Fish Passage Center

Weekly Report #13 - 09

May 17, 2013

1827 NE 44th Ave., Suite 240
Portland, OR 97213
phone: 503/230-4099
fax: 503/230-7559

Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has been very low over May, varying between only 6% and 41% of average at individual sub-basins over May. Precipitation above The Dalles has been 24% of average over May. Over the 2013 water year, precipitation has ranged between 69% and 100% of average.

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

Location	Water Year 2013 May 1-15, 2013		Water Year 2013 October 1, 2012 to May 15, 2013	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.61	38	25.6	95
Snake River Above Ice Harbor	0.15	13	12.5	73
Columbia Above The Dalles	0.28	24	16.9	82
Kootenai	0.68	41	27.1	100
Clark Fork	0.21	14	14.2	73
Flathead	0.47	27	24.9	96
Pend Oreille Basin	0.35	22	20.1	85
Snake Basin above Hells Canyon	0.15	16	10.0	71
Salmon River Basin	0.09	6	14.6	69
Clearwater	0.27	14	27.4	87
Willamette River above Portland	0.14	7	48.5	86

With increasing river flows, snowpack within the Columbia Basin has been decreasing with average snowpack in the Columbia River for basins above the Snake River confluence now at 75% of average, for Snake River Basins the average snowpack is now 50% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is currently 36% of average.

Table 2 displays the April 7th and May 11th ESP runoff volume forecasts for multiple reservoirs. The May 11th forecast at The Dalles between January and July is 93,935 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 11, 2013 ESP	
	% Average (1971-2000)	Runoff Volume (Kaf)	% Average (1971-2000)	Runoff Volume (Kaf)
The Dalles (Jan-July)	93	94287	93	93932
Grand Coulee (Jan-July)	101	60415	101	60461
Libby Res. Inflow, MT (Apr-Aug)	102	6001 *6189	100	5898 *6535
Hungry Horse Res. Inflow, MT (Jan-July)	99	2084	100	2105
Lower Granite Res. Inflow (Apr- July)	83	16485	70	13953
Brownlee Res. Inflow (Apr-July)	62	3376	50	2730
Dworshak Res. Inflow (Apr-July)	96	2319 *2036	88	2137 *2296

* Denotes COE Forecast

Grand Coulee Reservoir is at 1262.8 feet (5-16-13) and refilled 8.4 feet over the last week. Outflows at Grand Coulee have ranged between 134.0 and 172.4 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2414.5 feet (5-16-13) and has refilled 10.3 feet last week. Outflows at Libby Dam have ranged from 18.0 Kcfs to 26.0 Kcfs over the last week; inflows to Libby have increased from 37.2 Kcfs to 65.6 Kcfs over the same period.

Hungry Horse is currently at an elevation of 3540.0 feet (5-16-13) and has refilled 12.0 feet last week. Outflows at Hungry Horse Dam have ranged from 0.6 Kcfs to 7.8 Kcfs over the last week; inflows to Hungry Horse have ranged from 17.5 Kcfs to 34.7 Kcfs over the same period.

Dworshak is currently at an elevation of 1581.8 feet (5-16-13) and has refilled 13.2 feet last week. Outflows from Dworshak have decreased from 7.6 Kcfs to 5.4 Kcfs over the last week; inflows to Dworshak have ranged between 19.5 Kcfs to 27.5 Kcfs last week.

The Brownlee Reservoir was at an elevation of 2064.5 feet on May 16th, 2013 refilling 7.5 feet over the last week. Over the last week, inflows at Brownlee have ranged between 12.9 and 15.8 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 67.5 Kcfs from April 3rd-May 16th. Over the last week flows at Lower Granite have averaged 116.2 Kcfs and have increased as high as 137.3 Kcfs on May 14th.

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 256.3 Kcfs between April 10th and May 16th. Over the last week flows at McNary have averaged 331.2 Kcfs and have increased as high as 353.7 Kcfs on May 11th. Flows at Priest Rapids Dam have averaged 178.3 Kcfs between April 10th and May 16th. Over the last week flows have averaged 208.4 Kcfs at Priest Rapids and have increased as high as 242.1 Kcfs on May 10th.

Spill: Spring 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 kcfs/Gas Cap

Flow in the Snake River has increased over the past week and now exceeds hydraulic capacity at several projects. At Lower Granite Dam, spill has either met, or exceeded, the Court Order due to the high flows and uncontrolled spill. At Little Goose Dam spill has been provided at the 30% of instantaneous flow level as specified in the Court Order, or at levels that were slightly higher than the 30%. At Lower Monumental Dam the Court Order calls for spill to the gas cap. Over the past week the COE increased spill from 23.6 Kcfs to 26.8 Kcfs, and then decreased again due to TDG waiver being exceeded in the Ice Harbor forebay. The COE could switch from a bulk spill pattern to a uniform spill pattern and decrease the amount of gas produced. The COE will not provide uniform spill patterns for the implementation of Court Ordered spill, but has agreed to include that operation in the spill priority list (as a second priority) developed for the distribution of excess generation spill. At Ice Harbor Dam the Fish Operations Plan (FOP) calls for the test-like schedule of 45 Kcfs spill during the day and gas cap spill at night versus a constant 30% day and night. Spill at Ice Harbor has been provided in accordance with the FOP test-like schedule and the Court Order, but has often exceeded the spill amounts due to the higher flows and limited hydraulic capacity.

Spring 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 exceeded the Court Order over the past week. At John Day Dam the COE is implementing the test conditions of 30% versus 40%, but due to increased flows has exceeded the spill on the 30% days. At The Dalles Dam spill has been less than the Court Order this past week (due to TDG exceedance in the Bonneville forebay), except on 5/14. At Bonneville Dam spill was at the Court order on 5/10, but exceeded the 100 Kcfs spill the remainder of the week due to higher flows.

In the past week, TDG standards have been, at times, exceeded at multiple Snake River locations (Little Goose, Lower Monumental and Ice Harbor) and at Lower Columbia projects, but only by a maximum of a few percent. Based on historic data collected since 1995 through the gas bubble trauma (GBT) monitoring program, we would not expect to see fish exhibit signs of GBT at these gas levels. Consistent with historic data, this past week one fish at Little Goose Dam (5/13) and one fish at McNary Dam (5/12) were sampled with minor signs of GBT.

Smolt Monitoring: Smolt monitoring is ongoing at all seven SMP dams (BON, JDA, MCN, RIS, LMN, LGS, and LGR). Collections at the Salmon River and Snake River traps were terminated on May 8th and May 15th, respectively. Collections at the Imnaha and Grande Ronde River traps are still ongoing.

Passage at BON was dominated by yearling Chinook this week. Overall, this week's daily average passage index for yearling Chinook at BON was nearly 103,000 per day, which is an increase from last week's daily average passage index of only 42,000 per day. Passage of subyearling Chinook at BON decreased this week, as most of the fall Chinook tules from Spring Creek NFH have passed. This week's daily average passage index for subyearling Chinook at BON was nearly 9,000 per day. Passage of steelhead, coho, and sockeye all increased this week, when compared to last week. This week's daily average passage indices for steelhead, coho, and sockeye were about 15,000, 23,000, and 8,400, respectively. Descaling at BON has been elevated this week, particularly for yearling Chinook and sockeye. For the period of May 11th to May 15th, descaling was as high as 7.3% for yearling Chinook (May 13th) and 26.2% for sockeye (May 15th). In the late afternoon of May 15th, the Corps of Engineers changed the turbine operations at the Bonneville second powerhouse to lower flows to slightly above the mid-range of the 1% efficiency curve. This change in operations coincided with a decrease in descaling in the May 16th sample. Descaling on May 16th was 4.0% for yearling Chinook and 8.6% for sockeye. These are still considered high levels of descaling but it's important to note that these descaling rates include fish that passed BON prior to the change in operations. The May 17th sample will be the first sample where all fish sampled were subjected to the modified operation. Finally, only pacific lamprey macropthalmia were collected at BON this week but only on one day (May 11th).

Yearling Chinook continued to dominate the bypass sample at JDA this week. This week's daily average passage index for yearling Chinook was over 102,000 per day, which is a significant increase over last week's daily average passage index of nearly 52,000 per day. Coho and sockeye passage also increased again this week. This week's daily average passage indices for coho and sockeye were about 8,000 and 12,500 per day, respectively. Last week's daily average passage indices were only 2,000 and 4,000 per day, respectively. There was very little change in steelhead passage this week, when compared to last week. This week's daily average passage index for steelhead at JDA was about 26,800 per day, whereas that for last week was about 25,700 per day. No subyearling Chinook were collected at JDA this week. Finally, only pacific lamprey macropthalmia were sampled at JDA this week. Passage of pacific lamprey macropthalmia for this week was very similar to last week. The daily average collection for pacific lamprey macropthalmia this week was about 225 per day, compared to last week's daily average collection of about 200 per day.

Sampling at MCN is every-other-day. On May 15th, the Technical Management Team voted to implement SOR #2013-01, which called for the elimination of transportation from MCN in 2013. Given that transportation from MCN will not occur in 2013, sampling at MCN is expected to remain every-other-day until the end of the SMP season in October. This week's bypass samples were again dominated by yearling Chinook. There was a slight increase in yearling Chinook passage this week, when compared to last week. This week's daily average passage index for yearling Chinook was over 207,000 per day. Last week's daily average passage index was nearly 195,000 per day. Steelhead passage decreased slightly this week. The daily average passage index for steelhead this week was about 31,400 per day, whereas last week's daily average passage index was over 36,000 per day. Passage of subyearling Chinook, coho, and sockeye all increased this week, when compared to last week. This week's daily average passage indices for subyearling Chinook, coho, and sockeye were about 1,650, 5,300, and 54,000, respectively. Last week's daily average passage indices were only about 800, 1,200, and 20,000, respectively. As with previous weeks, the majority of subyearling Chinook juveniles that were collected at MCN this week were fry. So far this season, pacific lamprey macropthalmia continue to be the only species and life-stage of lamprey collected at MCN. This week's daily average collection for pacific lamprey macropthalmia was nearly 470 per day, which represents an increase over last week's daily average collection of about 250 per day. Finally, descaling at MCN has remained relatively high this week, particularly for sockeye. This is likely due to increased debris loads in the forebay.

Yearling Chinook continued to dominate the bypass samples at LGR this week. This week's daily average passage index for yearling Chinook was about

114,000 per day, which is a slight decrease from last week's daily average passage index of nearly 119,000 per day. Of the yearling Chinook that were collected at LGR this week, approximately 81% were of known hatchery origin, which means that they either had fin clips or were unclipped but had coded-wire-tags. Steelhead passage at LGR increased substantially this week, when compared to last week. This week's daily average passage index for steelhead at LGR was about 109,000 per day. Last week's daily average passage index was only about 39,400 per day. Approximately 76% of the steelhead in the bypass sample this week was of known hatchery origin, which means that they either had clipped fins or had eroded fins, which is indicative of hatchery rearing practices. Subyearling Chinook passage increased substantially this week. This week's daily average passage index for subyearling Chinook at LGR was just over 2,000 per day. Last week's daily average passage index was only 65 per day. Unlike past weeks, the majority of subyearling Chinook sampled this week were not fry. This increase in passage is largely due to the release of about 205,000 Lyons Ferry subyearling fall Chinook on May 9th and 10th into Couse Creek, a tributary of the Snake River located above Lower Granite Dam. These Lyons Ferry fall Chinook began arriving at LGR on May 13th. Sockeye/kokanee passage also increased substantially this week. This week's daily average passage index was just over 3,500 per day, compared to last week's daily average passage index of only 83 per day. This increase in passage is largely due to the release of about 283,000 sockeye juveniles into Redfish Lake Creek on May 9th. These hatchery sockeye began arriving at LGR on May 15th. Coho passage at LGR also increased this week, when compared to last week. The daily average passage index for coho this week was about 6,300 per day, whereas last week's daily average passage index was about 900 per day. As with previous weeks, only pacific lamprey macropthalmia were sampled at LGR this week. Finally, it is worth noting that, due to the possible resampling of PIT-tagged research fish that are released into the gatewells, daily estimates of yearling Chinook and steelhead collection and passage indices may be inflated. The FPC is aware of this possible bias and is investigating ways to correct these inflated estimates after the research has ended. However, the magnitude of this bias is relatively low and is unlikely to skew estimates of timing for these two species.

This week's bypass samples at LGS were dominated by yearling Chinook and steelhead. The daily average passage indices for yearling Chinook and steelhead this week were about 124,400 and 122,650, respectively. These daily average passage indices represent large increases, when compared to last week. Last week's daily average passage index for yearling Chinook and steelhead at LGS were about 63,500 and 67,000, respectively. Passage of sockeye, coho, and subyearling Chinook also increased this week, when compared to last week. This week's daily average passage indices for coho, sockeye, and subyearling Chinook were about 4,000, 160, and 300 per day. Finally, only pacific lamprey macropthalmia were collected at LGS this week. The daily average collection for pacific lamprey macropthalmia for this week was about 3,100 per day.

Full sampling at LMN began on May 7th, with the initiation of transportation. The first transportation barge from LMN was loaded on May 8th. Over the past week, the bypass samples at LMN have been dominated by yearling Chinook and steelhead. This week's daily average passage indices for yearling Chinook and steelhead at LMN were about 63,000 and 53,000, respectively. Subyearling Chinook passage has been relatively high this week, with a daily average passage index of about 1,050 per day. This mostly due to the release of 215,000 subyearling fall Chinook from Lyons Ferry Hatchery on May 9th and 10th. These Lyons Ferry fall Chinook began arriving at LMN on May 11th. This week's daily average passage indices for coho and sockeye at LMN were about 900 and 55 per day. Finally, only pacific lamprey macropthalmia were collected at LMN this week. Overall, the daily average collection for pacific lamprey macropthalmia at LMN this week was about 4,200 per day.

There was a significant increase in the passage of sockeye at RIS this week. In fact, this week's collections at RIS were dominated by sockeye, particularly in the past two days. This week's daily average passage index for sockeye at RIS was about 1,650 per day. Last week's daily average passage index was less than 100 per day. Yearling Chinook and coho passage also increased this week, when compared to last week. This week's daily average passage indices yearling Chinook and coho at RIS were about 1,300 and 1,640 per day, respectively. Last week's daily average passage indices were only about 640 per day for yearling Chinook and about 130 for coho. Passage of steelhead also increased this week. The daily average passage index for steelhead this week was about 830 per day, compared to just 150 per day

last week. Finally, subyearling Chinook passage was higher this week when compared to previous weeks, but still relatively low. As with previous weeks, the majority of subyearling Chinook that were collected at RIS this week were fry. Finally, both pacific lamprey ammocoetes and macropthalmia were collected at RIS this week. Pacific lamprey ammocoetes were only collected on May 13th and May 16th, with total collections of only one and two, respectively. At least one pacific lamprey macropthalmia was collected each day this week. The daily average collection for pacific lamprey macropthalmia at RIS this week was 5 per day.

The Grande Ronde Trap continued to collect mostly yearling Chinook this week. Passage of yearling Chinook increased slightly this week, when compared to last week. The daily average collection for yearling Chinook at GRN was about 245 per day this week. Of the yearling Chinook that were collected at this trap this week, approximately 54% 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 increased this week, when compared to last week. This week's daily average collection for steelhead at GRN was about 160 per day. Last week's daily average collection was about 75 per day. Descaling for steelhead at the Grande Ronde Trap remained high over the past week. It is still unclear what may be causing these high descaling, given that debris has not been a problem.

Due to increased flows and debris, sampling at the Salmon River Trap for 2013 was terminated on May 8th. Collections at the Snake River Trap were dominated by subyearling Chinook this week. This increase in passage was due to the release of about 205,000 Lyons Ferry subyearling fall Chinook into Couse Creek, a tributary of the Snake River located above the Snake River Trap. This week's daily average collection for subyearling Chinook was 507 per day. Passage of all other species of salmonids also increased this week. With the expected release of over 2.0 million subyearling fall Chinook above this trap over the next week, and increases in debris, sampling at the Snake River Trap was terminated on May 15th.

At this time, data from the Imnaha Trap are only available through May 11th. For the period of May 5-11, passage of steelhead increased slightly while yearling Chinook passage decreased, when compared to the April 28-May 4 period. For the May 5-11 period, the daily average collections for steelhead and yearling Chinook were about 1,700 and 60 per day, respectively. These averages for the April 28-May 4 period were about 1,600 and 190 per day, respectively. The Imnaha River Trap also collected a relatively small number of Chinook fry during the May 5-11 period but no lamprey juveniles were collected during this time.

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. A total of about 420,000 subyearling fall Chinook that were originally scheduled for release in late May were released earlier than planned. In fact, these fish were released on May 9th and 10th. Of the 420,000 subyearling fall Chinook that were released last week, approximately 51% were released from Lyons Ferry Hatchery, which is downstream of Little Goose Dam. The remaining 49% were released into Couse Creek, a tributary of the Snake River above Lower Granite Dam. In addition, approximately 500,000 subyearling fall Chinook were scheduled for release on May 17th from Captain Johns Acclimation Pond on the Snake River above Lower Granite Dam. Of these, approximately 60% are unmarked and, thus, will be undistinguishable from wild subyearling Chinook.

Approximately 2.3 million subyearling fall Chinook juveniles are scheduled for release above Lower Granite Dam over the next two weeks. Of these, about 61% are scheduled to be released directly into the Snake River. The remaining 39% are scheduled to be released into the Clearwater River (22%) and the Grande Ronde River (17%). Of these 2.3 million fall Chinook, approximately 30% will be unmarked, which means that they will be indistinguishable from wild subyearling fall Chinook. There are no other new releases scheduled for this zone over the next two weeks.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. The three volitional releases of yearling spring Chinook from Cle Elum Hatchery that began in mid-March were all scheduled to end this week. In all, approximately 771,000 yearling spring Chinook were scheduled to be released in these volitional releases. In addition to these older releases, there were a few new releases scheduled for this week. First, about 70,000 subyearling fall Chinook were scheduled for release into the Yakima River this week. Approximately 484,000 subyearling summer Chinook juveniles were scheduled for release

from Wells Hatchery into the Mid-Columbia River this week. Wells Hatchery was also scheduled to release about 140,000 summer steelhead on or around May 15th. Finally, nearly 182,000 coho juveniles were scheduled for release into the Wenatchee River this week.

Only two new releases of anadromous salmonids are scheduled for this zone over the next two weeks. Both are releases of subyearling fall Chinook to the Yakima River. In all, these releases are expected to total about 204,000 subyearling fall Chinook. Approximately 90% of these subyearling fall Chinook are unclipped but tagged with coded-wire-tags.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were two releases of juvenile salmonids scheduled for this zone this week. The first was a release of 611,108 subyearling fall Chinook to the Umatilla River, which occurred on May 13th. The second was a release of about 12,500 winter steelhead to Hood River. This winter steelhead release was scheduled to take place on or around May 14th. There are no scheduled released to this zone over the next two weeks.

Adult Fish Passage:

Adult counts at Bonneville Dam have been updated through May 16th. Daily adult spring Chinook counts at Bonneville Dam ranged from 957 to 1,582 adult salmon per day. As of May 16th, a total of 69,021 spring Chinook have been counted at Bonneville Dam. In 2012, 130,098 adult spring Chinook were counted at Bonneville Dam for the same time period. The 2013 adult spring Chinook count at Bonneville Dam is about 53% of the 2012 count and 57.4% of the of the 10 year average count of 120,324. The 2013 spring Chinook jack count of 26,720 is 5.4 times greater than the 2012 count of 4,923 and 2 times greater than the 10 year average count of 13,035. At Willamette Falls Dam 14,856 adult spring Chinook has been counted so far this year. In 2012, 11,933 adult spring Chinook were counted at Willamette. This year's count is 1.2 times greater than the 2012 count. However, the 2013 Willamette Falls adult spring Chinook count is 66% of the 10 year average count of 22,542. As of May 16th, a total of 53,810 adult spring Chinook have been counted at The Dalles Dam and 34,859 have been counted at McNary Dam. The Dalles Dam 2013 adult spring Chinook count is 66.4% of the 2012 count and 64.4% of the 10 year average count. The 2013 McNary Dam adult spring Chinook count is about 76.8% 2012 count and 65.6% of the 10 year average count.

The 2013 Bonneville Dam adult steelhead count of 2,931 is about 59.8% of the 2012 count of 4,903 and 61.4% of the 10 year average count of 4,773. The 2013 Bonneville Dam adult wild steelhead count of 835 is about 54.5% of the 2012 count of 1,530 and 69% of the 10 year average count of 1,210. 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 2 to 15 adults per day last week. This year's Lower Granite steelhead count of 7,403 is about 83.9% of the 2012 count of 8,820 and 77.3% of the 10 year average count of 9,576. The 2013 Lower Granite Dam adult wild steelhead count of 3,211 is about 83.3% of the 2012 count of 3,853, while having 47 more fish than the 10 year average count of 3,164. At Willamette Falls Dam, the 2013 count for steelhead was 8,289 as of May 14th. This year's steelhead count is about 62.7% of the 2012 count of 13,218 and about 71% of the 10 year average count of 11,663.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: 5/3/2013 to 05/16/13

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
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					**271,300**				
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2013	495,537	05-09-13	05-10-13	Lapwai Creek	Clearwater River M F
Nez Perce Tribe Total					**495,537**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2013	159,834	04-23-13	05-07-13	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and	Round Butte Hatchery	CH1	SP	2013	207,941	04-15-13	06-01-13	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					**367,775**				
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**				
Umatilla Tribe	Umatilla Hatchery	CH0	FA	2013	611,108	05-13-13	05-13-13	Umatilla River	Umatilla River
Umatilla Tribe Total					**611,108**				
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	Chiwawa Hatchery	ST	SU	2013	223,000	04-25-13	05-05-13	Chiwawa Hatchery	Wenatchee River
Washington Dept. of Fish and	COOP	CH0	FA	2013	175	05-01-13	05-31-13	Wenatchee River	Wenatchee River
Washington Dept. of Fish and	COOP	CH0	FA	2013	225	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish and	COOP	CH0	FA	2013	4,500	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish and	COOP	CH0	FA	2013	18,975	05-01-13	05-31-13	Yakama River	Yakima River
Washington Dept. of Fish and	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	627,978	04-16-13	05-08-13	Similkameen Acclim Pd	Okanogan 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	CH0	FA	2013	205,300	05-09-13	05-10-13	Couse Creek	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	FA	2013	215,000	05-09-13	05-10-13	Lyons Ferry Hatchery	Snake 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					**2,366,603**				
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	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

Hatchery Releases Last Two Weeks, continued

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	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	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
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					**9,481,480**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: 5/17/2013 to 5/30/2013

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2013	400,000	05-20-13	05-20-13	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2013	500,000	05-17-13	05-17-13	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2013	500,000	05-22-13	05-22-13	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe Total					**1,400,000**				
Oregon Dept. of Fish and	Irrigon Hatchery Complex	CH0	FA	2013	401,000	05-21-13	05-21-13	Grande Ronde River	Grande Ronde River
Oregon Dept. of Fish and	Irrigon Hatchery Complex	CH0	FA	2013	1,000,000	05-20-13	05-24-13	Hells Canyon Dam	Snake River
Oregon Dept. of Fish and	Round Butte Hatchery	CH1	SP	2013	207,941	04-15-13	06-01-13	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					**1,608,941**				
U.S. Fish and Wildlife	Winthrop NFH	ST	SU	2013	55,500	04-15-13	05-24-13	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife	Winthrop NFH	ST	SU	2013	59,300	04-15-13	05-24-13	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					**114,800**				
Washington Dept. of Fish	COOP	CH0	FA	2013	175	05-01-13	05-31-13	Wenatchee River	Wenatchee River
Washington Dept. of Fish	COOP	CH0	FA	2013	225	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish	COOP	CH0	FA	2013	4,500	05-01-13	05-31-13	Above McNary Dam	Mid-Columbia River
Washington Dept. of Fish	COOP	CH0	FA	2013	18,975	05-01-13	05-31-13	Yakama River	Yakima River
Washington Dept. of Fish	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	ST	SU	2013	24,000	04-25-13	06-20-13	Blackbird Island Acc Pond	Wenatchee River
Washington Dept. of Fish	Lyons Ferry Hatchery	ST	SU	2013	145,000	04-15-13	05-20-13	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish	Wells Hatchery	CH0	SU	2013	484,000	05-15-13	05-31-13	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish	Wells Hatchery	ST	SU	2013	90,000	04-20-13	05-20-13	Okanogan River	Okanogan River
Washington Dept. of Fish	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					**907,325**				
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	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	102,000	05-18-13	05-18-13	Nelson Springs	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	Wells Hatchery	CH0	FA	2013	102,000	05-24-13	05-24-13	Roza 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
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					**2,761,610**				
Grand Total					**6,792,676**				

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
05/03/2013	140.4	0.0	136.9	0.0	149.9	10.0	150.0	0.2	155.5	13.9	161.1	21.6	158.7	29.6
05/04/2013	108.1	0.0	118.0	0.0	129.2	10.0	132.4	0.0	142.7	11.5	158.8	21.8	157.6	27.6
05/05/2013	119.3	0.0	117.7	0.0	130.8	9.3	128.2	0.0	136.0	13.3	147.1	19.4	148.8	26.3
05/06/2013	135.3	0.0	133.1	0.0	145.4	9.9	143.7	0.0	154.3	16.2	155.9	19.6	148.0	26.3
05/07/2013	138.0	0.0	143.5	0.0	159.9	14.1	157.6	6.5	168.0	18.0	170.9	32.7	165.4	31.2
05/08/2013	145.6	0.0	145.2	0.0	168.8	23.0	172.5	21.5	186.4	17.9	198.6	60.9	198.7	65.2
05/09/2013	163.3	0.0	157.4	15.8	184.5	20.8	179.8	21.1	192.0	18.2	199.4	71.4	197.4	77.3
05/10/2013	172.4	0.0	171.1	24.6	208.7	42.0	207.7	42.7	218.0	25.7	241.1	99.1	242.1	116.7
05/11/2013	147.0	0.0	150.5	22.9	188.9	35.5	190.6	34.5	205.5	52.1	217.0	79.6	225.4	84.3
05/12/2013	134.0	0.0	139.1	23.3	175.4	28.0	174.6	24.7	189.7	29.0	190.8	69.3	189.3	55.8
05/13/2013	138.4	0.0	132.2	22.5	167.6	25.9	173.3	20.2	190.0	35.3	207.0	76.0	209.0	82.2
05/14/2013	135.8	0.0	140.1	20.5	173.8	10.0	172.6	8.3	188.0	18.4	194.6	73.2	191.8	77.8
05/15/2013	141.9	0.0	137.1	21.1	172.4	11.1	176.7	31.9	187.9	19.9	202.1	71.3	204.0	66.8
05/16/2013	149.9	0.0	149.0	21.4	177.5	21.8	172.7	11.6	181.8	30.5	195.6	61.7	197.9	69.1

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
05/03/2013	9.9	0.0	---	---	53.4	20.3	51.8	15.5	53.4	29.9	53.2	42.8
05/04/2013	9.9	0.0	---	---	55.4	20.2	57.2	17.2	59.5	29.9	59.9	24.8
05/05/2013	9.9	0.0	---	---	54.3	20.2	53.1	16.0	56.0	28.9	54.8	16.4
05/06/2013	9.9	0.0	---	---	61.4	20.3	62.4	18.9	64.6	28.0	64.5	41.1
05/07/2013	9.9	0.0	---	---	67.1	20.2	68.5	20.6	68.9	26.1	68.3	51.3
05/08/2013	7.6	0.0	---	---	76.6	19.3	75.6	22.6	75.1	23.3	76.4	31.7
05/09/2013	7.6	0.0	---	---	93.2	18.4	91.3	27.6	93.9	23.4	95.3	30.4
05/10/2013	7.4	0.0	---	---	100.7	20.4	94.7	30.7	99.0	23.6	99.9	44.1
05/11/2013	5.5	0.0	---	---	108.5	20.3	101.9	31.4	106.0	23.8	107.3	42.7
05/12/2013	5.5	0.1	---	---	114.8	20.3	109.8	35.5	113.1	23.8	116.1	75.6
05/13/2013	5.4	0.0	---	---	125.9	24.6	120.3	39.7	120.7	26.3	123.4	71.7
05/14/2013	5.5	0.4	---	---	137.3	29.7	130.1	42.4	131.5	21.8	136.0	73.1
05/15/2013	5.4	0.0	---	---	132.7	24.4	127.8	38.9	131.0	22.8	135.2	66.3
05/16/2013	5.4	0.1	---	---	114.9	22.9	109.9	32.9	112.9	22.5	116.7	66.7

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
05/03/2013	243.0	97.6	244.2	78.0	227.9	90.4	241.7	99.5	39.8	90.0
05/04/2013	223.3	89.7	230.6	91.8	213.5	84.9	225.8	99.9	24.5	89.0
05/05/2013	220.8	88.6	211.9	80.9	195.8	78.6	231.6	98.6	30.9	89.7
05/06/2013	224.2	90.0	221.7	66.5	205.3	82.1	227.1	97.4	28.7	88.6
05/07/2013	234.5	94.2	233.3	73.5	222.7	89.0	242.6	96.0	44.9	89.3
05/08/2013	261.2	114.8	269.9	107.3	245.1	93.0	266.6	94.6	68.8	90.7
05/09/2013	286.2	139.3	269.9	103.5	255.8	98.5	274.6	97.0	76.0	89.1
05/10/2013	330.5	182.6	323.8	119.0	305.5	112.0	305.3	105.6	85.1	102.2
05/11/2013	353.7	205.8	353.5	135.7	338.3	119.6	347.7	140.5	84.9	110.0
05/12/2013	334.0	186.6	345.3	137.7	326.7	105.7	348.2	142.8	85.1	107.9
05/13/2013	330.0	182.0	318.3	132.6	301.2	104.5	335.3	129.7	84.7	108.4
05/14/2013	341.4	187.4	344.3	140.0	325.6	130.7	338.7	143.6	79.5	103.2
05/15/2013	342.8	188.9	342.5	139.9	326.4	125.7	351.9	145.8	90.5	103.2
05/16/2013	328.3	171.3	340.4	137.5	322.7	111.4	344.3	136.7	98.8	96.4

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											
	05/07/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/14/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	05/06/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/13/13	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
Lower Monumental Dam											
	05/04/13	Chinook + Steelhead	93	0	0	0.00%	0.00%	0	0	0	0
	05/08/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	05/06/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/10/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/12/13	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/16/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	05/08/13	Chinook + Steelhead	94	0	0	0.00%	0.00%	0	0	0	0
	05/11/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/14/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	05/07/13	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/11/13	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	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

	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
5/3	---	---	---	0	---	---	---	0	106.3	106.6	106.8	24	103.7	104.0	104.2	24	104.6	105.0	105.3	24
5/4	---	---	---	0	---	---	---	0	106.7	107.1	107.6	24	103.7	104.1	104.3	24	105.4	106.3	106.7	24
5/5	---	---	---	0	---	---	---	0	107.8	108.4	109.4	24	104.9	105.9	106.4	24	106.5	107.2	107.6	24
5/6	---	---	---	0	---	---	---	0	109.7	110.7	111.8	24	106.0	106.8	107.3	24	107.3	108.0	108.6	24
5/7	---	---	---	0	---	---	---	0	110.0	110.6	112.9	24	107.0	107.6	108.1	24	107.9	108.6	109.0	24
5/8	---	---	---	0	---	---	---	0	109.8	110.0	110.4	24	106.8	107.4	107.9	24	108.3	108.7	109.2	24
5/9	---	---	---	0	---	---	---	0	110.3	111.0	111.7	24	106.7	106.9	107.1	24	108.2	108.5	108.7	24
5/10	---	---	---	0	---	---	---	0	110.4	110.7	111.1	24	107.0	107.6	108.0	24	108.4	108.6	108.8	24
5/11	---	---	---	0	---	---	---	0	110.8	111.5	112.1	24	107.2	107.6	107.9	24	108.6	108.9	109.2	24
5/12	---	---	---	0	---	---	---	0	110.7	110.9	111.2	24	107.2	107.6	108.0	24	108.9	109.1	109.2	24
5/13	---	---	---	0	---	---	---	0	110.5	110.8	111.0	24	107.4	107.8	108.3	24	108.7	109.0	109.3	24
5/14	---	---	---	0	---	---	---	0	109.1	109.3	109.5	24	105.9	106.3	106.6	24	108.1	108.6	109.0	24
5/15	---	---	---	0	---	---	---	0	110.3	110.7	111.0	24	106.4	106.4	106.4	9	107.9	108.3	108.6	24
5/16	---	---	---	0	---	---	---	0	110.0	110.2	110.5	23	107.7	107.9	108.3	22	108.3	108.6	108.8	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
5/3	104.2	104.5	104.7	24	104.4	104.9	105.4	23	106.6	107.2	107.8	23	106.1	106.7	107.1	24	106.2	106.9	108.3	24
5/4	105.0	105.7	106.8	24	105.3	105.8	106.2	21	107.6	108.3	108.8	21	106.6	107.3	107.7	24	106.4	107.0	107.4	24
5/5	106.3	106.6	107.1	24	106.8	107.4	108.3	17	108.5	109.2	109.8	17	107.9	108.6	109.0	24	107.7	108.3	108.8	24
5/6	107.0	107.3	107.6	24	107.5	108.0	108.8	21	109.4	110.1	110.7	21	108.9	109.4	109.7	24	108.6	109.0	109.5	24
5/7	107.8	108.1	108.6	24	108.0	108.4	108.7	22	110.5	111.3	113.6	22	109.3	109.7	110.1	24	110.8	112.9	114.2	24
5/8	108.1	108.6	109.1	24	108.0	108.3	108.8	23	112.2	114.0	115.3	23	109.2	109.6	109.9	23	114.9	116.2	117.7	23
5/9	109.6	110.8	111.1	24	108.0	108.3	108.4	22	111.1	112.3	113.1	22	111.2	112.1	112.7	24	116.1	118.2	118.9	24
5/10	110.6	110.8	111.1	24	108.3	108.6	108.9	21	114.4	115.3	115.9	21	110.2	111.2	111.6	24	118.4	118.8	119.9	24
5/11	110.4	110.6	110.9	24	108.7	108.9	109.0	19	115.0	117.5	121.4	19	113.5	114.1	114.4	24	118.6	120.5	122.2	24
5/12	110.5	110.7	110.8	24	108.4	108.7	109.1	23	112.4	113.2	116.2	23	115.9	118.0	118.7	24	118.6	120.2	121.5	24
5/13	110.1	110.6	111.1	24	107.6	108.0	108.3	21	112.7	115.4	118.5	21	110.9	111.4	111.9	24	115.1	118.4	119.0	24
5/14	109.4	109.7	110.1	24	106.6	107.0	107.2	21	108.6	109.0	109.3	21	111.7	113.1	114.1	24	113.7	115.3	115.9	24
5/15	110.0	110.2	110.6	24	107.8	108.2	108.7	21	109.8	110.2	110.7	21	108.5	108.8	108.9	24	115.6	119.2	122.7	24
5/16	110.0	110.2	110.4	23	108.1	108.2	108.6	20	111.8	112.9	114.2	20	109.2	109.7	109.9	23	112.7	115.1	116.5	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
5/3	105.6	106.2	106.5	24	107.6	108.6	109.1	24	107.8	108.6	109.4	24	109.6	109.9	110.0	24	109.0	109.3	109.5	24
5/4	106.1	106.7	107.0	24	108.3	109.2	109.5	24	108.6	109.2	109.9	24	110.2	110.5	110.7	24	109.6	109.9	110.3	24
5/5	107.1	107.8	108.1	24	109.3	110.2	110.6	24	109.1	109.7	110.0	24	110.7	111.0	111.5	24	110.6	111.0	111.8	24
5/6	107.9	108.6	108.9	24	110.7	111.4	112.1	24	110.6	111.8	112.3	24	111.1	111.4	111.6	24	111.2	111.8	113.4	24
5/7	108.3	108.9	109.4	24	111.1	111.8	112.5	24	111.8	113.1	114.7	24	111.4	111.7	112.0	24	111.4	112.2	114.0	24
5/8	109.9	110.8	111.1	23	112.2	112.7	113.4	23	110.9	111.7	112.5	24	112.1	112.4	112.9	24	111.4	112.7	113.5	24
5/9	110.4	112.3	113.2	24	112.7	114.2	115.3	24	111.4	112.8	113.6	24	113.6	114.4	114.8	24	111.9	112.5	112.9	24
5/10	111.5	112.3	113.0	24	114.2	115.0	115.8	24	112.3	112.9	113.3	24	116.5	117.7	118.9	24	114.4	116.1	118.2	24
5/11	114.2	115.6	117.0	24	119.7	121.9	123.1	24	113.5	114.5	115.1	24	115.9	116.8	117.3	24	116.1	116.9	118.1	24
5/12	114.2	116.4	117.4	24	117.4	119.3	120.1	24	115.2	116.3	117.0	24	116.1	116.8	117.9	24	115.7	117.1	117.7	24
5/13	111.6	112.4	113.5	24	117.1	119.5	120.5	24	115.6	116.6	117.2	24	116.4	117.8	119.1	24	115.1	116.1	117.3	24
5/14	110.4	112.4	113.9	24	112.8	114.3	115.4	24	114.0	114.3	114.6	24	115.8	116.8	117.5	24	113.0	114.0	115.4	24
5/15	110.7	112.5	114.1	24	113.2	114.8	116.4	24	---	---	---	0	---	---	---	0	---	---	---	0
5/16	108.6	109.8	110.8	23	113.2	113.9	114.9	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
5/3	112.1	112.3	112.6	24	---	---	---	0	95.5	95.8	96.1	24	99.4	99.9	100.4	24	103.4	104.4	105.4	23
5/4	112.3	112.6	112.8	24	---	---	---	0	96.0	96.4	96.6	24	99.6	100.5	101.2	24	103.2	104.3	105.3	24
5/5	113.1	113.3	113.6	24	---	---	---	0	96.6	97.0	97.2	24	100.2	101.2	101.8	24	103.5	104.8	105.9	24
5/6	113.4	113.8	114.0	24	---	---	---	0	97.0	97.3	97.7	24	100.5	101.5	102.2	24	103.6	104.9	106.0	24
5/7	113.4	113.8	114.7	24	---	---	---	0	96.7	97.0	97.5	24	100.7	101.6	102.4	24	103.6	104.7	105.7	24
5/8	115.3	115.7	116.1	24	---	---	---	0	96.4	96.7	97.1	24	101.3	102.3	102.9	24	103.7	104.8	105.6	24
5/9	116.0	117.4	117.9	24	---	---	---	0	96.0	96.4	96.8	24	101.9	103.1	103.9	24	104.3	105.3	106.1	24
5/10	119.0	119.8	120.7	24	---	---	---	0	95.9	96.3	96.7	24	102.3	103.5	104.1	24	104.9	105.8	106.5	24
5/11	118.8	119.5	120.4	24	---	---	---	0	96.3	96.8	97.3	24	103.1	104.2	104.7	24	105.5	106.4	107.0	24
5/12	117.3	117.8	118.6	24	---	---	---	0	96.9	97.9	102.0	24	103.4	104.3	104.9	24	105.9	106.6	107.2	24
5/13	117.4	118.0	118.8	24	---	---	---	0	96.4	96.9	97.6	24	103.4	104.1	104.9	24	105.8	106.3	107.1	24
5/14	116.0	117.1	117.8	24	---	---	---	0	98.5	101.0	106.2	24	103.9	104.8	105.4	24	106.4	107.4	108.0	24
5/15	---	---	---	0	---	---	---	0	96.5	97.3	97.8	24	103.0	103.7	104.2	24	107.2	107.9	108.5	24
5/16	---	---	---	0	---	---	---	0	98.3	99.4	106.9	23	102.5	103.0	103.5	23	106.8	107.1	107.8	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
5/3	98.8	99.4	99.9	24	101.3	101.5	101.7	24	111.1	111.3	111.7	24	110.5	110.8	111.4	24	111.7	112.2	112.6	24
5/4	98.6	100.0	100.9	24	103.2	104.3	106.1	24	111.3	111.9	112.5	24	114.8	116.8	118.2	24	112.5	113.3	114.2	24
5/5	99.1	100.2	101.0	24	106.0	106.4	106.8	24	112.1	112.9	113.7	24	116.4	116.9	118.8	24	113.2	113.7	114.4	24
5/6	99.2	100.5	101.0	24	106.1	106.3	106.5	24	112.0	112.6	113.4	24	116.8	117.3	117.8	24	112.7	113.0	113.5	24
5/7	100.3	101.5	102.2	24	105.4	105.7	105.8	24	111.2	111.7	112.1	24	116.2	117.0	117.9	24	112.2	112.5	113.0	24
5/8	100.8	102.1	103.0	24	104.4	104.7	105.0	24	111.0	111.7	112.0	24	115.3	115.6	116.0	24	111.7	112.0	112.2	24
5/9	101.6	102.5	103.2	24	103.8	104.1	104.3	24	109.7	110.1	110.4	24	115.1	115.5	116.0	24	114.0	115.3	116.7	24
5/10	101.9	102.7	103.3	24	103.8	104.0	104.5	24	110.2	110.5	111.0	24	114.7	115.2	116.1	24	114.8	115.2	115.7	24
5/11	102.4	103.1	103.6	24	104.3	104.6	104.9	24	110.6	110.8	111.1	24	113.5	114.1	114.8	24	114.7	115.3	116.3	24
5/12	102.7	103.3	104.0	24	105.2	105.3	105.6	24	110.4	110.6	111.1	24	111.3	112.1	112.8	24	115.3	115.6	115.8	24
5/13	102.4	102.8	103.3	24	105.3	105.5	105.7	24	111.9	113.4	114.3	24	109.6	110.2	110.9	24	116.3	117.8	118.9	24
5/14	102.7	103.6	104.0	24	104.6	104.7	105.1	24	114.3	115.4	116.0	24	107.7	108.0	108.6	24	116.0	117.4	118.6	24
5/15	102.3	102.7	103.1	24	104.9	105.4	106.0	24	112.4	113.6	115.3	24	108.9	109.7	110.0	24	115.7	116.5	118.6	24
5/16	102.1	102.5	103.0	23	106.0	106.2	106.5	23	111.4	112.4	116.9	23	109.9	110.5	110.8	23	114.7	114.9	115.1	23

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
5/3	112.0	112.7	114.2	24	119.5	119.9	120.6	24	116.1	117.2	118.5	24	114.6	115.5	116.4	24	---	---	---	0
5/4	113.8	114.7	115.4	24	119.5	120.1	120.3	24	118.5	119.2	119.8	24	115.5	116.7	117.3	24	---	---	---	0
5/5	114.7	115.2	115.9	24	119.4	119.7	120.0	24	119.6	120.1	120.8	24	115.9	117.4	118.2	24	---	---	---	0
5/6	115.4	115.9	116.5	24	119.8	120.4	120.7	24	118.8	119.2	119.8	24	115.7	116.4	116.7	24	---	---	---	0
5/7	115.3	115.5	115.7	24	117.6	120.2	121.1	24	118.4	118.8	119.5	24	116.1	116.5	116.7	24	---	---	---	0
5/8	115.2	115.3	115.7	24	114.4	114.6	115.6	24	118.9	119.0	119.1	24	116.8	117.2	117.6	24	---	---	---	0
5/9	114.8	115.2	115.7	24	115.2	115.8	117.2	21	118.8	119.0	119.2	24	117.2	117.9	118.5	24	---	---	---	0
5/10	114.9	115.3	115.8	24	115.4	115.9	116.5	24	117.9	118.2	118.7	24	117.6	117.9	118.2	24	---	---	---	0
5/11	117.0	117.8	118.3	24	116.4	117.2	118.3	24	117.6	118.0	118.5	24	117.6	117.9	118.8	24	---	---	---	0
5/12	117.2	117.7	118.4	24	116.2	116.8	117.2	24	118.1	118.5	118.7	24	119.6	120.2	120.4	24	---	---	---	0
5/13	116.0	116.5	117.0	24	116.9	118.2	120.3	24	117.2	117.6	118.1	24	119.4	120.4	121.3	24	---	---	---	0
5/14	114.2	114.9	116.4	24	118.0	119.1	120.6	24	115.1	115.4	115.8	24	120.4	121.0	121.3	24	---	---	---	0
5/15	116.4	116.8	117.0	24	118.6	119.4	121.0	24	115.5	115.8	116.1	24	119.8	120.9	121.6	24	---	---	---	0
5/16	116.9	117.1	117.3	23	116.6	117.8	118.4	23	116.3	116.5	116.8	23	118.9	119.8	120.2	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
5/3	110.4	111.3	111.9	24	114.2	114.6	116.0	24	106.9	107.3	107.7	24	114.5	115.3	117.7	24	109.8	110.2	110.5	24
5/4	112.2	112.5	112.7	24	114.1	114.6	115.0	24	108.4	109.2	109.8	24	116.1	117.8	118.3	24	110.8	111.5	112.2	24
5/5	112.2	112.9	114.6	24	114.5	115.0	115.5	24	111.5	112.4	112.8	24	114.7	115.0	115.6	24	112.8	113.3	113.9	24
5/6	113.0	113.8	114.9	24	114.9	115.1	115.3	24	113.5	114.2	114.6	24	114.2	114.8	115.3	24	113.7	114.1	114.3	24
5/7	113.8	114.2	114.5	24	114.6	114.8	115.2	24	114.1	114.3	114.6	24	114.5	115.1	115.7	24	112.6	113.1	114.0	24
5/8	113.3	113.7	114.2	24	114.7	115.3	116.4	24	112.9	113.2	113.3	24	117.2	118.0	118.5	24	112.0	113.0	113.7	24
5/9	112.8	113.6	113.9	24	116.6	116.9	117.5	24	113.4	114.0	114.5	24	116.9	118.0	118.3	24	113.1	113.9	114.5	24
5/10	113.7	114.7	115.6	24	118.1	118.6	119.8	24	113.8	114.1	114.3	24	117.8	118.6	118.9	24	114.2	114.8	115.5	24
5/11	115.0	115.9	117.1	24	119.8	120.0	120.6	24	113.9	114.5	115.0	24	119.0	119.3	119.7	24	115.1	116.1	116.7	24
5/12	115.9	116.3	116.7	24	120.2	120.4	120.7	24	115.2	115.5	115.8	24	118.9	119.3	119.6	24	115.0	115.5	115.7	24
5/13	115.3	115.9	116.7	24	119.1	119.2	119.5	24	115.3	115.6	115.9	24	118.4	118.6	118.8	24	114.2	114.6	114.9	24
5/14	112.6	113.1	113.8	24	119.6	119.8	120.0	24	114.8	115.2	115.5	24	118.6	118.7	119.0	24	114.4	115.5	116.0	24
5/15	114.3	115.4	116.0	24	119.6	119.9	120.6	24	114.5	114.8	115.0	24	118.5	118.7	119.1	24	114.8	115.0	115.3	24
5/16	115.0	115.5	116.3	23	119.5	119.6	120.2	23	113.0	113.1	113.3	23	118.5	118.7	119.1	23	114.6	115.2	115.8	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
5/3	116.1	116.4	116.6	24	117.1	118.0	118.4	24	117.4	118.1	118.6	24	115.5	117.5	118.5	24	118.8	119.0	121.5	24
5/4	116.4	117.1	117.4	24	116.5	116.9	117.4	24	117.4	117.6	117.8	24	116.6	117.3	118.1	24	118.8	118.9	119.0	24
5/5	117.5	118.2	118.5	24	115.9	116.3	116.6	24	117.2	117.4	117.7	24	116.0	116.9	117.5	24	118.8	118.9	119.0	24
5/6	118.1	118.6	119.1	24	116.9	117.5	118.0	24	117.5	118.1	118.5	24	116.1	117.8	118.8	24	118.7	118.8	118.9	24
5/7	117.4	117.6	117.8	24	114.4	115.0	116.3	24	116.0	116.7	117.1	24	116.0	117.0	117.9	24	118.4	118.5	118.6	24
5/8	116.7	117.2	117.5	24	111.3	111.7	112.4	24	113.4	113.9	114.8	24	113.1	113.7	114.7	24	118.0	118.1	118.3	24
5/9	117.8	118.1	118.3	24	111.4	112.0	112.5	24	113.1	113.6	114.0	24	112.1	113.1	114.2	24	118.1	118.3	118.4	24
5/10	118.3	118.7	118.9	24	114.6	115.4	115.6	24	115.3	116.1	116.5	24	113.5	115.1	115.8	24	119.4	120.1	120.5	24
5/11	118.5	118.8	119.2	24	116.8	117.3	117.7	24	118.2	119.1	119.3	24	116.2	117.9	118.5	24	122.7	123.7	123.8	24
5/12	117.6	118.2	118.6	24	117.1	117.7	118.0	24	118.8	119.2	119.4	24	117.7	118.3	118.5	24	122.8	123.7	123.9	24
5/13	117.3	117.6	118.1	24	114.7	115.1	115.9	24	116.5	116.9	117.4	24	115.5	116.6	117.8	24	120.5	120.7	120.8	24
5/14	118.9	120.0	120.2	24	114.2	115.0	115.5	24	117.0	118.0	118.8	24	114.9	116.4	116.8	24	121.3	122.5	123.1	24
5/15	119.2	119.9	120.4	24	116.8	117.4	117.5	24	118.4	118.6	118.9	24	116.7	117.4	117.8	24	122.0	122.4	122.9	24
5/16	118.0	118.2	118.4	23	117.5	117.8	118.4	23	118.4	118.7	119.0	23	117.6	117.9	118.7	23	119.1	119.8	121.9	23

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 5/17/2013 14:52

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)
05/03/2013	*	288	93	105	195	135,840	27,948	---	253	90,098	47,107	54,043
05/04/2013	*	97	90	116	78	56,298	33,295	234	360	---	62,866	32,322
05/05/2013	*	108	102	117	101	78,103	100,545	---	473	82,471	59,139	32,215
05/06/2013	*	35	84	108	158	33,754	85,401	---	429	---	45,247	30,597
05/07/2013	*	158	92	95	72	111,807	63,092	10,238	1,017	224,281	39,943	44,318
05/08/2013	*	39	73	229	65	217,033	63,689	55,686	1,043	---	43,528	43,302
05/09/2013	*	---	54	562	165	199,790	70,748	40,233	907	382,135	65,469	56,171
05/10/2013	*	---	27	524	251	158,575	298,596	47,177	1,369	---	85,196	46,548
05/11/2013	*	---	12	375	260	157,615	157,763	69,001	1,759	225,944	114,528	83,158
05/12/2013	*	---	---	197	241	128,043	110,002	68,581	1,348	---	119,235	120,829
05/13/2013	*	---	---	256	84	125,795	86,399	60,337	1,239	252,596	117,613	115,881
05/14/2013	*	---	---	181	---	113,204	118,078	79,742	1,035	---	110,977	138,811
05/15/2013	*	---	---	128	199	76,059	66,076	74,807	1,063	143,754	79,746	103,767
05/16/2013	*	---	---	56	---	39,748	33,642	43,009	1,395	---	90,111	111,555
05/17/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		**725**	**627**	**3,049**	**1,869**	**1,631,664**	**1,315,274**	**549,045**	**13,690**	**1,401,279**	**1,080,705**	**1,013,517**
# Days:		**6**	**9**	**14**	**12**	**14**	**14**	**11**	**14**	**7**	**14**	**14**
Average:		**121**	**70**	**218**	**156**	**116,547**	**93,948**	**49,913**	**978**	**200,183**	**77,193**	**72,394**
YTD		**50,632**	**55,059**	**26,212**	**2,797**	**2,517,129**	**1,382,285**	**550,835**	**17,160**	**1,640,291**	**1,514,947**	**1,430,963**

				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)
05/03/2013	*	0	0	5	0	0	0	---	1	0	0	3,824
05/04/2013	*	0	0	39	0	0	0	0	14	---	0	215,829
05/05/2013	*	0	0	4	0	0	1	---	4	679	0	251,174
05/06/2013	*	0	0	8	2	160	0	---	15	---	0	83,663
05/07/2013	*	0	1	6	1	294	0	0	41	1,017	0	39,715
05/08/2013	*	0	4	3	3	0	0	0	30	---	0	20,990
05/09/2013	*	---	6	4	20	0	0	0	36	1,507	0	20,257
05/10/2013	*	---	1	22	1,403	0	298	0	60	---	0	14,180
05/11/2013	*	---	6	10	515	0	0	903	38	935	0	6,064
05/12/2013	*	---	---	8	456	245	0	639	17	---	0	8,731
05/13/2013	*	---	---	9	139	970	0	1,634	42	894	0	8,034
05/14/2013	*	---	---	6	---	2,013	905	994	42	---	0	5,733
05/15/2013	*	---	---	3	23	6,122	0	2,411	104	3,108	0	10,473
05/16/2013	*	---	---	5	---	4,720	847	750	91	---	0	8,427
05/17/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**18**	**132**	**2,562**	**14,524**	**2,051**	**7,331**	**535**	**8,140**	**0**	**697,094**
# Days:		**6**	**9**	**14**	**12**	**14**	**14**	**11**	**14**	**7**	**14**	**14**
Average:		**0**	**2**	**9**	**214**	**1,037**	**147**	**666**	**38**	**1,163**	**0**	**49,792**
YTD		**2**	**37**	**175**	**2,668**	**16,999**	**2,339**	**7,349**	**1,072**	**14,183**	**585**	**1,973,463**

Two-Week Summary of Passage Indices

				COMBINED COHO								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/03/2013	*	0	0	0	4	305	574	---	10	1,018	1,230	14,772
05/04/2013	*	0	0	0	2	643	287	0	24	---	3,045	8,863
05/05/2013	*	0	0	0	2	955	1,724	---	33	679	1,908	5,034
05/06/2013	*	0	0	0	7	160	0	---	45	---	1,110	5,737
05/07/2013	*	0	0	0	1	1,177	288	0	117	339	1,288	16,692
05/08/2013	*	0	0	0	6	1,270	287	148	272	---	1,527	15,472
05/09/2013	*	---	0	0	7	1,809	1,432	0	415	2,637	3,571	18,145
05/10/2013	*	---	0	0	36	2,764	4,772	925	2,007	---	3,586	24,353
05/11/2013	*	---	0	0	9	2,248	2,304	645	1,943	4,652	7,979	26,564
05/12/2013	*	---	---	0	8	4,170	3,567	639	1,453	---	6,972	18,258
05/13/2013	*	---	---	0	3	9,453	3,820	377	1,509	7,155	8,299	15,142
05/14/2013	*	---	---	0	---	11,824	7,846	2,733	1,238	---	11,864	25,348
05/15/2013	*	---	---	0	3	8,928	3,885	964	1,377	3,996	9,154	22,214
05/16/2013	*	---	---	0	---	4,720	1,977	0	1,966	---	8,015	29,250
05/17/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**88**	**50,426**	**32,763**	**6,431**	**12,409**	**20,476**	**69,548**	**245,844**
# Days:		**6**	**9**	**14**	**12**	**14**	**14**	**11**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**7**	**3,602**	**2,340**	**585**	**886**	**2,925**	**4,968**	**17,560**
YTD		**0**	**0**	**0**	**107**	**53,353**	**33,051**	**6,431**	**12,622**	**28,192**	**81,964**	**459,046**

				COMBINED STEELHEAD								
		WTB	IMN	GRN	LEW	LGR††	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/03/2013	*	162	568	32	193	43,347	41,975	---	67	66,537	31,337	10,948
05/04/2013	*	162	864	17	90	24,128	34,730	215	73	---	35,892	11,991
05/05/2013	*	202	971	15	320	33,996	91,639	---	93	19,685	30,285	13,087
05/06/2013	*	281	1,475	35	689	41,112	89,129	---	115	---	28,169	10,996
05/07/2013	*	110	2,197	37	707	49,872	68,561	20,650	177	20,707	18,653	17,410
05/08/2013	*	66	1,864	75	148	41,140	80,615	49,622	215	---	20,313	13,605
05/09/2013	*	---	2,211	315	329	42,646	62,130	30,832	354	38,443	15,475	17,132
05/10/2013	*	---	1,890	298	916	66,094	114,526	34,226	723	---	26,457	14,180
05/11/2013	*	---	1,258	253	333	99,415	94,488	57,780	800	47,025	31,683	10,395
05/12/2013	*	---	---	132	345	115,533	157,831	48,275	975	---	30,680	13,001
05/13/2013	*	---	---	188	170	159,485	109,605	44,750	1,206	27,733	30,825	19,159
05/14/2013	*	---	---	138	---	120,751	232,455	88,933	873	---	22,245	25,952
05/15/2013	*	---	---	86	326	123,042	87,269	65,644	716	19,541	22,406	18,288
05/16/2013	*	---	---	26	---	81,484	62,409	30,256	497	---	23,073	5,456
05/17/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		**983**	**13,298**	**1,647**	**4,566**	**1,042,045**	**1,327,362**	**471,183**	**6,884**	**239,671**	**367,493**	**201,600**
# Days:		**6**	**9**	**14**	**12**	**14**	**14**	**11**	**14**	**7**	**14**	**14**
Average:		**164**	**1,478**	**118**	**381**	**74,432**	**94,812**	**42,835**	**492**	**34,239**	**26,250**	**14,400**
YTD		**3,789**	**33,742**	**3,464**	**9,925**	**1,801,938**	**1,422,362**	**472,859**	**7,581**	**399,606**	**551,409**	**340,898**

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)
05/03/2013	*	0	0	0	0	0	0	---	48	23,079	2,252	1,043
05/04/2013	*	0	0	0	0	322	0	0	29	---	3,481	521
05/05/2013	*	0	0	0	0	0	0	---	39	25,111	3,100	503
05/06/2013	*	0	0	0	0	0	0	---	88	---	4,880	1,434
05/07/2013	*	1	0	0	0	0	0	0	102	14,922	2,720	2,158
05/08/2013	*	0	0	0	0	0	0	0	100	---	6,546	5,442
05/09/2013	*	---	0	0	0	258	0	0	94	15,830	4,523	2,402
05/10/2013	*	---	0	0	1	0	0	132	391	---	6,502	2,158
05/11/2013	*	---	0	0	1	0	0	0	825	26,990	4,928	4,909
05/12/2013	*	---	---	0	2	0	0	0	1,091	---	6,741	4,684
05/13/2013	*	---	---	0	2	0	0	0	1,709	71,088	16,599	6,180
05/14/2013	*	---	---	0	---	0	302	0	1,982	---	10,628	8,449
05/15/2013	*	---	---	0	320	5,357	0	0	2,335	63,990	18,310	15,182
05/16/2013	*	---	---	0	---	19,377	847	250	3,256	---	23,803	17,353
05/17/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		**1**	**0**	**0**	**326**	**25,314**	**1,149**	**382**	**12,089**	**241,010**	**115,013**	**72,418**
# Days:		**6**	**9**	**14**	**12**	**14**	**14**	**11**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**27**	**1,808**	**82**	**35**	**864**	**34,430**	**8,215**	**5,173**
YTD		**1**	**0**	**0**	**326**	**25,378**	**1,149**	**385**	**13,878**	**324,144**	**127,242**	**77,274**

				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)
05/03/2013	*	0	0	0	0	0	0	---	0	600	286	0
05/04/2013	*	0	0	0	0	0	0	0	1	---	286	0
05/05/2013	*	0	0	0	0	50	0	---	0	200	286	0
05/06/2013	*	0	0	0	0	0	0	---	0	---	286	0
05/07/2013	*	0	0	0	0	0	0	0	0	0	0	0
05/08/2013	*	0	0	0	0	0	0	0	1	---	143	0
05/09/2013	*	---	0	0	0	0	0	0	1	200	143	0
05/10/2013	*	---	0	0	0	0	0	0	7	---	0	0
05/11/2013	*	---	0	0	0	0	0	0	4	0	143	100
05/12/2013	*	---	---	0	0	0	0	0	8	---	0	0
05/13/2013	*	---	---	0	0	400	0	100	9	800	143	0
05/14/2013	*	---	---	0	---	1,000	1,200	200	2	---	143	0
05/15/2013	*	---	---	0	0	1,200	6,400	6,200	2	600	571	0
05/16/2013	*	---	---	0	---	800	14,200	23,000	4	---	571	0
05/17/2013		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**3,450**	**21,800**	**29,500**	**39**	**2,400**	**3,001**	**100**
# Days:		**6**	**9**	**14**	**12**	**14**	**14**	**11**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**246**	**1,557**	**2,682**	**3**	**343**	**214**	**7**
YTD		**0**	**8**	**0**	**0**	**4,142**	**22,413**	**29,560**	**76**	**9,010**	**32,163**	**2,812**

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.

†† Passage index for yearling Chinook and steelhead at LGR may be inflated in 2013 due to possible resampling of PIT-tagged research fish

† 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: 5/17/13 3:14 PM

05/03/13 TO 05/17/13

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	11,500	1,220,737	39,800	802,563	20,200	2,094,800
	Sum of NumberBarged	11,469	1,206,115	39,746	786,772	20,198	2,064,300
	Sum of NumberBypassed	14	12,620	0	15,521	1	28,156
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	1	54	0	12	0	67
	Sum of FacilityMorts	16	1,914	54	223	1	2,208
	Sum of ResearchMorts	0	34	0	35	0	69
	Sum of TotalProjectMorts	17	2,002	54	270	1	2,344
LGS	Sum of NumberCollected	1,401	898,655	22,200	906,361	800	1,829,417
	Sum of NumberBarged	1,395	898,139	22,200	906,283	800	1,828,817
	Sum of NumberBypassed	5	0	0	0	0	5
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	6	0	3	0	9
	Sum of FacilityMorts	1	510	0	75	0	586
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1	516	0	78	0	595
LMN	Sum of NumberCollected	5,900	424,311	5,100	362,202	300	797,813
	Sum of NumberBarged	5,494	423,641	5,100	361,820	300	796,355
	Sum of NumberBypassed	2	211	0	202	0	415
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	10	0	5	0	15
	Sum of FacilityMorts	6	449	0	175	0	630
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	6	459	0	180	0	645
MCN	Sum of NumberCollected	4,002	711,794	9,601	124,874	117,845	968,116
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	4,000	711,319	9,600	124,850	117,793	967,562
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	26	0	1	9	36
	Sum of FacilityMorts	2	449	1	23	43	518
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2	475	1	24	52	554
Total Sum of NumberCollected		22,803	3,255,497	76,701	2,196,000	139,145	5,690,146
Total Sum of NumberBarged		18,358	2,527,895	67,046	2,054,875	21,298	4,689,472
Total Sum of NumberBypassed		4,021	724,150	9,600	140,573	117,794	996,138
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		1	96	0	21	9	127
Total Sum of FacilityMorts		25	3,322	55	496	44	3,942
Total Sum of ResearchMorts		0	34	0	35	0	69
Total Sum of TotalProjectMorts		26	3,452	55	552	53	4,138

YTD Transportation Summary

Source: Fish Passage Center Updated: 5/17/13 3:14 PM

TO: 05/17/13

		Species						
Site	Data	**CH0**	**CH1**	CO	SO	ST	LU	**Grand Total**
LGR	Sum of NumberCollected	13,135	1,797,798	41,760	20,250	1,271,477		3,144,420
	Sum of NumberBarged	11,763	1,491,199	41,496	20,198	924,689		2,489,345
	Sum of NumberBypassed	1,350	304,379	210	51	346,499		652,489
	Sum of NumberTrucked	0	0	0	0	0		0
	Sum of SampleMorts	5	143	0	0	24		172
	Sum of FacilityMorts	17	2,041	54	1	228		2,341
	Sum of ResearchMorts	0	38	0	0	36		74
	Sum of TotalProjectMorts	22	2,222	54	1	288		2,587
LGS	Sum of NumberCollected	1,601	945,359	22,400	800	972,565		1,942,725
	Sum of NumberBarged	1,395	898,139	22,200	800	906,283		1,828,817
	Sum of NumberBypassed	205	46,698	200	0	66,201		113,304
	Sum of NumberTrucked	0	0	0	0	0		0
	Sum of SampleMorts	0	9	0	0	5		14
	Sum of FacilityMorts	1	513	0	0	76		590
	Sum of ResearchMorts	0	0	0	0	0		0
	Sum of TotalProjectMorts	1	522	0	0	81		604
LMN	Sum of NumberCollected	5,908	425,151	5,100	302	362,911	1	799,373
	Sum of NumberBarged	5,494	423,641	5,100	300	361,820	0	796,355
	Sum of NumberBypassed	10	1,050	0	2	910	16	1,988
	Sum of NumberTrucked	0	0	0	0	0	0	0
	Sum of SampleMorts	0	11	0	0	6	0	17
	Sum of FacilityMorts	6	449	0	0	175	0	630
	Sum of ResearchMorts	0	0	0	0	0	0	0
	Sum of TotalProjectMorts	6	460	0	0	181	0	647
MCN	Sum of NumberCollected	7,372	849,470	13,932	166,244	218,240		1,255,258
	Sum of NumberBarged	0	0	0	0	0		0
	Sum of NumberBypassed	7,368	848,871	13,930	166,156	218,195		1,254,520
	Sum of NumberTrucked	0	0	0	0	0		0
	Sum of SampleMorts	2	40	0	14	4		60
	Sum of FacilityMorts	2	559	2	74	41		678
	Sum of ResearchMorts	0	0	0	0	0		0
	Sum of TotalProjectMorts	4	599	2	88	45		738
Total Sum of NumberCollected		28,016	4,017,778	83,192	187,596	2,825,193	1	7,141,776
Total Sum of NumberBarged		18,652	2,812,979	68,796	21,298	2,192,792	0	5,114,517
Total Sum of NumberBypassed		8,933	1,200,998	14,340	166,209	631,805	16	2,022,301
Total Sum of NumberTrucked		0	0	0	0	0	0	0
Total Sum of SampleMorts		7	203	0	14	39	0	263
Total Sum of FacilityMorts		26	3,562	56	75	520	0	4,239
Total Sum of ResearchMorts		0	38	0	0	36	0	74
Total Sum of TotalProjectMorts		33	3,803	56	89	595	0	4,576

Cumulative Adult Passage at Mainstem Dams Through: 05/17

		Spring Chinook						Summer Chinook						Fall Chinook					
		2013		2012		10-Yr Avg.		2013		2012		10-Yr Avg.		2013		2012		10-Yr Avg.	
DAM	ENDDA	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	**05/16**	**69021**	**26720**	**130098**	**4923**	**120324**	**13035**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TDA	**05/16**	**53810**	**23845**	**81082**	**3750**	**83564**	**9084**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
JDA	**05/16**	**42466**	**19942**	**66459**	**2823**	**68241**	**7622**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
MCN	**05/15**	**34859**	**12326**	**45386**	**1315**	**53140**	**4152**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IHR	**05/16**	**26934**	**10051**	**29878**	**617**	**36984**	**2604**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LMN	**05/16**	**23751**	**7715**	**21256**	**457**	**31715**	**1725**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGS	**05/16**	**20043**	**6952**	**8317**	**279**	**23588**	**1276**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGR	**05/16**	**17733**	**5324**	**5263**	**220**	**21815**	**1014**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PRD	**05/15**	**4755**	**237**	**2347**	**35**	**7330**	**96**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WAN	**05/15**	**4575**	**286**	**1717**	**24**	**5674**	**115**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RIS	**05/10**	**1267**	**29**	**235**	**1**	**3122**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RRH	**05/10**	**416**	**20**	**36**	**0**	**755**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WEL	**05/15**	**416**	**47**	**55**	**2**	**549**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WFA	**05/14**	**14856**	**588**	**11933**	**327**	**22542**	**286**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

		Coho						Sockeye			Steelhead						Lamprey		
		2013		2012		10-Yr Avg.				10-Yr			10-Yr	Wild	Wild	10-Yr			10-Yr
DAM	ENDDA	Adult	Jack	Adult	Jack	Adult	Jack	2013	2012	Avg.	2013	2012	Avg.	2013	2012	Avg.	2013	2012	Avg.
BON	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2931**	**4903**	**4773**	**835**	**1530**	**1210**	**394**	**110**	**55**
TDA	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**744**	**1681**	**2633**	**342**	**918**	**910**	**0**	**0**	**0**
JDA	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**863**	**1776**	**6236**	**459**	**1193**	**1972**	**16**	**-1**	**32**
MCN	**05/15**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1396**	**4664**	**6176**	**687**	**2200**	**2074**	**21**	**3**	**0**
IHR	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3806**	**2305**	**5226**	**1504**	**1071**	**1512**	**8**	**0**	**0**
LMN	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2439**	**3534**	**9689**	**1369**	**1897**	**2991**	**1**	**3**	**0**
LGS	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2180**	**3855**	**9502**	**1169**	**2260**	**3038**	**1**	**1**	**0**
LGR	**05/16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7403**	**8820**	**9576**	**3211**	**3853**	**3164**	**1**	**0**	**0**
PRD	**05/15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**78**	**31**	**0**	**0**	**0**	**2**	**0**	**0**
WAN	**05/15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**71**	**122**	**99**	**0**	**0**	**0**	**1**	**0**	**0**
RIS	**05/10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64**	**130**	**69**	**46**	**89**	**40**	**0**	**0**	**0**
RRH	**05/10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**123**	**645**	**292**	**102**	**546**	**221**	**0**	**0**	**0**
WEL	**05/15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**78**	**47**	**35**	**61**	**32**	**0**	**0**	**0**
WFA	**05/14**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8289**	**13218**	**11663**	**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.

Page last updated on: 05/17/13