	21	31	0	286
Total Sum of ResearchMorts		0	3	0	0	0	0	3
Total Sum of TotalProjectMorts		2	278	1	28	36	0	345

YTD Transportation Summary

Source: Fish Passage Center

Updated:

5/3/13 8:43 AM

TO: 05/03/13

Site	Data	Species						Grand Total	
		CH0	CH1	CO	SO	ST	LU		
LGR	Sum of NumberCollected	1,635	577,061	1,960	50	468,914		1,049,620	
	Sum of NumberBarged	294	285,063	1,750	0	137,917		425,024	
	Sum of NumberBypassed	1,336	291,759	210	50	330,978		624,333	
	Sum of NumberTrucked	0	0	0	0	0		0	
	Sum of SampleMorts	4	89	0	0	12		105	
	Sum of FacilityMorts	1	148	0	0	5		154	
	Sum of ResearchMorts	0	4	0	0	1		5	
	Sum of TotalProjectMorts	5	241	0	0	18		264	
LGS	Sum of NumberCollected	200	46,704	200		66,204		113,308	
	Sum of NumberBarged	0	0	0		0		0	
	Sum of NumberBypassed	200	46,698	200		66,201		113,299	
	Sum of NumberTrucked	0	0	0		0		0	
	Sum of SampleMorts	0	3	0		2		5	
	Sum of FacilityMorts	0	3	0		1		4	
	Sum of ResearchMorts	0	0	0		0		0	
	Sum of TotalProjectMorts	0	6	0		3		9	
LMN	Sum of NumberCollected	8	840			2	709	1	1,560
	Sum of NumberBarged	0	0			0	0	0	0
	Sum of NumberBypassed	8	839			2	708	13	1,570
	Sum of NumberTrucked	0	0			0	0	0	0
	Sum of SampleMorts	0	1			0	1	0	2
	Sum of FacilityMorts	0	0			0	0	0	0
	Sum of ResearchMorts	0	0			0	0	0	0
	Sum of TotalProjectMorts	0	1			0	1	0	2
MCN	Sum of NumberCollected	3,370	137,676	4,331	48,399	93,366			287,142
	Sum of NumberBarged	0	0	0	0	0			0
	Sum of NumberBypassed	3,368	137,552	4,330	48,363	93,345			286,958
	Sum of NumberTrucked	0	0	0	0	0			0
	Sum of SampleMorts	2	14	0	5	3			24
	Sum of FacilityMorts	0	110	1	31	18			160
	Sum of ResearchMorts	0	0	0	0	0			0
	Sum of TotalProjectMorts	2	124	1	36	21			184
Total Sum of NumberCollected		5,213	762,281	6,491	48,451	629,193	1		1,451,630
Total Sum of NumberBarged		294	285,063	1,750	0	137,917	0		425,024
Total Sum of NumberBypassed		4,912	476,848	4,740	48,415	491,232	13		1,026,160
Total Sum of NumberTrucked		0	0	0	0	0	0		0
Total Sum of SampleMorts		6	107	0	5	18	0		136
Total Sum of FacilityMorts		1	261	1	31	24	0		318
Total Sum of ResearchMorts		0	4	0	0	1	0		5
Total Sum of TotalProjectMorts		7	372	1	36	43	0		459

Cumulative Adult Passage at Mainstem Dams Through: 05/03

DAM	ENDDA	Spring Chinook						Summer Chinook						Fall Chinook					
		2013		2012		10-Yr Avg.		2013		2012		10-Yr Avg.		2013		2012		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	05/02	35880	3447	27486	295	65750	1226	0	0	0	0	0	0	0	0	0	0	0	0
TDA	05/02	21852	1755	10282	316	39281	598	0	0	0	0	0	0	0	0	0	0	0	0
JDA	05/02	16511	1502	7008	309	29541	466	0	0	0	0	0	0	0	0	0	0	0	0
MCN	05/02	8256	432	3399	50	20950	279	0	0	0	0	0	0	0	0	0	0	0	0
IHR	05/02	4189	149	1282	23	13734	150	0	0	0	0	0	0	0	0	0	0	0	0
LMN	05/02	2264	89	463	2	10926	67	0	0	0	0	0	0	0	0	0	0	0	0
LGS	05/02	1076	110	224	6	8480	82	0	0	0	0	0	0	0	0	0	0	0	0
LGR	05/02	556	46	93	0	7735	43	0	0	0	0	0	0	0	0	0	0	0	0
PRD	05/01	167	0	35	0	2535	0	0	0	0	0	0	0	0	0	0	0	0	0
WAN	05/01	81	0	18	0	1125	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	04/27	34	0	1	0	587	3	0	0	0	0	0	0	0	0	0	0	0	0
RRH	04/27	11	0	1	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	05/01	2	0	0	1	24	1	0	0	0	0	0	0	0	0	0	0	0	0
WFA	04/30	7706	275	1860	32	9956	66	0	0	0	0	0	0	0	0	0	0	0	0

DAM	ENDDA	Coho						Sockeye			Steelhead						Lamprey		
		2013		2012		10-Yr Avg.		2013	2012	10-Yr Avg.	2013	2012	10-Yr Avg.	Wild 2013	Wild 2012	10-Yr Avg.	2013	2012	10-Yr Avg.
		Adult	Jack	Adult	Jack	Adult	Jack												
BON	05/02	0	0	0	0	0	0	0	0	0	2667	4262	4009	817	1344	1057	-1	32	2
TDA	05/02	0	0	0	0	0	0	1	0	0	646	1589	2501	310	900	871	0	0	0
JDA	05/02	0	0	0	0	0	0	0	0	0	768	1681	6036	431	1151	1890	0	1	2
MCN	05/02	1	0	0	0	0	0	0	0	0	1315	4554	6054	658	2142	2022	21	3	0
IHR	05/02	0	0	0	0	0	0	0	0	0	3733	2140	5118	1482	999	1463	8	0	0
LMN	05/02	0	0	0	0	0	0	0	0	0	2343	3240	9500	1320	1745	2874	0	1	0
LGS	05/02	0	0	0	0	0	0	0	0	0	2058	3510	9285	1094	2022	2898	1	1	0
LGR	05/02	0	0	0	0	0	0	0	0	0	7197	8436	9315	3077	3581	2976	1	0	0
PRD	05/01	0	0	0	0	0	0	0	0	0	24	66	21	0	0	0	0	0	0
WAN	05/01	0	0	0	0	0	0	0	0	0	38	101	79	0	0	0	0	0	0
RIS	04/27	0	0	0	0	0	0	0	0	0	42	85	51	24	56	29	0	0	0
RRH	04/27	0	0	0	0	0	0	0	0	0	83	445	215	68	370	159	0	0	0
WEL	05/01	0	0	0	0	0	0	0	0	0	3	14	4	3	10	2	0	0	0
WFA	04/30	2	0	0	0	0	0	0	0	0	7031	10135	8845	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.