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Fish Passage Center

Weekly Report #15–3

April 3, 2015

Summary of Events

Water Supply

Precipitation throughout the Columbia Basin has varied between 29% and 163% of average at individual sub-basins over March. Precipitation above The Dalles has been 86% of average over March. Over the 2015 water year, precipitation has ranged between 64% and 112% of average.

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

Location	March 1–31, 2015		Water Year 2015 October 1, 2014 to March 31, 2015	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	4.10	131	24.8	110
Snake River Above Ice Harbor	1.22	52	11.2	80
Columbia Above The Dalles	2.23	86	15.9	92
Kootenai	5.01	163	25.7	112
Clark Fork	1.37	56	14.0	89
Flathead	4.09	124	23.1	108
Pend Oreille River Basin above Waneta Dam	2.90	98	19.4	99
Salmon River Basin	1.61	56	14.5	84
Upper Snake Tributaries	0.82	29	10.5	64
Clearwater	3.59	88	25.0	95
Willamette River above Portland	5.52	76	43.0	87

Snowpack within the Columbia Basin has been below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 51% of average. For Snake River Basins the average snowpack is 37% of average. For lower Columbia Basins between McNary and Bonneville Dam average snowpack is 12% of average.

Table 2 displays the April 2nd ESP runoff volume forecasts for multiple reservoirs along with the March COE forecasts at Libby and Dworshak. The April 2nd ESP forecast at The Dalles between April and August is 73,384 Kaf (84% of average).

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

Location	April 2, 2015 5-day QPF ESP	
	% Average (1981–2010)	Runoff Volume (Kaf)
The Dalles (Apr–Aug)	84	73,384
Grand Coulee (Apr–Aug)	91	51,848
Libby Res. Inflow, MT (Apr–Aug)	93 97*	5,491 5,683*
Hungry Horse Res. Inflow, MT (Apr–Aug)	87	1,687
Lower Granite Res. Inflow (Apr–July)	71	13,996
Brownlee Res. Inflow (Apr–July)	57	3,144
Dworshak Res. Inflow (Apr–July)	71 74*	1,727 1,815*

* Denotes COE March Forecast

Grand Coulee Reservoir is at 1,254.1 feet (4-2-15) and has refilled 0.9 feet over the last week. Outflows at Grand Coulee have ranged between 116.0 and 141.2 Kcfs over the last week. The end of March FC Elevation was 1,283.3 feet at Grand Coulee. Grand Coulee has drafted below flood control for drum gate maintenance (1,255 feet).

The Libby Reservoir is currently at elevation 2,420.0 feet (4-2-15) and has refilled 2.8 feet over the previous week. Daily average outflows at Libby Dam have been 4.0 Kcfs over the last week. The end of March FC Elevation (based on March forecast) at Libby was 2,433.8 feet.

Hungry Horse is currently at an elevation of 3,540.1 feet (4-2-15) and refilled 1.0 feet over the last week. Outflows at Hungry Horse have been increased from 6.7 to 6.8 Kcfs over the last week. The end of March FC elevation at Hungry Horse was 3540.4 feet.

Dworshak is currently at an elevation of 1,586.4 feet (4-2-15) and refilled 0.9 feet over the last week. Outflows have been to 9.6–12.1 Kcfs over the last week. The end of March System FC elevation at Dworshak (based on March forecast) is 1,577.7 feet. The COE planned to operate above the end of March FC elevation at Dworshak.

The Brownlee Reservoir was at an elevation of 2,057.6 feet on April 2, 2015, and has refilled 0.8 feet over the last week. The end of March FC Elevation was 2071.8 feet at Brownlee. Outflow from Hells Canyon is being managed to a minimum of 9.2 Kcfs for fall Chinook spawning (with daily fluctuations to meet energy demand). Over the last four days flows have ranged between 9.9 and 15.4 Kcfs.

Spill

The 2015 spill for fish passage program at the lower Snake River projects began just after midnight on April 3rd. In addition to the start of the spill in the Snake, some involuntary spill occurred in the hydro system over the past week. Spill for fish passage will begin on April 10th at the lower Columbia 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	45 Kcfs/Gas Cap

Smolt Monitoring

To date, all Smolt Monitoring Program sites have provided sample data for 2015, except Lower Monumental and McNary dams. Lower Monumental is expected to conduct their first sample today or tomorrow and McNary Dam is expected to begin sampling on or around April 7th.

Subyearling Chinook dominated the samples at Bonneville Dam (BON) this week. The daily average passage index for subyearling Chinook at BON was just over 800 fish per day. Of all the subyearling Chinook sampled this week, approximately 99.7% were fry. Yearling Chinook passage at BON decreased this week, when compared to last week. This week's daily average passage index for yearling Chinook at BON was about 400 fish per day while last week's daily average passage index was over 3,000 per day. Coho passage increased this week when compared to last week. The daily average passage index for coho at BON this week was about 250 fish per day. Last week's daily average passage index was only about 70 fish per day. This increase is likely due to an increase in hatchery releases above BON, as the number of clipped coho in the sample has increased in recent days. Passage of sockeye and steelhead at BON remained low this week with daily average passage indices of less than 100 fish. Both Pacific lamprey ammocoetes and macropthalmia were encountered at BON this week. Pacific lamprey ammocoetes were encountered in the sample on March 29th, with an estimated collection of five fish. Pacific lamprey macropthalmia were collected every day this week with a daily average collection of 43 per day.

Sampling at John Day Dam (JDA) began on March 31st, with the first sample worked up on April 1st. Yearling Chinook dominated the salmonid collections for both of this week's samples. The daily passage index for yearling Chinook over the past two days ranged from 1,070 to 1,267. The daily passage index for steelhead was in the 139–184 range. Coho and sockeye passage was very low over these 2 days. Finally, both Pacific lamprey ammocoetes and macropthalmia were encountered in this week's samples at JDA. Pacific lamprey ammocoetes were collected in the April 1st sample, with an estimated collection of 8 fish. Pacific lamprey macropthalmia were encountered in both samples this week, with estimated collections in the 180–208 range.

Sampling at Lower Granite Dam began on March 25th, with the first sample worked up on March 26th. This week's samples have been dominated by yearling Chinook. The daily average passage index for yearling Chinook this week was about 14,800 per day and continues to increase each day. Steelhead passage

has increased substantially in the past couple of days. This is likely due to increased hatchery releases above LGR, as there has been a large increase in clipped steelhead in the samples over the last few days. The daily average passage index for steelhead this week was about 4,300 per day. Passage of subyearling Chinook and sockeye remained low this week and all subyearling Chinook have been fry. No coho juveniles have been collected so far this year. Finally, both Pacific lamprey ammocoetes and macropthalmia were encountered in this week's samples at LGR. One Pacific lamprey ammocoete was sampled in the March 29th sample while five, two, and one Pacific lamprey macropthalmia were sampled in each of the March 27th, 28th, and 29th samples, respectively.

Sampling at Little Goose Dam (LGS) began April 1st, with the first sample available on April 2nd. Sampling at LGS is limited to a 24-hour sample every other day until transportation begins. Yearling Chinook dominated the April 2nd sample, with an estimated passage index of about 1,400 fish. The estimated passage index for steelhead on April 2nd was about 950 fish. A few sockeye and subyearling Chinook fry were also encountered in the April 2nd sample. No lamprey juveniles were encountered in the sample from April 2nd.

Rock Island Dam began sampling this week, with the first sample available on April 1st. So far, the two samples from Rock Island Dam (RIS) have been dominated by subyearling Chinook. All subyearling Chinook collected at RIS over these 2 days have been fry. Only a few yearling Chinook, sockeye, and steelhead have been sampled so far this year. Finally, one Pacific lamprey macropthalmia was sampled in the April 2nd sample.

The Grande Ronde Trap is operated by the Oregon Department of Fish and Wildlife and is located at river kilometer 2 in the Grande Ronde River. Yearling Chinook collections continued to increase this week, with a daily average collection of about 400 per day. Over the past week, about 98.5% of the yearling Chinook collected at the trap have been of known hatchery origin. The Grande Ronde Trap encountered its first steelhead juvenile in the March 30th sample. All steelhead so far this year have been of known hatchery origin.

The Salmon River Trap is located at river kilometer 103 and operated by Idaho Department of Fish and Game. Yearling Chinook continued to dominate the collections at the Salmon River Trap this week, with a daily average collection of just over 500 per day. However, this daily average collection is actually a decrease from last week's daily average collection of about 850 per day. Of all the yearling Chinook that were collected so far this week, approximately 77.5% have been of known hatchery origin. As with previous weeks, only a few steelhead were sampled at the Salmon River Trap this week and no juvenile lamprey were sampled this week.

The Snake River Trap is located at river kilometer 225 and operated by Idaho Department of Fish and Game. Steelhead dominated the collections at the Snake River Trap this week. The daily average collection for steelhead this week was about 120 fish per day. The increase in steelhead collections is largely due to the arrival of hatchery steelhead, which were first encountered at the trap on March 27th. Collections of yearling Chinook at this trap remained relatively low this week, with a maximum of 24 in the March 30th sample. A few subyearling Chinook fry were also encountered in this week's samples at this trap.

The Imnaha River Trap is located at river kilometer 7 and is operated by the Nez Perce Tribe. Sampling at the Imnaha River Trap is year-round however the FPC typically receives data only from early March through June. Due to the remote nature of the trap, the Nez Perce Tribe is able to send collection data to the FPC only periodically. Therefore, data for the Imnaha Trap may be several days behind. To date, we have received data through April 1st. Over the last week, collections at the Imnaha River trap have been dominated by yearling Chinook. The average daily collection for yearling Chinook over the period of March 27–April 1 was about 70 per day. This is a decrease over the previous week's daily average collection of about 130 per day. The only other species that has been collected at this trap over the past week is steelhead. Steelhead passage over the past week has been very low.

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. To date, the Fish Passage Center has not received complete preliminary hatchery release data from the Nez Perce Tribe for 2015 releases. Therefore, release estimates discussed for this zone are likely underestimates, as they do not include all releases conducted by the tribe. Release data from the Nez Perce Tribe will be entered into our database as soon as we receive them.

Approximately 153,000 yearling fall Chinook were scheduled for release into this zone this week. These fall Chinook yearlings were scheduled to be released from Captain John Rapids Acclimation Facility on the Snake River. While 45% of these yearling fall Chinook were adipose clipped, the other 55% were unclipped but had coded-wire tags. In addition, nearly 2.1 million yearling spring Chinook juveniles were scheduled to be released to this zone beginning this week. These releases of yearling spring Chinook were scheduled to take place throughout the Snake River Zone, including the Sawtooth River (75%), the Imnaha River (20%), and the Grande Ronde River (5%). Nearly 2.1 million yearling summer Chinook juveniles were also scheduled to be released in this zone this week. All of these summer Chinook juveniles were scheduled to be released into the South Fork Salmon River (60%) and the Pahsimeroi River (40%). Finally, just over 2.05 million summer steelhead were scheduled to be released into this zone this week. These steelhead releases were scheduled to take place throughout this zone, including the Pahsimeroi River (40%), the Snake River below Hells Canyon Dam (28%), the Salmon River (22%), and the Imnaha River (10%).

There are several releases of yearling fall Chinook juveniles scheduled to take place over the next 2 weeks. In all, these releases are expected to total about 762,000 fall Chinook juveniles. Of these, nearly 60% will be released directly from Lyons Ferry Hatchery, which is located on the Snake River below Little Goose Dam. The remaining 40% will be released from acclimation facilities above Lower Granite Dam. In addition, just over 1.0 million yearling spring Chinook juveniles are scheduled for release throughout this river zone over the next 2 weeks. Nearly 2.0 million yearling summer Chinook are scheduled for release to this zone over the next 2 weeks. Of these, approximately 57% are scheduled to be released into the South Fork Salmon River and 43% are scheduled to be released into the Pahsimeroi River. Finally, nearly 4.5 million summer steelhead are scheduled for release to this zone over the next 2 weeks. Of these, about 46% are scheduled for release into the Salmon River, 35% are scheduled for release into the Clearwater River, 16% are scheduled for release into the Grande Ronde River and its tributaries, and 2% are scheduled for release directly from Lyons Ferry Hatchery.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. To date, the Fish Passage Center has not received complete preliminary hatchery release data from the Colville Tribe for 2015 releases. Therefore, release estimates discussed for this zone are likely underestimates, as they do not include all releases conducted by the tribe, including releases from the new Chief Joseph Hatchery. Release data from the Colville Tribe will be entered into our database as soon as we receive them.

Just over 250,000 yearling spring Chinook juveniles were scheduled to be released into the Walla Walla River this week. The only other release that was scheduled for this zone this week was a release of about 48,000 summer steelhead juveniles from the Twisp Acclimation Ponds on the Methow River. These summer steelhead were 100% unclipped but were tagged with coded-wire tags.

Approximately 692,000 yearling spring Chinook juveniles are scheduled for release into this zone over the next 2 weeks. Of these, approximately 79% are scheduled to be released into the Methow River while the remaining 21% are scheduled to be released into the Chiwawa River, a tributary of the Wenatchee River. Several releases of yearling summer Chinook juveniles are scheduled to take place throughout this river zone over the next 2 weeks. In all, these releases are expected to total just over 1.5 million summer Chinook juveniles. Nearly 1.4 million coho juveniles are scheduled to be released into this zone over the next 2 weeks. These coho juveniles are part of the Yakama

Tribal Program to reintroduce coho to the Yakima, Methow, and Wenatchee rivers. This tribal program is expected to release approximately 2.3 million coho juveniles in 2015. Finally, nearly 486,000 summer steelhead juveniles are scheduled to be released into this zone over the next 2 weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. Approximately 1.18 million yearling spring Chinook were scheduled to be released into this zone this week. Of these, about 69% were scheduled to be released into the Umatilla River and 31% were schedule to be released into the Deschutes River.

Approximately 6.5 million subyearling fall Chinook tules are scheduled for release from Spring Creek National Fish Hatchery on or around April 13th. In addition, several releases of yearling spring Chinook are scheduled for this zone over the next 2 weeks. In all, these spring Chinook releases are expected to total over 2.5 million juveniles. Of these, approximately 47% are scheduled to be released from Carson National Fish Hatchery into the Wind River and 40% are scheduled for release from Little White Salmon National Fish Hatchery into the Little White Salmon River. The remaining 13% are scheduled for release into the Deschutes River (10%) and Hood River (3%). Approximately 574,000 coho juveniles are scheduled to be released into the Umatilla River in mid-April. Finally, about 325,500 summer steelhead juveniles are scheduled for release into this zone over the next 2 weeks. These steelhead juveniles are to be released into the Deschutes (54%) and Umatilla (46%) rivers.

Adult Passage 4-3-2015

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

Adult counts at Bonneville Dam have been updated through 4/2/15. The 2015 adult spring Chinook count at Bonneville Dam of 2,012 is 3.2 times greater than the 2014 count of 620 (1,392 more fish than last year). The 2015 Bonneville Dam adult spring Chinook count is about 7.7 times greater than the 10-year average count of 261 (1,751 more fish than the 10-year average). At Willamette Falls 246 adult spring Chinook have been counted so far this season.

The 2015 Bonneville Dam adult steelhead count of 3,269 is about 1.2 times greater than the 2014 count of 2,651 and 1.5 times greater than the 10-year average count of 2,219. This year's Lower Granite steelhead count of 7,363 is about 1.3 times greater than the 2014 count of 5,650 and about 1.4 times greater than the 10-year average count of 5,206. At Willamette Falls, the 2015 count for steelhead was 3,341 as of March 31st. This year's steelhead count has 150 more fish than the 2014 count of 3,191, while being 83.2% of the 10-year average count of 4,014.

Between March 1st and April 1st, a total of 57 steelhead and 2 other salmonid species were observed over the separator at the Bonneville Juvenile Monitoring Facility (JMF). 2015 Kelt passage at the Bonneville JMF can be found at: http://www.fpc.org/adultsalmon/bonkeltcounts.htm.

Hatchery Releases Last Two Weeks

Hatchery Release Summary
From: 3/21/2015 to 04/03/15

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SU	2015	528,000	03-24-15	03-26-15	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2015	160,352	04-01-15	04-03-15	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2015	160,502	04-03-15	04-07-15	Shoup Br (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2015	254,900	04-01-15	04-04-15	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2015	868,400	04-01-15	04-04-15	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2015	570,000	03-23-15	04-02-15	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2015	820,000	04-02-15	04-21-15	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2015	199,520	04-01-15	04-14-15	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2015	631,100	04-01-15	04-14-15	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2015	2,500,000	03-16-15	04-24-15	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2015	198,000	04-03-15	04-03-15	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2015	1,350,000	04-03-15	04-03-15	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Game Total					**8,240,774**				
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2015	153,000	04-01-15	04-01-15	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	McCall Hatchery	CH1	SU	2015	118,100	03-30-15	03-31-15	Johnson Cr Idaho	South Fork Salmon River
Nez Perce Tribe Total					**271,100**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2015	215,000	03-31-15	04-30-15	L Sheep Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2015	176,440	03-23-15	03-30-15	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2015	420,000	03-31-15	04-15-15	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	CH1	SP	2015	150,000	04-01-15	04-01-15	Corporation Guard Station	Umatilla River
Oregon Dept. of Fish and Wildlife Total					**961,440**				
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2015	1,548,650	03-25-15	03-26-15	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2015	128,900	03-31-15	04-03-15	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2015	370,000	03-30-15	03-31-15	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					**2,047,550**				
Umatilla Tribe	Carson NFH	CH1	SP	2015	250,443	04-01-15	04-01-15	Walla Walla River	Walla Walla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2015	106,100	04-02-15	04-15-15	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2015	118,357	03-18-15	03-30-15	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2015	146,316	03-19-15	04-15-15	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2015	225,000	04-01-15	04-01-15	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2015	435,000	04-01-15	04-01-15	Imeques Acclim Pond	Umatilla River
Umatilla Tribe Total					**1,281,216**				
Washington Dept. of Fish and Wildlife	Methow Hatchery	ST	SU	2015	48,000	04-01-15	04-30-15	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2015	2,500,000	03-20-15	03-31-15	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife Total					**2,548,000**				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2015	215,311	03-15-15	05-15-15	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2015	216,338	03-15-15	05-15-15	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2015	217,163	03-15-15	05-15-15	Jack Creek Acclim Pond	Yakima River
Yakama Tribe Total					**648,812**				
Grand Total					**15,998,892**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary
From: 4/4/2015 to 4/16/2015

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Wells Hatchery	ST	SU	2015	2,000	04-15-15	04-20-15	Aneas Creek	Okanogan River
Colville Tribe	Wells Hatchery	ST	SU	2015	19,984	04-15-15	04-20-15	Omak Creek	Okanogan River
Colville Tribe	Wells Hatchery	ST	SU	2015	24,000	04-15-15	04-20-15	Omak Creek	Okanogan River
Colville Tribe	Wells Hatchery	ST	SU	2015	30,000	04-15-15	04-20-15	Similkameen Acclim Pd	Okanogan River
Colville Tribe	Wells Hatchery	ST	SU	2015	40,000	04-15-15	04-20-15	Salmon Creek (Okanogan)	Okanogan River
Colville Tribe Total					**115,984**				
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2015	151,670	04-14-15	04-16-15	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2015	224,300	04-13-15	04-13-15	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2015	396,092	04-14-15	04-16-15	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2015	160,502	04-03-15	04-07-15	Shoup Br (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2015	192,588	04-08-15	04-10-15	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2015	383,059	04-13-15	04-20-15	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2015	199,520	04-01-15	04-14-15	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2015	631,100	04-01-15	04-14-15	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game Total					**2,338,831**				
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2015	250,000	04-15-15	04-15-15	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2015	155,000	04-09-15	04-09-15	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2015	155,000	04-10-15	04-10-15	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe Total					**560,000**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2015	160,000	04-11-15	04-11-15	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2015	360,000	04-10-15	04-10-15	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2015	420,000	03-31-15	04-15-15	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Opal Springs Hatchery	ST	SU	2015	5,500	04-15-15	04-15-15	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Opal Springs Hatchery	ST	SU	2015	8,000	04-15-15	04-15-15	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2015	240,000	04-15-15	04-15-15	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2015	162,000	04-08-15	04-08-15	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2015	50,000	04-16-15	04-29-15	Thornhollow Acclim Pond	Umatilla River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2015	5,000	04-15-15	04-15-15	Wychus Creek	Deschutes River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2015	7,000	04-15-15	04-15-15	Metolius River	Deschutes River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2015	7,500	04-15-15	04-15-15	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife Total					**1,425,000**				
U.S. Fish and Wildlife Service	Carson NFH	CH1	SP	2015	1,179,871	04-15-15	04-15-15	Carson Hatchery	Wind River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2015	320,000	04-13-15	04-17-15	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2015	484,000	04-14-15	04-18-15	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SU	2015	419,000	04-16-15	04-16-15	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2015	1,347,000	04-06-15	04-30-15	Sawtooth Hatchery	Salmon River (ID)
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2015	1,000,000	04-16-15	04-16-15	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2015	6,500,000	04-13-15	04-13-15	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2015	403,000	04-15-15	04-21-15	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2015	20,000	04-15-15	05-15-15	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2015	80,000	04-15-15	05-15-15	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					**11,752,871**				
Umatilla Tribe	Cascade Hatchery	CO	UN	2015	574,000	04-15-15	04-15-15	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2015	106,100	04-02-15	04-15-15	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2015	146,316	03-19-15	04-15-15	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2015	50,000	04-16-15	04-20-15	Minthorn Acclimation Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2015	50,000	04-16-15	04-20-15	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe Total					**926,416**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary
From: 4/4/2015 to 4/16/2015

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2015	75,000	04-09-15	04-09-15	W Fk Hood River	Hood River
Warm Springs Tribe Total					**75,000**				
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2015	146,000	04-15-15	04-15-15	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2015	148,000	04-15-15	04-15-15	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2015	148,000	04-15-15	04-15-15	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2015	150,000	04-15-15	04-15-15	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2015	144,000	04-15-15	04-30-15	Chiwawa Hatchery	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2015	452,000	04-06-15	04-08-15	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2015	90,000	04-15-15	04-15-15	Walla Walla River	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2015	100,000	04-15-15	04-15-15	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2015	205,000	04-05-15	04-20-15	Cottonwood Acclim Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2015	145,000	04-15-15	04-25-15	Methow Hatchery	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2015	185,000	04-05-15	05-15-15	Carlton Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2015	180,000	04-10-15	04-20-15	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Similkameen Hatchery	CH1	SU	2015	20,000	04-15-15	05-15-15	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2015	240,000	04-10-15	04-10-15	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2015	320,000	04-15-15	05-15-15	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife Total					**2,673,000**				
Yakama Tribe	Cascade Hatchery	CO	UN	2015	92,760	04-15-15	04-15-15	Leavenworth Hatchery	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2015	105,152	04-15-15	04-15-15	Leavenworth Hatchery	Wenatchee River
Yakama Tribe	Eagle Creek NFH	CO	UN	2015	98,105	04-15-15	06-01-15	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2015	143,770	04-15-15	06-01-15	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2015	236,749	04-15-15	06-01-15	Easton Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2015	71,382	04-15-15	06-01-15	Yakama River	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2015	90,000	04-15-15	06-01-15	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2015	100,210	04-15-15	06-01-15	Lost Creek Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2015	103,375	04-15-15	06-01-15	Stiles Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2015	250,000	04-15-15	06-01-15	Prosser Acclim Pond	Yakima River
Yakama Tribe	Willard Hatchery	CO	UN	2015	91,639	04-16-15	04-16-15	Leavenworth Hatchery	Wenatchee River
Yakama Tribe Total					**1,383,142**				
Grand Total					**21,250,244**				

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

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

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/20/2015	147.8	0.0	136.0	0.0	142.8	0.0	142.0	0.5	149.9	0.0	136.2	5.0	133.0	0.0
03/21/2015	129.2	0.0	138.2	0.0	142.2	6.2	138.9	13.5	147.0	0.0	149.4	28.4	143.5	28.0
03/22/2015	136.8	0.0	136.7	0.0	142.4	2.1	141.5	1.3	150.5	0.0	154.8	6.2	162.4	31.3
03/23/2015	132.0	0.0	124.9	0.0	134.1	5.1	133.8	1.5	144.1	0.0	146.4	5.2	154.0	13.2
03/24/2015	122.9	0.0	132.8	0.0	138.2	7.6	134.1	7.2	143.0	0.0	147.9	1.8	149.8	17.5
03/25/2015	127.7	0.0	128.8	0.0	136.0	0.0	134.7	0.9	144.8	0.0	145.8	0.0	147.3	2.8
03/26/2015	135.0	0.0	126.6	0.0	134.8	0.0	133.2	0.0	141.9	0.0	143.9	0.0	144.5	2.7
03/27/2015	135.3	0.0	135.8	0.0	142.3	0.0	137.3	2.4	144.7	0.0	149.4	0.0	150.0	0.0
03/28/2015	122.3	0.0	124.4	0.0	132.2	2.6	130.0	5.7	139.0	0.0	138.5	5.2	140.8	13.9
03/29/2015	141.1	0.0	139.9	0.0	146.7	0.0	146.1	10.8	155.0	0.0	159.6	0.4	161.3	15.4
03/30/2015	125.0	0.0	131.7	8.7	143.2	6.3	141.8	14.9	150.8	0.0	153.8	0.0	156.3	24.6
03/31/2015	116.0	0.0	111.4	11.4	121.8	0.2	118.1	0.4	128.8	0.0	135.4	0.0	143.4	2.2
04/01/2015	122.6	0.0	123.9	3.5	133.8	2.6	132.8	11.8	142.0	0.0	143.1	0.1	140.2	25.5
04/02/2015	124.2	0.0	123.6	7.2	133.9	0.5	134.7	1.3	144.3	0.0	148.6	1.3	153.2	7.1

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
03/20/2015	1.5	0.0	---	12.3	52.7	0.0	54.2	0.0	55.5	0.0	57.8	0.0
03/21/2015	1.4	0.0	---	10.7	48.5	0.0	48.9	0.0	52.5	0.0	52.6	0.0
03/22/2015	1.4	0.0	---	11.2	47.8	0.0	45.2	0.0	47.0	0.0	46.3	0.0
03/23/2015	1.4	0.0	---	12.6	47.1	0.0	46.6	0.0	48.7	0.0	46.6	0.0
03/24/2015	1.4	0.0	---	10.5	47.4	0.0	47.0	0.0	49.6	0.0	48.4	0.0
03/25/2015	5.3	0.0	---	10.5	56.2	0.0	51.2	0.0	54.6	0.0	56.4	0.0
03/26/2015	9.6	0.0	---	11.5	63.8	0.0	59.8	0.0	66.3	0.0	62.4	0.0
03/27/2015	10.9	1.3	---	13.0	59.8	0.0	51.8	0.0	57.4	0.0	57.8	0.0
03/28/2015	12.0	2.4	---	10.8	59.6	0.0	59.6	0.0	63.9	0.0	65.2	0.0
03/29/2015	12.1	2.4	---	11.7	63.1	0.0	57.4	0.0	58.6	0.0	62.2	0.0
03/30/2015	11.3	1.7	---	11.9	64.7	0.0	62.6	0.0	67.6	0.0	66.3	0.0
03/31/2015	9.6	0.0	---	10.9	59.6	0.0	59.6	0.0	64.3	0.0	64.0	0.0
04/01/2015	9.7	0.0	---	11.1	61.5	0.0	49.3	0.0	53.6	0.0	57.6	6.5
04/02/2015	9.6	0.0	---	11.1	69.3	0.0	80.3	2.6	84.1	0.0	89.6	15.0

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

	McNary		John Day		The Dalles		Bonneville			
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
03/20/2015	182.0	0.0	190.0	0.0	188.7	0.0	206.5	1.3	87.4	105.4
03/21/2015	183.7	0.0	187.5	0.0	184.9	0.0	195.6	1.2	80.0	102.0
03/22/2015	210.8	0.0	212.0	0.0	209.0	0.0	216.3	1.3	92.4	110.2
03/23/2015	193.1	0.0	194.4	0.0	193.5	0.0	221.1	1.2	99.2	108.3
03/24/2015	211.1	0.0	193.0	0.0	188.8	0.0	203.8	1.2	86.0	104.1
03/25/2015	205.0	0.0	210.0	0.0	204.9	0.0	207.7	1.3	91.2	102.9
03/26/2015	206.8	0.0	203.1	0.0	204.8	0.0	221.2	1.3	100.9	106.6
03/27/2015	208.1	0.0	216.0	0.0	211.9	0.0	241.0	1.2	108.7	118.7
03/28/2015	207.8	0.0	202.6	0.0	200.1	0.0	217.9	4.0	84.2	117.3
03/29/2015	232.7	22.7	220.7	0.0	221.6	0.0	230.7	1.2	94.4	122.7
03/30/2015	241.7	29.1	226.8	11.2	223.9	0.0	243.4	1.2	102.7	127.1
03/31/2015	229.9	18.8	226.6	11.2	220.5	21.4	239.2	1.3	99.9	125.6
04/01/2015	193.7	37.0	195.2	8.0	192.4	4.8	220.4	1.2	87.2	119.6
04/02/2015	242.6	85.8	234.7	43.2	218.6	38.5	224.3	1.2	89.3	121.4

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/20	97.6	97.9	98.1	24	---	---	---	0	106.8	107.0	107.2	24	106.6	106.7	106.8	24	107.2	107.5	107.6	24
3/21	98.0	98.2	98.4	24	---	---	---	0	106.8	107.0	107.2	24	106.5	106.7	106.8	24	107.0	107.3	107.5	24
3/22	97.7	98.1	98.2	24	---	---	---	0	106.4	106.6	106.7	24	106.1	106.3	106.4	24	106.2	106.3	106.4	23
3/23	98.4	98.6	98.7	24	---	---	---	0	106.8	107.0	107.5	24	106.3	106.6	107.0	24	106.7	106.9	107.2	24
3/24	96.9	97.8	97.9	24	---	---	---	0	106.4	106.8	107.2	24	105.6	105.8	106.0	24	106.2	106.5	106.6	24
3/25	97.3	97.5	97.7	24	---	---	---	0	105.3	105.5	105.7	24	104.5	104.6	104.9	24	105.3	105.4	105.6	24
3/26	97.3	97.4	97.4	24	---	---	---	0	105.2	105.4	105.6	24	104.2	104.4	104.7	24	105.0	105.3	105.5	24
3/27	97.9	98.3	98.5	24	---	---	---	0	106.2	106.9	107.2	24	105.0	105.5	105.7	24	105.8	106.3	106.5	24
3/28	98.1	98.6	98.7	24	---	---	---	0	105.3	106.0	106.9	24	104.8	105.4	105.8	24	105.5	106.0	106.6	24
3/29	97.5	97.7	98.0	24	---	---	---	0	104.8	105.3	106.0	24	103.8	104.1	104.3	24	104.9	105.2	105.3	24
3/30	98.0	98.3	98.4	24	---	---	---	0	105.8	106.4	106.9	24	104.3	104.8	104.9	24	105.5	105.9	106.1	24
3/31	98.9	99.0	99.3	24	---	---	---	0	105.6	106.0	106.4	24	104.7	105.1	105.6	24	105.5	105.7	105.9	24
4/1	98.4	98.6	99.0	24	---	---	---	0	104.3	104.5	104.5	24	103.4	103.7	104.1	24	104.6	104.8	104.9	24
4/2	97.9	98.1	98.2	23	---	---	---	0	103.7	103.8	104.0	23	102.8	103.0	103.2	23	103.9	104.1	104.3	20

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/20	106.9	107.1	107.3	24	106.0	106.2	106.5	23	106.4	106.6	106.8	23	106.1	106.4	106.6	24	106.6	107.0	107.6	24
3/21	106.7	107.0	107.1	24	106.5	106.8	106.9	24	107.4	108.8	112.6	24	106.3	106.5	106.8	24	110.5	113.8	119.5	24
3/22	105.8	106.0	106.1	24	105.7	105.8	105.9	24	105.9	106.3	107.4	24	106.5	107.3	108.0	24	107.3	108.2	110.8	24
3/23	106.6	106.9	107.1	24	105.9	106.1	106.5	24	107.0	107.8	108.4	24	106.6	106.8	107.2	24	108.1	109.3	112.3	24
3/24	105.9	106.2	106.6	24	105.5	105.8	106.0	24	106.8	108.5	111.3	24	106.6	106.9	107.1	24	108.9	111.0	114.0	24
3/25	105.0	105.2	105.4	24	104.8	105.0	105.2	24	104.9	105.2	105.5	24	105.7	106.4	107.2	24	106.4	107.0	108.0	24
3/26	104.8	105.1	105.5	24	104.8	105.0	105.4	24	104.8	105.2	105.6	24	106.1	106.5	107.5	24	106.4	106.8	107.4	24
3/27	105.5	106.1	106.4	24	105.7	106.3	106.5	24	105.7	106.4	106.7	24	106.3	106.8	107.1	24	107.3	108.1	111.0	23
3/28	105.4	105.9	106.9	24	105.2	105.8	106.4	24	105.7	106.3	107.2	24	105.7	106.1	107.1	24	107.7	109.0	111.6	24
3/29	104.6	104.9	105.1	24	104.7	104.9	105.1	24	104.7	105.0	105.4	24	105.2	105.5	105.8	24	110.1	111.7	112.9	24
3/30	106.6	108.3	109.0	24	105.4	105.7	105.8	24	106.5	107.8	109.8	24	106.0	106.4	106.6	24	113.0	113.4	114.2	24
3/31	107.4	108.3	108.6	24	105.8	106.1	106.2	24	106.0	106.5	107.9	24	106.1	106.3	106.5	24	107.6	108.8	114.9	24
4/1	105.1	105.8	106.5	24	104.5	104.8	105.1	24	105.3	106.1	108.8	24	105.8	106.0	106.3	24	109.6	112.0	114.1	24
4/2	105.3	106.1	106.4	23	103.8	104.0	104.2	22	104.0	104.3	104.9	22	104.9	105.3	105.6	23	106.5	107.6	111.6	23

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/20	105.3	105.6	105.9	24	105.4	105.6	105.8	24	105.6	105.8	106.0	24	105.4	105.6	105.8	24	105.3	105.6	105.8	24
3/21	107.2	108.8	112.4	24	107.1	108.7	112.1	24	105.5	105.7	106.2	24	109.4	112.8	115.2	24	105.5	106.2	109.5	24
3/22	105.4	105.8	106.7	24	105.5	105.8	107.1	24	105.5	105.8	106.0	24	105.6	105.8	105.9	24	108.0	110.2	113.0	24
3/23	106.8	107.4	107.8	24	106.8	107.4	107.7	24	106.9	107.6	107.9	24	107.0	107.9	108.8	24	105.6	105.8	105.9	24
3/24	105.9	106.8	108.8	24	105.9	106.7	108.8	24	105.7	106.2	107.1	24	105.9	106.5	107.1	24	106.0	106.6	107.5	24
3/25	105.6	106.2	108.1	24	105.7	106.4	108.4	24	105.0	105.2	105.3	24	105.0	105.1	105.2	24	104.8	105.0	105.2	24
3/26	105.8	106.3	106.6	24	105.7	106.3	106.5	24	105.8	106.7	107.5	24	105.4	106.1	106.6	24	105.3	105.7	106.0	24
3/27	106.1	107.0	108.4	24	106.1	106.8	108.4	24	107.6	108.2	108.7	24	107.0	107.5	107.6	24	107.0	107.9	108.6	24
3/28	105.3	105.8	106.6	24	105.4	105.9	106.9	24	106.3	106.8	107.3	24	106.8	107.4	108.8	24	105.9	106.3	107.2	24
3/29	105.8	106.3	106.8	24	105.7	106.2	106.8	24	105.9	106.2	106.7	24	105.7	106.0	106.3	24	106.3	106.7	107.1	24
3/30	107.5	108.2	108.3	24	107.5	108.1	108.2	24	106.7	107.4	107.7	24	106.5	107.1	107.4	24	106.5	106.9	107.2	24
3/31	106.4	107.5	107.8	24	106.5	107.5	108.0	24	106.5	107.1	107.9	24	106.6	107.1	107.6	24	106.2	106.7	107.3	24
4/1	105.6	106.6	108.4	24	105.6	106.6	108.1	24	105.5	105.7	105.9	24	105.5	105.7	105.8	24	104.6	104.7	104.8	24
4/2	105.3	105.9	106.5	23	105.3	105.9	106.5	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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/20	104.9	105.2	105.3	24	---	---	---	0	102.8	103.6	104.5	24	101.7	102.2	102.4	24	---	---	---	0
3/21	107.6	110.6	113.6	24	---	---	---	0	103.0	103.8	105.1	24	101.5	102.1	102.5	24	---	---	---	0
3/22	109.9	111.4	113.3	24	---	---	---	0	102.8	103.6	104.7	24	101.1	101.6	102.1	24	---	---	---	0
3/23	106.2	107.1	109.3	24	---	---	---	0	102.7	103.1	104.1	24	101.1	101.6	102.3	24	---	---	---	0
3/24	107.1	108.8	109.6	24	---	---	---	0	102.4	102.8	103.4	24	99.9	100.5	100.9	24	---	---	---	0
3/25	104.6	104.8	105.6	24	---	---	---	0	98.4	101.6	103.2	24	99.8	100.4	101.5	24	---	---	---	0
3/26	105.1	105.5	107.0	24	---	---	---	0	94.5	94.8	95.1	24	99.8	100.4	100.7	24	---	---	---	0
3/27	106.6	107.4	107.7	24	---	---	---	0	98.4	101.5	101.9	24	100.8	102.0	102.4	24	---	---	---	0
3/28	107.0	108.1	111.8	24	---	---	---	0	100.8	101.3	102.0	24	100.8	101.2	102.2	24	---	---	---	0
3/29	107.2	108.6	109.9	24	---	---	---	0	100.6	100.8	101.4	24	100.7	101.5	101.8	24	---	---	---	0
3/30	108.5	110.8	112.4	24	---	---	---	0	99.4	100.9	101.7	24	101.3	101.8	102.3	24	---	---	---	0
3/31	106.2	106.8	108.0	24	---	---	---	0	95.6	95.7	95.8	24	99.6	100.2	101.4	24	---	---	---	0
4/1	107.2	109.1	111.1	24	---	---	---	0	94.8	95.0	95.3	24	98.9	99.5	100.1	24	102.8	103.0	104.2	14
4/2	---	---	---	0	---	---	---	0	94.4	94.6	94.8	23	98.9	99.3	99.9	23	102.3	103.0	103.5	23

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/20	101.3	102.2	103.0	24	101.7	101.8	102.2	24	101.4	101.7	102.0	24	103.8	103.9	104.0	24	103.8	104.0	104.0	24
3/21	101.1	101.9	102.9	24	101.4	101.7	102.2	24	101.2	101.4	101.8	24	103.7	104.0	104.6	24	103.0	103.3	103.8	24
3/22	100.9	101.9	102.6	24	102.0	102.2	102.4	24	101.7	102.0	102.1	24	103.5	103.7	104.3	24	102.7	102.9	103.1	24
3/23	100.7	101.2	102.3	24	102.4	102.5	102.6	24	102.0	102.1	102.4	24	103.0	103.4	103.6	24	102.3	102.6	102.7	24
3/24	99.9	100.0	100.1	24	101.8	102.4	102.7	24	101.4	102.0	102.2	24	101.7	102.2	102.6	24	101.1	101.6	102.1	24
3/25	100.5	101.4	102.1	24	100.4	100.5	100.7	24	100.1	100.2	100.3	24	100.2	100.3	100.6	24	99.8	99.9	100.0	24
3/26	100.5	101.5	102.4	24	100.6	100.8	101.0	24	100.4	100.7	101.0	24	100.2	100.4	100.5	24	100.2	100.7	101.5	24
3/27	101.1	102.4	103.2	24	101.3	101.6	101.9	24	101.1	101.4	101.6	24	101.7	102.1	102.4	24	101.4	101.9	102.1	24
3/28	100.9	101.5	102.4	24	101.1	101.3	101.6	24	100.9	101.1	101.4	24	101.1	101.3	101.8	24	100.7	100.9	101.5	24
3/29	100.9	102.1	103.1	24	102.0	102.4	102.9	24	101.8	102.5	102.7	24	101.2	101.7	103.0	24	100.8	101.1	101.3	24
3/30	101.5	102.6	103.4	24	103.0	103.4	103.6	24	102.8	103.2	103.4	24	101.7	102.1	102.3	24	101.8	102.3	102.5	24
3/31	100.0	100.4	101.0	24	102.8	103.0	103.3	24	102.4	102.7	103.1	24	102.3	102.7	103.8	24	101.6	101.9	102.1	24
4/1	99.5	100.4	101.3	24	101.9	102.1	102.3	24	101.5	101.7	102.2	24	101.4	101.7	101.8	24	100.9	101.2	101.4	24
4/2	99.6	100.5	101.2	23	101.2	101.4	101.7	23	100.8	101.0	101.4	23	101.2	101.4	101.6	23	101.7	102.8	104.4	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
3/20	---	---	---	0	103.4	103.5	103.7	24	---	---	---	0	105.3	105.6	105.8	24	---	---	---	0
3/21	---	---	---	0	103.3	103.5	103.7	24	---	---	---	0	104.2	104.5	104.9	24	---	---	---	0
3/22	---	---	---	0	103.4	103.6	103.8	24	---	---	---	0	103.5	103.7	104.0	24	---	---	---	0
3/23	---	---	---	0	103.5	103.7	104.3	24	104.0	104.1	104.3	12	103.3	103.5	103.8	24	---	---	---	0
3/24	---	---	---	0	102.6	103.1	103.4	24	103.4	103.9	104.3	24	102.9	103.2	103.5	24	---	---	---	0
3/25	---	---	---	0	101.4	101.6	103.4	24	102.6	102.8	103.0	24	102.3	102.4	102.7	24	---	---	---	0
3/26	---	---	---	0	101.0	101.3	101.6	24	102.6	102.8	103.0	24	102.5	102.9	103.3	24	---	---	---	0
3/27	---	---	---	0	101.3	101.6	102.2	24	103.5	103.8	103.9	24	103.4	103.9	104.1	24	---	---	---	0
3/28	---	---	---	0	100.5	100.6	101.2	24	102.6	102.9	103.6	24	102.2	102.5	103.3	24	---	---	---	0
3/29	---	---	---	0	100.8	101.1	101.2	24	102.0	102.1	102.3	24	101.9	102.2	102.6	24	---	---	---	0
3/30	102.3	102.3	102.5	12	101.7	102.1	102.2	24	102.3	102.6	102.7	24	102.4	103.0	105.4	24	---	---	---	0
3/31	102.1	102.4	102.7	24	101.8	102.0	102.4	24	102.3	102.6	102.9	24	102.0	102.3	102.4	24	---	---	---	0
4/1	101.3	101.4	101.6	24	101.0	101.2	102.2	24	101.4	101.6	101.7	24	103.8	106.7	108.1	24	---	---	---	0
4/2	100.6	100.8	101.1	23	100.3	100.5	100.8	23	100.7	100.9	101.2	23	107.1	107.2	107.5	23	---	---	---	0

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
3/20	---	---	---	0	105.0	105.2	105.3	24	106.8	107.0	107.2	24	106.3	106.5	106.7	24	106.5	106.7	106.9	20
3/21	---	---	---	0	104.8	104.9	105.2	24	105.9	106.1	106.6	24	105.5	105.7	106.1	24	105.4	105.6	106.1	24
3/22	---	---	---	0	104.9	105.1	105.3	24	105.9	106.1	106.5	24	105.6	105.9	106.1	24	105.4	105.6	105.8	24
3/23	104.6	104.6	104.9	16	104.9	105.0	105.1	24	105.8	105.9	106.1	24	105.5	105.6	105.7	24	105.4	105.5	105.7	24
3/24	104.9	105.2	105.4	24	104.7	105.0	105.3	24	104.9	105.3	106.1	24	104.6	105.0	105.6	24	104.1	104.7	105.7	24
3/25	104.7	104.9	105.0	24	104.2	104.3	104.5	24	104.0	104.1	104.3	24	103.7	103.9	103.9	24	103.6	103.9	103.9	24
3/26	104.5	104.9	105.5	24	104.0	104.3	104.6	24	104.2	104.5	105.1	24	103.8	104.2	104.5	24	104.3	104.7	104.9	24
3/27	106.9	107.7	109.0	24	106.2	107.0	107.3	24	105.1	105.3	105.9	24	104.6	104.9	105.2	24	105.1	105.3	105.6	24
3/28	105.5	105.9	106.7	24	104.9	105.3	106.3	24	103.4	103.7	104.4	24	103.0	103.2	103.8	24	103.5	103.9	104.6	24
3/29	105.3	105.5	105.7	24	110.1	111.4	111.9	24	103.7	104.3	104.5	24	103.6	104.2	104.3	24	103.8	104.2	104.5	24
3/30	106.1	106.6	107.0	24	110.7	111.5	112.6	24	105.4	106.2	106.8	24	108.4	111.2	111.6	24	105.1	105.8	106.4	24
3/31	106.5	107.0	107.3	24	108.9	109.6	110.6	24	105.4	105.9	106.8	24	108.3	110.5	110.8	24	105.3	106.1	106.6	24
4/1	104.6	104.9	105.2	24	109.9	111.5	113.0	24	104.0	104.2	104.5	24	105.8	108.3	111.0	24	103.9	104.2	104.5	24
4/2	103.9	104.1	104.6	23	115.2	116.5	116.7	23	103.5	103.8	103.9	23	110.8	114.3	114.4	23	103.4	103.8	104.1	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/20	106.7	106.8	106.9	20	107.1	107.3	107.4	24	108.0	108.3	108.9	24	107.3	107.8	108.4	24	110.9	111.2	111.5	24
3/21	105.6	105.8	106.2	24	106.2	106.5	107.0	24	107.1	107.3	107.5	24	107.0	107.4	107.9	24	110.1	110.3	110.5	24
3/22	105.6	105.8	106.1	24	105.9	106.0	106.2	24	106.8	107.0	107.2	24	106.2	106.8	107.1	24	110.1	110.4	110.5	24
3/23	105.6	105.7	105.8	24	105.3	105.5	105.7	24	106.2	106.4	106.8	24	106.1	106.4	106.7	24	109.9	110.2	110.5	24
3/24	104.6	105.0	105.8	24	104.2	104.5	105.7	24	105.2	105.5	106.5	24	104.7	105.4	105.8	24	109.0	109.4	109.8	24
3/25	103.8	104.1	104.3	24	103.7	103.8	103.9	24	105.1	105.1	105.2	24	104.6	105.2	105.9	24	109.2	109.7	110.0	24
3/26	104.3	104.8	105.1	24	104.4	104.9	105.2	24	105.9	106.3	106.5	24	105.9	107.2	108.2	24	110.3	110.9	111.4	24
3/27	105.2	105.4	105.7	24	105.7	106.1	106.6	24	106.5	106.9	107.5	24	106.7	107.6	108.7	24	110.8	111.2	111.4	24
3/28	103.8	104.2	104.7	24	103.9	104.3	105.4	24	105.1	105.4	106.0	24	105.3	105.9	106.2	24	111.6	113.1	116.9	24
3/29	103.9	104.3	104.5	24	104.1	104.8	105.2	24	105.2	105.9	106.3	24	105.5	106.6	107.3	24	110.0	110.6	111.4	24
3/30	105.1	105.6	106.0	24	105.0	105.7	106.1	24	105.8	106.6	107.0	24	106.3	107.3	108.2	24	110.3	111.0	111.5	24
3/31	106.9	107.5	108.1	24	104.3	104.7	105.4	24	105.2	105.7	106.2	24	105.1	105.5	106.2	24	110.2	110.8	111.1	24
4/1	104.6	105.0	105.5	24	103.7	104.4	105.1	24	104.3	104.9	105.2	24	104.0	104.4	104.8	24	109.8	110.4	110.8	24
4/2	106.2	108.1	108.7	23	104.7	105.2	105.5	23	105.6	105.9	106.2	23	105.3	106.8	107.8	23	110.4	110.6	110.9	23

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 4/3/2015 7:41

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

				COMBINED YEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/20/2015	*	1,624	288	4	0	---	---	---	---	---	---	1,256
03/21/2015	*	---	167	1	0	---	---	---	---	---	---	4,105
03/22/2015	*	---	97	0	0	---	---	---	---	---	---	5,307
03/23/2015	*	520	90	0	5	---	---	---	---	---	---	4,387
03/24/2015	*	765	57	126	5	---	---	---	---	---	---	4,395
03/25/2015	*	271	137	673	2	---	---	---	---	---	---	871
03/26/2015	*	369	93	457	6	5,820	---	---	---	---	---	843
03/27/2015	*	2,337	97	796	0	5,200	---	---	---	---	---	834
03/28/2015	*	---	86	900	5	8,560	---	---	---	---	---	367
03/29/2015	*	---	61	499	9	10,050	---	---	---	---	---	331
03/30/2015		398	79	235	24	12,650	---	---	---	---	---	411
03/31/2015	*	366	34	77	10	13,800	---	---	---	---	---	388
04/01/2015	*	384	54	26	6	16,400	---	---	8	---	1,071	280
04/02/2015	*	907	---	271	9	37,000	1,361	---	10	---	1,267	227
04/03/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**7,941**	**1,340**	**4,065**	**81**	**109,480**	**1,361**	**0**	**18**	**0**	**2,338**	**24,002**
# Days:		**10**	**13**	**14**	**14**	**8**	**1**	**0**	**2**	**0**	**2**	**14**
Average:		**794**	**103**	**290**	**6**	**13,685**	**1,361**	**0**	**9**	**0**	**1,169**	**1,714**
YTD		**10,013**	**2,283**	**4,074**	**86**	**109,480**	**1,361**	**0**	**18**	**0**	**2,338**	**24,462**

				COMBINED SUBYEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/20/2015	*	0	0	0	1	---	---	---	---	---	---	1,375
03/21/2015	*	---	0	0	0	---	---	---	---	---	---	1,835
03/22/2015	*	---	0	1	3	---	---	---	---	---	---	1,652
03/23/2015	*	0	0	0	1	---	---	---	---	---	---	1,167
03/24/2015	*	0	0	0	27	---	---	---	---	---	---	628
03/25/2015	*	0	0	0	11	---	---	---	---	---	---	1,666
03/26/2015	*	0	0	0	1	20	---	---	---	---	---	1,202
03/27/2015	*	0	0	1	0	320	---	---	---	---	---	866
03/28/2015	*	---	0	1	6	500	---	---	---	---	---	1,354
03/29/2015	*	---	0	2	2	1,500	---	---	---	---	---	786
03/30/2015		0	0	0	3	650	---	---	---	---	---	785
03/31/2015	*	0	0	0	4	500	---	---	---	---	---	785
04/01/2015	*	1	0	0	2	600	---	---	168	---	0	718
04/02/2015	*	0	---	0	2	0	20	---	208	---	0	410
04/03/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**1**	**0**	**5**	**63**	**4,090**	**20**	**0**	**376**	**0**	**0**	**15,229**
# Days:		**10**	**13**	**14**	**14**	**8**	**1**	**0**	**2**	**0**	**2**	**14**
Average:		**0**	**0**	**0**	**5**	**511**	**20**	**0**	**188**	**0**	**0**	**1,088**
YTD		**1**	**2**	**38**	**252**	**4,090**	**20**	**0**	**376**	**0**	**0**	**30,082**

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)
03/20/2015	*	0	0	0	0	---	---	---	---	---	---	32
03/21/2015	*	---	0	0	0	---	---	---	---	---	---	57
03/22/2015	*	---	0	0	0	---	---	---	---	---	---	106
03/23/2015	*	0	0	0	0	---	---	---	---	---	---	0
03/24/2015	*	0	0	0	0	---	---	---	---	---	---	39
03/25/2015	*	0	0	0	0	---	---	---	---	---	---	227
03/26/2015	*	0	0	0	0	0	---	---	---	---	---	47
03/27/2015	*	0	0	0	0	0	---	---	---	---	---	16
03/28/2015	*	---	0	0	0	0	---	---	---	---	---	115
03/29/2015	*	---	0	0	0	0	---	---	---	---	---	197
03/30/2015		0	0	0	0	0	---	---	---	---	---	137
03/31/2015	*	0	0	0	0	0	---	---	---	---	---	185
04/01/2015	*	0	0	0	0	0	---	---	0	---	38	420
04/02/2015	*	0	---	0	0	0	0	---	0	---	8	646
04/03/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**46**	**2,224**
# Days:		**10**	**13**	**14**	**14**	**8**	**1**	**0**	**2**	**0**	**2**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**159**
YTD		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**46**	**3,183**

				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)
03/20/2015	*	3	0	0	0	---	---	---	---	---	---	16
03/21/2015	*	---	4	0	0	---	---	---	---	---	---	0
03/22/2015	*	---	5	0	0	---	---	---	---	---	---	26
03/23/2015	*	1	2	0	2	---	---	---	---	---	---	0
03/24/2015	*	1	1	0	0	---	---	---	---	---	---	0
03/25/2015	*	0	5	0	0	---	---	---	---	---	---	0
03/26/2015	*	0	1	0	3	300	---	---	---	---	---	47
03/27/2015	*	0	2	0	1	380	---	---	---	---	---	16
03/28/2015	*	---	3	0	11	480	---	---	---	---	---	48
03/29/2015	*	---	8	0	12	600	---	---	---	---	---	9
03/30/2015		0	11	1	74	1,650	---	---	---	---	---	9
03/31/2015	*	0	4	75	9	2,300	---	---	---	---	---	0
04/01/2015	*	2	10	38	533	4,300	---	---	1	---	139	47
04/02/2015	*	7	---	43	178	20,700	942	---	6	---	185	35
04/03/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**14**	**56**	**157**	**823**	**30,710**	**942**	**0**	**7**	**0**	**324**	**253**
# Days:		**10**	**13**	**14**	**14**	**8**	**1**	**0**	**2**	**0**	**2**	**14**
Average:		**1**	**4**	**11**	**59**	**3,839**	**942**	**0**	**4**	**0**	**162**	**18**
YTD		**14**	**62**	**157**	**830**	**30,710**	**942**	**0**	**7**	**0**	**324**	**302**

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/20/2015	*	0	0	0	0	---	---	---	---	---	---	16
03/21/2015	*	---	0	0	0	---	---	---	---	---	---	0
03/22/2015	*	---	0	0	0	---	---	---	---	---	---	0
03/23/2015	*	0	0	0	0	---	---	---	---	---	---	0
03/24/2015	*	0	0	0	0	---	---	---	---	---	---	0
03/25/2015	*	0	0	0	0	---	---	---	---	---	---	0
03/26/2015	*	0	0	0	0	50	---	---	---	---	---	0
03/27/2015	*	0	0	0	0	60	---	---	---	---	---	0
03/28/2015	*	---	0	0	0	0	---	---	---	---	---	0
03/29/2015	*	---	0	0	0	0	---	---	---	---	---	0
03/30/2015		0	0	0	0	0	---	---	---	---	---	9
03/31/2015	*	0	0	0	0	0	---	---	---	---	---	9
04/01/2015	*	0	0	0	0	0	---	---	15	---	4	47
04/02/2015	*	0	---	0	0	0	40	---	15	---	0	26
04/03/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**110**	**40**	**0**	**30**	**0**	**4**	**107**
# Days:		**10**	**13**	**14**	**14**	**8**	**1**	**0**	**2**	**0**	**2**	**14**
Average:		**0**	**0**	**0**	**0**	**14**	**40**	**0**	**15**	**0**	**2**	**8**
YTD		**0**	**0**	**0**	**0**	**110**	**40**	**0**	**30**	**0**	**4**	**114**

				COMBINED LAMPREY JUVENILES								
		WTB	IMN	GRN	LEW	LGR†	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(Samp)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)
03/20/2015	*	0	0	0	0	---	---	---	---	---	---	24
03/21/2015	*	---	0	0	0	---	---	---	---	---	---	70
03/22/2015	*	---	0	0	0	---	---	---	---	---	---	57
03/23/2015	*	0	0	0	0	---	---	---	---	---	---	40
03/24/2015	*	0	0	0	0	---	---	---	---	---	---	20
03/25/2015	*	0	0	0	0	---	---	---	---	---	---	100
03/26/2015	*	0	0	0	0	0	---	---	---	---	---	24
03/27/2015	*	0	0	0	0	5	---	---	---	---	---	24
03/28/2015	*	---	0	0	0	2	---	---	---	---	---	30
03/29/2015	*	---	0	0	0	2	---	---	---	---	---	45
03/30/2015		0	0	0	0	0	---	---	---	---	---	55
03/31/2015	*	0	0	0	0	0	---	---	---	---	---	60
04/01/2015	*	0	0	0	0	0	---	---	0	---	216	50
04/02/2015	*	0	---	0	0	0	0	---	1	---	180	40
04/03/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**9**	**0**	**0**	**1**	**0**	**396**	**639**
# Days:		**10**	**13**	**14**	**14**	**8**	**1**	**0**	**2**	**0**	**2**	**14**
Average:		**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**198**	**46**
YTD		**0**	**1**	**0**	**0**	**9**	**0**	**0**	**1**	**0**	**396**	**2,147**

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:
Sample counts (Samp) are provided for juvenile lamprey at LGR. See note below for details †.
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.
† In 2013 it was confirmed that juvenile lamprey can escape the sample tank at LGR which would lead to unreliable estimates of collection. Therefore, only sample counts are provided in this report.

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

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

Two Week Transportation Summary

Source: Fish Passage Center Updated: 4/3/15 7:38 AM

03/20/15 TO 04/03/15

		Species				
Site	Data	**CH0**	**CH1**	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	4,090	109,480	30,710	110	144,390
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	4,081	109,463	30,708	110	144,362
	Sum of Numbertrucked	0	0	0	0	0
	Sum of SampleMorts	9	16	2	0	27
	Sum of FacilityMorts	0	1	0	0	1
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	9	17	2	0	28
LGS	Sum of NumberCollected	20	1,361	942	40	2,363
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	20	1,360	940	40	2,360
	Sum of Numbertrucked	0	0	0	0	0
	Sum of SampleMorts	0	0	0	0	0
	Sum of FacilityMorts	0	1	2	0	3
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	0	1	2	0	3
Total Sum of NumberCollected		4,110	110,841	31,652	150	146,753
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		4,101	110,823	31,648	150	146,722
Total Sum of Numbertrucked		0	0	0	0	0
Total Sum of SampleMorts		9	16	2	0	27
Total Sum of FacilityMorts		0	2	2	0	4
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		9	18	4	0	31

YTD Transportation Summary

Source: Fish Passage Center Updated: 4/3/15 7:38 AM

TO: 04/03/15

		Species				
Site	Data	**CH0**	**CH1**	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	4,090	109,480	110	30,710	144,390
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	4,081	109,463	110	30,708	144,362
	Sum of NumberTrucked	0	0	0	0	0
	Sum of SampleMorts	9	16	0	2	27
	Sum of FacilityMorts	0	1	0	0	1
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	9	17	0	2	28
LGS	Sum of NumberCollected	20	1,361	40	942	2,363
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	20	1,360	40	940	2,360
	Sum of NumberTrucked	0	0	0	0	0
	Sum of SampleMorts	0	0	0	0	0
	Sum of FacilityMorts	0	1	0	2	3
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	0	1	0	2	3
Total Sum of NumberCollected		4,110	110,841	150	31,652	146,753
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		4,101	110,823	150	31,648	146,722
Total Sum of NumberTrucked		0	0	0	0	0
Total Sum of SampleMorts		9	16	0	2	27
Total Sum of FacilityMorts		0	2	0	2	4
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		9	18	0	4	31

Cumulative Adult Passage at Mainstem Dams Through: 04/02

DAM	END DATE	Spring Chinook 2015 Adult	Spring Chinook 2015 Jack	Spring Chinook 2014 Adult	Spring Chinook 2014 Jack	Spring Chinook 10-Yr Avg. Adult	Spring Chinook 10-Yr Avg. Jack	Summer Chinook 2015 Adult	Summer Chinook 2015 Jack	Summer Chinook 2014 Adult	Summer Chinook 2014 Jack	Summer Chinook 10-Yr Avg. Adult	Summer Chinook 10-Yr Avg. Jack	Fall Chinook 2015 Adult	Fall Chinook 2015 Jack	Fall Chinook 2014 Adult	Fall Chinook 2014 Jack	Fall Chinook 10-Yr Avg. Adult	Fall Chinook 10-Yr Avg. Jack
BON	04/02	2012	4	620	9	261	0	0	0	0	0	0	0	0	0	0	0	0	0
TDA	04/01	49	0	32	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA	04/02	74	2	41	8	19	5	0	0	0	0	0	0	0	0	0	0	0	0
MCN	04/01	16	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR	04/02	28	0	-1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	04/02	13	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	04/02	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	04/02	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WAN		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	03/31	246	0	16	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0

DAM	END DATE	Coho 2015 Adult	Coho 2015 Jack	Coho 2014 Adult	Coho 2014 Jack	Coho 10-Yr Avg. Adult	Coho 10-Yr Avg. Jack	Sockeye 2015	Sockeye 2014	Sockeye 10-Yr Avg.	Steelhead 2015	Steelhead 2014	Steelhead 10-Yr Avg.	Steelhead Wild 2015	Steelhead Wild 2014	Steelhead 10-Yr Avg.	Lamprey 2015	Lamprey 2014	Lamprey 10-Yr Avg.
BON	04/02	0	0	5	-2	0	0	1	2	0	3269	2651	2219	1764	850	618	0	0	0
TDA	04/01	0	0	0	0	0	0	0	0	0	14	12	1295	8	6	475	0	0	0
JDA	04/02	0	0	0	1	0	1	0	0	0	26	2414	3114	20	896	808	0	-1	-1
MCN	04/01	0	0	0	0	1	0	0	0	0	30	17	3535	17	12	957	0	0	0
IHR	04/02	0	0	0	0	0	0	0	0	0	165	591	2744	96	191	655	1	0	0
LMN	04/02	0	0	0	0	0	0	0	0	0	1855	3697	3838	729	725	762	0	0	0
LGS	04/02	0	0	0	0	0	0	0	0	0	213	130	289	116	85	118	0	0	0
LGR	04/02	0	0	0	0	0	0	0	0	0	7363	5650	5206	3177	2304	1486	0	0	0
PRD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WAN		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	03/31	1	0	9	0	0	0	0	0	0	3341	3191	4014	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: 04/03/15