



FISH PASSAGE CENTER

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MEMORANDUM

To: Fish Passage Advisory Committee (FPAC)

From: FPC Staff

Date: October 30, 2018

Subject: Action Notes from October 16, 2018, FPAC meeting

On October 16, 2018, FPAC met for its monthly face-to-face meeting/conference call at the Fish Passage Center. The following people participated in the meeting:

Paul Wagner (NOAA, co-chair)	Jay Hesse (NPT, via phone)
Tom Lorz (CRITFC, co-chair)	Charles Morrill (WDFW)
Michele DeHart (FPC)	Kyle Dittmer (CRITFC)
Erin Cooper (FPC)	Jerry McCann (FPC)
Brandon Chockley (FPC)	Gabe Scheer (FPC)
Erick Van Dyke (ODFW)	Tom Iverson (Yakama Nation, via phone)
Russ Kiefer (IDFG)	Sheri Sears (Colville Tribes, via phone)

AGENDA ITEMS

Review and Approval of Notes from October 2 Meeting (00:00:00 – 00:02:30)

- Notes from October 2 were approved with following edits:
 - FPC will incorporate edits from Jay Hesse (NPT) (received via e-mail) regarding transportation of Nez Perce Tribal Hatchery fall Chinook broodstock from LGR to Dworshak Hatchery to avoid pre-spawning mortality.
 - Paul Wagner (NOAA) noted a typo on page 3 (Lower Monumental Emergency Gate Study Proposal: second from last bullet). Second sentence should read “...every Friday.” instead of “...very Friday.”

Water Supply and Reservoir Status (00:02:30 – 00:03:30)

- Erin Cooper (FPC) provided an overview of reservoir operations over last week. See attached document.
- Later in the meeting, Paul Wagner (NOAA) noted that the current COE forecast for DWOR is 85% of average (*see 01:22:00 in recording*). Based on prediction of El Niño.

Weather Update and Climate Forecast (00:02:40 – 00:08:30)

- See attached precipitation and temperatures report for WY 2019 so far.
- Kyle Dittmer (CRITFC) reminded FPAC members of the Winter Weather Meeting on October 27, 2018 at OMSI (Portland, OR).
- NOAA predicts a 70-75% probability of El Niño.
- Kyle is still finishing his forecast for this winter. Looking to be more ENSO neutral than NOAA prediction.
- Current 10-day forecast falling for mostly dry across basin. Precipitation expected to return to basin Tuesday-Thursday of next week.

Fish Passage Status (00:08:30 – 00:19:43)

Juvenile Passage Status

- For passage indices through October 15, 2018, see the attached document. For updated indices, use the FPC website. Subyearling Chinook continue to predominate samples. Samples of subyearling Chinook have increased over the last couple of week.
- LGS resumed every day sampling with Oct. 14 sample.
- Charlie Morrill (WDFW) asked whether there was an update on the proposal to reduce frequency of trucking at LGS. Proposal was discussed at last FPOM meeting and involved trucking once or twice per week. Jay Hesse (NPT) noted that the COE has not contacted him about this issue yet. Paul Wager (NOAA) noted that his discussions with the COE have been to stay with every-other-day trucks.

Adult Passage Status

- Brandon Chockley (FPC) provided an update on adult counts (see attached). For updated adult counts, use FPC website.
- Brandon noted that FPC program that is used to download adult counts is not working. FPC is having to manually download the data, which may delay posting of data by a few hours. Counts should be up by 11:00-11:30 am.
- Tom Lorz (CRITFC) asked if COE has contacted FPC about how adult count data will be posted to FPC site, if FPC will still be involved. Brandon is not aware of the COE contacting FPC but not entirely certain.

Discussion of Barge vs Truck Transport (00:19:43 – 00:33:25)

- Currently there is a COE proposal to initiate truck transport earlier than usual. Currently, truck transport starts on August 15th. Proposal would be to start truck transport on August 1st (or possible July 15th). Justification for proposal is to save costs and environmental impact.

- Paul Wagner (NOAA) noted that the dominate issue is straying. Literature is not perfectly clear because don't have perfect comparisons. Paul noted that fall Chinook straying should be less severe because of mainstem rearing. Two issues to consider with straying: 1) source population (is it depleted by the degree that straying occurs) and 2) destination population (is it going to be negatively affected by the degree of staying). Data suggest that Snake River fish, if they stray, stray to the Hanford Reach, which is a huge population. Impact of strays would be low because Hanford population is so big. NOAA is ok with starting truck transport on August 1st.
- Tom Lorz (CRITFC) noted that proposed action being discussed may be stopping spill in early August. Means that, instead of having fish going over spillway, going to put a lot more fish into a truck. If there's an issue with trucks, may have larger impact. Making two changes in the same season (earlier trucking and earlier termination of summer spill) may not be the best idea. Paul noted that the termination of summer spill will be based on collection target (e.g., 300 per day). Tom reiterated that should approach with caution and not do both things at the same time.
- Paul Wagner (NOAA) noted that he would be concerned if saw large changes in numbers when spill is terminated, which doesn't seem to occur when spill ends after August 31st. Erick Van Dyke (ODFW) noted that numbers may not change when spill is terminated but the number of fish experiencing powerhouse passage will change. That is the kind of thing that we try to find an alternative for. Removing that alternative route is a problem.
- Jay Hesse (NPT) suggests waiting to decide on date of initiation of trucking until proposed action is finalized. NPT would be ok with earlier trucking if spill operations stay the same (through Aug 31), as long as make sure financial benefit is secured for spring operations (i.e., earlier sampling at some SMP sites).

Draft Protocol for Reinitiating of Transport at Lower Snake River Dams (00:33:25 – 00:38:48)

- Paul Wagner (NOAA) circulated draft proposal for reinitiating transportation at Snake River transport sites (see attached). FPP has criteria on when to stop transport due to high mortality due to disease. Then this occurs, site switches to 24-hour sample every-third-day and all fish are bypassed. Unclear on when transport will resume.
- Brandon Chockley (FPC) noted that there needs to be clarification, as what Paul is describing is not clear in proposal that was circulated. After discussion, proposed criteria would be:
 - When temperatures drop below 65°F, switch to 24-hour sample every-other-day. Continue bypassing fish.
 - Resume everyday sampling and every-other-day transportation when: 1) mortality drops below 5% for two consecutive sampling periods and 2) collection exceeds 50 fish for two consecutive sampling periods.
- Paul will draft FPP change form with clarification and submit for approval.

Discussion of Differences between Northwest Fisheries Science Center and CSS Juvenile Survival Estimates (00:38:48 – 00:50:10)

- Paul Wagner (NOAA) proposed this discussion topic in order to better understand differences in methodologies for estimating juvenile survival between NOAA (from recent 2018 survival memo) and CSS/FPC (from February 22, 2018, <http://www.fpc.org/documents/memos/7-18.pdf>).
- Jerry McCann (FPC) noted that the CSS estimate for the February 2018 memo follow fish tagged and released above LGR. It is not dependent on detected fish only but, instead, includes all fish passing the project. Includes both spill passed and detected fish. Does not include fish tagged at LGR. LGR population is estimated with CJS methodology, based on recapture probability of fish detected at the project. Use downstream detections to estimate population at LGR. This is done at all downstream projects. Population is run all the way down through the hydrosystem, unlike NOAA that resets population at MCN based on fish detected at MCN. All of these differences are highlighted in the February memo.
 - Paul Wagner (NOAA) noted that there is often reference to inadequate detections downriver. Jerry noted that this generally pertains to small sample sizes. These estimates were based on aggregate hatchery and wild fish, so it's a very large sample size.
- Russ Kiefer (IDFG) asked whether there are any consistent trends between two methodologies. Jerry noted that, for Chinook, CSS approach has higher survival in most years. Less consistent of a trend for steelhead. Could be due to smaller sample sizes in earlier years. Both methods follow similar annual trends. Paul Wagner noted that there were a few years when the two methodologies resulted in very similar estimates of survival. This mostly occurred in high flow years and high collection probabilities.
- Michele DeHart (FPC) noted that the CSS/FPC estimates for aggregate H+W groups was in response to the Power Council. We do not know what they are planning to do with them.
- Jerry McCann (FPC) noted that the fish used in the NOAA methodology are all bypassed at least twice (once at LGR and once at MCN). Brandon Chockley (FPC) noted that this is where the reference of the NOAA analysis representing 2% of the run-at-large comes from. A very small proportion of the run-at-large passes through both bypasses.
- Russ Kiefer (IDFG) noted that he understands the difference in the data but why the difference in results. Jerry noted that we speculate that this may be due to bypass effects, as the NOAA fish are all bypassed at LGR and MCN.
- Michele DeHart (FPC) reiterated that we do not know what the Power Council plans to do with the CSS/FPC estimates and asked what NOAA's application of their estimated is. Tom Lorz (CRITFC) noted that NOAA uses their estimates of juvenile survival to calibrate the COMPASS model. The old BiOp had language that is there were large discrepancies between estimated survival and those predicted by COMPASS, may need to revisit COMPASS prediction.

Discussion of Differences between Northwest Fisheries Science Center and FPC Estimates of Proportion Transported (00:50:10 – 01:00:35)

- Paul Wagner (NOAA) proposed this discussion to understand differences in NOAA and FPC methodologies in estimating proportion transported.
- Jerry McCann (FPC) noted that the FPC estimate of proportion transported is expressed as a Lower Granite population probability of being collected and transported during transport operations. Uses fish released from SMP traps above LGR to estimate detection probability at LGR, LGS, and LMN. Use detection probabilities to estimate probability of being collected and weight that based on timing. Fish arriving before transportation would obviously not be transported.
- Paul Wagner (NOAA) asked whether FPC uses SPE curves (i.e., PITPH). Jerry noted that, no, these estimates are not based on PITPH. They are entirely based on estimates of PIT-tag detection probability at LGR, LGS, and LMN, generated by fish PIT-tagged and released from SMP traps above LGR. For fall Chinook and sockeye, use releases of hatchery and wild fish released above LGR. Detection probabilities are based on CJS methodologies. Paul suggested that the methods are not entirely clear in Appendix of FPC Annual Report where these data are provided.
- Jerry McCann (FPC) noted that he thinks the NOAA method uses 1st time detects at transportation projects that are removed at each dam. Not sure what he uses for timing. Paul Wagner will ask Steve Smith (NOAA Science Center) to provide rundown on they estimate proportion transported. Michele DeHart (FPC) suggested that this should be in writing, to avoid confusion.
- Russ Kiefer (IDFG) asked about influence of timing on estimate. Jerry noted that FPC uses the Passage Index to estimate the proportion of the run that passed prior to initiation of transportation. Estimates of timing from Passage Index vs. Population Index are generally not that different.
- Michele DeHart (FPC) asked what the purpose of the last two agenda items was. CSS/FPC has been using these methods for many years, is there some management application or specific question in mind here? Paul noted that this is mostly for him, to understand what the differences are.

Review of Little Goose Spill Operation in 2018 and Plans for 2019 (01:00:35 – 01:13:45)

- Russ Kiefer (IDFG) asked, what is the plan for 2019? Paul Wagner (NOAA) noted that he looks at it as 2019 will be the same as 2018, unless some other agreement is reached.
- Erick Van Dyke (ODFW) asked, why is the focus on Little Goose. Russ Kiefer and Paul Wagner noted that, that's the problem child (for adult passage).
- Paul noted that he was not happy with that happened in 2018. Tom Lorz (CRITFC) noted that, since he doesn't know what the operation is going to be in 2019, there is very little reason to spend time thinking about what to do with LGS. Brandon Chockley (FPC) asked, what could have been done differently in 2018. Situation occurred during period of uncontrolled spill, what could you have done differently, other than possibly starting modified operation sooner.

- Michele DeHart (FPC) asked, is there a proposal for 2019. Paul Wagner (NOAA) proposed that the 2018 modified operation should be considered for 2019. In retrospect, could we have done 2018 modified operations differently. Paul noted that we could have done it sooner. Tom Lorz (CRITFC) suggested that we could review whether the tools that we had to decide on a changed operation worked. Paul noted that the triggers worked, our ability to act on them was on the slow side. Tom noted that the COE and NOAA could have acted sooner if disagreed with the rest of the managers.
- Erick Van Dyke (ODFW) noted that 2018 hasn't been formally evaluated yet. Erick's recollection of the triggers is that the first time we saw a problem it fixed itself. The second time we saw it, things were different and we were in uncontrolled spill. We're not talking about a controlled spill situation. Paul suggested we bring back the data and review what we did and talk about whether we could have done something differently. Tom reminded that we need to know what the 2019 operation is going to be before we have this discussion. Tom noted that, if we do "Duck" spill in 2019, you've got 30% during most of the time you will need. If we do the block design, you've got 30% spill half of the spring (if it's manageable). The point is, depending on what you do, this may not be an issue. Why should we waste out time on this now when we don't know what the 2019 operation will be?
- Michele asked for clarification on what Paul wants. Paul noted that he has a problem with the execution of the modified operation in 2018 (delayed). If we have the same situation in 2019, what tools do we want to use and when do we want to implement a change?
- Charlie Morrill (WDFW) requested for a review of 2018 data and incorporation of those data into previous FPC analyses before we discuss what to do in 2019. Charlie asked FPC to review 2018 data. Michele DeHart (FPC) noted that the FPC is looking at the 2018 data. 2019 could be entirely different, not just in terms of flows but also in terms of operations.
- Russ Kiefer (IDFG) agrees that we should wait until we know what the 2019 operation is going to be. If we need to get into the discussion, then we can get into it. IDFG was not happy with 2018 either.

Chum Planning for 2019 Criteria to Consider for Starting Operation (01:13:45 – 01:23:05)

- Paul Wagner (NOAA) noted that 2019 is looking like a tough year. From his perspective, putting chum flows off until mid-November is quite possible. Peak spawning time is second-fourth week of November. The risk this year that is higher than usual. Tributaries are not flowing yet, spawning this year could be limited to the mainstem.
- Paul noted that the tribes' priority is on spring fish, not chum and we've been putting too much emphasis on chum at the potential risk for spring. Tom Lorz (CRITFC) noted that he does not know who said this and does not this coming from CRITFC tribes. Which tribes are we talking about? Paul noted that these comments are coming from Upper Columbia tribes.

- Charlie Morrill (WDFW) asked if there is a proposal to shift away from the 85% probability of refill at GCL. Paul noted that conversations with BPA indicate that, if chum flows start on November 7th, likelihood of being at 1,270' is, we're going to get there fast. Kyle Dittmer (CRITFC) asked if the COE has done any modeling on this. Paul noted that the NOAA forecast is warm and dry for next 90 days and their annual forecast of warm and dry for next 120 days.
- Erick Van Dyke (ODFW) noted that we are only 15 days into this water year.
- Kyle Dittmer (CRITFC) noted that the first half of October precipitation has been above average. We're about to get back to normal rain patterns.
- Tom Lorz (CRITFC) noted that we have the benefit of having a couple of weeks before we would need to decide on whether to start chum flows on November 7th or delay to later. FPAC should revisit this topic at next meeting.
- Charlie Morrill (WDFW) asked Kyle about what amount of precipitation would we need to have water flowing in the tributaries below Bonneville (e.g., Hamilton Springs). In general if the water supply is going to be somewhat near normal (95-100% normal), the local streams would likely be charged up. This could occur even occur under a weak El Niño. There's still a question on how strong the El Niño will be, if it occurs.
- Charlie also noted that WDFW is seeing a change in distribution of where chum are spawning.

Other: Instream PIT-Tag Workshop (01:23:05 – 01:24:53)

- Charlie Morrill (WDFW) reminded FPAC that there is a workshop on in-stream PIT-tag detection systems today (12:30-5:00) and tomorrow (8:00-12:30) at the BPA building. Workshop is the result of efforts to pull in-stream users into the PTAGIS database.
- Hope is that will result in a workgroup that will merge their data with the existing PIT-tag database, in terms of reliability and availability of that information to the region. This is partially a reflection of BPA looking at the individual budgets and wanting better data management and data quality.

Coordination (01:24:53 – 01:28:57)

- TMT tomorrow (Oct. 17), followed by Process meeting.
- Innovative Fish Workshop (today and tomorrow) at University Place Hotel and Conference Center (Portland State University).
- SCT on Thursday (Oct. 18).
- Columbia River Forecast Group (December 6th) at NOAA.
- Next FPAC, October 30th (9:00 am conference call).

These minutes have been reviewed and approved by the Fish Passage Advisory Committee.

FPAC Agenda for Tuesday October 16, 2018
Meeting time: 10:00 AM
Meeting Location: PC Conference Room

1. Review and approval of notes from October 2, meeting
2. Water supply and reservoir status
3. Weather update and climate forecast
4. Fish passage status
5. Discussion of barge vs truck transport
6. Draft Protocol for reinitiating of transport at Lower Snake River Dams
7. Discussion of differences between Northwest Fisheries Science Center and CSS juvenile survival estimates
8. Discussion of differences between Northwest Fisheries Science Center and FPC estimates of fish transported
9. Review of Little Goose spill operation in 2018 and plans for 2019
10. Chum planning for 2019 criteria to consider for starting operation
11. Coordination for other scheduled meetings
12. Other



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MEMORANDUM

TO: FPAC

FROM: Erin Cooper, FPC

DATE: October 16th, 2018

RE: Reservoir Operations

Grand Coulee Reservoir is at 1,283.8 feet (10-15-18) and has drafted 0.9 feet over the last week. Outflows at Grand Coulee have ranged between 40.5 Kcfs and 75.2 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2,441.9 feet (10-15-18) and has drafted 0.02 feet over the past week. Daily average outflows at Libby Dam have been 4.0 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3,547.1 feet (10-15-18) and has drafted 0.9 feet last week. Outflows at Hungry Horse have been 2.2-2.33 Kcfs over the last week.

Dworshak is currently at an elevation of 1,517.9 feet (10-15-18) and has drafted 0.6 feet over last week. Dworshak outflows have been 1.6 Kcfs over the last week.

The Brownlee Reservoir was at an elevation of 2,047.0 feet on October 15th, 2018, refilling 7 feet since October 1st. Hells Canyon outflows have been 8.3-8.8 Kcfs.

Water Year 2019 Clim Norm 1981-2010	Precipitation Oct. 1 - 15 (inches)	Pro-rated Monthly Temp. (degF)
Portland	77%	-0.4

UPPER-COLUMBIA:

Kamloops	69%	-3.2
Revelstoke	36%	-2.2
Cranbrook	101%	-2.7
Creston	54%	1.4
average:	65%	-1.7
Normal:	1.55	56.9

MIDDLE-COLUMBIA:

Pendleton	366%	-4.8
Redmond	73%	-3
Yakima	275%	-1.7
Wenatchee	207%	-4
Omak	167%	-2.7
Spokane	110%	-3.5
average:	199%	-3.3
Normal:	0.30	49.4

LOWER SNAKE:

Lewiston	66%	-3.4
Pullman	48%	-4.1
Stanley	264%	-1.7
Challis	181%	-1
average:	140%	-2.6
Normal:	0.42	46.5

UPPER and MIDDLE SNAKE:

McCall	250%	-1.3
Ontario	391%	-1.2
Boise	445%	-4.8
Twin Falls	261%	-5.2
Burley	418%	-0.9
Pocatello	198%	-4.2
Idaho Falls	171%	-3.4
average:	305%	-3.0
Normal:	0.37	48.2

YEAR-TO-DATE ADULT RETURN COMPARISON REPORT

[[FPC Home](#)] [[Adult Salmon Home](#)]

Dam	End Date	Spring Chinook						Summer Chinook						Fall Chinook					
		2018		2017		10-yr Avg		2018		2017		10-yr Avg		2018		2017		10-yr Avg	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	10/16	87894	6456	83624	18110	152393	25835	61057	4349	88044	10648	101791	21805	181162	31695	309830	36745	527625	83334
TDA	10/16	57935	4793	58310	12497	119227	21697	49296	3787	69246	9277	84539	17568	122633	21223	207681	27049	330766	69336
JDA	10/16	50572	5053	46675	12475	103731	20380	42835	4293	60416	7363	75555	16777	102423	17984	160869	20690	262295	58980
MCN	10/16	44427	3472	44292	7020	94405	16297	42649	2513	57279	4705	71705	12468	97573	12901	143831	11433	241020	40978
IHR	10/16	32600	2197	28306	6949	68113	11204	5808	560	9284	2087	19109	4826	16067	4227	25825	4859	40251	16478
LMN	10/16	35398	3020	28545	8270	68100	11017	6143	717	8216	3388	19658	6010	16775	7663	24870	6226	35867	18535
LGS	10/16	31834	2486	26598	8335	63992	12109	7458	589	9086	3754	19425	6430	16622	4079	24255	4013	36282	14396
LGR	10/16	31161	2948	27357	8256	62850	13009	7304	819	8952	3627	17398	6872	15898	4350	24964	5979	35478	16614
PRD	10/15	7067	949	7268	783	18018	1858	40076	2269	52981	1760	60015	3091	16278	1943	25971	2039	62541	7409
WAN	10/15	8071	964	6612	484	17542	2163	37808	1450	49392	1355	56843	2474	9764	1485	15313	1394	26649	4231
RIS	10/15	7894	997	8080	564	18255	2598	38816	1646	56265	1333	59661	4992	7451	1102	10765	1201	14599	4230
RRH	10/15	5919	807	5864	406	8195	1153	33110	1106	42608	1060	47856	3464	5465	856	8238	1023	11076	2981
WEL	10/15	7500	976	6589	820	8670	1609	22163	1101	30101	1102	37754	3567	1920	357	2736	444	4424	1337
WFA	10/14	24543	1999	36429	2870	35770	1705	0	0	0	0	0	0	2555	330	0	0	1734	457

Dam	End Date	Coho						Sockeye			Steelhead						Lamprey			Shad		
		2018		2017		10-yr Avg		2018	2017	10-yr Avg	2018	2017	10 Year	2018	2017	10 Year	2018	2017	10 Year	2018	2017	10 Ye
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Adult	Adult	Adult	Adult	Adult	Unclipped	Unclipped	Unclipped						
BON	10/16	31971	7133	59096	3867	101869	6617	193816	87693	321945	100783	115861	307882	32602	33674	104753	43444	82559	30556	6059933	3135401	21016
TDA	10/16	20625	2283	32221	3000	45583	4210	152101	64059	273685	78076	93914	248014	22647	24857	82236	10514	30696	9428	0	0	46881
JDA	10/16	15697	2736	27770	4886	36971	3761	168469	66041	264745	67851	78609	223532	21040	22806	73976	8544	23385	7425	0	0	0
MCN	10/16	11238	1549	19977	1334	25629	3160	155480	58022	230449	62218	75211	193207	18876	20391	59679	1564	2549	1337	3871859	1610611	80844
IHR	10/16	1047	257	5029	392	3801	326	382	392	959	41032	57427	147424	8854	12076	37542	1011	1431	471	807491	368693	16211
LMN	10/16	1107	434	5965	981	3922	625	398	346	1118	44427	60724	148565	10144	12459	39500	432	410	125	0	0	0
LGS	10/16	959	259	6191	995	3945	665	280	288	1047	39322	53748	133676	8955	10780	34355	62	474	91	0	0	0
LGR	10/16	922	673	6564	489	3777	334	275	228	1077	41712	64329	133255	9204	12644	35380	207	347	42	49709	28771	17667
PRD	10/15	4435	306	7406	546	8147	694	189884	66670	271044	4677	5652	17663	0	0	0	11690	25964	7004	79311	8061	7033
WAN	10/15	3873	306	5403	347	4104	318	196183	76075	241635	4148	4737	16153	0	0	0	8997	28283	6160	428	504	258
RIS	10/15	7036	527	11083	87	10106	540	172008	73218	263952	4827	4996	15731	2019	2279	6484	4994	21123	3457	4	0	0
RRH	10/15	3299	305	4210	40	2879	150	162676	46698	220844	3791	3753	12281	1473	1529	4756	5214	23972	3688	0	0	0
WEL	10/15	2149	90	2428	33	1659	7	153635	42298	209525	3373	3300	9445	1433	1532	3752	175	285	7	0	0	0
WFA	10/14	1933	2515	1077	1743	9022	2615	0	0	0	10955	2824	21143	2235	797	0	0	0	0	0	0	0

- NOTES:**
- Since the year 2006, Priest Rapids Dam jack counts have included mini jacks.
 - BON=Bonneville, TDA=The Dalles, JDA=John Day, MCN=McNary, LMN=Lower Monumental, LGS=Little Goose, LGR=Lower Granite, PRD= Priest Rapids, RIS=Rock Island, RRH=Rocky Reach, WEL=Wells, WFA Willamette Falls Dam
 - This report is based on historic dam counting dates. In January and February, Willamette Falls Dam is the only project that appears on the report because historically it collected data during this time period.
 - End Date is the last day of data we have for that site - the 2014 and 10 year average are also run to this end date.
 - PRD is not posting wild steelhead numbers.
 - These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.
 - Shad data are not available at WEL, WFA, RIS, and RRH.
 - 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 design last updated on: March 9, 2018

This website designed for 1024 x 768 or higher resolution. Questions and comments to: webmaster@fpc.org

[[Home](#)] [[Adult](#)] [[Smolt](#)] [[Spawning](#)] [[River](#)] [[Hatchery](#)] [[Survival](#)] [[Travel times](#)] [[Documents](#)]

2018 ADULT SALMON COUNTS

Daily Totals for Last 7 days and Year to Date Totals (based on reporting dates since 2000)

[[FPC Home](#)] [[Adult Salmon Home](#)]

[Corp of Engineers Adult Fish Count Queries by Project and Fish Ladder](#)

NOTE:

- These data are updated as soon as the Corp of Engineers provides the data to us.

MORE HOT LINKS:

GO TO: [Adult Count RSS Feed](#) or [Annual Totals](#) or 10 Yr. Avg. vs 2018 and 2017 [Graph Table](#) or [Water Flow & Spill](#) or [Current Water Temperature \(January through December\)](#) or [Current vs. Historical Water Temperature \(April through Aug\)](#) [Offline until April](#)

FISHING REPORTS: [Oregon](#) or [Washington](#) or [Idaho](#)

WILLAMETTE FALLS 2)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	12	0	0	0	n/a	n/a	12	0	26	23	2	0	n/a	n/a	n/a	n/a	n/a	WFA
10/11/18	8	1	0	0	n/a	n/a	8	1	13	8	2	1	n/a	n/a	n/a	n/a	n/a	WFA
10/12/18	9	0	0	0	n/a	n/a	9	0	18	14	7	0	n/a	n/a	n/a	n/a	n/a	WFA
10/13/18	6	1	0	0	n/a	n/a	6	1	17	10	2	1	n/a	n/a	n/a	n/a	n/a	WFA
10/14/18	11	1	0	0	n/a	n/a	11	1	13	5	2	2	n/a	n/a	n/a	n/a	n/a	WFA
10/15/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/16/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YTD	27098	2329	24543	1999	n/a	n/a	2555	330	1933	2515	10955	2235	n/a	n/a	n/a	n/a	n/a	

BONNEVILLE DAM

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD 6)	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	470	224	0	0	0	0	470	224	380	106	390	106	n/a	0	3	0	0	USACE
10/11/18	207	104	0	0	0	0	207	104	121	99	200	73	n/a	0	2	0	0	USACE
10/12/18	259	128	0	0	0	0	259	128	116	64	235	77	n/a	0	-1	0	0	USACE
10/13/18	218	111	0	0	0	0	218	111	161	87	223	72	n/a	0	0	0	0	USACE
10/14/18	158	96	0	0	0	0	158	96	102	66	183	54	n/a	0	0	0	0	USACE
10/15/18	147	91	0	0	0	0	147	91	92	50	194	58	n/a	0	0	0	0	USACE
10/16/18	148	97	0	0	0	0	148	97	142	72	144	46	n/a	0	0	0	0	USACE
YTD	330113	42500	87894	6456	61057	4349	181162	31695	31971	7133	100783	32602	6059933	193816	43444	0	4	

THE DALLES DAM 2) **)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	697	214	0	0	0	0	697	214	327	22	732	221	n/a	1	0	0	0	USACE
10/11/18	721	184	0	0	0	0	721	184	186	10	672	234	n/a	0	1	0	0	USACE
10/12/18	462	180	0	0	0	0	462	180	113	20	548	145	n/a	0	1	0	0	USACE
10/13/18	194	100	0	0	0	0	194	100	55	8	367	92	n/a	0	1	0	0	USACE
10/14/18	349	103	0	0	0	0	349	103	89	5	283	85	n/a	0	1	0	0	USACE
10/15/18	220	109	0	0	0	0	220	109	69	10	271	74	n/a	0	0	0	0	USACE
10/16/18	150	83	0	0	0	0	150	83	45	8	303	92	n/a	0	0	0	0	USACE
YTD	229864	29803	57935	4793	49296	3787	122633	21223	20625	2283	78076	22647	n/a	152101	10514	0	0	

JOHN DAY DAM 2)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	890	176	0	0	0	0	890	176	259	7	862	288	n/a	0	0	0	0	USACE
10/11/18	612	281	0	0	0	0	612	281	147	16	676	218	n/a	0	-2	0	0	USACE
10/12/18	663	130	0	0	0	0	663	130	171	2	665	252	n/a	0	0	0	0	USACE
10/13/18	428	149	0	0	0	0	428	149	122	20	590	202	n/a	0	1	0	0	USACE
10/14/18	208	70	0	0	0	0	208	70	35	6	365	131	n/a	0	-1	0	0	USACE
10/15/18	255	79	0	0	0	0	255	79	44	12	318	97	n/a	0	0	0	0	USACE
10/16/18	270	101	0	0	0	0	270	101	66	9	290	89	n/a	0	-2	0	0	USACE
YTD	195830	27330	50572	5053	42835	4293	102423	17984	15697	2736	67851	21040	n/a	168469	8544	0	0	

MCNARY DAM **)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	507	128	0	0	0	0	507	128	42	6	655	169	0	0	1	0	0	USACE
10/11/18	1470	233	0	0	0	0	1470	233	127	9	715	236	0	0	0	0	0	USACE
10/12/18	1248	238	0	0	0	0	1248	238	203	46	1329	383	0	0	0	0	0	USACE
10/13/18	948	215	0	0	0	0	948	215	188	29	1249	361	0	0	0	0	0	USACE
10/14/18	775	161	0	0	0	0	775	161	153	23	873	261	0	0	0	0	0	USACE
10/15/18	486	140	0	0	0	0	486	140	129	23	688	242	0	0	0	0	0	USACE
10/16/18	315	119	0	0	0	0	315	119	98	19	622	170	0	0	0	0	0	USACE
YTD	184649	18886	44427	3472	42649	2513	97573	12901	11238	1549	62218	18876	3871859	155480	1564	0	3	

ICE HARBOR DAM

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	73	85	0	0	0	0	73	85	31	4	813	197	0	0	0	0	0	USACE
10/11/18	25	36	0	0	0	0	25	36	20	5	385	86	0	0	0	0	0	USACE
10/12/18	38	33	0	0	0	0	38	33	41	4	665	120	0	0	0	0	0	USACE
10/13/18	53	22	0	0	0	0	53	22	25	1	366	81	0	0	2	0	0	USACE
10/14/18	30	37	0	0	0	0	30	37	24	5	477	110	0	0	0	0	0	USACE
10/15/18	49	36	0	0	0	0	49	36	52	14	960	216	0	0	0	0	0	USACE
10/16/18	31	46	0	0	0	0	31	46	32	5	712	136	0	0	0	0	0	USACE
YTD	54475	6984	32600	2197	5808	560	16067	4227	1047	257	41032	8854	807491	382	1011	0	0	

LOWER MONUMENTAL DAM 2)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	56	74	0	0	0	0	56	74	17	13	659	122	n/a	0	0	0	0	USACE
10/11/18	75	98	0	0	0	0	75	98	25	7	758	166	n/a	0	0	0	0	USACE
10/12/18	66	101	0	0	0	0	66	101	29	14	779	167	n/a	0	0	0	0	USACE
10/13/18	55	90	0	0	0	0	55	90	32	21	711	169	n/a	0	0	0	0	USACE
10/14/18	63	77	0	0	0	0	63	77	39	9	845	169	n/a	0	0	0	0	USACE
10/15/18	40	69	0	0	0	0	40	69	23	12	509	104	n/a	0	0	0	0	USACE
10/16/18	42	94	0	0	0	0	42	94	39	6	814	188	n/a	0	0	0	0	USACE
YTD	58316	11400	35398	3020	6143	717	16775	7663	1107	434	44427	10144	n/a	398	432	0	0	

LITTLE GOOSE DAM 2)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	86	70	0	0	0	0	86	70	18	0	539	125	n/a	0	0	0	0	USACE
10/11/18	65	58	0	0	0	0	65	58	11	6	594	118	n/a	0	-1	0	0	USACE
10/12/18	65	38	0	0	0	0	65	38	11	7	521	120	n/a	0	1	0	0	USACE
10/13/18	106	54	0	0	0	0	106	54	77	10	1607	364	n/a	0	0	0	0	USACE
10/14/18	61	38	0	0	0	0	61	38	36	5	775	197	n/a	0	0	0	0	USACE
10/15/18	66	52	0	0	0	0	66	52	32	7	661	156	n/a	0	-1	0	0	USACE
10/16/18	79	67	0	0	0	0	79	67	19	5	641	119	n/a	0	-1	0	0	USACE
YTD	55914	7154	31834	2486	7458	589	16622	4079	959	259	39322	8955	n/a	280	62	0	0	

LOWER GRANITE DAM 3)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD 6)	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	56	55	0	0	0	0	56	55	35	38	707	148	n/a	0	0	0	0	USACE
10/11/18	95	77	0	0	0	0	95	77	35	44	914	190	n/a	0	0	0	0	USACE
10/12/18	62	84	0	0	0	0	62	84	42	29	850	174	n/a	0	0	0	0	USACE
10/13/18	35	31	0	0	0	0	35	31	30	52	861	157	n/a	0	0	0	0	USACE
10/14/18	83	38	0	0	0	0	83	38	30	37	660	118	n/a	0	0	0	0	USACE
10/15/18	60	40	0	0	0	0	60	40	40	29	689	144	n/a	0	0	0	0	USACE
10/16/18	53	41	0	0	0	0	53	41	46	25	937	175	n/a	0	0	0	0	USACE
YTD	54363	8117	31161	2948	7304	819	15898	4350	922	673	41712	9204	49709	275	207	0	0	

PRIEST RAPIDS DAM 1) 4)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	109	13	0	0	0	0	109	13	40	7	24	n/a	0	0	14	0	0	GCPUD
10/11/18	78	2	0	0	0	0	78	2	34	4	15	n/a	4	0	14	0	0	GCPUD
10/12/18	81	4	0	0	0	0	81	4	33	0	19	n/a	0	0	4	0	0	GCPUD
10/13/18	93	25	0	0	0	0	93	25	10	0	2	n/a	20	0	18	0	0	GCPUD
10/14/18	32	7	0	0	0	0	32	7	11	2	11	n/a	4	0	6	0	0	GCPUD
10/15/18	51	8	0	0	0	0	51	8	22	0	12	n/a	2	0	9	0	0	GCPUD
10/16/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YTD	63421	5161	7067	949	40076	2269	16278	1943	4435	306	4677	n/a	79311	189884	11690	0	0	

WANAPUM DAM

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	74	3	0	0	0	0	74	3	32	3	22	n/a	0	0	9	0	0	GCPUD
10/11/18	41	22	0	0	0	0	41	22	31	2	27	n/a	0	0	10	0	0	GCPUD
10/12/18	50	14	0	0	0	0	50	14	28	1	14	n/a	0	0	10	0	0	GCPUD
10/13/18	60	8	0	0	0	0	60	8	17	2	16	n/a	0	0	6	0	0	GCPUD
10/14/18	75	4	0	0	0	0	75	4	23	1	11	n/a	0	0	15	0	0	GCPUD
10/15/18	42	0	0	0	0	0	42	0	33	5	15	n/a	0	0	11	0	0	GCPUD
10/16/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YTD	55643	3899	8071	964	37808	1450	9764	1485	3873	306	4148	n/a	428	196183	8997	0	0	

ROCK ISLAND DAM 2) 4) 7)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	73	13	0	0	0	0	73	13	95	28	30	9	0	1	2	0	0	CHPUD
10/11/18	105	13	0	0	0	0	105	13	100	20	41	14	0	1	2	0	0	CHPUD
10/12/18	65	16	0	0	0	0	65	16	46	20	30	7	0	0	1	0	0	CHPUD
10/13/18	109	8	0	0	0	0	109	8	64	18	27	9	0	0	2	0	0	CHPUD

10/14/18	64	7	0	0	0	0	64	7	53	14	22	7	0	0	1	0	0	CHPUD
10/15/18	60	16	0	0	0	0	60	16	53	11	23	6	0	1	1	0	0	CHPUD
10/16/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YTD	54161	3745	7894	997	38816	1646	7451	1102	7036	527	4827	2019	4	172008	4994	0	0	

ROCKY REACH DAM 2) 4)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	56	6	0	0	0	0	56	6	51	7	37	6	n/a	1	2	0	0	CHPUD
10/11/18	56	7	0	0	0	0	56	7	69	19	28	9	n/a	0	0	0	0	CHPUD
10/12/18	36	17	0	0	0	0	36	17	51	4	37	15	n/a	0	1	0	0	CHPUD
10/13/18	52	11	0	0	0	0	52	11	80	16	23	5	n/a	1	1	0	0	CHPUD
10/14/18	86	9	0	0	0	0	86	9	34	3	23	8	n/a	2	0	0	0	CHPUD
10/15/18	76	8	0	0	0	0	76	8	19	8	26	5	n/a	1	0	0	0	CHPUD
10/16/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YTD	44494	2769	5919	807	33110	1106	5465	856	3299	305	3791	1473	n/a	162676	5214	0	0	

WELLS DAM 2) 4)

DATE	CHINOOK ADULT	CHINOOK JACK	SPRING CHINOOK ADULT	SPRING CHINOOK JACK	SUMMER CHINOOK ADULT	SUMMER CHINOOK JACK	FALL CHINOOK ADULT	FALL CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL STEELHEAD	UNCLIPPED 5) STEELHEAD	SHAD	SOCKEYE	LAMPREY	CHUM	PINK	SOURCE
10/10/18	31	3	0	0	0	0	31	3	15	2	32	9	n/a	0	0	0	0	DART
10/11/18	38	9	0	0	0	0	38	9	55	4	36	6	n/a	0	0	0	0	DART
10/12/18	58	4	0	0	0	0	58	4	97	3	50	12	n/a	0	0	0	0	DART
10/13/18	45	4	0	0	0	0	45	4	53	0	31	7	n/a	1	1	0	0	DART
10/14/18	20	1	0	0	0	0	20	1	22	3	32	8	n/a	1	0	0	0	DART
10/15/18	22	4	0	0	0	0	22	4	28	7	23	6	n/a	1	0	0	0	DART
10/16/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YTD	31583	2434	7500	976	22163	1101	1920	357	2149	90	3373	1433	n/a	153635	175	0	0	

NOTES:

- At Willamette Falls Dam, it takes the staff most of the day to accurately review one day of fish passage on tape when the counts are high. The WFA staff make every attempt to keep the counts as up-to-date as possible. Note: at WFA Monday's are extremely busy, as the staff attempt to catch-up with the weekend counts.
- The Corp of Engineers has stopped shad counting at The Dalles, starting in 2011 on the advice of the Fish Passage Operations and Management (FPOM) committee, made up of NOAA, CRITFC, ODFW, WDFW, IDFW, BPA, and COE biologists.
- ¹⁾ Since the year 2006, Priest Rapids Dam and Wanapum Dam jack counts have included mini jacks.
- ²⁾ Shad are not counted at Willamette Falls, The Dalles, John Day, Lower Monumental, Little Goose, Rock Island, Rocky Reach and Wells Dams
- ³⁾ Steelhead counts appear higher at Lower Granite Dam because most years a group which migrated into the river system between October and December overwinters below LGR and continues its migration in early March.
- ⁴⁾ As the Army Corp of Engineers no longer collects adult counts from the PUDs, we now get data directly from Chelan, Douglas and Grant Co. PUDs and DART. The steelhead counts include unclipped (wild) steelhead. It is not appropriate to add the steelhead counts and wild steelhead counts together.
- ⁵⁾ Unclipped steelhead are counted separately from clipped steelhead at ODFW and Corps dams on the Willamette, Columbia, and Snake Rivers. There are two categories for steelhead 1. Unclipped Steelhead and 2. Total Steelhead (combines unclipped and clipped). There is no distinction between unclipped and clipped steelhead counts at Wanapum and Priest Rapids Dams.
- ⁶⁾ Shad are typically not counted at any of the Corps dams after August 31 each year and shad are not counted at all Corps dams. An n/a in the shad columns at Bonneville Dam and Lower Granite Dam after August 31st means that the shad are not being counted.
- ⁷⁾ In 2018, Grant County PUD trapped 851 lamprey and transported/released 177 lamprey upstream of Rock Island Dam. Douglas County PUD transported/released the remaining 674 lamprey upstream of Rocky Reach Dam. Therefore, the ladder counts of lamprey at Rock Island and Rocky Reach dams under estimate the true numbers of lamprey past the projects.
- In 2012, the U.S. Army Corps of Engineers and NOAA Fisheries are currently developing automated counting systems for Lamprey Passage Structures (LPS) installed at Bonneville Dam. In the interest of publishing accurate counts, LPS counts will not be publicly posted in-season until the automated systems are fully operational.
- The adult counts in this report are based on reporting dates for dams recently established (2000). They are presented in the table below. A report with adult salmon counts based on historical dates (prior to 2000) can be found [here](#).
- The reporting dates table shows that several dams stop counting fish around November 15th each year. After a dam stops counting fish for the season, only the total number of fish are shown on this report.
- These data are updated periodically throughout the day. The FPC data retrieving robot searches the web for updated data every 30 minutes in the AM, and every hour in the PM.
- The last column " Source " shows where the data was imported from: NWACE is imported from the COE's Daily Fish Reports; USACE is from [US Army Corps of Engineers](#) fish count pages; CHPUD is from [Chelan PUD](#); GCPUD is from [Grant PUD](#) and DGPUD is from [Douglas PUD](#) and DART is from the [University of Washington's Data Access in Real Time](#). WFA is imported from [ODFW's Willamette Falls](#) website.
- Some of the sites are several days behind in reporting, but is reported by the COE as zero, so where zeros appear across all rows, the data should be considered as "not yet reported".
- Video counts can cause a delay in posting the data to the web, because the staff at the projects have to review the tapes.

2017-18 Adult Salmon Dam Count Monitoring Dates

Dam	Video Monitoring Dates		Direct Monitoring Dates
	Day	Night	
Bonneville Dam	March 1 - March 31, 2017	May 15 - September 30, 2016	April 1 to November 30, 2017
	December 1, 2017 - February 28, 2018		
The Dalles Dam	March 1 - March 31	June 15 - September 30, 2017	April 1 to October 31, 2017
	December 1, 2017 - February 28, 2018		
John Day Dam		June 15 - September 30, 2017	April 1 to October 31, 2017
McNary Dam	March 1 - March 31	June 15 - September 30, 2017	April 1 to October 31, 2017
	November 1, 2017 - February 28, 2018		
Ice Harbor Dam			April 1 to October 31, 2017
Lower Monumental Dam			April 1 - October 31, 2017

Little Goose Dam			April 1 to October 31, 2017
Lower Granite Dam	March 1 - March 31, 2017 November 1 - December 30, 2017	June 1 - September 30, 2017	April 1 - October 31, 2017
Priest Rapids Dam	April 15 - November 15, 2017 (24 hr)		
Wanapum Dam	April 15 - November 15, 2017 (24 hr)		
Rock Island Dam	April 14 - November 15, 2017 (24 hr)		
Rocky Reach Dam	April 14 - November 15, 2017 (24 hr)		
Wells Dam	May 1 - November 15, 2017 (24 hr)		
Willamette Falls	Count year round (24 hr)		

2017-2018 Columbia and Snake River Fishway Outages

Dam	Dates Fishways are Closed
Bonneville Dam	Bradford Island Fishway: December 1, 2017-February 28, 2018. Cascades Island Fishway: Not Dewatering. Washington Shore Fishway: Not Dewatering.
The Dalles Dam	East Fish Fishway: December 1, 2017 - February 28, 2018. North Fish Fishway: January 16, 2018 - January 30, 2018.
John Day Dam	North Fish Fishway: December 5, 2017 - December 17, 2017. South Fish Fishway: January 9, 2018 - February 28, 2018.
McNary Dam	Washington Shore Fishway: January 1, 2018 - January 31, 2018. Oregon Shore Fishway: February 1, 2018 - February 27, 2018.
Ice Harbor Dam	North Shore Fishway: February 4, 2018 - February 28, 2018. South Shore Fishway: January 1, 2018 - February 3, 2018.
Lower Monumental Dam	North Shore Fishway: January 1, 2018-January 31, 2018. South Shore Fishway: February 1, 2018 - February 28, 2018.
Little Goose Dam	January 2, 2018 - February 28, 2018.
Lower Granite Dam	January 1, 2018 - February 28, 2018.
Priest Rapids Dam	Left Bank Fishway: TBD Right Bank Fishway: TBD
Wanapum Dam	Right Bank Fishway: TBD Left Bank Fishway: TBD
Rock Island Dam	Right Bank Fishway: December 4, 2017 to January 5, 2018. Left Bank Fishway: December 18, 2017 to February 2, 2018. Middle Fishway: January 8, 2017 to TBD.
Rocky Reach Dam	December 11, 2017 to February 2, 2018.
Wells Dam	West Ladder: TBD East Ladder: TBD

- Data source: Corp of Engineers, Dewatering Plans and Schedules. Available online at: <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/Plans%20lists%20charts/>

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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)
10/03/2018					0	0					0
10/04/2018					0						0
10/05/2018					1						0
10/06/2018					2	0					0
10/07/2018					0						0
10/08/2018					0						0
10/09/2018					0	0					0
10/10/2018					0						0
10/11/2018					0						0
10/12/2018					0	0					0
10/13/2018					0						0
10/14/2018					0	0					0
10/15/2018					0	0					0
10/16/2018					0	0					0
10/17/2018					0	0					0
Total:	0	0	0	0	3	0	0	0	0	0	0
# Days:	0	0	0	0	15	8	0	0	0	0	15
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	23,452	41,212	21,824	12,792	4,639,025	2,838,053	2,045,319	49,702	1,494,206	1,257,455	1,890,717

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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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)
10/03/2018					14	41					0
10/04/2018					57						169
10/05/2018					81						136
10/06/2018					275	21					101
10/07/2018					374						67
10/08/2018					398						34
10/09/2018					730	48					25
10/10/2018					824						34
10/11/2018					376						136
10/12/2018					290	6					101
10/13/2018					166						33
10/14/2018					226	5					34
10/15/2018					142	13					33
10/16/2018					178	22					37
10/17/2018					127	25					33
Total:	0	0	0	0	4,258	181	0	0	0	0	973
# Days:	0	0	0	0	15	8	0	0	0	0	15
Average:	0	0	0	0	284	23	0	0	0	0	65
YTD:	0	6	89	192	879,693	941,193	508,504	36,289	2,289,265	1,068,593	2,884,559

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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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)
10/03/2018					0	0					0
10/04/2018					0						0
10/05/2018					0						0
10/06/2018					1	0					0
10/07/2018					0						0
10/08/2018					0						0
10/09/2018					0	0					0
10/10/2018					0						0
10/11/2018					0						0
10/12/2018					0	0					0
10/13/2018					0						0
10/14/2018					0	0					0
10/15/2018					0	0					0
10/16/2018					0	0					0
10/17/2018					0	0					0
Total:	0	0	0	0	1	0	0	0	0	0	0
# Days:	0	0	0	0	15	8	0	0	0	0	15
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	0	0	1,224	1,365	262,533	215,275	42,479	44,218	226,511	120,100	477,487

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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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)
10/03/2018					0	0					0
10/04/2018					1						0
10/05/2018					1						0
10/06/2018					0	0					0
10/07/2018					1						0
10/08/2018					0						0
10/09/2018					0	0					0
10/10/2018					0						0
10/11/2018					0						0
10/12/2018					0	0					0
10/13/2018					2						0
10/14/2018					0	0					0
10/15/2018					0	0					0
10/16/2018					0	0					0
10/17/2018					1	0					0
Total:	0	0	0	0	6	0	0	0	0	0	0
# Days:	0	0	0	0	15	8	0	0	0	0	15
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	723	27,446	3,888	5,328	3,924,774	3,004,340	1,942,824	24,918	240,968	681,274	356,557

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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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)
10/03/2018					2	0					0
10/04/2018					2						0
10/05/2018					1						0
10/06/2018					3	0					0
10/07/2018					3						0
10/08/2018					2						0
10/09/2018					1	0					0
10/10/2018					0						0
10/11/2018					4						0
10/12/2018					0	0					0
10/13/2018					0						0
10/14/2018					1	0					0
10/15/2018					0	1					0
10/16/2018					1	3					0
10/17/2018					1	2					0
Total:	0	0	0	0	21	6	0	0	0	0	0
# Days:	0	0	0	0	1	1	0	0	0	0	0
Average:	0	0	0	0	1	1	0	0	0	0	0
YTD:	0	0	4	115	260,653	120,876	58,625	76,238	1,527,709	383,716	741,306

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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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)
10/03/2018					0	8					0
10/04/2018					1						0
10/05/2018					0						0
10/06/2018					0	12					0
10/07/2018					0						0
10/08/2018					0						0
10/09/2018					0	5					0
10/10/2018					0						0
10/11/2018					0						0
10/12/2018					0	0					0
10/13/2018					0						0
10/14/2018					0	2					0
10/15/2018					0	0					0
10/16/2018					1	0					0
10/17/2018					1	0					0
Total:	0	0	0	0	3	27	0	0	0	0	0
# Days:	0	0	0	0	15	8	0	0	0	0	15
Average:	0	0	0	0	0	3	0	0	0	0	0
YTD:		1	3		563	36,122	56,922	371	226,628	227,728	27,329

- 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 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.

Proposed addition to transport criteria for fall chinook to reinitiate daily collection and resume transportation.

Transportation will be reinitiated after it had been stopped due to mortality exceeding 10% when all of the following criteria met.

- 1) Collection mortality is less than 5% for two consecutive sampling periods.
- 2) Water temperature in the tailrace is below 65° F.
- 3) The number of fish collected exceeds 50 fish for the two consecutive daily periods.

DRAFT