



Fish Passage Center

Weekly Report #20-03

March 20, 2020

This Week's Highlights

Water Supply

Precipitation throughout the Columbia Basin has varied between 25% and 130% of average at individual sub-basins over March. Precipitation above The Dalles has been 64% of average over March. Over the 2020 water year, precipitation has ranged between 63% and 85% of average.

Table 1. Summary of March precipitation and cumulative October through March precipitation with respect to average (1981-2010), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2020		Water Year 2020	
	March 1-18, 2020		October 1, 2019 to March 18, 2020	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.31	66	18.4	85
Snake River Above Ice Harbor	0.98	73	10.0	76
Columbia Above The Dalles	1.00	64	12.8	79
Kootenai	1.43	74	15.9	75
Clark Fork	0.70	47	10.9	75
Flathead	0.98	51	16.4	86
Pend Oreille River Basin above Waneta Dam	0.85	48	14.7	81
Salmon River Basin	0.99	56	10.3	63
Upper Snake Tributaries	2.03	130	12.5	85
Clearwater	0.59	25	18.2	76
Willamette River above Portland	1.38	32	31.2	65

Snowpack within the Columbia Basin has been near average. Average snowpack in the Columbia River for basins above the Snake River confluence is 105% of average, for Snake River Basins the average snowpack is 94% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 97% of average.

Table 2 displays the March 19th ESP runoff volume forecasts for multiple reservoirs along with the March COE forecasts at Libby and Dworshak. The March 19th ESP forecast at The Dalles between April and August is 85,582 Kaf (98% of average).

Table 2. March 19 ESP Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	March 19 th , 2020 10-day QPF ESP	
	% Average (1981-2010)	Runoff Volume (Kaf)
The Dalles (Apr-Aug)	98	85,582
Grand Coulee (Apr-Aug)	105	59,803
Libby Res. Inflow, MT (Apr-Aug)	97 108*	5,684 6,349*
Hungry Horse Res. Inflow, MT (Apr-Aug)	107	2,076
Lower Granite Res. Inflow (Apr- July)	85	16,927
Brownlee Res. Inflow (Apr-July)	74	4,024
Dworshak Res. Inflow (Apr-July)	96 97*	2,329 2,355*

* Denotes COE March Forecast

Grand Coulee Reservoir is at 1254.8 feet (3-18-20) and has drafted 0.3 feet over the last week. Outflows at Grand Coulee have ranged between 64.3 Kcfs and 74.7 Kcfs over the last week. The end of March FC Elevation at Grand Coulee is 1278.6 ft. (based on March Forecast).

The Libby Reservoir is currently at elevation 2404.8 feet (3-18-20) and has drafted 0.6 feet over the past week. Daily average outflows at Libby Dam have been 4.0 Kcfs over the last week. The end of March FC at Libby is 2404.1 ft. (based on March Forecast).

Hungry Horse is currently at an elevation of 3525.8 feet (3-18-20) and has drafted 1.0 feet last week.

Outflows at Hungry Horse have been increased from 2.4 Kcfs to 2.9 Kcfs over the last week. The end of March FC at Hungry Horse is 3532.8 ft. (based on March Forecast).

Dworshak is currently at an elevation of 1526.2 feet (3-18-20) and has refilled 1.2 feet over last week. Dworshak outflows have been 1.6 Kcfs over the last week. The end of March System FC at Dworshak at the end of March is 1541.7 ft.

The Brownlee Reservoir was at an elevation of 2037.4 feet on March 18, 2020. Outflows at Hells Canyon have ranged between 9.4 and 19.4 Kcfs over the last four days. The end of March FC (based on March forecast) is 2053.4 ft.

Spill

Flows in the Snake River have been relatively low this week, with daily average flows ranging from approximately 27.2 to 34.7 Kcfs at Lower Granite Dam. Daily average flows in the Upper Columbia ranged from 55.4 to 93.5 Kcfs (at Rock Island Dam) while flows in the Mid-Columbia were in the 96.3 to 124.8 Kcfs range (at McNary Dam).

Voluntary spill for fish passage at FCRPS projects is expected to begin on April 3rd in the Snake River and April 10th in the Mid-Columbia.

Smolt Monitoring

Smolt Monitoring Program (SMP) activities at bypass facilities continued this week at Bonneville, McNary, and Lower Granite dams. In addition, SMP sampling continued this week at the Salmon, Snake, Grande Ronde, and Imnaha river traps. SMP sampling at the other bypass facilities (Little Goose, Lower Monumental, John Day, and Rock Island dams) is expected to begin in early April.

Subyearling Chinook fry continued to dominate the salmonid collections at Bonneville Dam (BON) this week. Nearly all of the subyearling Chinook sampled at BON so far this year have been fry. This week's daily average passage index for subyearling Chinook fry was about 800 per day, which is an increase over last week's daily average passage index of about 530 per day. A small number of yearling Chinook, coho, and steelhead were also collected this week, although steelhead were only encountered in one of this week's samples. Nearly

30% of the yearling Chinook that were collected this week were holdover fall Chinook and approximately 90% of the coho that were collected this week were fry. Pacific lamprey ammocoetes were encountered in only two of this week's samples while macrophthalmia were encountered every day this week. This week's daily average collection for Pacific lamprey macrophthalmia was about 30 per day.

Sampling at McNary Dam (MCN) is every-other-day. Subyearling Chinook fry were the dominate salmonids in this week's samples at MCN, followed by yearling Chinook and steelhead. However, estimates of daily passage indices for these three species have been low. To date, all of the subyearling Chinook encountered at MCN have been fry and all of the yearling Chinook that were collected this week were holdover fall Chinook. Pacific lamprey ammocoetes were encountered in one sample this week (March 18th) while macrophthalmia were encountered in all three of this week's samples. This week's daily average collection for Pacific lamprey macrophthalmia was about 240 per day, which is a decrease from last week's daily average collection of nearly 900 per day.

Yearling Chinook and steelhead dominated the salmonid collections at Lower Granite Dam (LGR) this week. However, estimates of the daily passage indices for these two species were low. Of the yearling Chinook encountered at LGR this week, approximately 10% were holdover fall Chinook. In addition, subyearling Chinook fry and sockeye were each encountered in two of this week's samples. Finally, Pacific lamprey ammocoetes were encountered every day this week and macrophthalmia were encountered in two of this week's samples.

The Snake River Trap at Lewiston, ID (LEW) is located at river kilometer 225 of the Snake River and is operated by Idaho Department of Fish and Game. Sampling at LEW began on March 1st, with the first sample tallied and reported to FPC on March 2nd. To date, only one yearling Chinook and three steelhead have been collected at LEW. The one yearling Chinook was clipped while the three steelhead were unclipped.

The Grande Ronde Trap (GRN) is located at river kilometer 002 of the Grande Ronde River and is operated by the Oregon Department of Fish and Wildlife. To date, the vast majority of the salmonids encountered at GRN have been yearling Chinook,

with a total of 93 collected so far. All of the yearling Chinook collected to date have been unmarked. The only other salmonids collected so far this year have been steelhead, with a total collection of just three. Finally, no larval or juvenile Pacific lamprey were encountered in this week's samples at GRN.

The Salmon River Trap at Whitebird (WTB) is located at river kilometer 103 of the Salmon River and is operated by Idaho Department of Fish and Game. Similar to recent years, sampling at WTB in 2020 will only occur during the weekdays. Sampling at WTB began on March 1st, with the first sample tallied and reported to FPC on March 2nd. To date, the only species that have been encountered at WTB have been yearling Chinook. With the recent release of approximately 2.5 million yearling Chinook from Rapid River Hatchery, yearling Chinook collections at WTB have increased substantially this week. This Rapid River Hatchery release is a volitional release that began on March 16th and is expected to continue into late April. The collection totals for yearling Chinook over the last two days were 1,332 on March 18th and 1,045 on March 19th. Of the yearling Chinook collected at WTB over the last week, approximately 93% are of hatchery origin.

The Imnaha River Trap (IMN) is located at river kilometer 007 of the Imnaha River and is operated by the Nez Perce Tribe. Sampling at the Imnaha River Trap is year round. For 2020, the FPC currently has data from IMN for the period of February 15th through March 18th. Yearling Chinook have dominated the collections over the last week of available sampling data (March 12-18), particularly in the last three days. The total collection for yearling Chinook over this period (March 12-18) was 142. The only other salmonids that were encountered over this same period were steelhead, but in very low numbers (three total). All of the yearling Chinook and steelhead collected to date have been unmarked.

Hatchery Releases

FPC has not received preliminary data from some hatcheries as of 3/20/20, therefore, this hatchery release schedule represents the most up to date accounting that are available, but should not be considered a finalized record of scheduled hatchery releases.

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. During the past week, approximately 2.7 million spring Chinook were scheduled for release into this zone. 2.5 million at Rapid River hatchery, and another 210,000 into the Imnaha River both beginning on the 16th. There were also approximately 790,000 summer Chinook planned for release into the Lochsa River on the 11th, as well as 555,000 summer steelhead planned for release below Hells Canyon Dam on the 16th.

Over the next two weeks approximately 7.25 million spring Chinook are scheduled to be released into this zone. Of these, nearly 61% are being released into the Clearwater River and its tributaries; 1.3 million at Red River, and another 1.6 million at Dworshak Hatchery, while another 1.7 million will be released into tributaries of the Clearwater in the Selway, north fork, and at Kooskia hatchery. Additionally, another 730,000 juvenile spring Chinook will be released into the Grand Ronde and Imnaha Rivers, 192,000 into the Tucannon River, 640,000 into Johnson Creek, and 1.27 million are scheduled for release at the Sawtooth Hatchery on the Salmon River. Similarly, another 1.16 million summer Chinook are planned for release into the Salmon River. During this same period, 4.3 million summer Steelhead are planned for release within this zone. Nearly 763,000 into the Grande Ronde, Wallowa, and Imnaha Rivers, 100,000 into the Tucannon River, 555,000 into the Clearwater River, 789,000 into the Pahsimeroi, 615,000 in the Snake at Hells Canyon Dam and Lyons Ferry hatchery, and an additional 1.5 million into the South Fork of the Salmon River.

Upper Columbia Zone:

The Upper Columbia Zone encompasses the area of the Columbia River and its tributaries from Priest Rapids Dam to Chief Joseph Dam. There were 313,000 juvenile coho released into this zone over the past week, all in the Wenatchee River. Over the next two weeks, 786,000 juvenile spring Chinook will be released into the Wenatchee River on April 1st. Additionally, 737,000 summer Chinook are scheduled for release on April 1st as well; 625,000 at Chelan Falls, and another 112,000 into the Okanogan River. There will also be nearly 600,000 juvenile coho will be released at Twisp acclimation pond (91,000), Coulter Creek (73,000), Beaver Creek (123,000), and into the Wenatchee River

(310,000) on March 31st. Finally, 222,000 summer Steelhead are planned for release into this zone on April 1st.

Middle Columbia Zone:

The Middle Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to Priest Rapids Dam (excluding the Snake River). Three releases of coho totaling 642,000 were scheduled to take place in this zone over the past week, all into the Yakima River beginning April 15th and running through mid-May.

Over the next two weeks approximately 637,000 spring Chinook will be released into this zone. Of these, 30,000 are planned for release into the Metolius River on March 26th, and 607,000 into the Umatilla River on April 2nd. There are also approximately 7.7 million fall Chinook planned for release at Priest Rapids, 197,000 summer steelhead being released at Dayton acclimation pond and Ringold Springs hatchery, and 20,000 winter steelhead planned for release at Rock Creek on April 1st.

Lower Columbia Zone:

The Lower Columbia Zone is defined as the Columbia River and its tributaries below Bonneville Dam. Over the past week approximately 2.2 million spring Chinook into this zone. Of these, approximately 64% were released into the Willamette River and its tributaries, including the Clackamas, Mollala, Santiam, and McKenzie Rivers, all beginning on the 16th. There was also one scheduled release of 25,000 summer steelhead into the Clackamas River, also on April 16th.

Over the next two weeks nearly 2 million spring Chinook smolts are being released into this zone. 850,000 of which will be released into the Columbia River below Bonneville Dam at Tongue Point (250,000), and at Youngs Bay (600,000). An additional 813,000 will be released into the Cowlitz River, 66,000 into the Kalama River, and an additional 234,000 are scheduled for release into the Willamette River at Dexter Pond. Additionally, approximately 4.5 million juvenile Coho will be released into this zone during this period; 312,000 at the Kalama Falls Hatchery, 207,000 into the Elochoman River, nearly 1.1 million at the Lewis River Hatchery, and another 2.1 million released into the Cowlitz River. Furthermore, approximately 306,000 summer Steelhead are planned for release in this zone as well. 70% of these will be released into

the Willamette River and its tributaries, while the other rest are scheduled for release at Beaver Creek, and into the Lewis River at the Echo net pens. Finally, approximately 300,000 winter Steelhead are planned for release into the Lower Columbia zone. 130,000 at Beaver Creek, 85,000 into the Washougal River, 50,000 at the Kalama Falls Hatchery, and another 36,000 into Salmon Creek.

Adult Passage

Bonneville Dam uses video counts from January 1st through March 31st and direct counting after this period. Bonneville Dam counts adult salmon and steelhead year round. Lower Granite Dam uses video counts from March 1st through March 31st and direct counting after this period. Lower Granite Dam counts adult salmon and steelhead through December 30th each year. Willamette Falls Dam also uses video counts and reports adult counts year round. Video counts can cause a delay in posting the count data to the web, because the counting staff at the projects have to review the tapes. The FPC collects the adult count data from projects several times a day and updates Adult Dam Count report linked on our homepage (<http://www.fpc.org/>). During the winter season at Bonneville Dam (from 1/1/2020 through 3/18/2020), 26 adult Chinook and 1,820 adult steelhead were counted. In 2019 for the same time frame, 4 adult Chinook and 372 adult steelhead were counted. The 2020 Bonneville Dam winter season count of adult steelhead had 1,448 more fish than the 2019 count.

The Willamette Falls cumulative steelhead count from January 1st through March 18th is 3,900. The 2020 Willamette Falls winter steelhead count has 2,482 more fish than the 2019 count of 1,418 while being about 1.5 times greater than the 10-year average count of 2,550. This year's Lower Granite steelhead count of 939 has 684 more fish than the 2019 count of 255 and has 1,189 fewer fish than the 10-year average count of 2,128.

Hatchery Releases Last Two Weeks

Hatchery Release Summary
From: **3/7/2020** to **03/20/20**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver	Zone
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SU	2020	791,284	03-11-20	03-14-20	Powell Acclim Pond	Lochsa River	SNAK
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2020	555,000	03-16-20	03-27-20	Hells Canyon Dam	Snake River	SNAK
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2020	2,500,000	03-16-20	04-24-20	Rapid River	Little Salmon River	SNAK
Idaho Dept. of Fish and Game Total					3,846,284					
Oregon Dept. of Fish and Wildlife	Bonneville Hatchery	ST	SU	2020	25,000	03-16-20	03-16-20	Clackamas River	Clackamas River	LCOL
Oregon Dept. of Fish and Wildlife	Clackamas Hatchery	CH1	SP	2020	70,000	03-11-20	03-11-20	Clackamas River	Clackamas River	LCOL
Oregon Dept. of Fish and Wildlife	Clackamas Hatchery	CH1	SP	2020	165,000	03-16-20	03-16-20	Clackamas River	Clackamas River	LCOL
Oregon Dept. of Fish and Wildlife	Clackamas Hatchery	CH1	SP	2020	240,000	03-16-20	03-16-20	Eagle Creek Hatchery	Eagle Creek	LCOL
Oregon Dept. of Fish and Wildlife	Gnat Creek Hatchery	CH1	SP	2020	150,000	03-16-20	03-16-20	Blind Slough	Col R Bel. Bon Dam	LCOL
Oregon Dept. of Fish and Wildlife	Gnat Creek Hatchery	CH1	SP	2020	650,000	03-16-20	03-16-20	Gnat Creek	Col R Bel. Bon Dam	LCOL
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2020	210,000	03-16-20	03-16-20	Imnaha River	Imnaha River	SNAK
Oregon Dept. of Fish and Wildlife	Marion Forks Hatchery	CH1	SP	2020	100,000	03-16-20	03-16-20	Mollala River	Willamette River	LCOL
Oregon Dept. of Fish and Wildlife	Marion Forks Hatchery	CH1	SP	2020	704,000	03-16-20	03-16-20	Santiam River & N Fk	Santiam River	LCOL
Oregon Dept. of Fish and Wildlife	McKenzie Hatchery	CH1	SP	2020	202,000	03-16-20	03-16-20	McKenzie River	Willamette River	LCOL
Oregon Dept. of Fish and Wildlife	South Santiam Hatchery	CH1	SP	2020	170,000	03-09-20	03-09-20	S Fk Santiam River	Santiam River	LCOL
Oregon Dept. of Fish and Wildlife Total					2,686,000					
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2020	206,669	03-15-20	05-12-20	Easton Pond	Yakima River	MCOL
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2020	213,890	03-15-20	05-12-20	Clark Flat Acclim Pond	Yakima River	MCOL
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2020	222,069	03-15-20	05-12-20	Jack Creek Acclim Pond	Yakima River	MCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	28,335	03-16-20	03-16-20	Mid-Valley Pond	Methow River	UCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	52,948	03-16-20	03-16-20	Methow River	Methow River	UCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	86,316	03-18-20	03-18-20	Chewuch River	Methow River	UCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	146,033	03-18-20	03-18-20	Chewuch River	Methow River	UCOL
Yakama Tribe Total					956,260					
Grand Total					7,488,544					

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

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: 3/21/2020 to 4/3/2020

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver	Zone
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2020	398,774	03-21-20	03-22-20	Selway River	Clearwater River M F	SNAK
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2020	592,233	03-27-20	03-28-20	N Fk Clearwater River	Clearwater River M F	SNAK
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2020	640,811	03-29-20	04-01-20	Johnson Cr Idaho	South Fork Salmon River	SNAK
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2020	1,104,458	03-25-20	03-29-20	Red River	S Fk Clearwater River	SNAK
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2020	164,314	04-03-20	04-03-20	Redhouse (SFk ClearH2	S Fk Clearwater River	SNAK
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2020	391,189	04-03-20	04-09-20	Meadow Creek - CLES	S Fk Clearwater River	SNAK
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2020	1,489,034	04-01-20	04-28-20	Salmon River (ID)	Salmon River (ID)	SNAK
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2020	120,557	03-29-20	04-01-20	Johnson Cr Idaho	South Fork Salmon River	SNAK
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2020	129,704	04-01-20	04-05-20	S Fk Salmon River	Salmon River (ID)	SNAK
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2020	918,967	04-01-20	04-05-20	S Fk Salmon River	Salmon River (ID)	SNAK
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2020	555,000	03-16-20	03-27-20	Hells Canyon Dam	Snake River	SNAK
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2020	789,000	03-30-20	04-10-20	Pahsimeroi River	Pahsimeroi River	SNAK
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2020	102,253	03-26-20	03-27-20	Salmon River (ID)	Salmon River (ID)	SNAK
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2020	1,171,203	03-26-20	03-27-20	Sawtooth Hatchery	Salmon River (ID)	SNAK
Idaho Dept. of Fish and Game Total					8,567,497					
Nez Perce Tribe	Kooskia NFH	CH1	SP	2020	686,752	03-26-20	03-26-20	Kooskia Hatchery	Clearwater River M F	SNAK
Nez Perce Tribe Total					686,752					
Oregon Dept. of Fish and Wildlife		CH1	SP	2020	30,000	03-26-20	03-26-20	Wychus Creek	Deschutes River	MCOL
Oregon Dept. of Fish and Wildlife		CH1	SP	2020	40,000	03-26-20	03-26-20	Crooked River	S Fk Clearwater River	SNAK
Oregon Dept. of Fish and Wildlife	Big Creek Hatchery	CH1	SP	2020	300,000	03-23-20	03-23-20	Youngs Bay	Youngs River	LCOL
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	CH0	FA	2020	200,000	03-28-20	03-28-20	Grande Ronde River	Grande Ronde River	SNAK
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2020	215,000	04-02-20	04-02-20	Little Sheep Creek	Imnaha River	SNAK
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2020	320,000	04-02-20	04-02-20	Wallowa Acclim Pond	Wallowa River	SNAK
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2020	250,000	04-02-20	04-02-20	Lookingglass Creek	Grande Ronde River	SNAK
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2020	280,000	04-02-20	04-02-20	Imnaha Acclim Pond	Imnaha River	SNAK
Oregon Dept. of Fish and Wildlife	Marion Forks Hatchery	CH1	SP	2020	250,000	03-30-20	03-30-20	Tongue Pt	Col R Bel. Bon Dam	LCOL
Oregon Dept. of Fish and Wildlife	Marion Forks Hatchery	CH1	SP	2020	300,000	03-23-20	03-23-20	Youngs Bay	Youngs River	LCOL
Oregon Dept. of Fish and Wildlife	Roaring River Hatchery	ST	SU	2020	96,000	04-02-20	04-02-20	Willamette River	Willamette River	LCOL
Oregon Dept. of Fish and Wildlife	South Santiam Hatchery	ST	SU	2020	120,000	04-03-20	04-03-20	S Fk Santiam River	Santiam River	LCOL
Oregon Dept. of Fish and Wildlife	Willamette Hatchery	CH1	SP	2020	234,000	03-23-20	03-23-20	Dexter Pond	Willamette River	LCOL
Oregon Dept. of Fish and Wildlife	Winthrop NFH	CH1	SP	2020	30,000	03-26-20	03-26-20	Metolius River	Deschutes River	MCOL
Oregon Dept. of Fish and Wildlife Total					2,665,000					
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2020	1,639,276	03-25-20	03-26-20	Dworshak Hatchery	Clearwater River M F	SNAK
U.S. Fish and Wildlife Service Total					1,639,276					
Umatilla Tribe	Cascade Hatchery	CO	UN	2020	500,000	03-30-20	03-30-20	Umatilla River	Umatilla River	MCOL
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2020	607,500	04-02-20	04-02-20	Imequas Acclim Pond	Umatilla River	MCOL
Umatilla Tribe Total					1,107,500					
Washington Dept. of Fish and Wildlife	Beaver Creek Hatchery	CO	NO	2020	207,000	04-01-20	05-01-20	Beaver Creek	Elochoman River	LCOL
Washington Dept. of Fish and Wildlife	Beaver Creek Hatchery	ST	SU	2020	30,000	04-01-20	05-01-20	Beaver Creek	Elochoman River	LCOL
Washington Dept. of Fish and Wildlife	Beaver Creek Hatchery	ST	WI	2020	130,000	04-01-20	05-01-20	Beaver Creek Hatchery	Elochoman River	LCOL
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2020	625,000	04-01-20	04-01-20	Chelan Falls	Rocky Reach Pool	UCOL
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2020	165,500	04-01-20	04-01-20	Chiwawa River	Wenatchee River	UCOL
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2020	206,000	04-01-20	04-01-20	Nason Creek	Wenatchee River	UCOL
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	ST	SU	2020	222,500	04-01-20	04-01-20	Chiwawa River	Wenatchee River	UCOL
Washington Dept. of Fish and Wildlife	COOP	CT	UN	2020	55,000	03-01-20	04-01-20	Cowlitz River	Cowlitz River	LCOL
Washington Dept. of Fish and Wildlife	Cowlitz Salmon	CH1	SP	2020	813,000	03-01-20	04-01-20	Cowlitz River	Cowlitz River	LCOL
Washington Dept. of Fish and Wildlife	Cowlitz Salmon	CO	NO	2020	2,096,600	04-01-20	06-01-20	Cowlitz River	Cowlitz River	LCOL
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SP	2020	415,000	04-01-20	04-01-20	Dryden Acclim Pond	Wenatchee River	UCOL
Washington Dept. of Fish and Wildlife	Fallert Creek Hatchery	CH1	SP	2020	66,000	04-01-20	05-01-20	Kalama River	Kalama River	LCOL
Washington Dept. of Fish and Wildlife	Fallert Creek Hatchery	ST	WI	2020	50,000	04-01-20	05-01-20	Kalama River	Kalama River	LCOL
Washington Dept. of Fish and Wildlife	Grays River Hatchery	CM	UN	2020	250,000	04-01-20	04-01-20	Grays River	Grays River	LCOL
Washington Dept. of Fish and Wildlife	Kalama Falls Hatchery	CO	NO	2020	312,000	04-01-20	05-01-20	Kalama River	Kalama River	LCOL
Washington Dept. of Fish and Wildlife	Kalama Falls Hatchery	ST	WI	2020	36,000	04-01-20	05-01-20	Salmon Creek (WA)	Col R Bel. Bon Dam	LCOL
Washington Dept. of Fish and Wildlife	Lewis River Hatchery	CO	NO	2020	830,000	04-01-20	05-01-20	Lewis River	Lewis River	LCOL
Washington Dept. of Fish and Wildlife	Lewis River Hatchery	CO	SO	2020	1,090,000	04-01-20	05-01-20	Lewis River	Lewis River	LCOL
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2020	38,200	04-01-20	04-01-20	Curl Lake Acclim Pond	Tucannon River	SNAK
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2020	46,300	04-01-20	04-01-20	Dayton Acclim Pond	Touchet River	MCOL
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2020	60,000	04-01-20	04-01-20	Lyons Ferry Hatchery	Snake River	SNAK
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2020	62,500	04-01-20	04-01-20	Tucannon River	Tucannon River	SNAK
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2020	101,400	04-01-20	04-01-20	Dayton Acclim Pond	Touchet River	MCOL
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2020	228,200	04-01-20	04-01-20	Grande Ronde River	Grande Ronde River	SNAK
Washington Dept. of Fish and Wildlife	Merwin Hatchery	ST	SU	2020	60,000	04-01-20	05-01-20	Echo Net Pens	Lewis River	LCOL
Washington Dept. of Fish and Wildlife	Priest Rapids Hatchery	CH0	FA	2020	7,700,000	04-01-20	04-01-20	Columbia R Above Bonr	Bonneville Pool	MCOL
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	CO	NO	2020	245,000	04-01-20	04-01-20	Ringold Springs Hatche	McNary Pool	MCOL
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2020	49,651	04-01-20	06-01-20	Ringold Springs Hatche	McNary Pool	MCOL
Washington Dept. of Fish and Wildlife	Similkameen Hatchery	CH1	SU	2020	112,000	04-01-20	04-01-20	Okanogan River	Okanogan River	UCOL
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2020	20,000	04-01-20	04-01-20	Rock Cr (Stevenson)	Bonneville Pool	MCOL
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2020	85,000	04-01-20	04-01-20	Washougal River	Washougal River	LCOL
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2020	192,000	04-01-20	04-01-20	Curl Lake Acclim Pond	Tucannon River	SNAK
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2020	1,250,000	04-01-20	04-01-20	Klickitat River	Klickitat River	MCOL
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2020	1,250,000	04-01-20	04-01-20	Klickitat River	Klickitat River	MCOL
Washington Dept. of Fish and Wildlife Total					19,099,851					
Yakama Tribe	Cascade Hatchery	CO	UN	2020	310,000	03-30-20	03-30-20	Wenatchee River	Wenatchee River	UCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	73,366	03-31-20	03-31-20	Coulter Creek	Wenatchee River	UCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	91,154	03-31-20	03-31-20	Twisp Acclim Pond	Methow River	UCOL
Yakama Tribe	Willard Hatchery	CO	UN	2020	123,187	03-31-20	03-31-20	Beaver Creek Acclim Pc	Wenatchee River	UCOL
Yakama Tribe Total					597,707					
Grand Total					34,363,583					

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

Daily Average Flow and Spill (in Kcfs)

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Upper Columbia Projects

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/06/2020	94.0	0.0	93.8	0.0	93.5	0.0	93.6	0.0	100.5	0.0	114.6	0.0	107.5	0.0
03/07/2020	100.1	0.0	100.9	0.0	103.6	0.0	92.0	0.4	97.4	3.6	98.1	0.0	95.7	0.0
03/08/2020	85.4	0.0	86.6	0.0	86.8	0.0	88.4	0.0	98.2	0.0	95.5	0.0	88.8	0.0
03/09/2020	88.4	0.0	91.3	0.0	103.4	1.2	102.6	0.0	107.5	0.0	100.8	0.0	96.7	0.0
03/10/2020	80.2	0.0	77.1	0.0	84.5	0.0	77.9	0.0	87.2	0.0	99.0	0.0	94.5	0.0
03/11/2020	69.8	0.0	68.5	0.0	62.3	0.0	63.6	0.0	66.2	0.0	84.5	0.0	84.5	0.0
03/12/2020	66.2	0.0	71.6	0.0	78.6	0.0	75.6	0.0	83.3	0.0	77.7	0.0	79.5	0.0
03/13/2020	74.7	0.0	73.6	0.0	74.0	0.0	73.1	0.0	76.4	0.0	86.2	0.0	83.1	0.0
03/14/2020	64.3	0.0	64.5	0.0	69.3	0.0	70.8	0.0	77.9	0.0	72.6	0.0	70.5	0.0
03/15/2020	70.3	0.0	73.3	0.0	62.6	0.5	54.3	0.0	55.4	0.0	67.4	0.0	72.2	0.1
03/16/2020	64.4	0.0	66.5	0.0	80.0	0.7	86.8	0.1	93.5	0.0	86.6	3.1	72.9	0.0
03/17/2020	69.1	0.0	64.2	0.0	70.7	0.0	66.1	0.0	68.5	0.0	80.5	0.0	76.8	0.0
03/18/2020	67.4	0.0	64.9	0.0	58.6	0.0	60.0	0.0	64.1	0.0	76.3	0.0	71.3	0.0
03/19/2020	70.6	0.0	75.6	0.0	76.8	4.2	71.0	0.0	75.3	0.2	66.2	0.0	72.0	0.0

- Data not available or incorrect

These data were obtained from the Corps of Engineers...

Daily Average Flow and Spill (in Kcfs)

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Snake Basin Projects

Date	Dworshak		Brownlee		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Inflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/06/2020	1.6	0.0			32.0	0.0	29.7	0.0	29.5	0.0	29.4	0.0		
03/07/2020	1.6	0.0			35.0	0.0	33.7	0.0	33.1	0.0	33.1	0.0		
03/08/2020	1.6	0.0			34.2	0.0	32.9	0.0	32.0	0.0	34.3	0.0		
03/09/2020	1.6	0.0			34.4	0.0	33.6	0.0	32.7	0.0	34.1	0.0		
03/10/2020	1.6	0.0			35.8	0.0	35.5	0.0	35.2	0.0	35.5	0.0		
03/11/2020	1.6	0.0			32.0	0.0	28.5	0.0	29.1	0.0	31.0	0.0		
03/12/2020	1.6	0.0			32.2	0.0	30.4	0.0	30.4	0.0	30.3	0.0		
03/13/2020	1.6	0.0			34.7	0.0	34.5	0.0	35.6	0.0	32.5	0.0		
03/14/2020	1.6	0.0			31.6	0.0	30.7	0.0	31.1	0.0	33.2	0.0		
03/15/2020	1.6	0.0			28.9	0.0	26.0	0.0	26.7	0.0	26.1	0.0		
03/16/2020	1.6	0.0			30.7	0.0	29.9	0.0	31.1	0.0	33.5	0.0		
03/17/2020	1.6	0.0			30.3	0.0	28.4	0.0	30.5	0.0	31.2	0.0		
03/18/2020	1.6	0.0			27.8	0.0	27.6	0.0	27.5	0.0	28.1	0.0		
03/19/2020	1.6	0.0			27.2	0.0	27.2	0.0	28.0	0.0	29.1	0.0		

- Data not available or incorrect

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Daily Average Flow and Spill (in Kcfs)

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Mid - Columbia Projects

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
03/06/2020	148.8	1.5	148.9	0.0	146.7	0.0	155.5	1.2	58.6	88.3
03/07/2020	134.9	0.0	138.7	0.0	136.7	0.0	145.7	1.3	46.9	90.1
03/08/2020	126.9	3.2	133.7	0.0	132.5	0.0	152.6	1.4	55.0	89.1
03/09/2020	149.4	0.0	154.2	0.0	154.4	0.0	155.3	1.3	59.0	88.0
03/10/2020	128.9	1.6	131.5	0.0	131.9	0.0	149.5	1.3	54.1	87.2
03/11/2020	118.6	1.6	116.4	0.0	112.1	0.0	126.1	1.3	29.0	88.8
03/12/2020	117.1	0.0	120.8	0.0	121.1	0.0	119.5	1.3	18.6	92.6
03/13/2020	114.3	2.0	116.0	0.0	115.1	0.0	122.5	1.3	21.7	92.4
03/14/2020	109.4	1.5	118.9	0.0	117.6	0.0	127.6	1.3	31.4	87.8
03/15/2020	112.4	0.0	116.1	0.0	115.0	0.0	131.1	1.3	37.2	85.6
03/16/2020	124.8	1.5	127.7	0.0	126.5	0.0	130.3	1.3	82.4	39.6
03/17/2020	117.2	1.7	122.5	0.0	121.5	0.0	129.7	1.3	81.2	40.1
03/18/2020	96.3	1.2	104.1	0.0	105.0	0.0	128.1	1.3	59.8	60.0
03/19/2020	106.5	1.6	108.4	0.0	109.3	0.0	128.9	1.4	34.4	86.0

- Data not available or incorrect

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FISH PASSAGE CENTER

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

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Total Dissolved Gas Data at Upper Columbia Sites

Date	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph				Chief J. Dnst				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
03/06									101.8	102.1	102.2	24	101.0	101.3	101.5	24	101.8	102.1	102.3	24	100.7	100.9	101.4	24	03/06
03/07									102.3	102.4	102.5	24	101.1	101.3	101.5	24	102.3	102.6	103.1	24	101.0	101.3	101.6	24	03/07
03/08									101.5	101.7	101.9	23	100.8	101.2	101.4	23	101.5	101.7	102.4	20	100.3	100.5	100.9	23	03/08
03/09									101.0	101.2	101.4	24	100.1	100.5	100.8	24	101.1	101.4	102.1	21	99.9	100.2	100.8	24	03/09
03/10									101.3	101.7	102.2	24	101.4	102.9	104.0	24	101.2	101.8	102.5	24	100.2	100.8	101.5	24	03/10
03/11									101.8	102.1	102.5	24	102.5	104.1	105.0	24	101.7	102.0	102.6	24	100.7	101.1	101.7	24	03/11
03/12									101.3	101.8	102.1	24	100.4	101.0	101.2	24	101.4	101.9	102.5	23	100.1	100.5	100.8	24	03/12
03/13									102.6	103.0	103.2	24	101.8	102.1	102.2	24	102.3	102.7	102.9	22	101.0	101.4	101.6	24	03/13
03/14									101.8	102.3	102.8	24	101.2	101.5	101.8	24	101.5	101.9	102.3	24	100.3	100.7	100.9	24	03/14
03/15									101.3	101.5	101.8	24	100.4	100.9	101.2	24	100.9	101.2	101.9	23	99.7	100.2	101.4	24	03/15
03/16									101.2	101.5	101.6	24	100.5	101.1	101.6	24	100.9	101.5	101.7	24	99.5	100.1	100.5	24	03/16
03/17									102.5	102.8	103.1	24	101.6	102.2	102.7	24	102.4	102.9	103.7	23	100.5	100.7	101.0	24	03/17
03/18									102.8	103.0	103.3	24	102.1	102.3	102.6	24	102.8	103.4	104.5	23	101.1	101.6	102.3	24	03/18
03/19									102.2	102.4	102.8	21	101.3	101.5	101.6	21	102.4	102.5	103.4	17	100.8	101.0	101.3	23	03/19

Total Dissolved Gas Data at Upper Columbia Sites

Date	Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr				Rock Island				Rock I. Tlwr				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
03/06	101.0	101.3	101.8	24	101.0	101.5	101.9	24	101.4	101.7	101.8	24	102.7	102.9	103.3	24	101.1	101.4	101.6	24	101.3	101.4	101.8	23	03/06
03/07	101.1	101.4	101.8	24	101.2	101.5	101.9	24	101.9	102.0	102.2	24	103.4	103.8	107.8	24	101.5	101.6	101.8	24	101.6	101.8	101.9	24	03/07
03/08	100.6	100.9	101.2	22	100.6	101.0	101.5	22	101.3	101.4	101.5	23	102.4	102.9	103.1	23	100.9	101.2	101.6	23	100.9	101.1	101.2	22	03/08
03/09	99.8	100.2	100.7	24	100.3	101.0	103.3	24	100.7	100.8	101.1	24	101.8	102.0	102.6	24	100.3	100.6	100.9	24	100.5	100.8	100.9	23	03/09
03/10	100.3	101.0	101.2	24	100.3	101.0	101.2	24	100.8	101.3	101.6	24	102.2	102.6	103.4	24	100.5	100.8	101.2	24	100.8	101.0	101.2	23	03/10
03/11	100.8	101.2	101.4	24	100.9	101.3	101.6	24	101.5	101.6	101.6	24	102.6	103.1	103.4	24	101.1	101.4	101.5	24	101.3	101.5	101.6	23	03/11
03/12	100.3	100.8	101.1	24	100.3	101.0	101.5	24	101.2	101.5	101.7	24	102.3	102.7	103.2	24	101.0	101.4	101.5	24	101.1	101.5	101.7	23	03/12
03/13	101.3	101.6	101.8	24	101.2	101.6	101.8	24	102.3	102.7	102.9	24	103.3	103.5	103.8	24	101.9	102.0	102.0	24	102.1	102.3	102.4	23	03/13
03/14	100.0	100.5	101.2	24	100.2	100.6	100.8	24	101.1	101.6	102.4	24	102.2	102.8	103.5	24	100.5	101.0	101.6	24	100.8	101.2	101.8	23	03/14
03/15	99.0	99.3	99.7	24	99.0	99.4	100.1	24	100.2	100.3	100.5	24	101.3	101.7	102.0	24	99.6	99.8	100.0	24	99.8	100.0	100.1	23	03/15
03/16	99.6	100.3	100.5	24	100.0	100.6	101.7	24	100.2	100.6	100.9	24	101.7	102.3	102.9	24	99.9	100.4	100.8	24	100.1	100.5	100.9	23	03/16
03/17	101.2	101.7	101.9	24	101.2	101.9	102.4	24	101.7	102.0	102.3	24	102.8	103.0	103.4	24	101.3	101.7	101.9	24	101.5	101.7	102.0	22	03/17
03/18	101.8	102.3	102.9	24	102.1	103.0	104.8	24	102.2	102.5	102.7	24	103.1	103.3	104.1	24	101.6	101.8	102.0	24	101.8	101.9	102.2	22	03/18
03/19	101.4	101.6	101.9	23	102.9	104.3	106.5	23	102.1	102.2	102.3	23	103.4	103.6	103.9	23	101.6	101.9	102.0	23	101.6	101.9	102.4	23	03/19

FISH PASSAGE CENTER

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

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Total Dissolved Gas Data at Upper and Mid-Columbia Sites

Date	Wanapum				Wanapum Tlwr				Priest Rapids				Priest R. Dnstr				Pasco				Date	
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr		
03/06																					03/06	
03/07																						03/07
03/08																						03/08
03/09																						03/09
03/10																						03/10
03/11																						03/11
03/12																						03/12
03/13																						03/13
03/14																						03/14
03/15																						03/15
03/16																						03/16
03/17																						03/17
03/18																						03/18
03/19																						03/19

Total Dissolved Gas Data at Snake and Clearwater Sites

Date	Dworshak				Clrwr Peck				Anatone				Clrwr-Lewiston				Lower Granite				Lower G. Tlwr				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
03/06	106.4	107.0	107.5	24					134.6	135.2	136.2	24					102.9	103.0	103.1	24					03/06
03/07	106.0	106.2	106.4	24					136.3	136.8	137.1	24					102.6	102.8	103.0	24					03/07
03/08	105.5	106.1	107.0	23					134.9	135.2	135.6	23					101.7	101.9	102.2	23					03/08
03/09	105.2	105.8	106.7	24					135.2	135.6	136.1	24					101.4	101.6	101.7	24					03/09
03/10	105.1	106.0	106.7	24					136.6	137.4	138.8	24					101.3	101.7	101.9	24					03/10
03/11	105.9	106.4	107.1	24					139.3	139.9	140.5	24					101.7	101.9	102.0	24					03/11
03/12	105.3	106.0	106.9	24					140.2	140.9	141.7	24					100.4	100.5	100.8	24					03/12
03/13	106.8	108.0	108.8	24					141.3	141.5	141.8	24					101.3	102.0	102.4	24					03/13
03/14	106.1	106.6	107.0	24					137.5	138.7	140.8	24					100.9	101.3	101.7	24					03/14
03/15	105.4	105.9	106.6	24					136.6	136.9	137.1	24					100.6	100.7	100.8	24					03/15
03/16	105.7	106.7	107.7	24					136.5	136.8	137.2	24					100.7	101.0	101.5	24					03/16
03/17	106.4	107.4	108.4	24					137.3	138.0	139.3	24					101.4	101.7	101.9	24					03/17
03/18	105.9	106.5	107.1	24					139.5	139.8	140.0	22					101.3	101.5	101.7	24					03/18
03/19	106.0	106.8	107.8	23					139.9	140.1	140.8	23					100.8	101.0	101.3	23					03/19

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

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Total Dissolved Gas Data at Lower Snake Sites

Date	Little Goose				L. Goose Tlwr				Lower Mon.				Lwr. Mon. Tlwr				Ice Harbor				Tlwr Ice Harbor				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
03/06					101.7	102.2	102.8	24					101.9	102.2	102.6	24					102.2	102.6	102.8	24	03/06
03/07					102.0	102.1	102.2	24					102.0	102.3	102.7	24					102.5	102.6	102.8	24	03/07
03/08					101.6	101.8	102.0	22					101.2	101.3	101.5	23					101.8	102.0	102.3	23	03/08
03/09					101.1	101.3	101.7	24					100.8	101.0	101.9	24					101.2	101.4	101.6	24	03/09
03/10					101.3	101.8	102.0	24					101.0	101.5	101.9	24					101.4	101.8	102.0	24	03/10
03/11					101.9	102.2	102.4	24					101.6	101.9	102.2	24					101.8	102.1	102.6	24	03/11
03/12					101.2	101.6	101.9	24					101.2	101.6	102.2	24					101.1	101.6	102.1	24	03/12
03/13					102.6	103.2	103.5	24					102.9	103.6	106.1	24					102.5	103.2	103.6	24	03/13
03/14					101.4	101.8	102.5	24					101.8	102.4	103.0	24					101.6	102.0	102.7	24	03/14
03/15					100.4	100.6	101.0	24					100.8	100.9	101.1	24					100.8	101.0	101.4	24	03/15
03/16					100.1	100.5	100.9	24					100.9	101.4	101.9	23					100.8	101.2	101.7	24	03/16
03/17					101.0	101.5	101.9	24					102.0	102.4	102.6	24					101.8	102.3	102.8	24	03/17
03/18					100.7	101.1	101.5	24					102.4	102.6	103.0	24					101.9	102.2	102.6	24	03/18
03/19					100.1	100.4	100.7	23					101.7	102.0	102.2	23					101.6	101.9	102.2	23	03/19

Total Dissolved Gas Data at Mid-Columbia Sites

Date	McNary-Wash.				Tlwr McNary				John Day				Tlwr John Day				The Dalles				Dnstr T. Dalles				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
03/06					104.0	104.9	107.5	24				0	102.9	103.1	103.7	24				0	103.4	103.7	104.0	24	03/06
03/07					104.3	104.8	106.7	24				0	103.3	103.6	103.9	24				0	103.4	103.7	103.8	24	03/07
03/08					104.5	105.9	107.3	23				0	102.8	103.0	103.2	23				0	102.8	103.1	103.3	23	03/08
03/09					102.5	102.7	102.9	24				0	102.3	102.5	102.8	24				0	102.6	102.8	103.3	24	03/09
03/10					103.2	104.1	106.0	24				0	102.5	102.7	102.8	24				0	102.7	103.3	103.5	24	03/10
03/11					103.2	103.9	106.3	24	102.9	103.0	104.5	13	102.8	103.1	103.4	24				0	103.0	103.3	103.5	24	03/11
03/12					102.5	103.0	105.4	24	102.5	102.9	103.2	24	102.2	102.5	102.6	24	102.4	102.7	102.9	16	102.9	103.5	103.8	24	03/12
03/13					104.3	105.4	108.0	24	104.5	105.2	105.4	24	104.2	104.8	105.0	24	104.0	104.6	104.8	24	104.8	105.4	105.7	24	03/13
03/14					103.5	105.5	108.3	24	103.0	103.8	105.0	24	102.6	103.4	104.7	24	102.6	103.3	104.1	24	103.5	104.1	104.9	24	03/14
03/15					100.9	101.1	101.3	24	101.6	101.7	101.8	24	101.9	102.1	102.2	24	101.0	101.2	101.4	24	102.3	102.5	102.6	24	03/15
03/16					101.6	102.5	105.4	24	101.9	102.4	103.0	24	101.6	101.9	102.1	24	101.4	102.0	102.2	24	102.4	102.9	103.1	24	03/16
03/17					103.0	103.9	105.6	24	103.3	103.7	104.1	24	103.8	104.1	104.3	24	102.9	103.5	104.0	24	103.7	104.3	104.8	24	03/17
03/18					103.2	104.3	106.7	24	103.5	103.8	104.1	24	103.7	104.0	104.6	24	103.1	103.5	103.7	24	104.2	104.7	105.4	24	03/18
03/19					102.8	103.9	105.7	23	102.6	102.8	102.9	23	103.3	103.7	104.1	23	102.8	103.0	103.4	23	104.0	104.4	104.6	23	03/19

FISH PASSAGE CENTER

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

Date 3/20/2020 7:15:12 AM

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Total Dissolved Gas Data at Mid-Columbia Sites

Date	Bonneville				Warrendale				Camas\Washug.				Cascade Isld.				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
03/06				0	104.3	104.5	104.7	24				0				0	03/06
03/07				0	104.1	104.4	104.7	24				0				0	03/07
03/08				0	103.3	103.7	104.3	23				0				0	03/08
03/09				0	103.0	103.3	103.8	24				0				0	03/09
03/10				0	103.2	103.7	104.1	24				0				0	03/10
03/11				0	103.7	104.1	104.7	24				0				0	03/11
03/12	103.5	103.5	103.7	9	103.5	104.1	104.4	24				0	108.2	108.2	111.5	11	03/12
03/13	104.3	104.7	104.9	24	104.9	105.2	105.6	24				0	110.4	111.7	112.8	24	03/13
03/14	103.3	104.1	104.8	24	103.6	104.4	105.2	24	102.5	103.6	105.3	24	110.2	111.4	112.6	24	03/14
03/15	101.6	101.8	102.1	24	101.6	101.9	102.2	24	100.8	101.2	101.7	24	109.4	110.3	110.9	24	03/15
03/16	101.7	102.0	102.2	24	102.1	102.7	103.1	24	101.2	102.4	103.0	24	109.5	110.3	110.9	24	03/16
03/17	103.1	103.6	103.9	24	103.5	104.3	104.9	24	102.9	104.0	105.0	24	110.3	111.3	112.1	24	03/17
03/18	103.7	104.1	104.5	24	104.3	104.9	105.8	24	104.4	105.4	106.3	24	110.5	111.8	112.7	24	03/18
03/19	103.8	104.1	104.2	22	104.3	104.6	105.1	22	104.7	105.4	106.2	22	110.5	111.6	112.9	22	03/19

Hours used in calculating values:

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

Date 3/20/2020 10:16:34 AM

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COMBINED YEARLING CHINOOK

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
03/06/2020	0	0	4	0	3				16		18
03/07/2020		0	9	0	2						0
03/08/2020		3	18	0	7				4		16
03/09/2020	0	2	11	0	6						23
03/10/2020	0	2	4	0	8				12		0
03/11/2020	0	0	2	0	4						0
03/12/2020	0	0	6	0	2				4		0
03/13/2020	1	3	9	0	3						12
03/14/2020		5	12	0	10				4		0
03/15/2020			8	0	8						7
03/16/2020	13	36	4	0	12				0		0
03/17/2020	10	31	2	1	23						17
03/18/2020	1,332	67	2	0	27				12		14
03/19/2020	1,045		2	0	32						34
03/20/2020									0		
Total:	2,401	149	93	1	147	0	0	0	52	0	141
# Days:	10	12	14	14	14	0	0	0	8	0	14
Average:	240	12	7	0	11	0	0	0	7	0	10
YTD:	2,401	156	93	1	150	0	0	0	60	0	171

Number of hours sampled:

- No data available or no sample conducted



FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED SUBYEARLING CHINOOK

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
03/06/2020	0	0	0	0	0				8		836
03/07/2020		0	0	0	0						571
03/08/2020		0	0	0	0				8		408
03/09/2020	0	0	0	0	0						438
03/10/2020	0	0	0	0	0				24		473
03/11/2020	0	0	0	0	0						606
03/12/2020	0	0	0	0	0				20		430
03/13/2020	0	0	0	0	0						254
03/14/2020		0	0	0	0				21		414
03/15/2020			0	0	1						595
03/16/2020	0	0	0	0	0				16		733
03/17/2020	0	0	0	0	0						1,359
03/18/2020	0	0	0	0	1				0		939
03/19/2020	0		0	0	0						1,342
03/20/2020									8		
Total:	0	0	0	0	2	0	0	0	105	0	9,398
# Days:	10	12	14	14	14	0	0	0	8	0	14
Average:	0	0	0	0	0	0	0	0	13	0	671
YTD:	0	0	0	0	2	0	0	0	121	0	10,249

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED COHO

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
03/06/2020	0	0	0	0	0				0		0
03/07/2020		0	0	0	0						8
03/08/2020		0	0	0	0				0		8
03/09/2020	0	0	0	0	1						0
03/10/2020	0	0	0	0	0				0		0
03/11/2020	0	0	0	0	0						45
03/12/2020	0	0	0	0	0				0		7
03/13/2020	0	0	0	0	0						0
03/14/2020		0	0	0	0				0		0
03/15/2020			0	0	0						35
03/16/2020	0	0	0	0	0				0		8
03/17/2020	0	0	0	0	0						185
03/18/2020	0	0	0	0	0				0		58
03/19/2020	0		0	0	0						8
03/20/2020									0		
Total:	0	0	0	0	1	0	0	0	0	0	362
# Days:	10	12	14	14	14	0	0	0	8	0	14
Average:	0	0	0	0	0	0	0	0	0	0	26
YTD:	0	0	0	0	1	0	0	0	0	0	394

Number of hours sampled:

- No data available or no sample conducted



FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED STEELHEAD

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
03/06/2020	0	0	0	0	4				4		0
03/07/2020		0	0	0	2						8
03/08/2020		0	0	0	5				0		8
03/09/2020	0	0	0	0	5						0
03/10/2020	0	0	0	1	9				4		0
03/11/2020	0	0	0	0	6						0
03/12/2020	0	0	0	0	5				0		0
03/13/2020	0	0	0	0	8						0
03/14/2020		0	0	1	11				0		0
03/15/2020			1	0	6						0
03/16/2020	0	1	1	0	17				4		8
03/17/2020	0	0	0	1	26						0
03/18/2020	0	2	0	0	6				4		0
03/19/2020	0		1	0	13						0
03/20/2020									8		
Total:	0	3	3	3	123	0	0	0	24	0	24
# Days:	10	12	14	14	14	0	0	0	8	0	14
Average:	0	0	0	0	9	0	0	0	3	0	2
YTD:	0	14	3	3	129	0	0	0	24	0	24

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED SOCKEYE

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
03/06/2020	0	0	0	0	0				0		0
03/07/2020		0	0	0	0						0
03/08/2020		0	0	0	0				0		0
03/09/2020	0	0	0	0	0						0
03/10/2020	0	0	0	0	0				0		0
03/11/2020	0	0	0	0	0	1					0
03/12/2020	0	0	0	0	0				0		0
03/13/2020	0	0	0	0	0						0
03/14/2020		0	0	0	0				0		0
03/15/2020			0	0	0						0
03/16/2020	0	0	0	0	0				0		0
03/17/2020	0	0	0	0	0	1					0
03/18/2020	0	0	0	0	0				0		0
03/19/2020	0		0	0	0	1					0
03/20/2020									0		
Total:	0	0	0	0	3	0	0	0	0	0	0
# Days:	0	0	0	0	0	0	0	0	0	0	0
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	0	0	0	0	3	0	0	0	0	0	0

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Smolt Monitoring Program Two Week Passage Index Report

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COMBINED LAMPREY JUVENILES

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR* (Sample)	LGS (Coll)	LMN (Coll)	RIS (Coll)	MCN (Coll)	JDA (Coll)	BO2 (Coll)
03/06/2020	0	0	0	0	18				976		45
03/07/2020		0	1	0	5						30
03/08/2020		0	0	0	27				1,148		60
03/09/2020	0	0	0	0	15						55
03/10/2020	0	0	1	0	22				908		75
03/11/2020	0	0	0	0	26						40
03/12/2020	0	0	0	0	21				500		25
03/13/2020	0	0	0	0	18						20
03/14/2020		0	0	0	14				248		65
03/15/2020			0	0	4						25
03/16/2020	0	0	0	0	16				232		40
03/17/2020	0	0	0	0	8						45
03/18/2020	0	0	0	0	9				240		20
03/19/2020	0		0	0	19						25
03/20/2020									52		
Total:	0	0	2	0	222	0	0	0	4,304	0	570
# Days:	10	12	14	14	20	0	0	0	11	0	16
Average:	0	0	0	0	11	0	0	0	391	0	36
YTD:			2		252				5,052		940

- No data available or no sample conducted

* - 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.

Number of hours sampled:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Smolt Monitoring Program Two Week Passage Index Report

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Smolt Monitoring Program Sites and Agency Collaborations:

- 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
- LGS (Index) - Little Goose Bypass Collection System : Passage Index Counts
- LMN (Index) - Lower Monumental Dam Bypass Collection System : Passage Index Counts
- RIS (Index) - Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
- MCN (Index) - McNary Dam Bypass Collection System : Passage Index Counts
- JDA (Index) - John Day Dam Bypass Collection System : Passage Index Counts
- BO2 (Index) - Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

- No data available or no sample conducted

Number of hours sampled:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Important Information About this Report:

- For clip information see: <http://www.fpc.org/currentdaily/smpcomments.htm>
- Three 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. Equations for passage index are provided below for each site.
 - LGR, LGS, LMN, MCN, JDA (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts Passage Index = Collection Counts / (Powerhouse Flow / (Powerhouse Flow + Spill))
 - RIS, BO2 (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts Passage Index = Collection Counts / (Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill))
- Combined lamprey juvenile collection counts are provided for all sites. Combined lamprey juveniles is a combination of pacific lamprey ammocoetes, brook lamprey ammocoetes, unknown lamprey ammocoetes, pacific lamprey macrophthalmia, and unidentified lamprey species.
- 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.

FISH PASSAGE CENTER

Two Week Transportation Summary Report

3/6/2020 12:00:00 AM TO 3/20/2020 12:00:00 AM

Date 3/20/2020 10:18:33 AM

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Lower Granite Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	2	147	1	3	123	276
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	2	145	1	3	122	273
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	2	0	0	1	3
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	2	0	0	1	3

Little Goose Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	0	0	0	0	0	0
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	0	0	0	0	0	0
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	0	0	0	0	0
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	0	0	0	0	0

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Two Week Transportation Summary Report

3/6/2020 12:00:00 AM TO 3/20/2020 12:00:00 AM

Date 3/20/2020 10:18:33 AM

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Lower Monumental Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	0	0	0	0	0	0
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	0	0	0	0	0	0
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	0	0	0	0	0
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	0	0	0	0	0

Total

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	2	147	1	3	123	399
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	2	145	1	3	122	395
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	2	0	0	1	4
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	2	0	0	1	4

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Lower Granite Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	2	150	1	3	129	285
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	2	148	1	3	128	282
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	2	0	0	1	3
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	2	0	0	1	3

Little Goose Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	0	0	0	0	0	0
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	0	0	0	0	0	0
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	0	0	0	0	0
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	0	0	0	0	0

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Lower Monumental Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	0	0	0	0	0	0
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	0	0	0	0	0	0
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	0	0	0	0	0
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	0	0	0	0	0

Total

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	2	150	1	3	129	285
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	2	148	1	3	128	282
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	2	0	0	1	3
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	2	0	0	1	3

Cumulative Adult Passage at Mainstem Dams Through: 03/19

dam	enddate	Spring Chinook						Summer Chinook						Fall Chinook					
		2020		2019		10-Yr Avg.		2020		2019		10-Yr Avg.		2020		2019		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	03/18	26	-1	4	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0
TDA		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	02/29	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	03/18	1	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	02/13	1	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	03/18	30	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0

DAM	ENDDATE	Coho						Sockeye			Steelhead						Lamprey		
		2020		2019		10-Yr Avg.		2020	2019	10-Yr Avg.	10-Yr Unclipped		Unclipped		10-Yr Avg.	2020	2019	10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	2020	2019	Avg.	2020	2019	Avg.	2020	2019	Avg.	2020	2019	Avg.
BON	03/18	129	30	4	1	0	0	0	0	0	1820	372	1586	779	187	593	0	-38	0
TDA		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	02/29	1	0	0	0	0	0	0	0	0	493	0	1663	107	0	608	-2	0	0
LGS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	03/18	0	0	0	0	0	0	0	0	0	939	255	2128	363	67	728	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	02/13	0	0	0	0	0	0	0	0	0	3	0	0	1	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	03/18	0	0	0	0	7	7	0	0	0	3900	1418	2550	3811	1346	227	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.