



US Army Corps
of Engineers®
Portland District
Walla Walla District

Annual Fish Passage Report 2023



Columbia and Snake River Projects

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2023

**ANNUAL FISH PASSAGE REPORT
COLUMBIA AND SNAKE RIVERS**

for

**SALMON, STEELHEAD, SHAD,
AND LAMPREY**

**BONNEVILLE DAM
THE DALLES DAM
JOHN DAY DAM
McNARY DAM
ICE HARBOR DAM
LOWER MONUMENTAL DAM
LITTLE GOOSE DAM
LOWER GRANITE DAM
PRIEST RAPIDS DAM
ROCK ISLAND DAM
ROCKY REACH DAM
WELLS DAM**

**NORTHWESTERN DIVISION
U.S. ARMY CORPS OF ENGINEERS**

**Prepared By:
U.S. Army Engineer Districts
Portland and Walla Walla**

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Columbia River **Corps of Engineers Projects**

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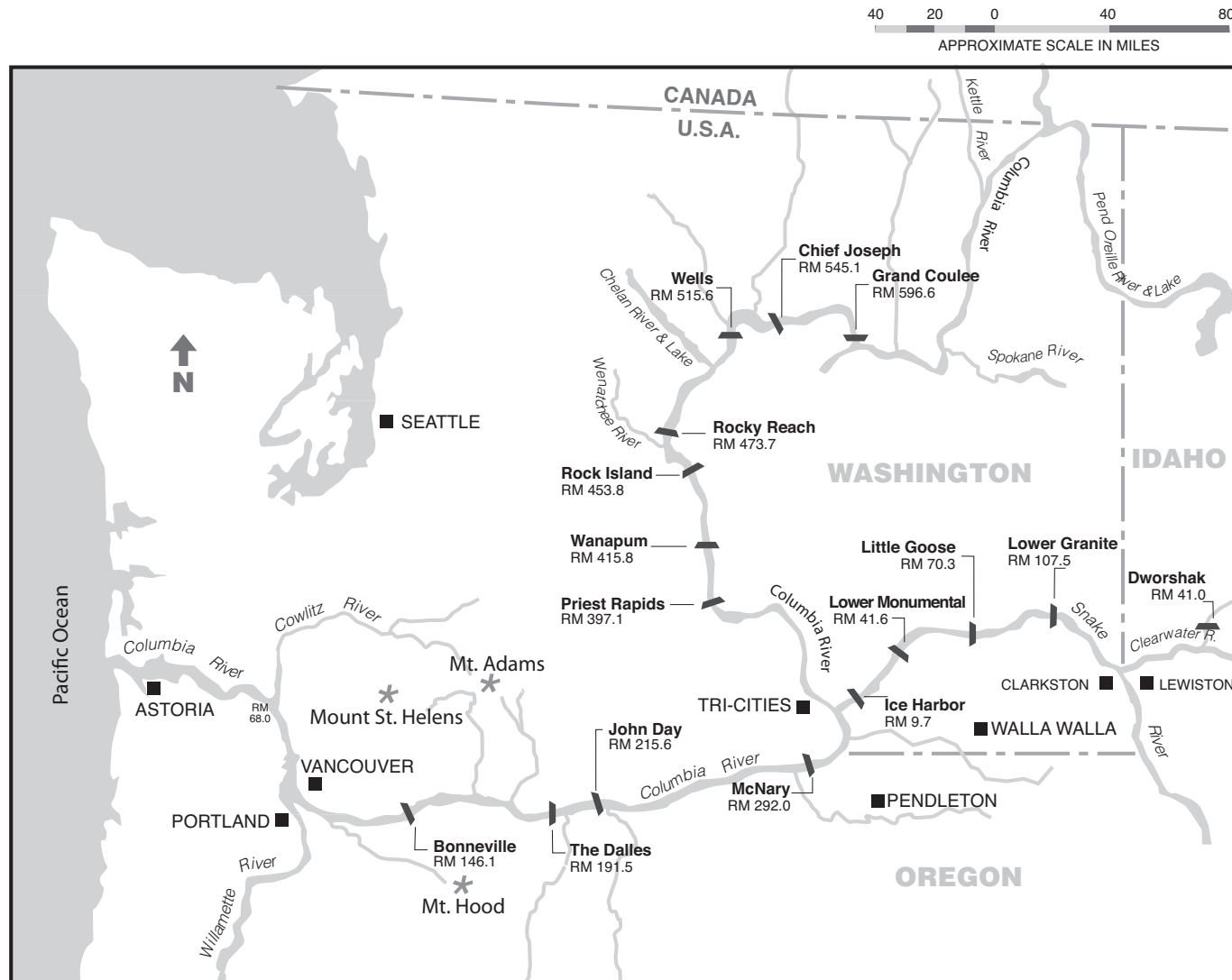


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS ON THE COLUMBIA AND SNAKE RIVERS: 2019 - 2023

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
2019								
CHINOOK*	441,339	301,131	249,970	228,951	53,047	54,342	53,229	51,407
Spring*	61,384	43,804	41,127	36,792	25,215	26,194	24,582	23,025
Summer*	59,935	50,145	47,116	44,304	5,849	5,392	6,773	6,592
Fall*	320,020	207,182	161,727	147,855	21,983	22,756	21,874	21,790
Jacks	60,002	40,069	38,306	30,528	9,963	13,178	10,564	12,014
STEELHEAD	76,716	60,994	50,954	47,510	31,642	33,238	29,066	34,976
SOCKEYE	63,046	50,726	52,526	51,561	320	195	84	81
COHO*	77,472	43,230	34,111	28,145	6,797	7,384	7,006	8,085
Adults	71,465	38,742	29,847	25,503	6,425	6,471	5,428	7,682
Jacks	6,007	4,488	4,264	2,642	372	913	1,578	403
SHAD	7,459,145	**	**	3,051,348	527,068	**	**	16,345
LAMPREY	19,415	4,220	4,586	1,005	271	177	45	94
2020								
CHINOOK*	610,752	421,304	353,213	328,492	71,885	76,266	71,899	70,787
Spring*	60,687	46,016	43,111	37,498	24,772	26,338	26,001	26,011
Summer*	99,898	88,238	79,535	77,726	8,690	8,434	9,139	8,775
Fall*	450,167	287,050	230,567	213,268	38,423	41,494	36,759	36,001
Jacks	75,159	59,756	48,416	38,156	12,584	18,392	15,869	16,100
STEELHEAD	112,364	97,452	79,703	76,079	56,210	54,443	50,523	58,364
SOCKEYE	341,739	295,776	309,959	284,924	2,330	1,257	831	640
COHO*	146,195	71,611	55,106	47,491	9,742	8,970	8,004	11,324
Adults	121,188	59,548	45,989	39,462	6,956	7,260	6,136	7,789
Jacks	25,007	12,063	9,117	8,029	2,786	1,710	1,868	3,535
SHAD	5,796,156	**	**	1,684,893	300,955	**	**	9,357
LAMPREY	11,889	6,758	3,041	689	161	60	27	20
2021								
CHINOOK*	570,022	426,678	325,969	321,451	91,405	91,977	89,286	88,666
Spring*	78,564	70,215	61,416	56,886	36,831	38,460	35,811	36,898
Summer*	88,438	78,065	66,109	61,734	9,725	9,742	10,474	10,353
Fall*	403,020	278,398	198,444	202,831	44,849	43,775	43,001	41,415
Jacks	80,723	64,891	48,959	44,216	20,754	27,292	21,846	21,995
STEELHEAD	70,489	62,532	54,780	50,897	38,570	40,453	37,681	43,157
SOCKEYE	151,764	128,223	126,708	111,756	954	953	713	645
COHO*	262,395	169,785	145,619	106,814	19,467	21,979	17,087	25,878
Adults	242,753	160,508	132,057	97,301	18,080	20,809	14,903	24,208
Jacks	19,642	9,277	13,562	9,513	1,387	1,170	2,184	1,670
SHAD	5,589,759	**	**	1,416,470	244,114	**	**	46,353
LAMPREY	21,102	10,674	6,188	1,368	399	168	33	31
2022								
CHINOOK*	872,804	546,191	403,695	366,862	141,894	142,341	140,100	147,235
Spring*	166,777	128,501	116,306	105,809	69,173	67,090	62,692	66,241
Summer*	116,495	89,571	82,342	76,726	16,932	21,400	25,414	26,042
Fall*	589,532	328,119	205,047	184,327	55,789	53,851	51,994	54,952
Jacks	120,201	70,320	65,122	51,111	23,135	30,411	24,319	22,673
STEELHEAD	125,202	101,906	90,269	83,576	69,204	67,768	66,468	74,275
SOCKEYE	663,253	580,582	630,888	595,712	1,850	1,953	2,099	2,087
COHO*	181,817	85,035	63,671	57,855	19,482	18,774	17,813	20,641
Adults	167,966	79,487	56,705	52,564	18,150	17,443	14,668	19,258
Jacks	13,851	5,548	6,966	5,291	1,332	1,331	3,145	1,383
SHAD	6,174,903	**	**	768,901	190,912	**	**	7,287
LAMPREY	48,936	21,806	22,306	5,092	1,520	383	35	218
2023								
CHINOOK*	807,513	498,114	386,667	343,488	120,920	117,842	110,883	115,786
Spring*	120,095	81,241	75,391	63,959	46,631	47,858	48,281	49,817
Summer*	89,271	77,535	71,500	65,601	15,360	14,205	13,430	13,551
Fall*	598,147	339,338	239,776	213,928	58,929	55,779	49,172	52,418
Jacks	85,304	43,477	46,330	35,793	16,884	19,959	17,209	15,213
STEELHEAD	115,031	97,773	87,359	78,808	68,739	65,676	63,662	69,747
SOCKEYE	327,600	294,816	281,845	228,929	2,269	2,131	1,803	1,566
COHO*	149,784	73,329	58,850	48,665	15,063	13,834	14,123	15,143
Adults	131,970	68,309	52,299	42,084	13,917	13,324	12,962	14,326
Jacks	17,814	5,020	6,551	6,581	1,146	510	1,161	817
SHAD	4,345,373	**	**	1,374,711	303,898	**	**	30,375
LAMPREY	63,939	17,949	17,670	3,371	3,322	1,509	356	627

ASSUMED DATES FOR CHINOOK RUNS

(MAY VARY FROM PREVIOUS YEARS)

SPRING	15 MARCH - 31 MAY	1 APRIL - 3 JUNE	1 APR - 5 JUN	1 APR - 8 JUN	1 APR - 11 JUN	1 APR - 13 JUN	1 APR - 15-JUN	1 MAR - 17 JUN
SUMMER	1 JUN - 31 JUL	4 JUN - 3 AUG	6 JUN - 5 AUG	9 JUN - 8 AUG	12 JUN - 11 AUG	14 JUN - 13 AUG	16 JUN - 15-AUG	18 JUN - 17 AUG
FALL	1 AUG - 15 NOV	4 AUG - 31 OCT	6 AUG - 31 OCT	9 AUG - 31 OCT	12 AUG - 31 OCT	14 AUG - 31 OCT	16 AUG - 31 OCT	18 AUG - 15 DEC

*Includes Jack Counts.

Note: Counts are daytime window counts (0400-2000 PST) encompassing the Chinook Run dates listed above.

TABLE 2

FISH ESCAPEMENT AT MID COLUMBIA RIVER DAMS: 2019- 2023

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
2019				
CHINOOK*	78,798	65,867	55,569	38,251
Spring*	8,742	14,977	10,195	8,736
Summer*	41,063	38,903	37,151	25,088
Fall*	28,993	11,987	8,223	4,427
Jacks	6,781	3,405	2,129	2,891
STEELHEAD	15,253	4,306	3,255	2,828
SOCKEYE	33,901	58,562	50,464	49,862
COHO*	8,673	13,554	6,761	4,088
Adults	8,148	12,872	6,364	3,957
Jacks	525	682	397	131
SHAD	**	**	**	**
LAMPREY	3,275	1,067	906	14
2020				
CHINOOK*	130,034	96,839	84,456	64,869
Spring*	5,962	11,235	5,674	6,258
Summer*	72,056	72,816	67,999	52,542
Fall*	52,016	12,788	10,783	6,069
Jacks	9,533	4,652	3,498	2,980
STEELHEAD	6,506	6,617	5,281	4,387
SOCKEYE	291,106	280,440	249,521	226,107
COHO*	16,671	30,958	16,106	12,371
Adults	15,267	28,582	14,590	11,359
Jacks	1,404	2,376	1,516	1,012
SHAD	**	**	**	**
LAMPREY	1,750	480	319	20
2021				
CHINOOK*	120,079	85,382	69,046	42,428
Spring*	14,552	18,747	7,810	6,886
Summer*	51,613	50,727	46,481	30,229
Fall*	53,914	15,908	14,755	5,313
Jacks	6,034	4,964	3,201	2,652
STEELHEAD	2,808	4,464	3,903	3,132
SOCKEYE	76,855	109,367	82,643	76,255
COHO*	49,630	66,174	33,626	25,159
Adults	47,990	64,296	32,535	24,585
Jacks	1,640	1,878	1,091	574
SHAD	**	**	**	**
LAMPREY	2,482	725	687	11
2022				
CHINOOK*	122,761	105,541	76,687	48,034
Spring*	24,420	27,845	8,399	7,150
Summer*	62,812	66,443	58,175	36,427
Fall*	35,529	11,253	10,113	4,457
Jacks	6,354	6,616	3,797	3,469
STEELHEAD	4,887	7,455	6,337	4,409
SOCKEYE	654,407	659,933	562,721	478,418
COHO*	26,908	26,359	14,118	12,353
Adults	25,796	25,421	13,644	8,884
Jacks	1,112	938	474	3,469
SHAD	**	**	**	**
LAMPREY	11,142	10,632	10,949	1,684
2023				
CHINOOK*	114,960	86,819	67,683	36,842
Spring*	18,888	22,469	9,997	7,581
Summer*	51,102	47,791	44,617	24,994
Fall*	44,970	16,559	13,069	4,267
Jacks	4,152	4,358	3,002	2,252
STEELHEAD	7,617	8,252	6,802	5,171
SOCKEYE	235,270	247,772	149,525	136,956
COHO*	16,651	17,688	9,243	7,498
Adults	15,801	16,897	8,654	6,942
Jacks	850	791	589	556
SHAD	**	**	**	**
LAMPREY	13,147	7,631	7,644	696

ASSUMED DATES FOR CHINOOK RUNS (MAY VARY FROM PREVIOUS YEARS)

SPRING	15 APR - 13 JUN	14 APR - 23 JUN	14 APR - 23 JUN	1 MAY - 28 JUN
SUMMER	14 JUN - 13 AUG	24 JUN - 1 SEP	24 JUN - 1 SEP	29 JUN - 28 AUG
FALL	14 AUG - 15 NOV	2 SEP - 15 NOV	2 SEP - 15 NOV	29 AUG - 15 NOV

*Includes Jack counts.

TABLE 3 and TABLE 4

STEELHEAD OVER COLUMBIA AND SNAKE RIVER DAMS 1953-2023

BY RUN-YEAR (JUNE 1 - MAY 31)

Information Below Concerns the Following Two Tables

Estimating the size of the upriver steelhead run has previously been hampered because of the calendar year approach used in the summary tables. Problems in accountability arise due to over wintering behavior of summer steelhead, especially Snake River stocks, which often have sizeable proportions of the run remaining below mainstem projects during the winter months. Migration of these steelhead commences again the following spring when warming reservoir temperatures trigger upstream movement. For this reason, an additional table has been prepared that summarizes steelhead trout counts at each project on a "fish year" basis: June 1 - May 31. Because all stocks of steelhead cross Bonneville Dam during the calendar year, those summary counts have not been modified.

Footnotes for the Following Two Tables

*Because counting started at each dam early in the year after construction was complete, these figures are for the latter part of the run year only. That part of the run year starting after June 1st of the previous 'year passed the dams without being counted.

**1981 was the last year visual counts were made at Little Goose Project until 1991.

TABLE 3
STEELHEAD OVER COLUMBIA AND SNAKE RIVER DAMS 1953 - 2023
BY RUN-YEAR (JUNE 1 - MAY 31)

RUN-YEAR	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE**	LOWER GRANITE
1953-54			8,252 *				
1954-55			72,913				
1955-56			84,434				
1956-57	3,531 *		40,660				
1957-58	128,124		105,136				
1958-59	120,170		87,413				
1959-60	155,892		111,288				
1960-61	110,955		95,556				
1961-62	134,740		104,679	9,474 *			
1962-63	163,125		163,333	108,186			
1963-64	118,899		113,676	76,788			
1964-65	110,509		99,872	58,025			
1965-66	142,376		120,469	62,566			
1966-67	144,267		144,461	64,987			
1967-68	122,231	6,598 *	83,948	47,536			
1968-69	147,844	122,649	107,806	85,273	16,240 *		
1969-70	111,617	81,623	74,933	58,172	63,269	9,256 *	
1970-71	99,319	81,238	68,598	54,445	58,430	54,257	
1971-72	151,329	117,402	110,450	66,196	68,704	70,867	
1972-73	135,730	149,704	95,837	63,584	66,650	63,033	
1973-74	100,924	93,951	62,158	37,245	38,288	37,099	
1974-75	71,336	40,868	26,191	12,170	14,851	13,818	2,789 *
1975-76	57,695	33,640	25,150	15,895	17,236	15,177	16,592
1976-77	83,194	59,368	54,409	24,140	21,801	21,109	22,562
1977-78	133,096	102,193	86,962	54,911	48,160	47,617	57,029
1978-79	58,995	43,554	34,580	27,252	19,849	24,050	26,473
1979-80	86,317	59,825	54,213	26,790	20,073	23,816	28,758
1980-81	93,309	77,113	63,957	47,778	32,599	36,680	37,996
1981-82	112,265	96,663	62,955	43,274	37,755	36,896	42,420
1982-83	116,178	105,438	72,246	70,236	60,775	**	72,384
1983-84	172,033	157,602	126,706	90,030	82,555		88,760
1984-85	221,299	204,595	142,246	101,008	92,947		104,417
1985-86	274,826	245,087	181,635	123,187	104,400		116,147
1986-87	280,671	234,651	193,096	142,273	121,107		129,983
1987-88	219,822	172,290	151,587	77,565	64,717		71,280
1988-89	197,669	163,283	150,361	98,950	81,324		87,137
1989-90	236,584	193,951	170,014	149,361	131,050	**	131,420
1990-91	128,123	107,117	94,522	54,370	44,518	1,070	56,865
1991-92	199,244	158,790	168,156	122,874	97,454	96,421	99,052
1992-93	233,430	197,715	197,739	166,654	136,820	118,949	128,265
1993-94	123,449	94,080	90,359	68,568	65,883	58,747	59,768
1994-95	111,378	92,362	92,568	49,450	48,231	46,258	47,302
1995-96	146,152	123,319	114,813	91,938	89,953	77,417	79,126
1996-97	162,447	156,924	124,820	101,384	96,785	82,573	86,898
1997-98	164,657	159,442	129,772	104,220	85,959	74,845	86,617
1998-99	116,262	156,628	98,606	84,135	65,173	62,641	70,721
1999-00	157,062	165,239	84,413	84,253	73,135	65,505	73,811
2000-01	205,801	219,433	131,330	126,989	113,454	102,074	116,490
2001-02	504,704	489,215	401,881	286,874	298,042	270,031	269,281
2002-03	389,119	393,339	292,034	213,944	230,466	215,586	222,050
2003-04	281,586	298,452	242,677	189,143	181,005	170,582	172,487
2004-05	240,134	232,656	210,249	169,797	154,386	146,810	151,634
2005-06	244,295	231,858	224,369	158,099	155,682	145,202	158,511
2006-07	250,603	233,841	210,672	127,216	135,029	124,052	148,982
2007-08	244,996	234,667	215,873	154,512	155,817	135,730	154,534
2008-09	277,551	276,971	221,319	172,330	186,748	170,865	178,491
2009-10	516,214	581,067	408,091	328,107	316,665	303,183	323,378
2010-11	332,002	284,018	262,773	206,948	213,580	196,969	208,713
2011-12	299,396	256,475	248,202	198,131	187,003	173,052	180,285
2012-13	200,660	161,100	153,728	106,738	100,419	96,572	109,187
2013-14	190,819	157,974	143,740	114,091	109,422	95,223	107,954
2014-15	255,224	200,671	209,654	151,336	168,423	144,911	165,803
2015-16	216,916	179,273	176,870	128,742	129,481	128,189	136,069
2016-17	145,946	130,770	120,815	94,173	94,198	93,482	102,005
2017-18	95,703	83,105	80,309	62,197	66,262	58,993	74,026
2018-19	80,762	73,340	66,245	47,998	49,861	45,228	51,886
2019-20	60,968	50,934	47,465	31,048	35,039	28,667	34,383
2020-21	97,469	79,745	76,168	56,415	54,748	52,095	59,144
2021-22	62,799	54,668	51,478	38,353	40,122	40,124	42,557
2022-23	103,279	90,577	86,771	69,823	67,982	66,676	75,039
Total	11,456,021	9,049,051	8,946,713	6,058,147	5,310,525	4,142,397	5,067,461
10-Year Average	130,989	110,106	105,952	79,418	81,554	75,359	84,887

*Partial year

** 1981 was the last year visual counts were made at Little Goose Project until 1991.

Note: Extended video counts from participating projects included for 1996 - 2008, 2012-23.

Please see project narratives for count schedules.

TABLE 4

STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2023

BY RUN-YEAR (JUNE 1 - MAY 31)

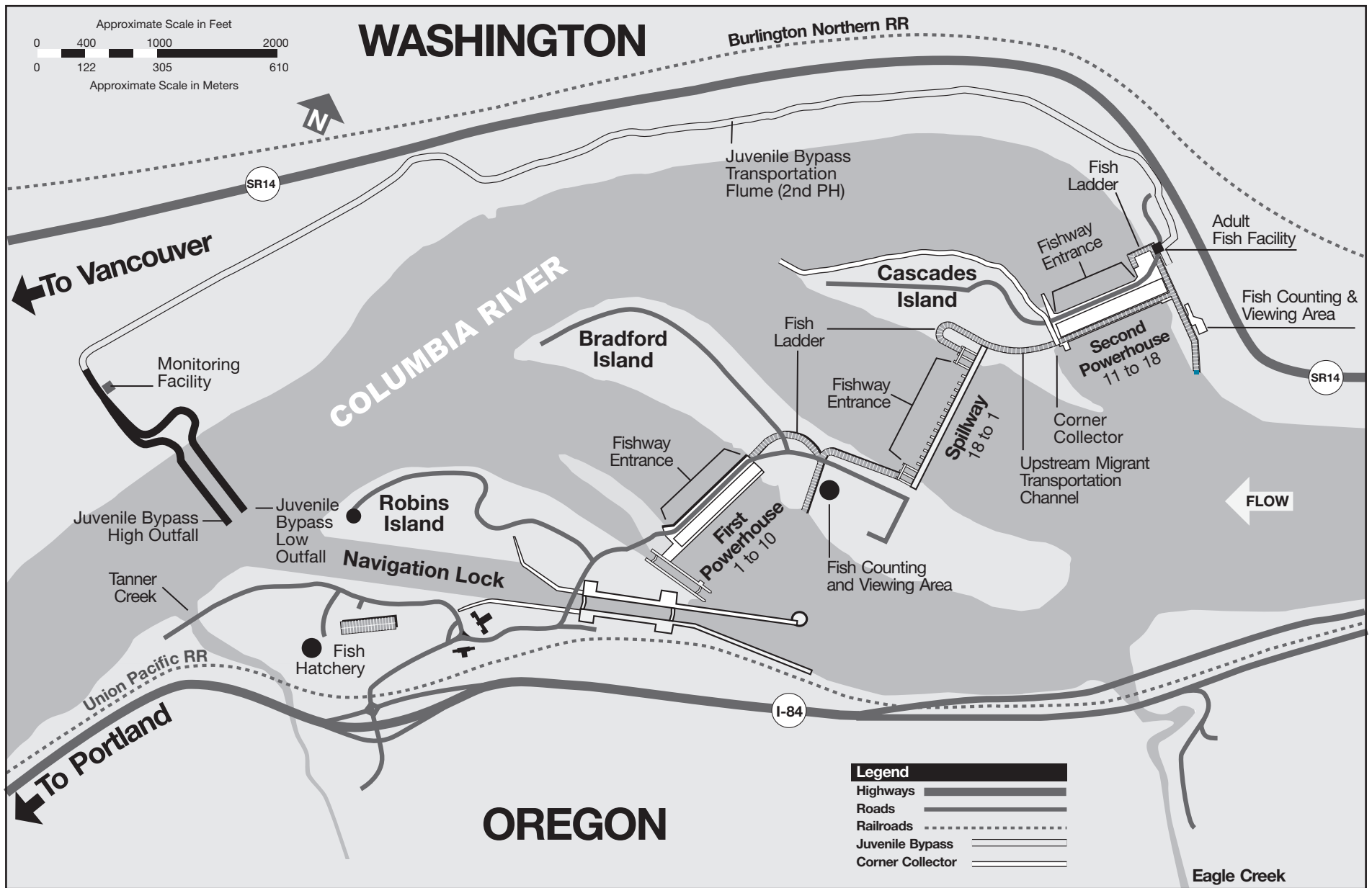
RUN-YEAR	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
1959-60	810 *			
1960-61	7,277			
1961-62	8,970			
1962-63	9,408			
1963-64	8,808			
1964-65	6,137			
1965-66	9,055			
1966-67	13,159			
1967-68	8,402			
1968-69	9,672			
1969-70	6,140			
1970-71	5,764			
1971-72	11,331			
1972-73	6,006			
1973-74	6,881			
1974-75	2,955			
1975-76	2,558			44 *
1976-77	9,490			4,636
1977-78	9,632			5,464
1978-79	4,479			1,475
1979-80	8,704			3,771
1980-81	8,308			3,363
1981-82	9,122	7,607	5,567	4,107
1982-83	10,948	9,737	6,037	7,805
1983-84	32,103	29,885	19,864	19,540
1984-85	26,566	25,287	17,349	16,663
1985-86	34,007	31,813	22,621	19,712
1986-87	22,332	22,766	15,060	13,251
1987-88	14,054	12,887	7,243	5,565
1988-89	10,138	9,100	5,573	4,358
1989-90	10,720	9,244	5,991	4,577
1990-91	7,858	6,926	5,023	3,842
1991-92	14,047	11,125	7,788	7,823
1992-93	13,596	12,382	7,429	7,029
1993-94	5,405	4,689	2,738	2,359
1994-95	6,710	5,633	2,825	2,181
1995-96	4,357	4,168	1,777	951
1996-97	8,323	7,295	5,780	4,154
1997-98	8,942	7,718	6,756	4,074
1998-99	5,846	4,968	4,404	2,676
1999-00	8,267	6,346	4,848	3,514
2000-01	11,341	10,565	8,307	6,287
2001-02	30,102	28,614	22,114	18,519
2002-03	15,867	15,243	11,718	9,430
2003-04	17,729	17,633	13,919	10,016
2004-05	18,655	19,448	14,624	9,306
2005-06	12,502	12,413	9,498	7,168
2006-07	10,415	9,371	8,141	6,691
2007-08	15,257	13,516	10,487	7,600
2008-09	16,658	16,119	13,798	9,733
2009-10	40,121	37,821	29,481	25,468
2010-11	26,431	22,129	18,091	12,957
2011-12	20,806	19,123	15,418	12,047
2012-13	17,192	15,387	12,529	9,741
2013-14	15,072	11,671	9,296	7,280
2014-15	19,766	14,893	10,450	7,650
2015-16	14,303	13,962	10,871	9,165
2016-17	6,507	7,182	5,762	4,820
2017-18	5,804	5,269	3,951	3,835
2018-19	4,909	5,244	4,283	3,912
2019-20	15,241	4,273	3,197	2,763
2020-21	6,509	6,712	5,373	4,388
2021-22	2,810	4,512	3,989	3,116
2022-23	4,920	7,587	6,500	4,448
Total	766,204	548,263	406,470	349,274
10-Year Average	9,584	8,131	6,367	5,138

*Partial year

Note: Extended counts from participating projects included for 2020-23.

Please see project narratives for count schedules.

Plate 2 Bonneville Lock and Dam



BONNEVILLE LOCK & DAM

FISH COUNTING SCHEDULE

Jan 1 – Mar 31	Video counting 0400-2000 hours Pacific Standard Time
Apr 1 – Nov 30	Visual counting daily 0500-2100 hours Pacific Daylight Time.
May 15- Sept 30	Night video counting 2100-0500 hours Pacific Daylight Time.
Dec 1 – Dec 31	Video counting 0400-2000 hours Pacific Standard Time

INTRODUCTION

Bonneville Lock and Dam has specific requirements for Columbia River fish passage that are specified in the annual Fish Passage Plan. Bonneville Lock & Dam has four fish ladders for upstream adult fish passage, as well as an ice trash sluiceway (ITS), Corner Collector, downstream migrant transportation bypass, and the spillway used for downstream migrants and juvenile fish passage. The following document is a summary of all fish related activities that occurred at Bonneville Lock & Dam in 2023.

FISHWAY OPERATION

The following information includes fish passage system operation for calendar year 2023. Total length of time for fishway outages can be determined by referring to previous years' annual reports. The fishways were closed or dewatered for maintenance when they were not in service.

Seasonal Fish Facility Outages

FISH FACILITY	OOS DATE 2022	IN SERVICE DATE 2023	OOS DATE 2023	REASON FOR OUTAGE
BI LADDER	NA	NA	5-Dec	Winter Maintenance
A-BRANCH	NA	NA	5-Dec	Winter Maintenance
B-BRANCH	NA	NA	5-Dec	Winter Maintenance
CI LADDER	6-Dec	22-Feb	NA	NA
WA SHORE LADDER	5-Dec	22-Feb	NA	NA
UMT	5-Dec	22-Feb	NA	NA
BI LPS	01-Nov	10-Apr	01-Nov	Winter Maintenance
CI LPS	01-Nov	10-Apr	01-Nov	Winter Maintenance
WA AWS LPS	01-Nov	10-Apr	01-Nov	Winter Maintenance
NDE LFS/LPS	16-June	NA	NA	Mechanical Malfunction
AFF LAMPREY TRAP	07-Sept	05-June	06-Sept	Low CPUE (seasonal)
CI LAMPREY TRAP	07-Sept	12-June	22-Aug	Low CPUE (seasonal)
BI WETTED WALL	NA	11-May	01-November	Winter Maintenance
B2CC	1-Sept	08-Mar	1-Sept	Winter Maintenance
DSM	21-Dec	22-Feb	18-Dec	Winter Maintenance
AFF	21-Nov	21-Mar	27-Nov	Winter Maintenance
SMF	31-Oct	02-Mar	31-Oct	Winter Maintenance

FISHWAY ACTIVITIES

The following are fishway modifications for the 2023 passage year:

POWERHOUSE ONE LAMPREY

- Lamprey ramp and bollards installed in B-Branch Entrance Bay. Variable width entrance weir installed during the 2023-24 winter maintenance.

- Remainder of lamprey orifices cut into concrete of serpentine section of Bradford Island Fishway during the 2023-24 winter maintenance.

POWERHOUSE ONE JUVENILE

- Ice & Trash Sluice End Gate reinstalled.

POWERHOUSE TWO JUVENILE

- FGE modifications to the remainder of the PH2 Unit's A & B gatewells occurred.

FISH REMOVAL

Fish passage facilities and turbine units are taken out of service and dewatered to allow for inspection, preventative maintenance, repairs, and modifications. As facilities and turbine units are dewatered, project biologists follow procedures outlined in the FPP and detailed in the Fish Salvage Plan to minimize impacts on fish. Adult salmonids and adult lamprey are generally released into the forebay above the new navigation lock. Juvenile salmonids, juvenile lamprey, and sturgeon are generally released below the dam at the Hamilton Island boat ramp. The following is a summary of the number of fish that were removed during facility and turbine unit dewaterings. All fish were recovered in good condition unless otherwise noted.

Fish Salvages at Bonneville December 2022 – December 2023

DATE	LOCATION	FISH SALVAGED	RELEASE SITE
12/1/2022	U11 Draft Tube	1 Juvenile Salmonid, 3 Bluegill	Downstream
12/5/2022	Washington Shore Ladder to TW and UMT	5 Steelhead, 10 juvenile Salmonids, mix of >500 peamouth, pikeminnow, shad, suckers, sculpin	Upstream of Nav Lock
12/6/2022	UMT and Cascades Island to TW	mixture of 700 peamouth, pikeminnow, shad, suckers, sculpin, 15 lamprey, 1 steelhead,	Upstream of Nav Lock
1/5/2023	U10 Scroll & Draft	1 juvenile Steelhead	Downstream
1/9/2023	PH2CC	2 juvenile salmonids, 2 SMB, 2 yellow perch, 7 minnows	Downstream
1/11/2023	PH2 AWS	7 juvenile salmon, 14 bass, 1 sturgeon, 10 sculpin, 8 perch, 4 stickleback, 1 catfish	Downstream
1/26/2023	U18 Scroll & Draft Tube	0	0
1/31/2023	F1 Draft Tube	1 Juvenile Sturgeon, 1 catfish	BISB Boat Launch
2/8/2023	U13 Taillogs	66 sculpin, 1 smallmouth bass, 2 catfish	Downstream
3/7/2023	U10 Taillogs	5 sculpin	Downstream
3/8/2023	Nav Lock Upper Sill	0	

3/13/2023	U18 Taillogs	0	
3/16/2023	U16 Scroll Case & Draft Tube	0	
4/6/2023	U11 Taillogs	75 sculpin, 3 Smallmouth Bass, 2 pikeminnow	Downstream
4/24/2023	U16 Taillogs	6 sculpin	Downstream
5/2/2023	U17 Scroll & Draft	None in Scroll, 8 Adult salmonids and 1 sturgeon in Draft Tube	Downstream
5/3/2023	U17 Scroll Case	3 Juvenile Salmonids	Downstream
5/31/2023	U3 Scroll Case	0	N/A
6/7/2023	U4 Scroll Case & Draft Tube	None in Scroll, 1 lamprey and 1 juvenile catfish in draft tube	Upstream
6/21/2023	U14 Scroll Case, Draft Tube, and Gatewell	1 juvenile salmonid in gatewell 14A	U16 Gatewell
7/10/2023	U15 Scroll Case and Draft Tube	1 juvenile salmonid	Downstream
7/27/2023	U14 Taillogs	1 pumpkinseed, 1 smallmouth bass	Downstream
8/7/2023	U13 Scroll Case & Draft Tube	SC: 1 steelhead, DT: 3 sturgeon	Downstream and BISB Boat Launch
8/8/2023	U13 Gatewells	50 juvenile shad	Adjacent functional gatewells
9/7/2023	U15 Taillogs	33 sculpin	Downstream
9/14/2023	U13 Taillogs	10 sculpin, 2 smallmouth bass, 1 pumpkinseed	Downstream
9/25/2023	U12 Scroll Case and Draft Tube	0 in SC/10 sturgeon in DT	Upstream
9/27/2023	U12 Gatewells	4500 juvenile shad	Adjacent functional gatewells

RESEARCH

The following are a list of fish related research and contract personnel that were on site for the 2023 passage season:

Four Peaks Environmental Science and Data Solutions: Conduct fish ladder counts for the USACE Adult Fish Counting Program

Columbia River Inter-Tribal Fish Commission (CRITFC): Collect adult Pacific Lamprey for the Tribal Lamprey Restoration Plan (TPLRP). Additionally, CRITFC collected tissue samples to track migration movements of adult salmonids using the Bonneville Adult Fish Facility (AFF). CRITFC also worked with Pacific States personnel at the Bonneville Smolt Monitoring Facility (SMF) to collected tissue samples to track migration movements of juvenile Pacific Lamprey.

Oregon/Washington Department of Fish and Wildlife/Idaho Fish and Game/CRITFC: Removal activities of sea lions in the Bonneville Lock and Dam tailwater and forebay permitted under the Marine Mammal Protection Act.

Oregon Department of Fish and Wildlife: Collect juvenile spring Chinook using the Sort by Code system at the SMF that were released from the Round Butte Hatchery as part of a study funded by Portland General Electric.

U.S. Fish and Wildlife Service: Rear larval lamprey under specific temperatures in tanks at the SMF. This experiment is investigating the impact of climate change on larval lamprey metamorphosis.

Pacific States Marine Fish Commission (PSMFC): Sample juvenile salmonids, lamprey, and bycatch from 01 March through 31 October at the Bonneville SMF as coordinated by the Fish Passage Center and authorized in the 2000 BiOp. Additionally, PSMFC collected PIT tag readings from all fish facilities.

U.S. Department of Agriculture: Provide avian and pinniped hazing to reduce predation on salmonids via pyrotechnics.

U.S. Geological Survey: Monitor water quality including total dissolved oxygen (TDG) and temperature monitoring at Cascades Island above and below the Bonneville Main Dam.

Washington and Oregon Department of Fish and Wildlife: Observe fall Chinook salmon at Bonneville count stations. Information gathered during these observations are used to update the two stock components of the upriver fall Chinook run.

TABLE 5

**MONTHLY TOTALS OF SALMONID, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER BONNEVILLE DAM.
2023**

DAYTIME-Live plus video

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*	2	2	135	15,018	104,942	62,277	26,994	154,185	408,632	34,475	914	18	807,594
STEELHEAD	87	207	1,000	383	266	2,555	26,282	45,703	35,050	3,652	418	405	116,008
SOCKEYE					32	192,717	134,449	390	12				327,600
COHO*	-15	-1						11,186	107,932	29,064	1,723	117	150,006
CHUM										55	557	3	615
PINK								6	30				36
TOTAL	74	208	1,135	15,401	105,240	257,549	187,725	211,470	551,656	67,246	3,612	543	1,401,859

SHAD					139,582	3,959,239	245,307	1,245					4,345,373
LAMPREY					2,915	27,453	26,940	6,026	572	32	1	-2	63,937
STURGEON				-1	0	0	1	12	13	2	1		28
BULL TROUT													0

NIGHT -Video

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					627	1,140	806	5,015	3,799				11,387
STEELHEAD					26	120	531	917	1,584				3,178
SOCKEYE					1	8,275	9,202	44	1				17,523
COHO*								2,513	2,556				5,069
CHUM													0
PINK													0
TOTAL					654	9,535	10,539	8,489	7,940				37,157
LAMPREY					2,483	8,689	16,679	1,942	562				30,355
BULL TROUT													0

LAMPREY PASSAGE SYSTEM-24 hour counts

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
LAMPREY				0	968	39,036	16,662	10,237	1,711	95			68,708

*Jacks included.

Note: For count schedules and LPS operations refer to the BON narrative.

TABLE 6

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JANUARY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped		PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD						KCFS	KCFS	SECCHI	DEG F
Jan 1	0			0	1	0		4	2					115.0	0.8	7.0	38.0
Jan 2	1			0	-1	0		4	2					127.0	0.8	7.0	39.0
Jan 3	0			0	0	0		2	1					135.8	0.8	7.0	39.0
Jan 4	0			0	0	0		-1	0					133.2	0.7	6.0	38.0
Jan 5	0			0	-1	0		1	0					125.3	0.8	6.0	37.0
Jan 6	0			0	0	0		1	2					123.9	0.7	6.0	37.0
Jan 7	0			0	-3	0		1	0					121.7	0.7	7.0	37.0
Jan 8	0			0	0	0		0	0					119.7	0.7	7.0	37.0
Jan 9	0			1	0	0		8	6					147.1	0.7	7.0	37.0
Jan 10	0			0	-2	0		3	1					131.9	0.7	7.0	37.0
Jan 11	0			0	0	0		1	0					147.0	0.8	7.0	38.0
Jan 12	0			0	0	0		6	2					137.2	0.8	7.0	38.0
Jan 13	0			0	0	0		6	2					126.8	0.8	7.0	38.0
Jan 14	0			0	0	0		-3	0					126.2	0.8	6.0	38.0
Jan 15	0			0	-1	0		3	2					135.2	0.8	6.0	38.0
Jan 16	0			0	0	0		8	4					137.2	0.7	6.0	38.0
Jan 17	0			0	-2	0		8	5					125.9	0.8	7.0	39.0
Jan 18	0			0	-1	0		6	1					140.4	0.6	6.0	39.0
Jan 19	0			0	-1	0		2	0					133.9	0.7	7.0	39.0
Jan 20	0			0	0	0		3	-1					155.0	0.8	7.0	38.0
Jan 21	0			0	0	0		0	0					139.2	0.8	7.0	38.0
Jan 22	0			0	0	0		3	1					124.9	0.9	7.0	38.0
Jan 23	0			0	0	0		0	0					142.7	0.8	7.0	38.0
Jan 24	0			0	-1	0		6	3					130.2	0.8	7.0	38.0
Jan 25	0			0	0	0		-2	-1					131.6	0.8	7.0	39.0
Jan 26	0			0	-1	0		0	0					131.4	0.8	7.0	39.0
Jan 27	0			0	0	0		1	3					132.1	0.8	5.0	39.0
Jan 28	0			0	0	0		4	1					133.1	0.8	7.0	39.0
Jan 29	0			0	-1	-1		3	0					135.9	0.9	7.0	39.0
Jan 30	0			0	0	0		7	3					148.6	0.8	7.0	39.0
Jan 31	0			0	0	0		2	1					152.7	0.8	7.0	39.0
TOTAL	1			1	-14	-1		87	40								
AVG	0			0	0	0		3	1					133.8	0.8	6.7	38.2

Note: January 1 to March 31 counts were from video review. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

TABLE 7

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

BONNEVILLE PROJECT - FISH COUNTS														FEBRUARY 2023				
DATE	CHINOOK ADULT			CHINOOK	COHO	unclipped								DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Feb 1	0			0	-1			4	2						146.8	0.8	7.0	39.0
Feb 2	0			0	0			4	4						151.7	0.8	7.0	39.0
Feb 3	0			0	0			7	4						144.2	0.8	7.0	38.0
Feb 4	0			0	0			5	2						136.6	0.8	7.0	38.0
Feb 5	0			0	0			8	3						142.1	0.8	7.0	38.0
Feb 6	0			0	0			10	3						129.2	0.6	7.0	38.0
Feb 7	0			0	0			16	5						129.8	0.8	7.0	38.0
Feb 8	0			0	0			10	4						130.2	0.8	7.0	38.0
Feb 9	0			0	0			9	1						136.8	0.8	7.0	38.0
Feb 10	0			0	0			-1	-2						131.5	0.3	7.0	38.0
Feb 11	0			0	0			7	2						131.0	0.8	6.0	38.0
Feb 12	0			0	0			5	1						132.5	0.8	7.0	38.0
Feb 13	0			0	0			2	0						130.3	0.8	7.0	38.0
Feb 14	0			0	0			5	0						132.1	0.8	7.0	38.0
Feb 15	0			0	0			6	3						135.0	0.9	7.0	38.0
Feb 16	0			0	0			0	0						133.4	0.9	7.0	38.0
Feb 17	0			0	0			7	1						131.7	0.9	7.0	38.0
Feb 18	0			0	0			3	2						129.1	0.9	6.0	38.0
Feb 19	0			0	0			11	3						127.8	0.9	5.0	38.0
Feb 20	0			0	0			10	3						126.9	0.9	7.0	38.0
Feb 21	0			0	0			40	16						126.0	0.0	7.0	38.0
Feb 22	1			0	0			19	8						139.2	0.3	7.0	38.0
Feb 23	0			0	0			8	3						136.6	1.1	7.0	39.0
Feb 24	0			0	0			3	3						137.7	1.1	6.0	39.0
Feb 25	0			0	0			0	0						136.3	1.1	7.0	37.0
Feb 26	0			0	0			0	0						130.4	1.1	**	37.0
Feb 27	0			0	0			4	1						134.8	1.1	7.0	37.0
Feb 28	0			1	0			5	0						131.8	1.1	7.0	37.0
TOTAL	1			1	-1			207	72									
AVG	0			0	0			7	3						134.3	0.8	6.8	38.0

**Data unavailable

Note: January 1 to March 31 counts were from video review. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

TABLE 8
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS															MARCH 2023			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped								DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Mar 1	0			0				14	9						132.2	1.1	7.0	37.0
Mar 2	0			0				12	4						109.5	1.1	7.0	38.0
Mar 3	0			0				8	5						111.3	1.1	7.0	38.0
Mar 4	0			0				3	4						110.3	1.1	7.0	38.0
Mar 5	0			0				9	7						107.8	1.1	7.0	39.0
Mar 6	0			0				9	5						110.5	1.1	7.0	39.0
Mar 7	0			0				17	9						109.1	1.1	7.0	38.0
Mar 8	0			0				9	6						110.2	1.1	7.0	38.0
Mar 9	0			0				11	7						115.1	1.1	7.0	38.0
Mar 10	0			0				19	9						105.9	1.2	6.0	38.0
Mar 11	0			0				25	8						108.3	1.3	7.0	38.0
Mar 12	0			0				5	2						114.7	1.8	7.0	38.0
Mar 13	0			0				7	4						109.9	1.8	7.0	39.0
Mar 14	0			0				25	4						115.8	1.8	7.0	39.0
Mar 15	0			0				20	11						117.8	1.8	7.0	39.0
Mar 16	0			0				45	19						120.0	1.9	7.0	39.0
Mar 17	1			0				32	11						118.7	1.8	7.0	39.0
Mar 18	2			1				61	28						116.9	1.8	6.0	39.0
Mar 19	3			0				53	31						113.7	1.8	6.0	40.0
Mar 20	2			0				46	16						110.7	1.9	7.0	41.0
Mar 21	3			0				53	28						112.0	1.3	7.0	41.0
Mar 22	0			0				41	25						113.1	1.3	7.0	41.0
Mar 23	1			0				51	27						108.0	2.1	5.0	42.0
Mar 24	10			0				178	91						107.8	1.9	6.0	43.0
Mar 25	8			1				72	44						113.1	1.8	6.0	42.0
Mar 26	6			2				33	16						116.7	1.8	6.0	42.0
Mar 27	7			0				30	12						121.2	1.2	6.0	42.0
Mar 28	5			1				22	10						122.3	1.2	6.0	42.0
Mar 29	26			6				48	22						139.7	1.2	6.0	43.0
Mar 30	14			5				26	14						112.5	1.2	6.0	43.0
Mar 31	26			5				16	8						115.8	1.9	6.0	43.0
TOTAL	114			21				1,000	496									
AVG	4			1				32	16						114.5	1.5	6.6	39.9

Note: January 1 to March 31 counts were from video review. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Visual counting started April 1. Official Spring Chinook run started March 15. January, February, and March 1-14 Chinook counts were not added to spring totals.

TABLE 9
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS													APRIL 2023					
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Apr 1	49			0				15	8					0	116.9	1.8	7.0	43.0
Apr 2	22			0				25	13					0	117.6	1.8	7.0	43.0
Apr 3	35			3				29	18					0	114.3	2.2	5.0	43.0
Apr 4	71			-1				15	11					0	116.6	2.0	5.0	43.0
Apr 5	66			0				26	13					0	111.1	1.7	6.0	44.0
Apr 6	13			0				30	19					0	109.6	2.1	6.0	44.0
Apr 7	56			0				20	13					0	101.4	1.3	6.0	44.0
Apr 8	12			0				21	11					0	103.0	2.1	6.0	45.0
Apr 9	36			0				17	5					0	114.1	2.1	5.0	44.0
Apr 10	40			1				11	5					0	124.9	79.5	6.0	44.0
Apr 11	34			0				19	10					0	149.2	103.7	6.0	45.0
Apr 12	43			0				17	10					0	176.0	130.4	5.0	45.0
Apr 13	44			1				12	4					0	179.7	136.0	6.0	45.0
Apr 14	71			1				18	6					-1	163.5	120.9	6.0	45.0
Apr 15	69			1				10	2					0	151.5	108.7	5.0	45.0
Apr 16	53			0				4	0					0	147.8	105.2	5.0	46.0
Apr 17	90			3				12	7					0	150.1	107.3	6.0	47.0
Apr 18	57			0				8	2					0	158.2	113.9	4.0	47.0
Apr 19	119			0				4	1					0	148.7	105.5	3.0	47.0
Apr 20	145			2				6	4					0	145.1	101.3	4.5	47.0
Apr 21	388			4				3	3					0	146.4	101.7	4.0	47.0
Apr 22	447			3				6	2					0	149.6	105.0	5.0	47.0
Apr 23	804			7				8	5					0	149.3	104.5	5.0	47.0
Apr 24	1,437			23				11	4					0	149.0	104.5	5.0	48.0
Apr 25	1,282			15				5	0					0	150.0	105.5	5.0	48.0
Apr 26	1,215			12				7	5					0	150.3	105.7	6.0	48.0
Apr 27	1,663			24				0	0					0	166.4	120.8	5.0	48.0
Apr 28	2,109			43				9	6					0	173.1	127.8	5.0	50.0
Apr 29	1,856			34				9	8					0	184.7	139.2	5.0	50.0
Apr 30	2,475			41				6	3					0	188.4	144.5	5.0	50.0
TOTAL	14,801			217				383	198					-1				
AVG	493			7				13	7					0	143.5	79.6	5.3	46.0
RUN YEAR	CHINOOK		CHINOOK	unclipped		STURGEON												
TOTALS TO DATE	ADULT	JACK		STEELHEAD	STEELHEAD													
SPRING	14,915	238		1,210	611													
						-1												

TABLE 10

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS**MAY 2023**

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped			PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD						KCFS	KCFS	SECCHI	DEG F
May 1	3,635			57			0	7	3			0	0		231.7	149.2	7.0	50.0
May 2	2,212			51			0	5	1			0	0		269.8	148.8	**	51.0
May 3	1,377			47			2	9	2			0	0		313.9	147.7	**	51.0
May 4	1,459			60			0	7	1			0	0		330.7	148.7	4.0	51.0
May 5	1,252			53			0	10	1			0	1		339.9	149.3	4.0	53.0
May 6	1,914			114			1	11	1			0	2		360.6	148.6	3.0	53.0
May 7	1,574			102			0	6	3			0	2		362.0	148.8	3.0	53.0
May 8	4,508			219			0	1	1			0	6		351.3	148.7	2.0	53.0
May 9	5,804			280			0	4	0			0	1		354.4	150.1	2.0	54.0
May 10	7,973			506			1	3	2			0	0		361.8	149.0	4.0	54.0
May 11	7,204			520			0	9	3			0	2		356.6	149.5	4.0	54.0
May 12	6,052			497			0	7	1			0	19		326.2	148.9	2.5	54.0
May 13	5,203			456			0	6	1			27	5		332.1	148.5	3.0	55.0
May 14	6,304			721			0	4	3			272	11		341.4	148.1	2.0	55.0
May 15	6,022			796			0	13	3			1,732	17		365.1	149.1	4.0	55.0
May 16	6,188			903			0	12	4			1,422	46		401.0	160.5	4.0	55.0
May 17	2,596			432			0	6	1			667	124		426.2	180.5	2.0	56.0
May 18	2,629			545			0	8	3			335	253		424.1	245.4	3.0	56.0
May 19	2,380			431			0	14	3			262	139		425.3	195.3	3.0	56.0
May 20	2,339			438			0	3	0			338	100		418.7	179.0	3.0	56.0
May 21	2,736			348			0	6	2			435	272		422.9	200.0	3.0	57.0
May 22	1,482			268			0	7	5			134	164		431.8	209.7	2.0	57.0
May 23	1,825			356			0	2	-1			297	85		420.0	189.7	3.0	57.0
May 24	1,688			301			0	11	3			920	188		393.5	163.7	2.0	57.0
May 25	1,579			286			1	9	1			12,937	223		369.4	151.1	2.0	57.0
May 26	1,219			229			0	12	9			29,552	320		349.2	149.4	3.0	58.0
May 27	1,142			145			0	12	1			17,283	227		291.3	151.0	3.0	58.0
May 28	1,158			182			1	12	2			14,802	150		289.4	149.1	4.0	59.0
May 29	827			159			5	15	2			14,460	89		294.7	148.7	4.0	59.0
May 30	1,395			219			8	13	4			17,491	267		281.5	149.4	4.0	58.0
May 31	1,373			172			13	22	7			26,216	202		277.0	149.3	3.0	59.0
TOTAL	95,049			9,893			32	266	72			139,582	2,915					
AVG	3,066			319			1	9	2			4,503	94		352.0	161.4	3.2	55.2

**Data unavailable

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	109,964	10,131

unclipped		
SOCKEYE	STEELHEAD	STEELHEAD
32	1,476	683

SHAD	LAMPREY	STURGEON
139,582	2,915	-1

TABLE 11

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD						KCFS	KCFS	SECCHI	DEG F
Jun 1		1,450		177			16	18	2			20,080	191		261.8	149.1	3.0	59.0
Jun 2		1,090		153			33	13	5			30,153	355		232.8	150.1	3.0	59.0
Jun 3		1,243		165			56	16	6			56,565	534		232.6	149.8	4.0	59.0
Jun 4		1,449		177			63	30	7			79,000	665		222.6	149.6	5.0	60.0
Jun 5		1,817		194			147	21	9			131,912	563		225.3	150.4	4.0	60.0
Jun 6		1,682		178			195	28	10			86,293	307		232.9	149.9	4.0	61.0
Jun 7		2,067		178			216	23	11			108,180	542		232.3	148.9	4.0	61.0
Jun 8		1,906		172			198	23	8			105,043	493		221.6	149.4	5.0	61.0
Jun 9		2,233		156			150	17	7			64,482	313		206.3	150.0	4.0	61.0
Jun 10		1,909		169			432	23	10			116,412	198		185.9	140.9	4.0	62.0
Jun 11		1,563		134			697	27	19			164,756	422		178.0	134.5	5.0	62.0
Jun 12		1,738		173			1,345	27	15			217,682	2,367		168.0	124.0	7.0	62.0
Jun 13		2,642		283			2,480	44	21			233,899	3,442		184.8	141.0	6.5	62.0
Jun 14		2,230		207			1,995	42	19			179,647	2,429		179.2	135.7	**	64.0
Jun 15		1,801		176			2,499	65	23			96,889	624		204.4	147.6	6.0	65.0
Jun 16		3,091		324			4,232	65	27			94,374	438		180.7	95.2	6.0	65.0
Jun 17		2,125		240			6,392	68	27			172,143	640		171.9	95.8	4.0	64.0
Jun 18		1,685		203			8,004	67	36			128,365	588		159.1	95.8	4.0	64.0
Jun 19		1,092		148			9,144	58	17			121,285	928		161.6	95.7	5.5	63.0
Jun 20		1,559		171			10,520	95	54			193,296	405		173.5	95.5	5.0	63.0
Jun 21		2,026		219			11,102	94	48			251,974	512		164.5	95.8	5.5	63.0
Jun 22		2,027		187			9,903	95	46			291,613	1,136		165.8	96.0	5.5	63.0
Jun 23		2,259		226			10,034	130	70			214,656	1,648		165.3	96.0	7.0	63.0
Jun 24		2,115		219			11,462	148	74			188,533	1,914		149.5	96.0	5.0	63.0
Jun 25		2,173		279			13,789	200	83			180,251	975		139.6	95.3	5.0	68.0
Jun 26		2,050		218			16,722	174	96			160,921	982		149.9	95.4	6.0	68.0
Jun 27		1,656		208			16,679	197	97			100,570	1,680		157.1	95.2	5.0	68.0
Jun 28		1,894		309			19,080	211	96			63,069	665		155.4	94.7	5.0	68.0
Jun 29		1,658		242			17,277	259	123			59,399	625		159.7	94.6	6.0	68.0
Jun 30		1,839		323			17,855	277	162			47,797	872		155.4	94.7	6.0	66.0
TOTAL		56,069		6,208			192,717	2,555	1,228			3,959,239	27,453					

AVG	1,869	207	6,424	85	41	131,975	915	185.9	120.1	5.0	63.2
**Data unavailable											

RUN YEAR	CHINOOK		unclipped					
	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY	STURGEON
TOTALS TO DATE								
SPRING	109,964	10,131	192,749	4,031	1,911	4,098,821	30,368	-1
SUMMER	56,069	6,208						
TOTAL	166,033	16,339						

TABLE 12

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped			PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD								SECCHI	DEG F
Jul 1		1,611		229			18,024	381	204			45,432	591	0	138.4	94.2	6.0	66.0
Jul 2		1,427		239			15,755	413	200			38,230	659	0	139.0	94.7	6.0	66.0
Jul 3		1,288		234			13,860	386	185			40,587	545	0	139.6	95.5	6.0	66.0
Jul 4		1,420		238			12,515	496	281			33,885	687	0	138.5	94.8	7.0	67.0
Jul 5		1,188		192			11,101	561	310			24,008	1,312	0	151.2	95.0	7.0	67.0
Jul 6		999		185			9,296	611	333			17,741	1,500	0	150.7	95.3	6.0	67.0
Jul 7		979		143			7,574	604	315			9,187	1,512	0	139.8	95.5	7.0	67.0
Jul 8		825		153			8,072	723	377			6,625	896	0	135.8	92.1	7.0	67.0
Jul 9		751		135			5,867	718	423			5,518	958	0	145.2	95.9	7.0	69.0
Jul 10		733		131			5,537	708	392			4,462	1,222	0	134.8	90.8	7.0	69.0
Jul 11		837		153			5,301	867	503			2,988	742	0	127.4	83.4	7.0	69.0
Jul 12		863		159			4,651	988	515			3,195	622	0	142.3	95.4	6.0	69.0
Jul 13		716		132			3,877	926	490			2,074	901	0	145.3	95.9	5.0	69.0
Jul 14		709		151			2,695	1,045	544			1,614	1,381	0	167.5	96.0	7.0	69.0
Jul 15		723		145			2,026	1,292	577			2,062	2,396	0	163.8	96.1	7.0	69.0
Jul 16		734		106			1,620	1,362	686			1,336	1,407	0	146.9	95.9	7.0	70.0
Jul 17		755		112			1,559	1,476	737			1,307	1,300	0	145.4	94.9	7.0	70.0
Jul 18		593		74			876	1,159	573			536	720	1	153.6	93.6	6.0	71.0
Jul 19		648		100			832	907	435			522	730	0	161.1	94.0	6.0	71.0
Jul 20		561		73			666	910	447			753	920	0	148.7	94.8	6.0	71.0
Jul 21		511		72			594	961	529			346	708	0	138.5	94.3	6.0	71.0
Jul 22		440		74			426	883	451			317	799	0	126.6	83.1	6.0	71.0
Jul 23		483		87			362	885	439			387	1,129	0	127.8	83.8	6.0	71.0
Jul 24		407		55			336	839	434			549	784	0	134.4	90.4	6.0	71.0
Jul 25		320		53			220	816	426			418	406	0	143.5	94.6	7.0	71.0
Jul 26		335		58			161	770	402			385	315	0	150.1	94.3	7.0	71.0
Jul 27		237		49			156	599	325			284	490	0	161.8	94.0	5.0	71.0
Jul 28		440		62			195	580	332			132	311	0	158.2	93.9	5.0	72.0
Jul 29		673		67			129	789	439			135	436	0	138.6	93.9	5.0	72.0
Jul 30		485		90			112	1,123	632			161	291	0	137.8	93.5	6.0	72.0
Jul 31		499		53			54	1,504	757			131	270	0	142.7	93.6	6.0	72.0
TOTAL		23,190		3,804			134,449	26,282	13,693			245,307	26,940	1				
AVG		748		123			4,337	848	442			7,913	869	0	144.3	93.3	6.3	69.5

RUN YEAR	CHINOOK	
	ADULT	JACK
TOTALS TO DATE		
SPRING	109,964	10,131
SUMMER	79,259	10,012
TOTAL	189,223	20,143

unclipped		
SOCKEYE	STEELHEAD	STEELHEAD
327,198	30,313	15,604

SHAD	LAMPREY	STURGEON
4,344,128	57,308	0

TABLE 13

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS**AUGUST 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped				CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK							SECCHI	DEG F
Aug 1		547	83	0	0	69	1,311	615	0		96	130	0	137.4	93.2	5.0	72.0	
Aug 2		695	123	0	0	44	1,476	702	0		73	171	0	132.9	89.1	7.0	71.0	
Aug 3		884	119	1	0	42	1,445	676	0		42	171	0	129.9	86.0	7.0	71.0	
Aug 4		918	131	2	2	37	1,924	770	0		36	164	0	125.7	81.3	7.0	71.0	
Aug 5		619	46	2	1	55	1,801	646	0		104	154	0	127.2	83.2	7.0	71.0	
Aug 6		623	54	6	3	28	2,267	959	0		71	220	0	138.3	94.3	7.0	70.0	
Aug 7		477	47	-1	3	15	1,832	722	0		74	209	0	126.5	82.9	7.0	71.0	
Aug 8		384	66	3	2	6	1,811	717	0		67	211	0	138.4	94.0	7.0	71.0	
Aug 9		1,082	87	2	3	21	2,137	875	0		57	499	0	131.4	87.5	7.0	71.0	
Aug 10		1,458	95	6	4	18	1,865	736	0		38	300	0	136.3	92.2	7.0	71.0	
Aug 11		1,171	108	6	6	10	2,105	777	0		31	260	0	142.4	94.2	7.0	71.0	
Aug 12		1,070	85	6	2	5	1,917	641	0		49	175	0	149.4	94.7	7.0	71.0	
Aug 13		1,601	124	13	8	7	1,360	474	0		40	222	0	142.5	94.3	7.0	71.0	
Aug 14		2,437	208	70	15	5	1,497	487	0		84	348	0	151.4	94.4	7.0	71.0	
Aug 15		3,009	285	74	16	9	2,082	658	0		40	503	0	145.1	50.3	7.0	72.0	
Aug 16		2,076	240	56	8	7	2,310	726	0		40	447	0	159.4	50.9	7.0	72.0	
Aug 17		665	81	13	3	-1	1,464	467	0		77	429	0	148.5	50.3	7.0	72.0	
Aug 18		548	60	5	0	0	863	233	0		19	298	0	145.4	50.3	7.0	73.0	
Aug 19		727	70	10	3	1	596	181	0		25	204	0	154.5	50.9	7.0	73.0	
Aug 20		1,790	166	19	2	0	599	212	0		21	53	0	147.7	50.9	7.0	73.0	
Aug 21		3,889	349	53	7	0	723	247	0		26	44	0	130.2	51.0	7.0	71.0	
Aug 22		8,109	822	160	30	0	973	310	0		14	94	0	122.2	51.1	7.0	71.0	
Aug 23		6,029	686	226	30	1	1,378	402	0		5	41	0	106.5	50.9	7.0	70.0	
Aug 24		2,956	436	178	20	0	1,250	360	0		9	54	1	129.6	50.9	7.0	71.0	
Aug 25		3,609	430	425	53	2	995	265	0		20	102	1	133.8	50.6	7.0	71.0	
Aug 26		17,072	1,544	2,173	213	1	1,427	367	0		37	83	1	118.8	50.5	6.0	71.0	
Aug 27		21,469	1,504	2,090	266	0	1,896	378	2		5	145	6	123.7	50.7	7.0	71.0	
Aug 28		11,531	1,155	1,023	128	7	1,386	334	0		15	143	1	128.1	50.8	7.0	71.0	
Aug 29		14,013	1,110	704	104	1	962	262	0		8	83	1	119.0	50.8	7.0	71.0	
Aug 30		17,134	1,782	987	112	0	1,100	323	0		8	33	0	125.0	50.8	7.0	71.0	
Aug 31		12,259	1,238	1,703	127	0	951	285	4		14	36	1	141.3	51.1	6.0	71.0	
TOTAL		140,851	13,334	10,015	1,171	390	45,703	15,807	6		1,245	6,026	12					
AVG		4,544	430	323	38	13	1,474	510	0		40	194	0	135.1	68.5	6.9	71.3	
RUN YEAR		CHINOOK	CHINOOK		COHO	COHO												
TOTALS TO DATE		ADULT	JACK		ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK		SHAD	LAMPREY	STURGEON				
SPRING		109,964	10,131		10,015	1,171	327,588	76,016	31,411	6		4,345,373	63,334	12				
SUMMER		79,259	10,012															
FALL		140,851	13,334															
TOTAL		330,074	33,477															

TABLE 14

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS**SEPTEMBER 2023**

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped					CHUM	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK					KCFS	KCFS	SECCHI
Sep 1			41,510	4,263	9,164	420	1	3,092	735	0			89	1	108.4	2.5	7.0
Sep 2			28,835	2,673	8,408	450	0	4,218	903	1			74	2	99.7	2.0	7.0
Sep 3			13,516	1,460	5,322	337	0	2,726	593	3			61	2	95.7	2.0	7.0
Sep 4			12,026	1,246	3,957	324	7	1,656	344	0			46	2	93.1	1.9	7.0
Sep 5			8,213	757	2,461	378	0	1,047	207	2			47	1	89.5	1.9	7.0
Sep 6			6,848	725	1,653	278	0	1,064	253	0			26	0	84.6	1.3	6.0
Sep 7			19,770	1,856	5,250	721	0	1,404	355	0			25	1	84.1	2.1	7.0
Sep 8			29,952	2,696	5,529	515	0	2,026	552	1			8	1	83.0	1.9	7.0
Sep 9			21,052	2,070	4,230	340	0	1,464	383	1			37	0	81.9	2.1	7.0
Sep 10			18,948	1,840	4,194	431	4	1,303	309	2			13	0	87.0	2.0	7.0
Sep 11			20,526	2,049	3,371	392	0	1,272	326	2			21	1	76.5	1.9	7.0
Sep 12			18,513	2,071	3,704	348	0	1,312	309	1			-1	0	80.5	2.0	7.0
Sep 13			13,717	1,571	2,719	267	0	1,334	301	2			10	0	84.0	2.0	7.0
Sep 14			11,152	1,346	2,557	413	0	1,103	243	0			15	0	96.9	2.0	7.0
Sep 15			10,905	1,615	2,191	433	0	997	218	1			11	0	84.6	1.9	7.0
Sep 16			11,337	1,692	2,192	439	0	1,087	272	2			16	1	83.5	2.0	7.0
Sep 17			11,808	2,088	2,811	540	0	984	218	1			13	0	71.5	1.9	7.0
Sep 18			9,146	1,892	3,897	768	0	809	190	2			18	-1	71.9	1.8	7.0
Sep 19			5,624	1,210	2,193	265	0	531	116	1			8	1	72.5	1.9	**
Sep 20			5,348	1,328	1,590	235	0	436	93	0			10	1	78.0	1.9	7.0
Sep 21			4,976	1,095	1,256	264	0	443	105	0			5	0	85.5	1.9	7.0
Sep 22			6,052	1,169	1,415	323	0	485	112	0			10	0	74.4	1.9	7.0
Sep 23			4,882	1,024	1,540	312	0	485	136	1			5	0	82.0	1.8	7.0
Sep 24			4,985	1,104	1,440	358	0	566	150	0			1	0	78.7	1.9	7.0
Sep 25			3,907	947	838	196	0	467	120	0			6	-1	73.4	1.7	7.0
Sep 26			4,492	816	1,747	441	0	522	122	4			1	1	76.3	1.9	7.0
Sep 27			4,797	967	2,236	456	0	527	127	0			-3	0	81.7	1.8	7.0
Sep 28			5,134	1,030	3,025	628	0	774	207	3			1	-1	84.3	1.8	7.0
Sep 29			3,203	663	2,613	360	0	582	123	0			0	0	86.7	1.9	7.0
Sep 30			1,774	421	2,507	290	0	334	86	0			-1	1	89.2	1.8	7.0
TOTAL			362,948	45,684	96,010	11,922	12	35,050	8,208	30			572	13			

AVG	12,098	1,523	3,200	397	0	1,168	274	1			19	0	84.0	1.9	7.0	66.2
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**Data unavailable

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
TOTALS TO DATE												
SPRING	109,964	10,131	106,025	13,093	327,600	111,066	39,619	36	0	4,345,373	63,906	25
SUMMER	79,259	10,012										
FALL	503,799	59,018										
TOTAL	693,022	79,161										

Note: Shad counting is discontinued on August 31.

TABLE 15

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT		CHINOOK		COHO		COHO		unclipped		PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	ADULT	JACK	STEELHEAD	STEELHEAD								SECCHI	DEG F
Oct 1			889	251	1,312	169			268	82		0		1	0	83.8	1.9	7.0	65.0
Oct 2			1,578	266	1,534	205			308	90		0		4	0	81.0	1.8	7.0	65.0
Oct 3			2,926	519	2,496	451			411	124		0		2	0	81.5	1.8	7.0	64.0
Oct 4			1,303	208	1,236	402			254	68		0		4	0	89.3	1.8	7.0	64.0
Oct 5			2,141	430	2,073	425			272	65		0		4	0	94.7	1.7	7.0	64.0
Oct 6			2,466	536	2,705	425			264	86		0		0	0	90.2	1.7	7.0	64.0
Oct 7			2,139	554	3,199	481			214	54		0		6	0	83.2	1.7	7.0	64.0
Oct 8			2,445	500	2,063	426			230	71		0		0	1	93.2	1.7	7.0	64.0
Oct 9			1,524	307	1,124	294			162	54		0		-3	0	90.3	1.7	7.0	64.0
Oct 10			1,999	384	943	159			188	61		0		-2	0	88.7	1.8	7.0	64.0
Oct 11			1,151	306	775	173			75	19		0		1	0	86.8	1.7	7.0	64.0
Oct 12			469	81	219	82			54	20		0		7	0	79.6	1.3	6.0	64.0
Oct 13			1,511	350	1,011	200			170	67		1		3	0	86.0	1.7	6.0	63.0
Oct 14			705	166	597	97			174	105		0		1	1	91.6	1.7	**	63.0
Oct 15			733	179	609	99			128	57		0		0	0	85.2	1.8	7.0	63.0
Oct 16			431	100	164	52			30	7		0		0	0	83.7	1.7	7.0	63.0
Oct 17			543	94	289	88			46	17		0		3	0	84.8	1.7	7.0	63.0
Oct 18			390	96	163	37			31	15		0		0	0	83.8	1.7	7.0	62.0
Oct 19			485	88	173	55			44	17		1		0	0	90.9	1.7	7.0	62.0
Oct 20			397	79	169	41			37	8		0		1	0	95.1	1.6	7.0	62.0
Oct 21			473	143	152	37			42	28		2		-3	0	93.7	1.7	7.0	62.0
Oct 22			249	56	165	27			39	13		1		1	0	88.5	1.6	7.0	62.0
Oct 23			172	37	147	31			28	5		2		0	0	78.1	1.6	7.0	62.0
Oct 24			263	44	76	9			28	12		1		0	0	78.2	1.7	7.0	62.0
Oct 25			197	53	62	8			25	10		4		1	0	100.3	1.6	7.0	61.0
Oct 26			236	30	87	42			19	9		7		0	0	106.6	1.7	7.0	60.0
Oct 27			132	29	122	21			19	13		1		1	0	91.7	1.6	7.0	60.0
Oct 28			166	42	98	12			32	11		9		0	0	78.9	1.6	7.0	60.0
Oct 29			150	37	69	7			31	12		9		0	0	76.0	1.7	7.0	59.0
Oct 30			86	23	168	23			19	15		2		0	0	91.4	1.5	7.0	57.0
Oct 31			108	30	465	21			10	3		15		0	0	99.1	1.5	7.0	56.0
TOTAL			28,457	6,018	24,465	4,599			3,652	1,218		55		32	2				

AVG	918	194	789	148					118	39		2		1	0	87.9	1.7	6.9	62.3
**Data unavailable																			

RUN YEAR TOTALS TO DATE	CHINOOK	CHINOOK	COHO		unclipped		PINK	CHUM	SHAD	LAMPREY	STURGEON	
	ADULT	JACK	ADULT	JACK	STEELHEAD	STEELHEAD						
SPRING	109,964	10,131	130,490	17,692	327,600	114,718	40,837	36	55	4,345,373	63,938	27
SUMMER	79,259	10,012										
FALL	532,256	65,036										
TOTAL	721,479	85,179										

TABLE 16

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Nov 1			109	30	144	10		15	7		14		0	0	119.8	1.5	7.0	56.0
Nov 2			175	23	134	13		4	2		20		-1	0	114.1	1.4	7.0	55.0
Nov 3			43	1	164	23		20	0		38		0	1	118.4	1.5	7.0	55.0
Nov 4			83	13	148	15		43	16		38		0	0	108.4	1.6	7.0	56.0
Nov 5			61	19	247	26		30	8		61		2	0	110.8	1.4	5.0	56.0
Nov 6			55	-1	151	6		15	17		16		0	0	113.1	1.4	7.0	56.0
Nov 7			24	3	203	4		25	15		40		0	0	109.1	1.4	4.0	56.0
Nov 8			44	11	136	13		55	34		27		0	0	111.6	1.3	7.0	56.0
Nov 9			40	-2	47	2		30	20		37		0	0	127.9	1.4	5.0	55.0
Nov 10			35	2	27	2		18	8		24		0	0	122.2	1.4	5.0	55.0
Nov 11			17	5	38	2		21	23		24		0	0	117.3	1.5	7.0	55.0
Nov 12			18	4	4	3		13	7		26		0	0	122.0	1.5	7.0	55.0
Nov 13			13	3	18	2		5	2		25		0	0	118.0	1.4	7.0	54.0
Nov 14			1	9	13	-1		12	4		5		0	0	123.1	1.4	7.0	54.0
Nov 15			12	5	6	2		7	7		16		0	0	122.5	1.4	7.0	53.0
Nov 16			5	0	6	0		10	4		18		0	0	126.4	1.4	7.0	53.0
Nov 17			4	-2	6	0		5	3		30		0	0	131.0	1.4	7.0	52.0
Nov 18			7	0	27	0		-3	3		27		0	0	130.7	1.4	7.0	52.0
Nov 19			0	1	15	1		12	2		11		0	0	125.1	1.4	7.0	52.0
Nov 20			10	3	10	0		7	1		11		0	0	133.9	1.4	7.0	51.0
Nov 21			7	2	2	2		4	4		7		0	0	131.6	1.4	7.0	51.0
Nov 22			4	1	6	0		3	6		15		0	0	126.0	1.4	7.0	50.0
Nov 23			6	1	1	1		8	7		5		0	0	125.0	1.4	7.0	50.0
Nov 24			2	1	4	2		8	4		4		0	0	125.4	1.4	7.0	50.0
Nov 25			-1	2	0	3		5	3		6		0	0	128.1	1.4	7.0	50.0
Nov 26			3	0	12	0		6	3		2		0	0	130.4	1.6	7.0	50.0
Nov 27			2	0	12	1		8	6		4		0	0	130.4	1.5	7.0	49.0
Nov 28			-2	0	6	0		10	4		0		0	0	130.0	1.5	7.0	48.0
Nov 29			0	1	5	-1		8	4		4		0	0	130.5	1.5	7.0	48.0
Nov 30			2	0	-1	1		14	6		2		0	0	132.7	1.5	7.0	47.0
TOTAL			779	135	1,591	132		418	230		557		1	1				
AVG			26	5	53	4		14	8		19		0	0	123.2	1.4	6.7	52.7

RUN YEAR	CHINOOK	CHINOOK	COHO	COHO	unclipped									
TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON		
SPRING	109,964	10,131			131,970	17,814	327,600	115,031	41,007	36	612	4,345,373	63,939	28
SUMMER	79,259	10,012												
FALL	532,986	65,161												
TOTAL	722,209	85,304												

Note: Official Fall Chinook run ended November 15. Counts on November 16-30 are not included in fall totals. Pink, chum, and sturgeon counts are totals for the entire calendar year.

TABLE 17

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS														DECEMBER 2023				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Dec 1			0	-1	-1	1		12	4		0		0		130.3	1.2	**	47.0
Dec 2			0	-1	6	0		7	4		1		0		123.4	0.6	7.0	47.0
Dec 3			-2	-1	30	1		16	3		2		0		126.1	0.7	7.0	47.0
Dec 4			0	0	39	5		9	4		-1		0		123.9	1.0	7.0	47.0
Dec 5			1	1	24	0		-15	-14		0		0		108.2	0.7	5.0	47.0
Dec 6			0	0	4	-1		-19	-6		0		0		105.6	0.7	4.5	47.0
Dec 7			3	0	11	0		8	1		0		0		99.4	0.6	3.0	47.0
Dec 8			3	2	1	0		-2	2		0		0		109.4	0.6	4.0	47.0
Dec 9			1	1	0	0		28	13		0		0		118.1	0.6	4.0	47.0
Dec 10			1	2	3	0		15	7		0		0		124.9	0.6	3.0	47.0
Dec 11			2	1	-3	-1		22	10		0		0		119.3	0.6	3.0	47.0
Dec 12			2	0	-1	0		25	13		0		0		135.4	0.6	4.0	47.0
Dec 13			0	1	0	1		8	5		0		0		131.1	1.0	4.0	47.0
Dec 14			-1	1	0	0		9	4		0		0		121.5	0.6	4.0	46.0
Dec 15			-1	0	0	0		12	7		0		0		131.0	0.7	6.0	46.0
Dec 16			1	0	-1	0		20	11		1		-1		119.4	0.7	6.0	46.0
Dec 17			0	0	0	0		18	8		0		0		125.5	0.7	7.0	46.0
Dec 18			0	0	1	0		20	7		0		0		125.9	0.6	6.0	45.0
Dec 19			0	0	0	0		14	4		0		0		122.1	0.6	5.0	45.0
Dec 20			0	1	0	0		23	3		0		0		118.1	0.6	6.0	45.0
Dec 21			0	0	0	0		8	4		0		0		119.8	0.6	7.0	45.0
Dec 22			0	0	0	0		22	11		0		0		113.8	0.6	5.0	45.0
Dec 23			0	0	0	0		14	2		0		-1		116.4	0.6	5.0	45.0
Dec 24			0	0	0	0		16	7		0		0		121.0	0.7	7.0	45.0
Dec 25			0	-1	0	0		28	11		0		0		126.4	0.7	7.0	45.0
Dec 26			0	1	0	0		20	8		0		0		122.6	0.7	7.0	45.0
Dec 27			0	0	-1	0		11	1		0		0		121.1	0.7	7.0	44.0
Dec 28			0	1	0	0		17	6		0		0		128.5	0.7	7.0	44.0
Dec 29			0	0	-1	0		16	5		0		0		133.1	0.7	7.0	44.0
Dec 30			0	0	0	0		13	4		0		0		130.0	0.7	7.0	44.0
Dec 31			0	0	0	0		10	4		0		0		124.8	0.7	7.0	44.0
TOTAL			10	8	111	6		405	153		3		-2					
AVG			0	0	4	0		13	5		0		0		121.8	0.7	5.6	45.8
**Data unavailable																		

**Data unavailable

RUN YEAR	CHINOOK		COHO		unclipped		PINK	CHUM	SHAD	LAMPREY	STURGEON
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
SPRING	109,964	10,131		131,970	17,814	327,600	115,031	41,007	36	615	4,345,373
SUMMER	79,259	10,012									63,939
FALL	532,986	65,161									28
TOTAL	722,209	85,304									

Note: December 1 to 31 counts were from video review. The counts are 16-hour counts and occurred between 0400-2000 PST. Visual counting ended November 30. Official Fall Chinook run ended November 15. December counts were not added to fall totals. Pink, chum, and sturgeon counts are totals for the entire calendar year.

TABLE 18

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

BONNEVILLE PROJECT - NIGHT FISH COUNTS**May 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD			
May 1												
May 2												
May 3												
May 4												
May 5												
May 6												
May 7												
May 8												
May 9												
May 10												
May 11												
May 12												
May 13												
May 14												
May 15	67			43			0	2	0			13
May 16	73			25			0	1	0			53
May 17	26			5			0	2	0			65
May 18	68			9			0	2	0			83
May 19	35			3			0	0	0			120
May 20	46			-3			0	0	0			225
May 21	16			3			0	1	0			209
May 22	20			4			0	1	0			90
May 23	21			-1			0	0	0			180
May 24	22			5			0	5	2			201
May 25	12			4			0	3	0			392
May 26	23			2			0	1	0			409
May 27	17			5			0	2	0			172
May 28	16			1			0	1	0			116
May 29	13			3			1	2	0			45
May 30	27			1			0	1	0			152
May 31	15			1			0	2	2			-42
TOTAL	517			110			1	26	4			2,483
AVG	30			6			0	2	0			146

Note: Night counts are video counts from 2000 to 0400 PST.

TABLE 19

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS**Jun 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Jun 1		13		1			1	0	1			139
Jun 2		16		3			0	2	2			696
Jun 3		16		4			3	1	0			461
Jun 4		18		1			3	1	1			512
Jun 5		19		2			1	4	2			436
Jun 6		28		3			9	1	0			76
Jun 7		27		3			12	4	0			90
Jun 8		27		3			4	1	-1			382
Jun 9		17		3			15	0	0			552
Jun 10		50		9			20	0	0			354
Jun 11		51		4			59	7	4			132
Jun 12		46		3			47	0	0			896
Jun 13		27		5			93	2	0			-719
Jun 14		7		2			76	2	0			-208
Jun 15		21		0			82	0	1			-1,686
Jun 16		47		2			140	7	1			-687
Jun 17		38		9			216	0	0			654
Jun 18		33		1			342	4	3			262
Jun 19		64		47			1,129	6	3			-192
Jun 20		60		2			337	3	-2			317
Jun 21		34		3			336	6	3			1,088
Jun 22		37		0			242	6	3			-166
Jun 23		43		14			457	5	2			135
Jun 24		19		1			349	5	2			-25
Jun 25		27		3			477	12	10			2,210
Jun 26		41		3			498	6	3			459
Jun 27		47		6			729	9	3			1,094
Jun 28		35		0			840	7	4			956
Jun 29		44		8			803	15	8			414
Jun 30		41		2			955	4	3			57
TOTAL		993		147			8,275	120	56			8,689
AVG		33		5			276	4	2			290

Note: Night counts are video counts from 2000 to 0400 PST.

TABLE 20

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Jul 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Jul 1		40		0			1,039	15	9			422
Jul 2		48		4			897	13	7			40
Jul 3		32		6			975	16	10			429
Jul 4		23		8			951	8	3			269
Jul 5		32		2			733	19	8			1,331
Jul 6		17		8			515	17	10			607
Jul 7		16		3			498	31	21			-716
Jul 8		29		1			396	34	23			609
Jul 9		10		4			332	13	6			369
Jul 10		16		5			490	24	14			1,961
Jul 11		20		13			541	23	9			1,041
Jul 12		20		9			392	34	19			242
Jul 13		18		5			264	26	13			529
Jul 14		32		1			206	27	16			580
Jul 15		38		2			127	18	13			-177
Jul 16		16		1			156	8	11			1,420
Jul 17		19		2			111	8	9			1,367
Jul 18		21		7			131	19	15			591
Jul 19		12		3			84	16	8			2,072
Jul 20		35		0			76	23	12			828
Jul 21		21		4			67	18	18			-1
Jul 22		28		2			61	9	7			-292
Jul 23		23		1			25	28	25			713
Jul 24		5		5			9	10	11			625
Jul 25		4		0			19	15	7			710
Jul 26		11		1			19	-5	-5			589
Jul 27		14		1			34	6	2			425
Jul 28		17		0			16	7	3			233
Jul 29		34		0			21	27	14			-182
Jul 30		39		3			8	24	21			107
Jul 31		13		2			9	0	3			-62
TOTAL		703		103			9,202	531	342			16,679
AVG		23		3			297	17	11			538

Note: Night counts are video counts from 2000 to 0400 PST.

TABLE 21

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS**Aug 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD			
Aug 1			11	2	0	0	8	6	3			-42
Aug 2			44	1	0	0	5	55	23			358
Aug 3			48	3	0	0	11	55	30			188
Aug 4			9	0	0	0	-2	-3	7			108
Aug 5			19	3	0	0	3	40	30			113
Aug 6			17	-2	0	0	4	16	10			93
Aug 7			16	0	-2	0	-1	5	4			-161
Aug 8			24	0	-1	0	1	-3	0			186
Aug 9			25	2	-1	0	1	6	-3			-62
Aug 10			28	4	0	0	1	27	14			7
Aug 11			45	1	1	0	2	28	13			233
Aug 12			14	3	0	0	1	9	13			-68
Aug 13			48	2	0	0	2	4	-1			256
Aug 14			151	0	-1	1	3	28	21			-137
Aug 15			88	0	2	0	1	22	13			-4
Aug 16			51	1	0	0	1	47	11			499
Aug 17			38	3	1	0	0	-5	1			-18
Aug 18			79	-1	0	0	0	6	9			172
Aug 19			67	6	0	0	0	7	0			-113
Aug 20			173	6	1	0	0	11	3			116
Aug 21			186	3	2	1	-2	10	4			-47
Aug 22			195	7	12	1	1	52	25			16
Aug 23			156	9	14	0	0	45	13			34
Aug 24			94	14	1	0	0	18	6			138
Aug 25			361	41	274	11	0	62	11			-26
Aug 26			1,021	92	950	39	1	77	11			-131
Aug 27			579	41	188	9	0	72	16			-7
Aug 28			150	14	32	2	0	31	8			26
Aug 29			437	80	613	17	1	32	5			69
Aug 30			229	10	24	0	1	54	6			36
Aug 31			229	38	318	4	1	103	30			110
TOTAL			4,632	383	2,428	85	44	917	336			1,942
AVG			149	12	78	3	1	30	11			63

Note: Night counts are video counts from 2000 to 0400 PST. No night video counts at Washington shore ladder on August 15.

TABLE 22

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Sep 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT			STEELHEAD			
Sep 1			830	129	1,437	35	-1	424	120		-2
Sep 2			425	41	169	6	0	184	43		61
Sep 3			169	27	56	2	1	63	14		92
Sep 4			231	9	99	0	0	94	23		22
Sep 5			157	26	61	7	0	49	9		46
Sep 6			183	19	80	2	1	46	8		-17
Sep 7			302	24	94	9	0	78	24		-4
Sep 8			137	20	57	9	0	57	6		8
Sep 9			44	19	15	2	0	34	0		74
Sep 10			106	23	8	0	0	45	16		24
Sep 11			128	2	33	1	0	36	11		6
Sep 12			43	24	43	0	0	36	7		9
Sep 13			17	2	26	3	0	26	9		51
Sep 14			77	0	2	2	0	22	8		42
Sep 15			37	9	-3	0	0	34	12		26
Sep 16			29	4	27	0	0	23	7		33
Sep 17			21	11	10	-10	0	22	6		15
Sep 18			6	2	13	0	0	17	2		3
Sep 19			11	7	4	-1	0	9	4		6
Sep 20			21	1	6	2	0	7	-1		22
Sep 21			20	2	3	6	0	10	1		15
Sep 22			20	20	0	-1	0	6	1		8
Sep 23			19	0	11	0	0	8	0		-7
Sep 24			17	0	3	0	0	7	-1		9
Sep 25			31	3	17	1	0	27	5		6
Sep 26			25	15	14	0	0	44	16		-1
Sep 27			116	29	49	3	0	88	38		6
Sep 28			42	9	39	1	0	40	16		4
Sep 29			35	4	63	1	0	23	4		1
Sep 30			15	4	39	1	0	25	7		4
TOTAL			3,314	485	2,475	81	1	1,584	415		562
AVG			110	16	83	3	0	53	14		19

Note: Night counts are video counts from 2000 to 0400 PST.

TABLE 23a

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1938 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
1938	271,799	107,003	75,040	15,185	2,117	0	471,144
1939	286,189	122,032	73,382	14,383	1,168	0	497,154
1940	391,587	185,174	148,807	11,917	1,729	0	739,214
1941	461,443	118,089	65,741	17,911	5,269	4	668,457
1942	401,998	151,800	55,464	12,402	1,865	11	623,540
1943	313,123	92,133	39,845	2,547	788	0	448,436
1944	240,764	100,518	15,072	4,207	954	1	361,516
1945	297,478	120,133	9,501	790	728	1	428,631
1946	446,052	142,807	74,376	3,898	1,178	2	668,313
1947	480,377	135,444	171,139	11,174	199	3	798,336
1948	419,555	139,062	131,541	4,081	3,636	2	697,877
1949	277,697	119,285	51,444	1,004	2,028	6	451,464
1950	357,375	114,087	77,993	10,151	1,069	8	560,683
1951	331,788	140,689	169,428	5,201	1,044	7	648,157
1952	420,879	260,990	184,645	7,768	1,505	9	875,796
1953	332,479	223,914	235,215	13,018	1,728	10	806,364
1954	320,947	176,260	130,107	4,062	1,569	4	632,949
1955	359,853	198,411	237,748	3,725	318	9	800,064
1956	300,917	131,116	156,418	6,127	693	4	595,275
1957	403,286	139,183	82,915	4,675	569	12	630,640
1958	426,419	131,437	122,389	3,673	455	6	684,379
1959	345,028	129,026	86,560	2,695	906	22	564,237
1960	256,049	113,676	59,713	3,268	1,026	0	433,732
1961	281,980	139,719	17,111	3,456	896	12	443,174
1962	286,625	164,025	28,179	14,788	1,013	27	494,657
1963	278,560	129,418	60,319	12,658	739	34	481,728
1964	344,422	117,252	99,856	53,602	632	45	615,809
1965	317,957	166,453	55,125	76,032	496	64	616,127
1966	340,111	143,661	156,661	71,891	872	58	713,254
1967	366,237	121,872	144,158	96,488	352	50	729,157
1968	341,154	106,974	108,207	63,488	79	21	619,923
1969	507,543	140,782	59,636	49,378	143	86	757,568
1970	384,780	113,510	70,762	80,116	209	150	649,527
1971	405,702	193,966	87,447	75,989	29	176	763,309
1972	394,456	185,886	56,323	65,932	1	51	702,649
1973	398,635	157,823	58,979	54,609	43	12	670,101
1974	366,759	137,054	43,837	60,955	23	2	608,630
1975	425,566	85,540	58,212	58,307	11	309	627,945
1976	507,773	124,177	43,611	53,150	11	2	728,724
1977	366,657	193,437	99,829	19,408	17	0	679,348
1978	394,600	104,431	18,436	52,590	28	0	570,085
1979	276,306	113,979	52,628	45,328	1	23	488,265
1980	245,518	129,254	58,882	22,052	44	0	455,750
1981	285,650	159,270	56,037	30,510	4	20	531,491
1982	322,809	157,640	50,219	73,832	12	0	604,512
1983	244,346	218,439	100,545	15,173	50	52	578,605
1984	324,425	315,560	152,541	29,487	64	8	822,085
1985	463,873	343,987	166,340	56,857	97	147	1,031,301

TABLE 23a
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1938 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
1986	570,881	379,891	58,123	130,853	77	23	1,139,848
1987	547,494	303,081	116,993	27,635	147	20	995,370
1988	494,025	279,072	79,714	39,620	60	6	892,497
1989	416,117	287,798	41,884	39,281	16	12	785,108
1990	340,990	183,027	49,581	24,845	26	0	598,469
1991	274,622	274,545	76,481	64,057	5	550	690,260
1992	256,299	314,975	84,992	18,126	39	24	674,455
1993	277,657	188,386	80,178	11,732	17	15	557,985
1994	244,320	163,124	13,154	22,794	26	5	443,423
1995	245,250	209,071	9,135	12,572	30	36	476,094
1996	299,962	212,475	31,093	19,077	22	1	562,630
1997	399,784	274,536	48,342	27,919	47	64	750,692
1998	290,292	197,501	13,613	49,488	21	13	550,928
1999	347,486	212,118	18,304	45,805	43	28	623,784
2000	501,012	282,935	97,541	99,660	17	0	981,165
2001	1,037,440	676,793	123,416	277,934	29	-4	2,115,608
2002	965,356	510,680	51,200	100,835	72	0	1,628,143
2003	996,660	365,821	39,291	133,874	411	637	1,536,694
2004	906,197	313,378	123,291	119,851	80	1	1,462,798
2005	600,415	315,650	72,971	88,791	139	22	1,077,988
2006	526,538	339,301	37,066	110,054	165	6	1,013,130
2007	359,867	325,450	24,376	100,725	142	27	810,587
2008	587,428	357,845	213,607	146,059	75	60	1,305,074
2009	699,121	604,970	177,823	234,669	109	95	1,716,787
2010	902,439	416,603	386,524	127,644	124	4	1,833,338
2011	863,201	369,365	185,796	149,883	50	3,828	1,572,123
2012	733,930	235,303	515,673	60,023	65	1	1,544,995
2013	1,327,783	240,110	197,826	68,651	167	520	1,835,057
2014	1,363,284	338,533	656,103	302,559	122	1	2,660,602
2015	1,497,536	276,422	545,196	43,128	176	55	2,362,513
2016	799,259	194,364	357,863	48,249	47	3	1,399,785
2017	574,012	121,487	90,027	82,327	21	42	867,916
2018	389,228	2,634	204,930	50,095	180	4	647,071
2019	463,241	79,954	66,296	84,486	316	104	694,397
2020	623,274	116,699	357,555	149,271	193	2	1,246,994
2021	576,771	73,560	161,564	267,999	342	324	1,080,560
2022	888,533	132,022	696,983	184,566	299	8	1,902,411
2023	818,981	119,186	345,123	155,075	615	36	1,439,016
Total	41,022,211	17,545,043	10,807,991	5,120,150	42,939	8,043	74,546,377
10-Year Average	799,412	145,486	348,164	136,776	231	58	1,430,127

*Jacks included

Note: Totals from 1994 - 2003 include nighttime video and 24-hour video as described in the footnotes of the monthly count tables. Totals for 2013-23 include nighttime video counts.

TABLE 23b

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM -- DAYTIME COUNTS

1938 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
1938	271,799	107,003	75,040	15,185	2,117	0	471,144
1939	286,189	122,032	73,382	14,383	1,168	0	497,154
1940	391,587	185,174	148,807	11,917	1,729	0	739,214
1941	461,443	118,089	65,741	17,911	5,269	4	668,457
1942	401,998	151,800	55,464	12,402	1,865	11	623,540
1943	313,123	92,133	39,845	2,547	788	0	448,436
1944	240,764	100,518	15,072	4,207	954	1	361,516
1945	297,478	120,133	9,501	790	728	1	428,631
1946	446,052	142,807	74,376	3,898	1,178	2	668,313
1947	480,377	135,444	171,139	11,174	199	3	798,336
1948	419,555	139,062	131,541	4,081	3,636	2	697,877
1949	277,697	119,285	51,444	1,004	2,028	6	451,464
1950	357,375	114,087	77,993	10,151	1,069	8	560,683
1951	331,788	140,689	169,428	5,201	1,044	7	648,157
1952	420,879	260,990	184,645	7,768	1,505	9	875,796
1953	332,479	223,914	235,215	13,018	1,728	10	806,364
1954	320,947	176,260	130,107	4,062	1,569	4	632,949
1955	359,853	198,411	237,748	3,725	318	9	800,064
1956	300,917	131,116	156,418	6,127	693	4	595,275
1957	403,286	139,183	82,915	4,675	569	12	630,640
1958	426,419	131,437	122,389	3,673	455	6	684,379
1959	345,028	129,026	86,560	2,695	906	22	564,237
1960	256,049	113,676	59,713	3,268	1,026	0	433,732
1961	281,980	139,719	17,111	3,456	896	12	443,174
1962	286,625	164,025	28,179	14,788	1,013	27	494,657
1963	278,560	129,418	60,319	12,658	739	34	481,728
1964	344,422	117,252	99,856	53,602	632	45	615,809
1965	317,957	166,453	55,125	76,032	496	64	616,127
1966	340,111	143,661	156,661	71,891	872	58	713,254
1967	366,237	121,872	144,158	96,488	352	50	729,157
1968	341,154	106,974	108,207	63,488	79	21	619,923
1969	507,543	140,782	59,636	49,378	143	86	757,568
1970	384,780	113,510	70,762	80,116	209	150	649,527
1971	405,702	193,966	87,447	75,989	29	176	763,309
1972	394,456	185,886	56,323	65,932	1	51	702,649
1973	398,635	157,823	58,979	54,609	43	12	670,101
1974	366,759	137,054	43,837	60,955	23	2	608,630
1975	425,566	85,540	58,212	58,307	11	309	627,945
1976	507,773	124,177	43,611	53,150	11	2	728,724
1977	366,657	193,437	99,829	19,408	17	0	679,348
1978	394,600	104,431	18,436	52,590	28	0	570,085
1979	276,306	113,979	52,628	45,328	1	23	488,265
1980	245,518	129,254	58,882	22,052	44	0	455,750
1981	285,650	159,270	56,037	30,510	4	20	531,491
1982	322,809	157,640	50,219	73,832	12	0	604,512
1983	244,346	218,439	100,545	15,173	50	52	578,605
1984	324,425	315,560	152,541	29,487	64	8	822,085
1985	463,873	343,987	166,340	56,857	97	147	1,031,301

TABLE 23b
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM -- DAYTIME COUNTS

1938 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
1986	570,881	379,891	58,123	130,853	77	23	1,139,848
1987	547,494	303,081	116,993	27,635	147	20	995,370
1988	494,025	279,072	79,714	39,620	60	6	892,497
1989	416,117	287,798	41,884	39,281	16	12	785,108
1990	340,990	183,027	49,581	24,845	26	0	598,469
1991	274,622	274,545	76,481	64,057	5	550	690,260
1992	256,299	314,975	84,992	18,126	39	24	674,455
1993	277,657	188,386	80,178	11,732	17	15	557,985
1994	243,450	161,978	12,678	22,794	26	5	440,931
1995	240,050	202,448	8,774	12,034	30	36	463,372
1996	296,635	205,213	30,252	18,747	22	1	550,870
1997	387,088	258,385	47,008	27,267	47	64	719,859
1998	280,944	185,094	13,218	49,920	21	13	529,210
1999	343,176	206,488	17,877	45,152	43	28	612,764
2000	491,905	275,178	93,398	97,032	17	0	957,530
2001	971,119	633,073	114,934	266,314	29	-4	1,985,465
2002	924,679	480,309	49,610	94,901	72	0	1,549,571
2003	996,660	365,821	39,291	133,874	411	637	1,536,694
2004	906,197	313,378	123,291	119,851	80	1	1,462,798
2005	600,415	315,650	72,971	88,791	139	22	1,077,988
2006	526,538	339,301	37,066	110,054	165	6	1,013,130
2007	359,867	325,450	24,376	100,725	142	27	810,587
2008	587,428	357,845	213,607	146,059	75	60	1,305,074
2009	699,121	604,970	177,823	234,669	109	95	1,716,787
2010	902,439	416,603	386,524	127,644	124	4	1,833,338
2011	863,201	369,365	185,796	149,883	50	3,828	1,572,123
2012	733,930	235,303	515,673	60,023	65	1	1,544,995
2013	1,300,711	234,047	185,505	66,758	167	508	1,787,696
2014	1,339,659	326,001	614,179	294,534	122	1	2,574,496
2015	1,450,683	268,730	510,706	42,267	176	55	2,272,617
2016	774,172	188,146	342,498	47,509	47	3	1,352,375
2017	555,440	117,878	87,693	80,756	21	42	841,830
2018	379,823	102,920	193,816	49,467	180	4	726,210
2019	441,805	77,320	63,046	80,227	316	104	662,818
2020	610,931	114,433	341,739	146,704	193	2	1,214,002
2021	570,281	71,980	151,765	263,337	333	324	1,058,020
2022	872,867	126,367	663,253	181,958	299	8	1,844,752
2023	807,594	116,008	327,600	150,006	615	36	1,401,859
Total	40,652,419	17,462,835	10,592,276	5,065,344	42,930	8,031	73,823,835
10-Year Average	780,326	150,978	329,630	133,677	230	58	1,394,898

*Jacks included

Note: These totals are for daytime counts and do not include night counting or 24-hour video counts.

TABLE 24

MONTHLY COUNT OF CHINOOK SALMON														SPRING		SUMMER		FALL	
BONNEVILLE DAM - 1938 - 2023														Jan 1- May 31		Jun 1- Jul 31		Aug 1- Dec 31	
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*						
1938					22,371	8,221	6,556	34,765	197,294	2,302	263	27	271,799	22,371	14,777	234,651			
1939	6	12	121	51,410	25,159	5,602	17,828	32,909	150,851	2,197	78	16	286,189	76,708	23,430	186,051			
1940			504	37,253	28,621	7,027	14,938	58,643	240,515	3,765	287	34	391,587	66,378	21,965	303,244			
1941	4		1,360	51,486	19,445	7,013	9,395	12,590	351,967	7,179	866	138	461,443	72,295	16,408	372,740			
1942	1	15	34	9,506	30,915	11,816	12,821	27,581	303,995	4,485	639	190	401,998	40,471	24,637	336,890			
1943	11	6	43	12,172	53,268	5,440	8,044	28,985	201,414	3,354	365	21	313,123	65,500	13,484	234,139			
1944	1	2	65	15,671	15,127	4,363	8,241	55,468	139,254	2,388	164	20	240,764	30,866	12,604	197,294			
1945	6	4	81	17,148	26,276	11,293	16,317	32,254	189,675	4,281	137	6	297,478	43,515	27,610	226,353			
1946	1	2	25	14,196	53,313	30,253	20,967	45,422	277,152	4,523	173	25	446,052	67,537	51,220	327,295			
1947		2	141	83,520	49,899	25,502	13,358	43,062	260,385	3,945	526	37	480,377	133,562	38,860	307,955			
1948	10		251	21,205	20,262	44,137	23,100	35,934	270,238	3,928	467	23	419,555	41,728	67,237	310,590			
1949			5	5,765	44,304	24,232	22,500	41,500	137,599	1,571	215	6	277,697	50,074	46,732	180,891			
1950			21	6,630	50,638	16,667	32,937	40,462	205,521	4,356	143		357,375	57,289	49,604	250,482			
1951			32	28,801	86,055	54,889	24,394	33,785	97,131	6,489	212		331,788	114,888	79,283	137,617			
1952			255	8,130	107,807	62,491	21,800	82,290	135,053	2,576	477		420,879	116,192	84,291	220,396			
1953			1,254	126,450	42,583	27,228	30,593	27,398	75,145	1,495	333		332,479	170,287	57,821	104,371			
1954		2	657	82,877	51,230	46,801	32,596	24,969	80,426	1,189	200		320,947	134,766	79,397	106,784			
1955			1,391	84,436	85,769	45,502	37,437	32,833	70,558	1,803	124		359,853	171,596	82,939	105,318			
1956			161	8,850	54,438	64,262	36,938	42,203	92,030	1,854	179	2	300,917	63,449	101,200	136,268			
1957			328	90,984	45,128	104,243	30,790	34,829	95,457	1,352	175		403,286	136,440	135,033	131,813			
1958			468	15,361	59,377	74,375	27,524	19,735	227,504	1,948	127		426,419	75,206	101,899	249,314			
1959			182	26,944	34,007	39,581	49,371	24,945	168,187	1,643	168		345,028	61,133	88,952	194,943			
1960			184	37,064	32,349	65,247	19,923	22,719	76,327	2,012	224		256,049	69,597	85,170	101,282			
1961			476	72,526	25,693	41,302	25,159	22,675	90,688	3,108	353		281,980	98,695	66,461	116,824			
1962			1,278	56,201	33,637	52,392	25,093	23,526	91,320	2,759	419		286,625	91,116	77,485	118,024			
1963			2,802	43,859	28,810	36,836	27,178	28,586	104,415	5,571	503		278,560	75,471	64,014	139,075			
1964			2,418	69,031	19,979	35,814	44,717	26,546	141,525	4,157	235		344,422	91,428	80,531	172,463			
1965			1,238	47,083	35,945	38,482	37,515	38,727	112,664	6,074	229		317,957	84,266	75,997	157,694			
1966			2,168	92,637	17,864	40,233	31,764	20,608	128,421	6,052	364		340,111	112,669	71,997	155,445			
1967			1,620	71,957	11,358	41,847	53,812	25,760	154,323	5,405	155		366,237	84,935	95,659	185,643			
1968			1,342	69,420	28,425	46,793	36,126	27,779	126,994	4,010	265		341,154	99,187	82,919	159,048			
1969			1,910	65,371	106,281	59,177	42,976	38,456	187,502	5,511	359		507,543	173,562	102,153	231,828			
1970			2,020	78,605	30,351	35,091	29,811	44,559	159,710	4,364	269		384,780	110,976	64,902	208,902			
1971			683	60,849	63,985	37,757	40,154	26,749	166,346	8,820	359		405,702	125,517	77,911	202,274			
1972			426	154,443	31,271	36,758	34,072	23,577	109,820	3,939	150		394,456	186,140	70,830	137,486			
1973			1,585	128,495	12,068	24,164	21,196	31,513	170,895	8,457	262		398,635	142,148	45,360	211,127			
1974			434	57,516	76,585	13,424	32,472	15,554	156,543	13,923	308		366,759	134,535	45,896	186,328			
1975			162	48,295	55,647	16,989	27,362	37,907	234,145	4,847	212		425,566	104,104	44,351	277,111			
1976			587	58,978	53,883	39,130	29,883	48,776	262,615	13,395	526		507,773	113,448	69,013	325,312			
1977			3,569	98,710	17,229	21,790	19,233	21,992	171,303	11,805	1,026		366,657	119,508	41,023	206,126			
1978			4,291	100,712	44,860	27,125	17,198	23,513	165,411	11,104	386		394,600	149,863	44,323	200,414			
1979			790	29,751	20,921	15,924	18,293	41,273	142,241	6,865	248		276,306	51,462	34,217	190,627			
1980			535	30,732	29,720	15,384	15,681	26,106	118,669	8,404	287		245,518	60,987	31,065	153,466			
1981			1,853	41,917	21,239	13,262	13,667	32,519	154,696	6,288	209		285,650	65,009	26,929	193,712			
1982			312	30,282	45,450	15,439	11,175	34,058	174,348	11,487	258		322,809	76,044	26,614	220,151			
1983			144	25,423	31,154	12,793	10,665	26,147	116,879	20,458	683		244,346	56,721	23,458	164,167			
1984			351	27,185	23,509	13,060	15,447	41,909	180,867	21,673	424		324,425	51,045	28,507	244,873			
1985			2,036	52,145	36,780	16,763	13,107	64,899	255,020	22,099	1,024		463,873	90,961	29,870	343,042			

TABLE 24

(Continued)

MONTHLY COUNT OF CHINOOK SALMON												SPRING SUMMER FALL			
BONNEVILLE DAM - 1938-2023												TOTAL*	Jan 1-	Jun 1-	Aug 1-
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	May 31	Jul 31	Dec 31
1986			2,292	82,356	38,395	18,365	12,676	38,737	337,721	39,511	828		570,881	123,043	416,797
1987			2,727	68,866	30,214	22,728	14,979	82,500	298,865	25,614	1,001		547,494	101,807	407,980
1988			2,663	69,689	22,394	18,191	18,333	111,905	236,662	13,656	532		494,025	94,746	362,755
1989			36	56,583	30,640	15,659	17,316	102,573	181,691	11,218	401		416,117	87,259	295,883
1990			677	67,536	28,039	16,990	11,031	59,066	149,404	8,015	232		340,990	96,252	216,717
1991			601	41,431	19,196	12,755	9,198	21,959	159,068	10,116	298		274,622	61,228	191,441
1992			2,188	68,073	20,321	11,871	7,374	28,537	107,620	10,043	272		256,299	90,582	146,472
1993			226	77,174	34,772	15,968	7,648	37,893	97,693	6,036	247		277,657	112,172	141,869
1994			505	13,499	6,562	9,743	10,458	47,787	145,801	9,669	296		244,320	20,566	203,553
1995			206	7,144	5,511	8,565	9,226	47,145	150,990	15,614	835	14	245,250	12,861	214,598
1996	4		110	20,923	35,571	11,136	7,768	58,909	154,420	10,451	647	23	299,962	56,608	224,450
1997			466	67,577	49,921	20,162	10,943	82,123	158,589	9,488	516	-1	399,784	117,964	250,715
1998	0	1	695	24,549	14,587	14,500	10,396	58,135	155,716	11,308	398	7	290,292	39,832	225,564
1999		2	251	19,016	28,831	14,830	16,121	66,546	186,880	14,624	378	7	347,486	48,100	268,435
2000		4	3,166	130,193	71,222	25,864	19,209	100,658	139,073	11,380	227	16	501,012	204,585	251,354
2001	0	25	16,653	324,800	98,080	53,860	45,825	116,981	351,892	25,875	3,379	70	1,037,440	439,558	498,197
2002	74	207	4,160	156,379	128,894	91,120	47,111	152,200	358,941	20,509	5,506	255	965,356	289,714	537,411
2003	6	93	19,283	120,626	70,020	81,333	46,833	90,884	533,913	30,440	2,827	402	996,660	210,028	658,466
2004		17	593	104,978	73,605	69,622	35,410	111,550	473,727	34,858	1,760	77	906,197	179,193	621,972
2005	-1	2	43	31,504	46,793	52,917	30,786	47,880	363,426	25,199	1,855	11	600,415	78,341	438,371
2006	0	1	35	7,030	92,300	71,473	30,401	55,410	236,605	28,653	4,536	94	526,538	99,366	325,298
2007	1	1	75	31,919	51,256	39,619	21,949	53,174	136,977	23,968	893	35	359,867	83,252	215,047
2008		3	170	40,547	102,419	67,117	22,775	115,815	222,385	15,479	710	8	587,428	143,139	354,397
2009	-5	0	164	23,526	157,489	88,523	30,829	148,358	231,702	17,823	697	15	699,121	181,174	398,595
2010	3	2	482	134,447	122,101	82,577	30,630	102,676	395,450	32,845	1,184	42	902,439	257,035	532,197
2011	0	13	161	35,139	182,779	107,352	52,378	68,563	372,184	43,169	1,408	55	863,201	218,092	485,379
2012	2	-1	39	23,702	141,939	62,450	31,448	86,278	355,800	31,073	1,169	31	733,930	165,681	474,351
2013		6	282	30,709	86,168	79,375	39,908	233,202	752,978	74,597	3,452	34	1,300,711	117,165	1,064,263
2014	5		539	79,330	134,303	86,196	48,880	94,236	824,408	69,438	2,275	49	1,339,659	214,177	990,406
2015		9	1,679	139,344	92,762	113,020	66,445	153,178	770,647	108,532	4,889	178	1,450,683	233,794	1,037,424
2016	7	5	230	34,636	113,482	84,051	46,374	141,622	330,003	22,076	1,656	30	774,172	148,360	495,387
2017		1	15	3,357	98,361	66,919	31,773	58,495	260,765	32,105	3,578	71	555,440	101,734	355,014
2018	2	0	21	6,307	88,020	46,985	18,421	56,313	142,313	19,615	1,756	70	379,823	94,350	220,067
2019	0	0	44	4,716	56,625	39,653	20,282	60,079	227,896	28,128	4,310	72	441,805	61,385	320,485
2020	5	0	51	10,524	50,127	65,130	34,768	118,843	293,312	37,188	969	14	610,931	60,707	450,326
2021	-5	-1	134	18,012	60,422	60,196	28,242	138,212	239,199	24,484	1,363	23	570,281	78,562	403,281
2022	0	0	822	37,873	128,091	82,363	34,132	133,814	437,416	18,109	224	23	872,867	166,786	589,586
2023	2	2	135	15,018	104,942	62,277	26,994	154,185	408,632	34,475	914	18	807,594	120,099	598,224
TOTAL	140	437	105,212	4,677,014	4,658,139	3,425,369	2,197,394	5,065,416	19,301,802	1,296,591	74,473	2,288	40,804,275	9,440,942	25,740,570
10-Year Average			367	34,912	92,714	70,679	35,631	110,898	393,459	39,415	2,193		780,326	127,995	546,020

*Jacks included

1994 counts include nighttime video counts during the hours of 2100-0500 PST June 1 - August 16.

1995 counts include nighttime video counts during the hours of 2000 and 0400 PST April 1 - November 15. 24 hour counts November 16 - December 31.

1996 - 2002 counts include 24 hour video counts January 1 - March 15 and November 16 - Dec 31.

From March 16 through November 15, video counts took place between 2000 and 0400 hours PST.

2003 - 2014 counts include 16 hour video counts between 0400-2000 PST January 1 - March 31 and November 1 - December 31.

2015-2023 visual fish counting extended to November 30. Video counts between 0400-2000 PST January 1 - March 31 and December 1-31.

TABLE 25

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1938					1,025	17,811	53,864	2,097	235	6	2		75,040
1939				48	189	29,386	43,124	616	19				73,382
1940					206	59,639	85,885	3,063	13	1			148,807
1941				299	1,052	23,536	39,193	1,615	46				65,741
1942					13	12,624	41,301	1,477	49				55,464
1943					9	4,525	33,613	1,697	1				39,845
1944			1		16	3,099	11,171	659	126				15,072
1945			10	51	521	1,507	6,903	498	10	1			9,501
1946				9	67	7,815	64,715	1,747	21	2			74,376
1947					5	59,378	108,175	3,564	15	1		1	171,139
1948						12,023	117,652	1,849	13	4			131,541
1949					151	9,013	41,619	655	6				51,444
1950						341	75,784	1,826	42				77,993
1951					25	81,045	87,104	1,214	40				169,428
1952			7	1	3	136,939	47,188	467	30	2	8		184,645
1953			57	27	663	45,711	186,933	1,774	50				235,215
1954			1		13	52,359	76,505	1,212	17				130,107
1955					79	21,923	214,860	866	11	9			237,748
1956					10	29,649	125,185	1,564	7	3			156,418
1957					21	38,616	43,938	323	14	3			82,915
1958					25	38,736	82,719	878	23	8			122,389
1959				2	153	10,155	75,325	906	14	5			86,560
1960					4	41,758	17,615	321	15				59,713
1961				3	22	7,960	9,059	56	9	2			17,111
1962				1	21	9,713	18,310	82	47	5			28,179
1963					492	25,010	34,275	216	304	17	5		60,319
1964				3	570	32,079	66,857	213	110	10	14		99,856
1965					457	21,860	31,776	744	285	3			55,125
1966				10	338	57,509	97,845	800	155	4			156,661
1967				18	38	36,091	107,558	344	106	3			144,158
1968				54	372	74,226	33,245	199	101	9	1		108,207
1969				5	165	24,238	34,970	120	124	13	1		59,636
1970				5	269	22,977	46,062	1,147	290	12			70,762
1971					70	14,789	72,203	313	69	2	1		87,447
1972					614	16,505	37,939	1,254	9	2			56,323
1973					17	29,314	29,308	337	3				58,979
1974					14	8,073	35,407	340	3				43,837
1975					2	17,961	40,050	192	7				58,212
1976					94	22,532	20,661	297	26	1			43,611
1977				1	38	74,551	25,178	61					99,829
1978				1	2	12,442	5,884	101	6				18,436
1979					1	25,474	26,297	826	30				52,628
1980						22,949	35,764	164	4	1			58,882
1981					1	36,931	19,001	100	4				56,037
1982					12	20,731	29,207	264	4	1			50,219
1983						52,134	48,004	400	5	2			100,545
1984					6	106,892	45,141	494	7	1			152,541
1985				3	13	112,054	53,842	422	4	2			166,340

TABLE 25

(Continued)

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1986					2	27,303	30,279	475	63	1			58,123
1987					1	75,674	40,930	383	5				116,993
1988					11	44,409	35,168	121	5				79,714
1989					3	24,638	17,000	231	11	1			41,884
1990						26,141	23,244	195	1				49,581
1991						22,318	53,699	457	7				76,481
1992					20	54,292	30,409	271					84,992
1993					7	49,667	30,377	127					80,178
1994					2	9,835	3,306	11					13,154
1995					1	5,924	3,151	59					9,135
1996					3	23,005	8,044	41					31,093
1997					9	23,559	24,392	381	1				48,342
1998					1	7,796	5,723	93					13,613
1999						8,613	9,629	61	1				18,304
2000					146	83,479	13,847	69	0				97,541
2001					32	102,570	20,496	317	1				123,416
2002					3	32,760	18,349	85	3				51,200
2003					2	26,432	12,714	139	4				39,291
2004					134	100,702	22,253	194	3		5		123,291
2005					16	47,093	25,724	118	20				72,971
2006					9	27,398	9,518	129	12				37,066
2007					36	18,742	5,487	107	4				24,376
2008					53	188,756	24,735	46	17				213,607
2009					57	141,543	36,117	104	2				177,823
2010				1	169	297,778	88,415	156	5				386,524
2011				1	8	87,794	97,798	195					185,796
2012					80	382,529	132,889	170	5				515,673
2013					60	114,293	70,593	554	5				185,505
2014	2			2	50	316,243	296,595	1,276	11				614,179
2015		1			314	357,048	151,589	1,685	67	3	-1		510,706
2016	1				451	283,893	57,186	955	9	2	1		342,498
2017					68	62,372	24,971	274	8				87,693
2018					40	143,354	50,079	339	4				193,816
2019					26	44,672	18,114	232	2				63,046
2020					170	193,290	147,994	283	2				341,739
2021				1	12	95,393	55,772	560	27				151,765
2022					80	448,902	212,662	1,603	6				663,253
2023					32	192,717	134,449	390	12				327,600
TOTAL	3	1	76	546	9,986	5,815,510	4,727,911	53,260	2,852	142	37	1	10,610,325
10-Year Average					124	213,788	114,941	760	15				329,630

1994 counts include nighttime video counts during the hours of 2100-0500 PST June 1 - August 16.

1995 counts include nighttime video counts during the hours of 2000 and 0400 PST April 1 through November 15.

24 hour counts November 16 - December 31.

1996 - 2002 counts include 24 hour video counts January 1 - March 15 and November 16 - Dec 31.

From March 16 - November 15, video counts took place between 2000 and 0400 hours PST.

2003-2014 counts include video counts which took place between 0400-2000 PST January 1 - March 31 and November 1 - December 31.

2015-2023 Visual counting extended to November 30. Video counts between 0400-2000 PST January 1 - March 31 and December 1-31.

TABLE 26
MONTHLY COUNT OF COHO SALMON
BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
1938	3							3,070	10,995	972	141	7	15,188	
1939	3							1,811	12,226	310	15	18	14,383	
1940	2							1,451	10,212	213	33	5	11,916	
1941								1,317	16,061	369	160	2	17,909	
1942								1,193	11,062	147			12,402	
1943								762	1,676	89	20		2,547	
1944								1,052	3,021	103	29	2	4,207	
1945							2	239	533	15		1	790	
1946		10	4				22	228	3,609	1		24	3,898	
1947	12	2	1					217	10,928	10	3	1	11,174	
1948	1						11	158	3,893	10	3	5	4,081	
1949							17	270	703	5	8	1	1,004	
1950								1,570	8,545	36			10,151	
1951								197	4,773	225	6		5,201	
1952							10	2,581	5,131	22	24		7,768	
1953							1	7,094	5,890	22	11		13,018	
1954								668	3,319	74	1		4,062	
1955								443	3,188	94			3,725	
1956							7	1,158	4,879	83			6,127	
1957								1,564	3,046	63	2		4,675	
1958								341	3,220	99	13		3,673	
1959								122	2,551	22			2,695	
1960								538	2,502	224	4		3,268	
1961								277	2,867	306	6		3,456	
1962							1	1,116	13,091	543	37		14,788	
1963							4	1,071	8,664	2,724	195		12,658	
1964							23	3,776	46,535	3,069	199		53,602	
1965						2	21	5,911	61,335	8,566	197		76,032	
1966						46	874	4,921	59,457	6,361	232		71,891	34,919
1967						33	715	3,814	87,254	4,560	112		96,488	47,893
1968						48	124	10,450	50,900	1,868	98		63,488	20,435
1969						38	443	4,671	41,176	2,998	52		49,378	25,216
1970						2	128	6,604	70,631	2,631	120		80,116	25,248
1971							57	7,292	58,235	9,753	652		75,989	22,172
1972							66	9,481	52,456	3,792	137		65,932	31,716
1973							636	12,656	33,736	6,715	866		54,609	28,760
1974							539	8,805	40,761	8,631	2,219		60,955	29,350
1975							56	5,373	39,167	11,892	1,819		58,307	25,535
1976							143	5,970	40,505	5,417	1,115		53,150	16,484
1977							55	1,134	15,163	2,582	474		19,408	10,083
1978				1			2	2,643	38,308	10,531	1,105		52,590	22,312
1979							68	7,324	28,732	7,583	1,621		45,328	15,716
1980							10	781	13,601	3,327	4,333		22,052	9,078
1981							4	3,162	23,962	3,108	274		30,510	8,575
1982							79	3,687	55,743	13,182	1,141		73,832	18,016
1983							44	319	7,237	5,020	2,553		15,173	6,775
1984							41	1,394	20,174	6,229	1,649		29,487	12,728
1985			1			7	92	3,977	46,749	5,670	361		56,857	18,307

TABLE 26

(Continued)

MONTHLY COUNT OF COHO SALMON

BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
1986							181	2,502	110,714	14,436	3,020		130,853	22,204
1987							464	2,364	21,002	3,556	249		27,635	9,713
1988							78	3,377	26,303	8,614	1,248		39,620	12,566
1989							60	2,353	24,089	9,543	3,236		39,281	11,863
1990							9	587	18,202	5,230	817		24,845	13,218
1991							5	941	46,331	13,713	3,067		64,057	5,189
1992							19	222	10,304	5,953	1,628		18,126	3,757
1993							15	448	8,191	2,786	292		11,732	1,090
1994							5	1,608	12,521	8,239	421		22,794	2,503
1995							118	978	7,049	3,969	458		12,572	1,639
1996							66	431	10,413	7,775	392		19,077	3,010
1997							22	1,441	19,412	6,755	289		27,919	3,206
1998							13	896	35,245	13,047	282	5	49,488	3,630
1999		19				1	3	951	34,901	9,673	252	5	45,805	4,468
2000							3	13,348	55,550	29,698	949	112	99,660	11,383
2001	15					2	145	34,112	205,352	34,401	3,907		277,934	6,781
2002							6	4,742	54,917	38,184	2,803	183	100,835	6,817
2003							10	11,389	86,621	35,516	334	4	133,874	8,127
2004	1						0	11,171	78,512	29,544	622	1	119,851	4,809
2005							0	3,487	64,253	20,414	637	0	88,791	5,486
2006							1	12,771	58,048	35,014	4,192	28	110,054	7,943
2007	-2						6	8,888	55,968	32,607	3,200	58	100,725	12,531
2008	-1						2	8,335	84,639	51,771	1,309	4	146,059	10,524
2009	-4						7	37,438	104,294	89,979	2,936	19	234,669	9,776
2010	-11						1	7,365	53,947	62,961	3,255	126	127,644	6,933
2011							6	12,870	108,156	28,202	644	5	149,883	4,572
2012							3	6,162	37,556	15,345	951	6	60,023	5,039
2013								5,871	31,618	25,345	3,758	166	66,758	7,097
2014	3							6,085	185,680	85,640	16,840	286	294,534	14,803
2015							1	3,029	27,481	8,122	3,431	203	42,267	4,865
2016								2,807	30,250	13,491	952	9	47,509	5,489
2017								3,088	47,178	25,314	4,923	253	80,756	4,820
2018							3	7,331	26,965	9,940	3,187	2,041	49,467	8,579
2019	5						10	8,251	50,441	16,489	2,965	2,066	80,227	6,265
2020	160	-1						16,777	94,488	33,920	1,336	24	146,704	25,080
2021		-1					2	47,629	148,197	51,298	16,107	105	263,337	19,642
2022		-1						12,046	103,081	62,108	4,667	57	181,958	13,872
2023	-15	-1						11,186	107,932	29,064	1,723	117	150,006	17,830
TOTAL	171	28	6	1	0	179	5,559	459,930	3,374,203	1,117,922	123,319	5,949	5,087,267	756,437
10 Year Average							4	11,823	82,169	33,539	5,613		133,677	12,125

*Jacks included

Notes: 1995 counts include nighttime video counts during the hours of 2000 and 0400 PST April 1 through November 15.

24 hour counts November 16 through December 31.

1996 - 2002 counts include 24 hour video counts January 1 through March 15 and November 16 through Dec 31.

From March 16 through November 15, video counts took place between 2000 and 0400 hours PST.

2003-14 counts include 16 hour video counts between 0400-2000 PST Jan 1 through Mar 31 and Nov 1 through Dec 31.

2015-2023 live (real time) counting through Nov 30. Video counts between 0400-2000 PST Jan 1 - Mar 31 and Dec 1-31.

TABLE 27

**MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 -2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	A-Run Jan 1- Aug 25	B-Run Aug 26- Dec 31
1938					6,622	2,382	19,455	29,231	46,618	2,264	339	92	107,003	49,306	57,697
1939	23	19	570	8,110	1,587	1,490	36,681	38,062	33,891	1,264	216	119	122,032	80,096	41,936
1940	5	96	1,688	4,125	998	4,489	61,188	46,071	64,377	1,786	292	59	185,174	106,724	78,450
1941	37	76	1,641	6,392	1,518	996	21,940	29,600	50,542	3,980	1,063	304	118,089	58,109	59,980
1942	4	37	256	3,642	4,159	1,588	19,905	41,973	77,076	2,412	566	182	151,800	65,219	86,581
1943	14	18	654	3,374	4,698	1,564	7,755	29,894	41,051	2,444	573	94	92,133	41,219	50,914
1944	50	157	1,019	6,142	2,224	1,169	21,868	24,508	35,907	6,129	1,119	226	100,518	51,585	48,933
1945	1,003	1,078	3,008	4,685	1,557	1,109	24,537	40,593	40,194	1,925	302	142	120,133	72,685	47,448
1946	64	551	3,040	9,839	5,482	3,265	20,600	58,466	38,399	2,070	262	769	142,807	93,422	49,385
1947	197	321	1,968	6,889	2,025	1,595	28,134	40,819	50,025	2,905	443	123	135,444	75,035	60,409
1948	154	119	1,631	4,473	1,170	1,895	33,191	53,621	40,609	1,742	381	76	139,062	87,453	51,609
1949	1		1,689	3,293	1,712	1,264	34,314	54,281	20,786	1,161	686	98	119,285	90,762	28,523
1950	13	8	1,156	4,537	1,667	691	25,142	53,904	24,226	1,932	811		114,087	80,191	33,896
1951			375	2,338	1,568	5,187	74,980	39,712	15,357	947	225		140,689	121,100	19,589
1952			278	1,248	1,751	8,202	118,110	79,735	48,293	2,735	638		260,990	190,012	70,978
1953			1,310	5,308	1,456	5,313	106,712	64,006	36,107	2,797	905		223,914	173,135	50,779
1954		6	679	5,511	1,571	6,115	59,443	65,234	34,941	2,209	551		176,260	126,085	50,175
1955			1,006	2,100	1,149	2,418	79,124	84,746	24,239	3,361	268		198,411	161,614	36,797
1956			1,409	2,718	1,582	3,122	48,306	47,148	23,343	2,846	635	7	131,116	99,692	31,424
1957			926	2,081	760	8,434	66,738	34,915	24,029	1,069	231		139,183	105,179	34,004
1958			495	651	1,457	5,645	53,734	22,827	44,478	1,859	291		131,437	79,533	51,904
1959			219	746	1,236	2,562	60,549	38,417	23,579	1,540	178		129,026	98,198	30,828
1960			412	904	1,090	4,314	44,026	33,571	28,058	1,090	211		113,676	77,141	36,535
1961			374	1,161	692	2,246	44,379	41,237	47,409	1,561	660		139,719	79,269	60,450
1962			381	1,957	1,491	3,737	49,789	40,177	64,084	1,798	611		164,025	86,990	77,035
1963			503	1,035	1,385	4,192	51,951	31,441	35,446	2,920	545		129,418	83,858	45,560
1964			490	1,609	769	1,940	50,640	26,892	32,406	1,954	552		117,252	76,135	41,117
1965			211	1,516	1,419	4,265	89,405	29,506	37,529	1,971	631		166,453	120,560	45,893
1966			658	2,682	2,389	13,051	57,975	25,779	37,733	2,657	737		143,661	97,545	46,116
1967			416	1,182	899	3,062	40,881	36,787	35,472	2,701	472		121,872	78,794	43,078
1968			340	861	1,315	3,664	29,773	41,006	27,865	1,645	505		106,974	68,423	38,551
1969			911	2,164	2,897	6,889	63,222	36,077	26,565	1,484	573		140,782	104,051	36,731
1970			244	1,267	1,331	4,208	30,866	46,307	27,073	1,909	305		113,510	78,106	35,404
1971			463	1,377	1,810	4,469	84,877	58,249	38,619	3,739	363		193,966	141,054	52,912
1972			492	2,562	2,137	3,444	59,933	48,223	65,523	3,432	140		185,886	107,227	78,659
1973			830	2,534	1,367	5,360	53,820	46,399	43,275	3,918	320		157,823	100,011	57,812
1974			1,292	4,127	5,547	6,349	57,212	44,266	14,654	3,080	527		137,054	84,402	52,652
1975			1,080	4,284	4,324	6,058	30,823	28,623	9,106	904	338		85,540	71,586	13,954
1976			1,285	3,459	3,677	9,130	38,907	44,204	21,084	1,953	478		124,177	92,370	31,807
1977			1,159	4,121	4,115	11,395	67,554	35,161	66,084	3,298	550		193,437	113,682	79,755
1978			1,750	3,327	4,587	10,883	25,284	25,637	30,461	2,168	334		104,431	64,188	40,243
1979			1,333	1,905	1,785	7,585	33,379	39,399	23,592	4,710	291		113,979	79,472	34,507
1980			1,139	3,378	1,409	7,790	28,448	51,073	32,277	3,233	507		129,254	85,010	44,244
1981			1,031	3,812	3,887	12,628	56,787	52,435	25,737	2,650	303		159,270	121,785	37,485
1982			1,239	4,188	5,335	8,636	39,159	51,329	44,456	3,146	152		157,640	103,159	54,481
1983			458	1,253	1,638	6,017	69,036	86,066	48,920	4,636	415		218,439	148,853	69,586
1984			579	2,106	4,216	14,454	92,546	93,866	102,877	4,463	453		315,560	189,365	126,195
1985			977	2,956	3,997	13,036	102,256	152,455	63,575	4,088	647		343,987	251,723	92,264

TABLE 27
(Continued)
MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Jan 1- Aug 25	Aug 26- Dec 31
1986			2,712	3,674	4,500	16,655	136,622	129,089	76,532	9,280	827		379,891	279,154	100,737
1987			1,189	2,112	3,233	12,443	104,615	115,481	58,815	4,331	862		303,081	227,013	79,120
1988			1,158	3,728	5,016	13,615	72,718	113,791	63,864	4,421	761		279,072	190,030	89,042
1989			630	2,213	3,343	10,176	62,913	117,686	84,665	5,419	753		287,798	176,965	110,833
1990			966	2,563	4,501	11,643	37,140	52,327	65,813	7,522	552		183,027	89,144	93,883
1991			640	2,082	2,196	6,601	52,187	110,027	93,152	6,947	713		274,545	150,542	124,003
1992			646	1,964	3,239	9,708	55,090	135,162	103,792	4,918	456		314,975	175,218	139,757
1993			771	1,744	2,691	9,923	34,148	64,062	69,129	5,531	387		188,386	99,941	88,445
1994			422	1,976	3,132	7,511	27,202	59,157	54,856	8,079	789		163,124	83,968	79,156
1995			333	863	1,257	6,419	29,305	112,812	48,781	6,691	1,104	1,506	209,071	126,537	82,534
1996	793	57	1,862	1,776	2,424	6,912	40,813	102,200	48,397	6,143	761	337	212,475	141,999	70,476
1997	342	426	1,966	1,950	2,485	7,696	57,472	127,882	53,571	18,428	2,234	84	274,536	185,381	89,155
1998	161	239	984	883	1,655	7,236	36,437	60,403	76,293	12,136	489	585	197,501	89,413	108,088
1999	15	287	699	833	1,308	5,157	48,278	101,610	46,200	6,509	637	585	212,118	141,245	70,873
2000	340	420	1,495	1,235	2,006	13,864	80,259	106,918	68,407	7,306	510	175	282,935	189,821	93,114
2001	333	239	2,196	2,043	3,331	24,076	199,969	263,518	152,434	21,542	4,343	2,769	676,793	455,422	221,371
2002	1,311	833	1,770	2,918	2,752	19,918	119,923	180,381	151,807	24,004	4,140	923	510,680	294,743	215,937
2003	724	1,728	2,264	1,474	1,714	10,966	95,185	139,612	95,759	12,467	3,115	813	365,821	231,717	134,104
2004	236	646	1,799	1,815	2,947	16,183	66,621	111,886	94,482	15,024	972	767	313,378	178,653	134,725
2005	149	62	103	1,064	1,517	9,286	84,968	110,487	83,450	21,694	2,598	272	315,650	191,275	124,375
2006	1,587	446	944	1,174	1,537	7,172	46,912	154,325	104,659	13,400	5,750	1,395	339,301	180,418	158,883
2007	601	387	1,514	1,020	1,666	6,789	58,362	185,281	54,543	13,096	1,433	758	325,450	232,586	92,864
2008	145	119	780	1,427	1,896	12,509	122,870	102,636	107,693	6,053	1,325	392	357,845	223,943	133,902
2009	167	43	677	1,547	2,395	9,942	119,486	353,478	97,236	17,535	1,620	844	604,970	426,264	178,706
2010	803	685	2,529	2,567	3,388	23,314	157,387	139,354	75,509	8,898	1,318	851	416,603	306,420	110,183
2011	805	264	1,267	1,385	1,558	6,807	96,220	172,287	78,963	7,651	1,294	864	369,365	263,861	105,504
2012	280	669	1,940	1,312	1,703	7,943	72,994	86,419	49,966	10,478	1,128	471	235,303	160,509	74,794
2013	208	224	1,234	964	764	4,010	57,616	118,382	42,232	7,356	797	260	234,047	169,926	64,121
2014	238	235	2,120	1,274	1,829	10,422	85,879	115,167	94,401	11,740	1,902	794	326,001	198,289	127,712
2015	611	809	1,780	939	1,078	6,114	60,690	113,906	64,735	13,899	2,905	1,264	268,730	171,198	97,532
2016	314	892	1,569	922	1,565	9,751	47,117	50,639	62,868	11,182	1,029	298	188,146	106,010	82,136
2017	42	297	1,327	783	792	1,916	17,643	53,829	35,198	5,296	374	381	117,878	63,673	54,205
2018	238	410	1,029	912	1,109	4,462	26,758	29,041	31,273	6,928	579	181	102,920	57,044	45,876
2019	183	66	971	493	459	2,182	22,288	29,526	14,107	6,545	330	170	77,320	52,499	24,821
2020	419	844	993	717	278	3,106	34,377	33,651	35,812	3,751	257	228	114,433	68,344	46,089
2021	241	123	595	377	143	1,397	12,273	24,179	26,763	4,537	894	458	71,980	30,792	41,188
2022	207	207	1,445	478	685	5,739	39,059	36,270	37,487	4,153	516	121	126,367	76,514	49,853
2023	87	207	1,000	383	266	2,555	26,282	45,703	35,050	3,652	418	405	116,008	68,761	47,247
TOTAL	13,145	14,350	93,383	207,513	191,815	601,415	4,961,412	6,422,492	4,506,641	487,027	73,467	21,242	17,593,902	11,366,345	6,230,609
10-Year Average			1,283	728	820	4,764	37,237	53,191	43,769	7,168	920		150,978	89,312	61,666

1994 counts include nighttime video counts during the hours of 2100-0500 PST June 1 through August 16.

1995 counts include nighttime video counts during the hours of 2000 and 0400 PST April 1 through November 15.

24 hour counts November 16 through December 31.

1996 - 2002 counts includes 24 hour video counts January 1 through March 15 and November 16 through Dec 31.

2003 - 2014 counts include 16 hour video counts between 0400-2000 PST January 1 through March 31
and November 1 through December 31.

2015-2023 visual fish counting extended to November 30. Video counts between 0400-2000 PST January 1 through March 31.
and December 1-31.

TABLE 28

MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1938						39	3,184	1,502	527	21			5,273
1939					14	1,539	3,065	157	28				4,803
1940					48	12,931	9,178	72	1				22,230
1941					5	2,417	16,010	197	12	16			18,657
1942					2	38	11,341	1,473	5				12,859
1943						18	2,545	265	20				2,848
1944						287	16,568	248					17,103
1945						2,801	90,773	948	4				94,526
1946						3,895	16,073	415					20,383
1947					8	5,645	20,280	105	3				26,041
1948						8	6,458	1,953	2	1			8,422
1949						2,647	19,609	322	1				22,579
1950							7,265	548	3				7,816
1951						1,269	6,792	277	15				8,353
1952						487	2,595	45	4				3,131
1953						53	14,856	1,502	19				16,430
1954						34	3,848	1,136	11				5,029
1955						21	4,411	1,358	18				5,808
1956					1	67	6,838	1,168	11				8,085
1957						1,695	11,039	422	1	2			13,159
1958						3,885	6,257	59					10,201
1959					3	32	6,315	369	1				6,720
1960						35,259	57,443	594	72				93,368
1961						18,952	245,471	1,236	33	5			265,697
1962						43,689	387,554	4,657	82	4	2		435,988
1963					70	77,961	307,466	4,044	217	14			389,772
1964					19	3,203	236,321	13,008	121	2			252,674
1965					1	33,815	570,432	12,844	194	35	2		617,323
1966					94	181,187	367,643	7,988	545	51	5		557,513
1967			1	1		6,673	212,681	2,944	152	8			222,460
1968					800	107,881	183,878	1,387	121	10	1		294,078
1969			2	5	158	233,018	81,159	2,846	163	7			317,358
1970				2	250	228,519	99,659	566	262	18			329,276
1971					30	34,345	154,215	951	55	1			189,597
1972					38	16,689	192,608	5,301	88	1			214,725
1973					116,057	377,830	24,701	577	38	4			519,207
1974					7	6,122	91,302	1,496	17	1			98,945
1975					11	43,712	219,133	1,349	38	3			264,246
1976					4	123,053	179,994	2,112	49	7			305,219
1977					51,709	431,540	11,818	568	76	12			495,723
1978					30	802,110	57,997	991	33	5			861,166
1979					800	994,253	43,734	658	258	141	13		1,039,857
1980					1,460	766,473	170,705	685	51	15	1		939,390
1981				2	20,976	708,295	150,730	1,080	79	17			881,179
1982				1	6,888	655,037	117,325	914	37	9	1		780,212
1983					78,105	1,224,342	118,975	1,103	112	37			1,422,674
1984					553	950,406	320,526	4,097	153	55	1		1,275,791
1985					101,770	816,288	55,233	1,410	206	39	5		974,951

TABLE 28
(Continued)
MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1986					104,724	722,443	29,622	1,164	166	47	4		858,170
1987				28	254,326	678,850	10,254	379	32	5	1		943,875
1988				20	408,822	734,635	20,146	697					1,164,320
1989				1	199,327	1,651,338	24,697	2,041					1,877,404
1990				4	532,617	2,296,098	116,799	2,347					2,947,865
1991				1	37,677	1,566,933	307,835	1,971					1,914,417
1992				256	685,939	1,767,696	93,446	4,102					2,551,439
1993			11	10	111,459	1,883,831	167,900	3,463					2,166,674
1994				53	136,547	1,223,421	195,894	1,640					1,557,555
1995				1	231,973	1,289,390	193,091	1,724					1,716,179
1996					24,653	1,676,695	221,795	1,514					1,924,657
1997					97,507	1,760,507	312,779	768					2,171,561
1998				1	185,810	1,660,405	44,656	120					1,890,992
1999					132,782	1,374,822	129,625	1,043					1,638,272
2000				6	229,344	961,587	52,558	822					1,244,317
2001				9	704,104	1,550,639	41,596	1,611					2,297,959
2002				0	382,611	2,670,772	110,780	393					3,164,556
2003					420,265	4,025,864	108,226	4,195					4,558,550
2004					662,249	4,544,400	142,236	6,792					5,355,677
2005					288,233	3,768,400	182,603	2,893					4,242,129
2006					205,664	3,555,887	197,303	6,400					3,965,254
2007				56	695,605	1,763,670	112,508	3,438					2,575,277
2008					67,013	1,856,442	217,538	3,763					2,144,756
2009					313,849	1,028,718	30,571	600					1,373,738
2010					45,038	943,332	53,049	1,052					1,042,471
2011					1,857	766,135	177,334	2,744					948,070
2012					18,446	2,331,533	79,282	3,133					2,432,394
2013					381,393	3,298,348	68,417	3,217					3,751,375
2014					487,086	2,084,362	31,012	809					2,603,269
2015					192,809	1,450,924	169,229	2,039					1,815,001
2016					53,855	1,541,004	169,585	5,859					1,770,303
2017					16,950	2,641,858	468,807	7,786					3,135,401
2018					94,960	5,610,352	336,809	17,812					6,059,933
2019					754,337	6,309,363	390,956	4,489					7,459,145
2020				37	326,175	5,114,984	351,212	3,748					5,796,156
2021					61,719	5,159,650	363,387	5,003					5,589,759
2022					66,170	5,150,951	956,021	1,761					6,174,903
2023					139,582	3,959,239	245,307	1,245					4,345,373
TOTAL				14	494	10,133,388	101,335,938	11,868,868	204,524	4,136	593	36	123,547,991
10 Year - Average						219,364	3,902,269	348,233	5,055				4,474,924

TABLE 29a

**MONTHLY COUNT OF LAMPREY at
BONNEVILLE DAM 1939¹-1969, 1997-2023**

The counts in the following table represent an approximation of trends. Lamprey are difficult to count. They move back and forth in the count window, spend long periods of time resting and are more likely to pass at night than salmonids. Additionally, lamprey use a variety of routes to pass over a dam including the navigation locks, the auxiliary water supply, and specific lamprey passage structures.

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
1939				732	9,027	95,814	103,726	14,403	3,349	71	0		227,122	
1940				338	24,551	40,642	67,760	20,554	2,217	40	0		156,102	
1941				1,428	7,449	6,960	34,952	12,801	1,305	57	2		64,954	
1942				13	1,302	3,457	28,641	16,270	2,619	40	19		52,361	
1943				0	1,684	3,539	14,332	26,508	5,017	14	2		51,096	
1944				22	2,189	1,411	19,288	11,853	1,342	86	18		36,209	
1945				56	1,676	4,365	16,395	11,533	2,407	56	0		36,488	
1946				57	684	13,834	42,772	15,820	1,565	93	0		74,825	
1947				158	9,183	7,563	54,032	17,680	3,566	2,141	3		94,326	
1948			1	82	295	13,744	79,507	44,511	4,948	725	2		143,815	
1949				5	1,105	5,678	41,438	8,264	1,372	40	7	19	57,928	
² 1950					207	1,073	6,702	22,128	2,436	140	7		32,693	
1951				1	4	11,001	8,554	25,078	420	51	1		45,110	
1952					8	3,674	13,854	7,462	1,194	11			26,203	
1953				79	946	727	17,917	26,053	1,381	25	1		47,129	
1954				33	201	1,001	10,303	26,535	2,824	89			40,986	
1955					210	764	16,368	21,765	3,341	154	1		42,603	
1956					24	657	36,987	10,181	1,949	113			49,911	
1957				19	185	17,698	28,506	5,907	699	17			53,031	
1958				132	877	8,092	79,548	7,448	1,036	171	1,115		98,419	
1959				23	67	6,273	123,104	79,976	4,006	1,626	8		215,083	
1960				8	1,521	12,185	125,962	30,751	7,329	142			177,898	
1961				30	649	16,786	200,722	126,438	20,110	70			364,805	
1962				1	441	13,573	49,868	30,253	7,103	166	21		101,426	
1963				21	20,827	5,803	28,348	24,639	7,702	597			87,937	
1964			2	8	2,575	17,796	39,223	41,214	3,167	347	5		104,337	
1965				54	6,674	8,886	71,027	16,949	4,617	772	8		108,987	
1966				168	6,562	11,772	25,813	20,543	2,207	844	5		67,914	
1967				211	4,416	6,348	38,591	14,792	1,570	225	18		66,171	
1968				92	14,698	18,389	57,011	17,611	949	275	4		109,029	
1969				44	24,386	230,096	87,769	32,908	4,126	170	10		379,509	
*** Counting lamprey was stopped after 1969. It was resumed again in 1997. ***														
1997				4	1,691	#####	1,939	9,783	8,643	770	0		22,830	
1998				103	2,213	12,851	14,548	5,304	2,211	285	0		37,515	
1999				65	4,780	8,801	12,047	7,584	3,717	302	0		37,296	
2000				91	2,204	7,953	4,184	3,408	1,038	123	1		19,002	
2001				1	2,075	11,143	9,895	4,141	620	72			27,947	
2002					1,280	34,070	39,405	17,380	7,977	364			100,476	
2003				6	2,874	50,875	45,863	13,230	3,843	336			117,027	
2004					1,670	27,515	23,607	6,644	2,170	174			61,780	
2005				-1	774	10,706	12,271	2,320	498	96			26,664	
2006				1	446	8,874	18,603	6,868	4,013	122	13		38,940	
2007					297	2,397	12,948	2,884	818	-26	-9		19,309	
2008					444	3,942	6,276	3,159	680	59	2		14,562	
2009					818	2,740	3,819	1,057	203	-14	2	-3	8,622	
2010					11	1,285	2,793	1,646	460	44	-6	1	6,234	
2011	1				281	1,210	9,408	5,987	1,314	112	-5	7	18,315	
2012				20	1,141	8,073	10,780	6,555	2,583	81	-10	1	29,224	
2013					1,294	6,329	11,095	3,795	1,352	102	1	3	23,971	
2014				2	2,599	7,944	15,598	4,802	943	62	4	-1	31,953	
2015					936	11,478	15,814	9,280	927	111	168	2	38,716	
2016	-1			10	3,429	8,808	26,671	12,130	1,162	111	4		52,324	
2017					4,219	31,381	35,958	9,623	1,348	42	1	-8	82,564	
2018	-5	5			2,944	20,661	13,707	5,402	707	7	-1	-8	43,419	
2019	-16	-20	-3		258	6,076	9,184	3,626	287	-15	-3		19,374	
2020					182	3,459	6,088	1,889	255	10	6		11,889	
2021					115	5,934	11,639	3,240	166	6	2		21,102	
2022					214	6,445	31,095	9,528	1,626	27	1		48,936	
2023					2,915	27,453	26,940	6,026	572	32	1	-2	63,937	
TOTAL				0	4,117	186,727	918,004	2,001,195	956,119	158,006	12,763	1,429	11	4,238,335
10-Year Average				6	1,781	12,964	19,269	6,555	799	39	18		41,421	

¹No data are available for 1938.

²Because of changes in the Washington shore counting station, lamprey counts from 1939-1949 cannot be compared with counts from 1950 on.

³Because of the heavy shad run, fish counters were not asked to count lamprey from June 1 through July 27.

TABLE 29b

**MONTHLY COUNT OF LAMPREY PASSAGE at BONNEVILLE DAM - 24 hour passage
2009 - 2023**

Total window counts (day plus night).

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2009					818	3,735	8,749	1,281	-297	-14	2	-3	14,271
2010					11	4,092	8,465	5,874	1,184	44	-6	1	19,665
2011	1				281	2,733	18,683	11,876	3,490	112	-5	7	37,178
2012				20	1,141	18,853	31,878	17,599	9,153	81	-10	1	78,716
2013					1,294	11,261	22,808	10,837	4,122	102	1	3	50,428
2014				2	2,599	14,079	30,817	16,837	-198	62	4	-1	64,201
2015					936	-41,470	-51,937	6,652	2,777	111	168	2	-82,761
2016	-1			10	4,380	6,342	33,487	18,358	1,275	111	4		63,966
2017					5,918	44,383	83,314	30,376	4,773	42	1	-8	168,799
2018	-5	5	0	0	4,778	29,617	22,294	10,490	833	7	-1	-8	68,010
2019	-16	-20	-3	0	695	17,541	21,613	9,245	593	-15	-3		49,630
2020					352	5,222	9,342	2,910	118	10	6		17,960
2021					259	16,079	22,008	6,017	394	11	5		44,773
2022					480	12,300	24,590	19,796	4,382	27	1		61,576
2023					5,398	36,142	43,619	7,968	1,134	32	1	-2	94,292
TOTAL	-21	-15	-3	32	29,340	180,909	329,730	176,116	33,733	723	168	-8	750,704

TABLE 29c

**MONTHLY COUNT OF LAMPREY PASSAGE at BONNEVILLE DAM - LPS passage
2017 - 2023**

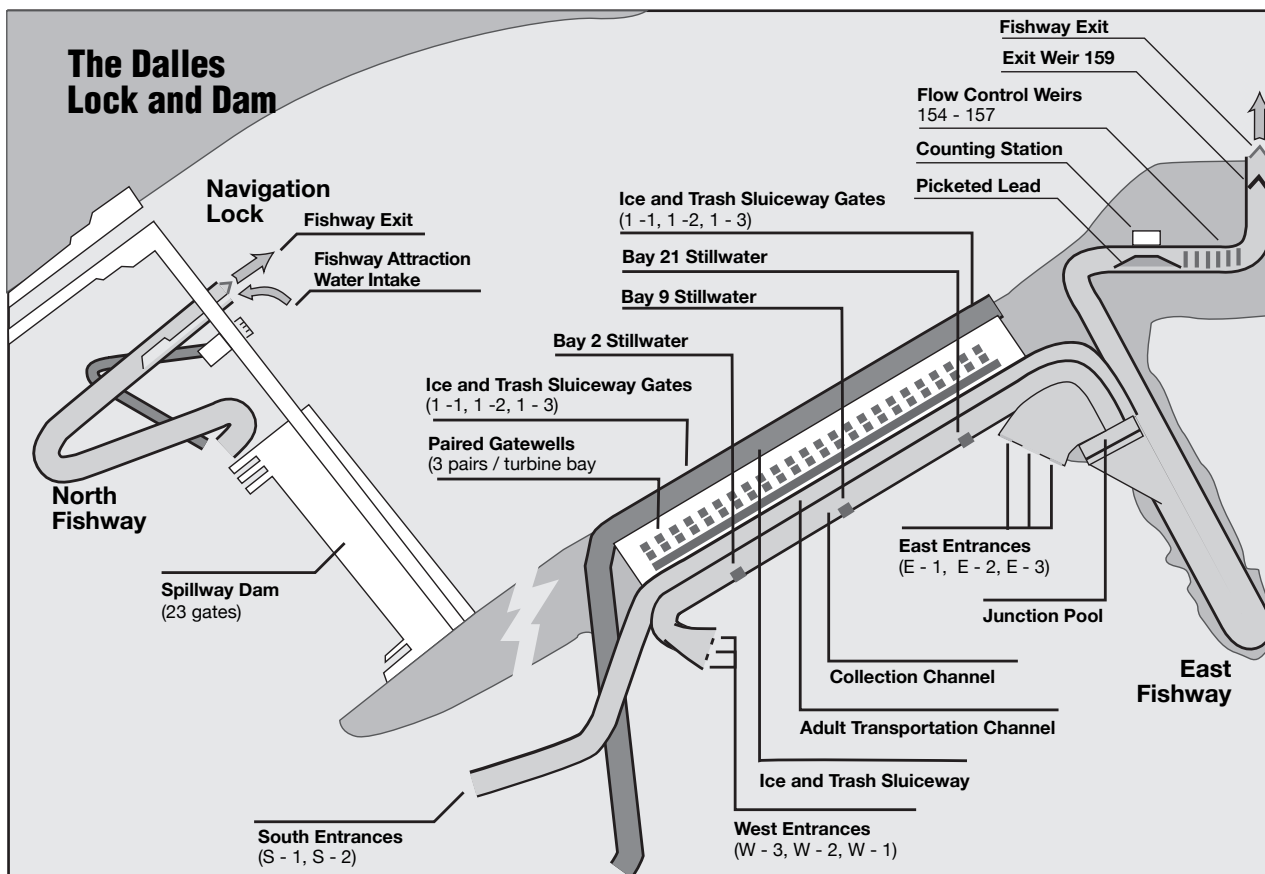
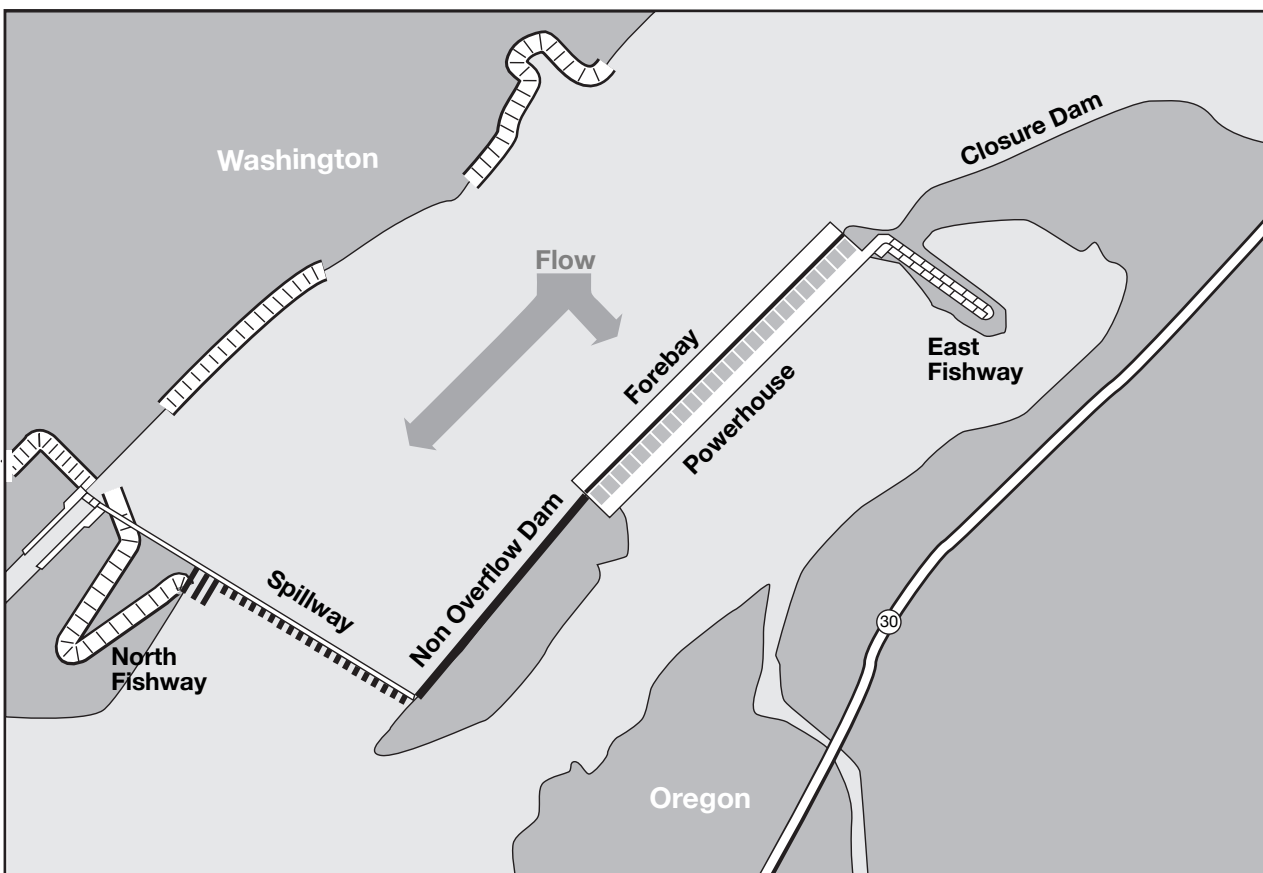
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2017	oos	oos	oos	oos	1,749	42,985	55,955	15,667	4,075	31	oos	oos	120,462
2018	oos	oos	oos	1	736	36,820	16,389	4,909	1,525	40	oos	oos	60,420
2019	oos	oos	oos	1	160	10,651	6,602	3,170	514	33	oos	oos	21,132
2020	oos	oos	oos	0	133	8,880	7,751	3,892	1,058	89	oos	oos	21,804
2021	oos	oos	oos	0	177	17,209	9,441	6,933	1,002	33	oos	oos	34,795
2022	oos	oos	oos	0	86	12,604	22,497	7,085	4,362	104	oos	oos	46,738
2023	oos	oos	oos	0	968	39,036	16,662	10,237	1,711	95	oos	oos	68,708
TOTAL				2	4,008	168,186	135,297	51,892	14,248	425			374,058

Note: For Lamprey Passage Systems (LPSs) operation dates see BON narrative.
Lamprey Passage System counts are 24-hour mechanical counts, corrected.

Total lamprey collected in 2023 by researchers at the BON Adult Fish Facility, and terminal traps = **6,381**

2023 Estimated lamprey passage at Bonneville Dam including 24-hour window counts, LPS, and collection = **169,381**

Plate 3 The Dalles Lock and Dam



THE DALLES DAM

FISH COUNTING SCHEDULE

Jan 1 – Feb 28	Video counting daily 0400-2000 hours Pacific Standard Time.
Apr 1 – Oct 31	Visual counting daily 0400-2000 hours Pacific Standard Time.
Jun 15 – Sept 30	Nighttime video counting daily 0400-2000 hours PST.

INTRODUCTION

The Dalles Dam has specific requirements for Columbia River fish passage that are specified in the annual Fish Passage Plan. The Dalles Dam has two fish ladders for upstream adult fish passage, as well as an ice trash sluiceway and spillway used for downstream steelhead kelt and juvenile fish passage. The following document is a summary of all fish related activities that occurred at The Dalles Dam in 2023. In addition Northern Wasco Co PUD has a turbine that supplies the auxiliary water to the north fishway, which has a complete juvenile bypass system. Information on this systems operation can be acquired through the 2018 Pacific States Marine Fish Commission monitoring report.

FISHWAY OPERATION

The following information includes fish passage system operation for calendar year 2023. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports. These fishways were closed or dewatered for maintenance when they were not in operation. The following are dates fish passage systems were in service during 2023.

East Adult Fishway

Jan 1 – 10	Out of service - winter maintenance
Jan 11 – Dec 5	In service
Dec 6 – 31	Out of service - winter maintenance

North Adult Fishway

Jan 1– Dec 31	In Service
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Ice/Trash Sluiceway

Mar 1– Dec 15	Open for fish passage
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Spillway

Apr 10 – Aug 30	Open for fish passage
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FISHWAY DEWATERING

Dewatering fishways provides the best opportunity for maintenance and inspection. To dewater the fishladders, exit bulkheads are installed and the ladder is allowed to drain. Entrance bulkheads are installed

and dewatering pumps operated to dewater all areas of fishways below tailwater elevation. Fisheries personnel enter these areas to salvage trapped fish when water levels allow entry. Fish are pushed toward tailwater or captured. Captured fish are transported to forebay or tailwater, depending on location, fish species, age class and stress levels. A follow up inspection is made to capture any missed fish. Efforts are made to provide continual water supply during the entire operation to reduce fish stranding and stress. Fishway areas that cannot be dewatered are inspected by ROV underwater camera.

Dewatering Fish Salvage Results

Navlock Dewatering 3/7/23 – No fish

North Fishladder 1/17/23 – 20 adult coho, 9 adult chinook, 16 lamprey released to river before aborting due to too many fish. 7 adult coho mortalities.

North fishladder entrance - not dewatered

East Fishladder 12/7/23 – 10 lamprey, 13 juvenile steelhead, 1 juv chinook, 3 sturgeon released to river. East Lower Channels 12/13/23 – 5 adult coho, 31 lampreys

RESEARCH

Sky Guardian – Falconry contractor conducted 30-day trial of avian abatement.

4 Peaks – Fish counting contractors performed fish counts at the north and east fishways via count stations.

Washington Dept of Fish and Wildlife – Conducted Pikeminnow dam angling primarily from powerhouse tailrace deck. Total 650 pikeminnow removed. Bass and Walleye continue to be released.

Oregon Dept of Fish and Wildlife – Captured, tagged, and collected biological data from northern pikeminnow as part of an evaluation of the Northern Pikeminnow Management Program.

Oregon Department of Fish and Wildlife and Fish Passage Center – Continued to provide once monthly fishway inspections of adult and juvenile systems.

Pacific States Marine Fish Commission – FERC required sampling at the Northern Wasco County PUD intake structure as per the cooperative agreement between Pacific States Marine Fisheries Commission and Wasco County PUD.

Pacific States Marine Fisheries Commission PTAGIS Information System – monitored Thin Wall PIT Tag detection system in The Dalles east and north count stations.

U.S. Dept of Agriculture – Provided avian hazing of piscivorous birds to reduce avian predation on juvenile salmonids May to August via pyrotechnics during juvenile passage season.

U. S. Geological Survey – Total Dissolved Gas (TDG) and water temperature monitoring.

CTUIR - Captured adult Pacific lamprey as part of the on-going project to restore lamprey to various tributaries.

TABLE 30

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER THE DALLES DAM

2023

DAYTIME-Live

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*	2	2		6,240	70,706	56,476	23,662	56,854	251,996	32,180			498,118
STEELHEAD	41	29		120	36	1,339	8,290	18,145	59,475	10,368			97,843
SOCKEYE					13	154,249	139,745	767	37	5			294,816
COHO*	66	-3						1,897	55,569	15,863			73,392
CHUM										1			1
PINK								3	4				7
TOTAL	109	28		6,360	70,755	212,064	171,697	77,666	367,081	58,417			964,177
LAMPREY	-1				5	5,609	8,976	2,626	709	24			17,948
STURGEON					10	24	88	81	22	-4			221
BULL TROUT													0

NIGHT-Video

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*						830	1,119	2,176	4,125				8,250
STEELHEAD						35	251	1,057	4,349				5,692
SOCKEYE						8,964	8,640	171	12				17,787
COHO*								52	2,557				2,609
CHUM													0
PINK													0
TOTAL						9,829	10,010	3,456	11,043				34,338
LAMPREY						11,345	15,812	6,848	1,173				35,178

RESEARCH - Trap and Removal

SPECIES	JUN	JUL	TOTAL
LAMPREY	168	662	830

*Jacks included

Note: Shad are not counted at The Dalles Dam. For count schedules refer to The Dalles Dam narrative.

For 24-hour count window passage add the Daytime-Live and the Night-Video totals.

TABLE 31

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

THE DALLES PROJECT - FISH COUNTS**JANUARY 2023**

DATE	CHINOOK ADULT			CHINOOK		COHO		COHO		TOTAL		unclipped		PINK		CHUM		LAMPREY		STURGEON		DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	ADULT	JACK	ADULT	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD	KCFS	KCFS	SECCHI	DEG F
Jan 1	0				5	1				0	0											114.3	0.0	5.0	37.9
Jan 2	0				2	0				0	0											100.0	0.0	5.0	37.7
Jan 3	0				-1	0				1	1											115.6	0.0	5.0	37.6
Jan 4	0				-2	0				0	0											131.1	0.0	4.0	37.5
Jan 5	0				-4	-1				0	0											112.6	0.0	4.0	37.4
Jan 6	0				1	0				0	0											109.4	0.0	4.5	37.5
Jan 7	0				2	1				0	0											124.4	0.0	5.0	37.6
Jan 8	0				-2	0				0	0											107.7	0.0	5.0	37.8
Jan 9	0				0	0				0	0											108.2	0.0	5.0	38.0
Jan 10	0				1	0				2	0											118.4	0.0	5.0	38.1
Jan 11	0				12	0				1	0											130.2	0.0	5.0	38.2
Jan 12	0				1	1				0	0											132.9	0.0	5.0	38.4
Jan 13	2				-3	1				4	2											127.8	0.0	5.0	38.5
Jan 14	0				14	0				5	2											111.8	0.0	5.0	38.6
Jan 15	0				23	1				8	1											110.6	0.0	5.0	38.8
Jan 16	1				0	2				4	2											115.3	0.0	5.0	38.8
Jan 17	0				1	0				4	0											121.8	0.0	5.0	38.8
Jan 18	-2				18	0				1	1											103.8	0.0	5.0	38.9
Jan 19	1				4	-1				1	1											126.3	0.0	5.0	38.9
Jan 20	0				2	1				0	0											126.1	0.0	5.0	38.9
Jan 21	0				6	-1				1	0											133.0	0.0	5.0	39.0
Jan 22	0				1	0				0	0											128.4	0.0	5.0	39.1
Jan 23	0				-6	0				1	1											115.0	0.0	5.0	39.2
Jan 24	0				-7	-1				0	1											136.5	0.0	5.0	39.3
Jan 25	0				-4	-1				1	0											117.2	0.0	5.0	39.5
Jan 26	0				0	0				1	0											128.3	0.0	5.0	39.5
Jan 27	0				0	0				0	0											118.9	0.0	5.0	39.8
Jan 28	0				-1	0				3	1											112.8	0.0	5.0	39.8
Jan 29	0				0	0				1	1											123.7	0.0	5.0	39.4
Jan 30	0				0	0				2	1											131.5	0.0	5.0	38.8
Jan 31	0				0	0				0	0											149.6	0.0	5.0	38.7
TOTAL	2				63	3				41	15														
AVG.	0				2	0				1	0											120.7	0.0	4.9	38.6

Note: From January 1-February 28, counts were from video tape. The counts are 16-hour counts and occurred between 0400-2000 PST.

TABLE 32

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

THE DALLES PROJECT - FISH COUNTS

FEBRUARY 2023

DATE	CHINOOK ADULT			CHINOOK		COHO		TOTAL		unclipped		PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	ADULT	SOCKEYE	STEELHEAD	STEELHEAD								SECCHI	DEG F
Feb 1	0				0	-1			1	0						140.6	0.0	5.0	38.6
Feb 2	0				0	0			1	1						136.6	0.0	5.0	38.4
Feb 3	0				0	0			2	2						140.6	0.0	5.0	38.2
Feb 4	0				0	0			1	1						131.4	0.0	5.0	38.1
Feb 5	0				-2	0			1	0						129.2	0.0	5.0	38.1
Feb 6	0				0	0			-1	0						114.7	0.0	5.0	38.0
Feb 7	0				0	0			1	1						117.2	0.0	5.0	37.8
Feb 8	0				0	0			0	0						117.7	0.0	5.0	37.6
Feb 9	0				0	0			2	1						115.2	0.0	5.0	37.8
Feb 10	-1				0	0			0	0						121.2	0.0	5.0	37.8
Feb 11	0				0	0			2	2						121.4	0.0	5.0	37.6
Feb 12	0				0	0			0	0						115.7	0.0	5.0	37.5
Feb 13	0				0	0			0	0						118.8	0.0	5.0	37.5
Feb 14	0				0	0			-2	-1						122.1	0.0	5.0	37.5
Feb 15	0				0	0			1	1						119.5	0.0	5.0	37.5
Feb 16	0				0	0			4	1						124.0	0.0	5.0	37.6
Feb 17	0				0	0			0	0						118.0	0.0	5.0	37.8
Feb 18	0				0	0			0	0						118.0	0.0	4.0	38.1
Feb 19	2				0	0			1	1						118.1	0.0	4.0	38.4
Feb 20	0				0	0			5	3						118.9	0.0	4.0	38.7
Feb 21	1				0	0			0	0						115.0	0.0	5.0	39.1
Feb 22	0				0	0			1	1						112.2	0.0	5.0	38.9
Feb 23	0				0	0			4	3						121.9	0.0	5.0	38.3
Feb 24	0				0	0			1	1						115.4	0.0	5.0	37.9
Feb 25	0				0	0			1	1						125.6	0.0	5.0	37.9
Feb 26	0				0	0			1	1						122.3	0.0	5.0	38.2
Feb 27	0				0	0			2	1						127.8	0.0	5.0	38.4
Feb 28	0				0	0			0	0						116.5	0.0	5.0	38.6
TOTAL	2				-2	-1			29	21									
AVG.	0				0	0			1	1						122.0	0.0	4.9	38.1

Note: From January 1-February 28, counts were from video tape. The counts are 16-hour counts and occurred between 0400-2000 PST.
 Extended counting ended February 28.

TABLE 33

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2023

MARCH

DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Mar 1	111.8	0.0	5.0	38.5
Mar 2	123.2	0.0	5.0	38.6
Mar 3	100.8	0.0	5.0	38.6
Mar 4	95.8	0.0	5.0	38.4
Mar 5	102.9	0.0	5.0	38.1
Mar 6	100.5	0.0	5.0	38.2
Mar 7	102.7	0.0	5.0	38.5
Mar 8	101.5	0.0	5.0	38.7
Mar 9	100.4	0.0	5.0	38.6
Mar 10	106.9	0.0	5.0	38.3
Mar 11	105.1	0.0	5.0	38.5
Mar 12	96.5	0.0	5.0	38.6
Mar 13	98.8	0.0	5.0	38.9
Mar 14	96.2	0.0	5.0	39.1
Mar 15	106.7	0.0	5.0	39.4
Mar 16	93.5	0.0	5.0	39.9
Mar 17	105.4	0.0	5.0	40.3
Mar 18	106.5	0.0	**	40.7
Mar 19	107.2	0.0	**	41.1
Mar 20	104.5	0.0	4.0	41.6
Mar 21	98.6	0.0	5.0	42.0
Mar 22	101.8	0.0	5.0	42.4
Mar 23	98.0	0.0	5.0	42.4
Mar 24	85.3	0.0	5.0	42.5
Mar 25	102.0	0.0	5.0	42.5
Mar 26	102.2	0.0	5.0	42.7
Mar 27	98.7	0.0	5.0	43.0
Mar 28	112.5	0.0	5.0	43.2
Mar 29	120.0	0.0	5.0	43.4
Mar 30	122.3	0.0	5.0	43.7
Mar 31	92.4	0.0	4.0	43.9
AVG.	103.2	0.0	4.9	40.5

*Data unavailable

TABLE 34

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS													APRIL 2023					
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL		unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD						KCFS	KCFS	SECCHI	DEG F
Apr 1	5			0				1	1						116.2	0.0	4.0	44.0
Apr 2	19			0				9	8						96.5	0.0	4.0	44.2
Apr 3	9			0				8	4						102.1	0.0	4.0	44.3
Apr 4	17			0				9	8						120.2	0.0	5.0	44.3
Apr 5	24			0				7	6						97.6	0.0	5.0	44.6
Apr 6	17			0				3	3						91.1	0.0	5.0	45.0
Apr 7	31			1				3	2						91.3	0.0	5.0	45.3
Apr 8	54			0				11	9						98.1	0.0	4.0	45.5
Apr 9	35			0				4	2						91.6	0.0	4.0	45.7
Apr 10	47			1				5	3						102.3	45.0	4.0	45.6
Apr 11	27			0				6	4						114.0	48.2	4.0	45.7
Apr 12	35			1				6	5						121.2	61.6	4.0	46.1
Apr 13	18			1				8	6						154.6	63.3	3.5	46.3
Apr 14	15			0				3	3						158.4	57.4	3.5	46.7
Apr 15	19			0				2	1						144.5	54.0	3.5	47.2
Apr 16	28			2				6	6						136.2	50.2	3.0	47.4
Apr 17	28			1				0	0						125.2	53.2	3.5	47.4
Apr 18	49			0				5	4						133.2	53.6	3.0	47.4
Apr 19	69			2				2	2						134.1	51.0	3.0	47.8
Apr 20	36			1				1	0						127.2	51.5	3.5	47.9
Apr 21	86			3				7	5						129.8	51.5	3.0	48.1
Apr 22	75			1				4	4						128.6	53.0	3.0	48.7
Apr 23	215			5				1	1						132.3	59.7	3.0	49.4
Apr 24	307			6				2	2						133.4	50.9	4.0	49.8
Apr 25	415			6				0	0						127.5	51.2	4.0	49.9
Apr 26	702			15				2	2						128.2	50.6	4.0	50.3
Apr 27	672			13				1	1						126.2	57.9	4.0	50.9
Apr 28	640			14				3	3						146.0	57.5	4.0	51.2
Apr 29	1,067			49				1	1						144.2	65.7	4.0	52.0
Apr 30	1,330			27				0	0						164.2	67.7	4.0	52.4
TOTAL	6,091			149				120	96									
AVG.	203			5				4	3						123.9	38.5	3.9	47.4

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Shad counting discontinued.

TABLE 35

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS**MAY 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD					KCFS	KCFS	SECCHI	DEG F
May 1	997			24			0	1	0			0	0	170.2	81.2	4.0	52.0
May 2	1,091			31			0	1	1			0	0	204.5	97.2	4.0	52.3
May 3	1,222			39			0	1	1			0	0	245.3	114.9	3.0	53.2
May 4	1,190			44			0	0	0			0	0	291.0	127.0	3.5	53.7
May 5	1,065			39			0	1	0			0	0	320.8	122.4	3.0	53.7
May 6	721			38			0	2	1			0	0	307.0	134.8	3.0	53.9
May 7	849			39			0	0	0			0	0	338.0	136.6	3.5	54.2
May 8	1,072			47			0	2	1			0	0	343.3	130.0	3.5	54.1
May 9	785			71			0	2	0			0	0	325.2	133.9	3.5	54.0
May 10	1,382			112			0	0	0			0	0	337.2	129.2	4.0	54.5
May 11	2,624			147			0	0	0			0	0	325.3	130.8	3.5	54.8
May 12	4,290			291			0	0	0			0	0	328.9	121.8	2.5	55.2
May 13	3,967			278			0	0	0			0	0	305.9	119.7	2.5	55.5
May 14	5,449			569			0	1	1			0	0	302.4	128.3	2.5	55.7
May 15	3,615			448			0	2	1			0	0	321.4	136.4	3.0	55.8
May 16	3,132			458			0	0	0			0	0	342.9	188.6	2.5	55.8
May 17	2,631			408			0	6	0			0	0	385.1	218.3	2.5	56.0
May 18	2,236			471			0	0	0			0	0	402.8	172.5	2.5	56.3
May 19	3,117			592			0	0	0			0	2	403.5	163.2	2.0	56.7
May 20	3,671			577			0	3	2			0	0	397.5	170.0	2.0	57.3
May 21	3,047			375			0	0	0			0	2	400.1	170.8	1.5	57.5
May 22	1,805			315			0	0	0			0	0	403.3	192.2	2.5	57.4
May 23	1,992			435			0	2	0			0	2	404.0	190.7	3.0	57.8
May 24	1,242			290			0	1	1			0	1	395.7	163.7	3.0	58.2
May 25	1,769			367			0	0	0			0	0	366.6	139.7	3.0	58.6
May 26	2,113			372			2	2	0			0	0	343.3	125.4	3.0	58.7
May 27	1,784			211			0	1	0			0	1	314.0	110.9	3.0	58.7
May 28	1,104			203			3	4	1			0	1	277.7	105.7	3.0	58.9
May 29	1,083			116			0	0	0			3	1	266.3	105.7	3.0	59.3
May 30	1,007			176			5	2	1			1	0	265.5	106.0	3.0	59.6
May 31	978			93			3	2	0			1	0	267.5	101.0	2.5	59.5
TOTAL	63,030			7,676			13	36	11			5	10				
AVG.	2,033			248			0	1	0			0		325.9	137.7	2.9	56.1
RUN YEAR	CHINOOK ADULT		CHINOOK JACK		SOCKEYE		TOTAL STEELHEAD		unclipped STEELHEAD	LAMPREY		STURGEON					
TOTALS TO DATE	SPRING	69,121	7,825				13	156	107			5	10				

TABLE 36

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped	PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD						KCFS	KCFS	SECCHI	DEG F
Jun 1	1,120			190			17	3	0				2	0	252.3	97.3	3.0	59.9
Jun 2	1,278			183			22	2	1				7	1	243.5	85.5	3.0	60.4
Jun 3	1,398			126			15	1	1				12	-1	214.5	84.8	3.0	60.8
Jun 4		1,073		143			46	3	1				14	2	212.8	82.1	4.0	61.2
Jun 5		1,155		177			65	1	1				28	2	206.2	83.8	4.0	61.4
Jun 6		1,322		168			91	1	0				32	0	210.1	84.2	4.0	62.0
Jun 7		1,804		129			175	3	1				37	-1	211.4	85.2	4.0	62.5
Jun 8		1,789		175			237	4	2				30	0	214.1	82.7	4.0	62.6
Jun 9		2,177		153			267	4	4				42	-1	208.7	76.1	4.0	62.6
Jun 10		1,686		142			205	2	2				35	2	191.1	66.4	4.0	62.9
Jun 11		1,875		137			367	5	5				56	1	166.2	61.3	4.0	63.5
Jun 12		1,758		120			693	7	6				92	0	153.7	66.5	4.0	64.3
Jun 13		1,582		194			1,197	9	8				215	1	166.9	64.5	4.0	64.6
Jun 14		1,964		238			2,109	12	8				232	0	161.5	63.5	4.5	63.8
Jun 15		2,098		389			1,663	9	6				131	1	159.1	75.7	5.0	63.7
Jun 16		2,104		171			2,517	17	4				345	1	191.2	66.9	5.0	64.5
Jun 17		1,901		172			3,273	8	5				558	3	168.2	60.4	5.0	64.9
Jun 18		2,748		195			6,271	29	16				130	0	152.2	58.1	5.0	64.5
Jun 19		1,596		117			6,925	23	6				134	0	145.9	56.2	5.0	64.0
Jun 20		1,219		379			7,636	48	25				148	1	141.0	57.9	5.0	63.8
Jun 21		890		89			7,965	28	12				180	0	145.3	61.8	5.0	64.1
Jun 22		1,571		180			10,598	49	31				294	2	155.5	59.0	5.0	64.9
Jun 23		1,990		614			9,504	65	45				308	0	148.5	59.4	5.0	65.4
Jun 24		1,975		230			9,343	71	48				481	1	148.9	54.3	5.0	65.6
Jun 25		2,033		454			10,058	96	51				279	2	135.8	50.1	5.0	65.0
Jun 26		1,831		217			11,896	91	48				244	1	126.2	53.0	5.0	65.0
Jun 27		1,426		202			14,364	128	60				277	0	133.7	56.8	5.0	65.1
Jun 28		1,298		160			13,789	163	47				318	2	143.3	56.0	5.0	65.4
Jun 29		1,937		182			16,179	283	67				424	2	140.3	59.3	5.0	66.2
Jun 30		1,703		149			16,762	174	87				524	2	148.8	56.7	5.0	66.7
TOTAL	3,796	46,505		6,175			154,249	1,339	598				5,609	24				
AVG.	1,265	1722		206			5,142	45	20				187	1	173.2	67.5	4.5	63.7

RUN YEAR		CHINOOK	CHINOOK
TOTALS TO DATE		ADULT	JACK
SPRING		72,917	8,324
SUMMER		46,505	5,676
TOTAL		119,422	14,000

TOTAL		unclipped
SOCKEYE	STEELHEAD	STEELHEAD
154,262	1,495	705

LAMPREY	STURGEON
5,614	34

TABLE 37

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Jul 1		1,700		138			15,935	223	127		275	4	141.7	48.6	5.0	66.7
Jul 2		1,473		147			16,360	195	118		367	0	122.6	46.8	5.0	66.9
Jul 3		1,334		128			14,830	275	148		359	7	117.8	47.8	5.0	67.7
Jul 4		1,125		296			11,615	290	140		578	1	121.0	47.3	5.0	68.5
Jul 5		1,113		264			12,944	288	145		466	8	118.9	54.1	5.0	69.1
Jul 6		872		320			10,582	361	209		362	3	136.4	54.9	5.0	69.5
Jul 7		842		187			8,386	336	182		401	5	137.1	50.6	5.0	69.9
Jul 8		768		112			7,600	348	197		292	3	126.8	49.0	5.0	69.5
Jul 9		915		123			7,082	414	200		268	4	122.5	51.4	5.0	69.3
Jul 10		703		103			5,774	445	228		296	1	129.3	42.6	5.0	69.5
Jul 11		687		102			4,878	520	335		317	4	105.7	49.5	5.0	69.5
Jul 12		745		70			3,959	400	241		260	2	123.9	53.2	5.0	70.1
Jul 13		760		95			4,494	441	275		418	1	133.3	53.2	5.0	70.6
Jul 14		691		124			4,088	436	248		249	1	133.4	61.0	5.0	70.9
Jul 15		679		68			2,672	391	212		262	3	153.0	57.5	5.0	71.2
Jul 16		571		74			2,009	343	178		320	4	144.3	52.0	5.0	71.4
Jul 17		639		72			1,381	280	165		296	1	131.3	52.0	5.0	71.0
Jul 18		570		59			1,186	254	151		257	1	130.2	54.1	5.0	70.5
Jul 19		502		62			856	306	162		396	2	135.6	54.8	5.0	71.5
Jul 20		540		55			667	264	126		323	4	137.6	53.1	5.0	72.2
Jul 21		411		91			487	216	124		329	0	134.0	48.5	5.0	72.5
Jul 22		411		45			446	151	66		226	1	121.8	46.9	5.0	72.2
Jul 23		214		42			269	118	69		205	2	118.4	45.0	5.0	72.4
Jul 24		237		30			207	82	42		193	2	112.8	45.7	5.0	72.3
Jul 25		230		39			171	60	41		136	3	115.0	55.1	5.0	71.8
Jul 26		303		41			156	97	57		280	3	138.0	53.0	5.0	72.0
Jul 27		302		36			188	93	48		238	2	133.4	56.4	5.0	72.1
Jul 28		238		46			157	139	92		239	1	141.5	54.0	5.0	72.1
Jul 29		255		35			127	125	65		145	3	134.7	50.2	5.0	72.1
Jul 30		329		48			146	162	99		133	5	124.8	48.0	5.0	71.7
Jul 31		396		55			93	237	140		90	7	119.9	53.4	5.0	71.4
TOTAL		20,555		3,107			139,745	8,290	4,630		8,976	88				
AVG		663		100			4,508	267	149		290	3	128.9	51.3	5.0	70.6
RUN YEAR	CHINOOK	CHINOOK					TOTAL	unclipped			LAMPREY	STURGEON				
TOTALS TO DATE	ADULT	JACK					SOCKEYE	STEELHEAD	STEELHEAD							
SPRING	72,917	8,324					294,007	9,785	5,335							
SUMMER	67,060	8,783														
TOTAL	139,977	17,107														

TABLE 38

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Aug 1		527		66	0	0	111	320	205	0		130	5	134.2	48.2	5.0	71.5
Aug 2		502		61	0	0	103	345	197	0		91	1	121.1	45.8	5.0	71.5
Aug 3		483		53	0	0	89	395	221	0		129	6	115.3	42.3	5.0	71.5
Aug 4			686	67	0	0	78	389	227	0		100	1	106.1	42.8	5.0	71.5
Aug 5			595	65	1	0	67	284	145	0		83	2	106.7	50.3	5.0	71.6
Aug 6			684	49	0	0	40	246	125	0		71	3	126.1	47.8	5.0	71.6
Aug 7			496	55	0	0	56	372	197	0		68	0	120.4	44.8	5.0	71.5
Aug 8			498	33	1	0	48	508	264	0		120	3	112.6	47.4	5.0	71.6
Aug 9			373	33	0	0	30	541	225	0		129	8	119.2	45.5	5.0	71.9
Aug 10			474	30	0	1	23	485	231	0		88	4	113.5	49.6	5.0	71.8
Aug 11			895	50	0	1	23	540	260	0		97	2	123.4	53.1	5.0	71.7
Aug 12			1,195	76	1	0	18	596	266	0		168	7	133.3	52.8	5.0	71.8
Aug 13			869	64	1	1	20	781	370	0		102	4	133.1	51.8	5.0	72.1
Aug 14			854	29	2	0	3	634	275	0		94	4	129.3	52.4	5.0	72.4
Aug 15			1,097	52	1	2	6	428	170	0		141	-1	130.3	43.1	5.0	72.8
Aug 16			493	25	6	6	5	185	89	0		136	6	142.2	41.3	5.0	73.0
Aug 17			1,233	50	0	0	4	395	163	0		73	2	138.6	40.8	5.0	72.7
Aug 18			593	56	0	0	0	191	84	0		59	1	135.8	40.4	5.0	72.2
Aug 19			436	59	4	3	9	367	164	0		44	1	135.3	41.5	5.0	71.8
Aug 20			721	40	2	0	5	395	135	0		39	0	138.7	38.8	5.0	72.3
Aug 21			631	61	0	0	7	383	158	0		32	2	130.8	34.6	5.0	72.3
Aug 22			1,782	83	9	2	3	497	196	0		22	0	115.5	34.4	5.0	71.8
Aug 23			2,870	146	25	8	6	677	262	0		95	-1	115.5	28.3	5.0	71.7
Aug 24			2,522	198	40	4	2	394	148	1		111	5	95.5	34.7	5.0	71.7
Aug 25			2,495	197	62	8	2	536	162	0		47	1	115.6	33.4	5.0	72.0
Aug 26			1,624	159	32	4	1	549	189	0		59	2	110.2	33.6	5.0	72.1
Aug 27			3,063	230	189	22	1	910	320	0		53	4	111.8	33.1	5.0	72.3
Aug 28			4,625	133	204	3	1	772	243	0		74	0	111.0	34.8	5.0	72.2
Aug 29			4,174	396	310	47	1	985	324	0		88	5	115.5	31.7	5.0	71.8
Aug 30			7,040	215	261	18	1	1,651	562	0		63	0	105.5	34.0	5.0	70.8
Aug 31			8,966	527	558	58	4	2,394	739	2		20	4	113.7	37.6	5.0	70.3
TOTAL		1,512	51,984	3,358	1,709	188	767	18,145	7,316	3		2,626	81				
AVG.		504	1,857	108	55	6	25	585	236	0		85	3	121.2	41.6	5.0	71.9

RUN YEAR	CHINOOK		COHO		TOTAL		unclipped	PINK	LAMPREY STURGEON	
	ADULT	JACK	ADULTS	JACKS	SOCKEYE	STEELHEAD	STEELHEAD			
TOTALS TO DATE										
SPRING	72,917	8,324	1,709	188	294,774	27,930	12,651	3	17,216	203
SUMMER	68,572	8,963								
FALL	51,984	3,178								
TOTAL	193,473	20,465								

TABLE 39

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK		COHO		TOTAL		unclipped		PINK	CHUM	LAMPREY	STURGEON	DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	ADULT	STEELHEAD	STEELHEAD	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Sep 1			6,718	365	290	33	2	1,063	359	0			53		-1	125.8	0.0	5.0	70.1
Sep 2			13,594	676	593	75	9	4,364	2,067	1			37		2	94.8	0.0	5.0	70.2
Sep 3			17,321	913	2,692	210	5	3,248	1,055	0			41		3	87.9	0.0	5.0	70.3
Sep 4			10,596	816	2,400	140	2	3,283	968	1			42		0	91.3	0.0	5.0	69.8
Sep 5			8,731	1,425	1,661	114	7	2,560	756	0			26		1	78.6	0.0	5.0	69.2
Sep 6			9,893	971	2,881	155	2	3,156	908	0			24		2	83.2	0.0	5.0	68.6
Sep 7			6,635	876	2,455	143	1	2,198	572	0			41		0	81.0	0.0	5.0	68.8
Sep 8			6,604	507	2,143	127	1	1,860	552	0			54		1	76.0	0.0	5.0	68.9
Sep 9			14,199	724	3,308	131	0	2,271	498	0			40		-1	74.3	0.0	5.0	69.0
Sep 10			14,497	792	3,548	251	0	2,081	504	0			32		1	77.7	0.0	5.0	69.2
Sep 11			13,324	941	2,467	171	0	2,159	417	0			41		-1	74.1	0.0	5.0	69.2
Sep 12			8,584	572	3,249	232	0	1,707	409	0			30		3	65.8	0.0	5.0	69.1
Sep 13			9,776	859	2,427	175	0	1,724	419	0			40		1	74.9	0.0	5.0	68.9
Sep 14			9,019	608	2,496	172	1	1,957	467	0			35		2	79.0	0.0	5.0	68.9
Sep 15			6,461	753	1,693	142	0	1,377	345	0			39		0	87.1	0.0	5.0	69.3
Sep 16			7,081	1,006	1,449	195	0	1,598	389	0			22		0	81.4	0.0	5.0	69.4
Sep 17			7,747	846	1,239	155	1	1,592	368	0			24		2	65.3	0.0	5.0	69.3
Sep 18			7,980	564	1,028	135	0	2,468	627	0			19		1	67.5	0.0	5.0	69.0
Sep 19			5,716	539	1,060	133	1	1,691	481	0			4		-1	65.4	0.0	5.0	68.2
Sep 20			6,220	558	886	103	1	2,082	575	0			11		1	68.0	0.0	5.0	67.3
Sep 21			3,879	362	841	91	0	1,876	534	1			5		0	75.7	0.0	5.0	66.9
Sep 22			3,582	250	585	109	1	1,894	555	0			3		0	72.0	0.0	5.0	67.1
Sep 23			5,206	483	772	93	0	1,630	379	0			15		0	68.5	0.0	5.0	67.2
Sep 24			6,095	644	544	108	0	1,133	282	1			4		2	67.1	0.0	5.0	67.0
Sep 25			4,349	416	518	71	0	841	224	0			4		0	74.0	0.0	5.0	67.0
Sep 26			3,150	374	1,111	84	0	1,821	634	0			0		0	64.1	0.0	5.0	66.9
Sep 27			4,248	442	1,075	108	1	2,077	617	0			7		1	66.0	0.0	5.0	66.8
Sep 28			4,485	467	2,844	88	2	1,588	471	0			7		3	72.3	0.0	5.0	66.7
Sep 29			3,991	473	2,206	116	0	1,115	312	0			7		0	74.4	0.0	5.0	66.4
Sep 30			2,777	316	1,189	59	0	1,061	314	0			2		0	75.6	0.0	5.0	66.1
TOTAL			232,458	19,538	51,650	3,919	37	59,475	17,058	4			709		22				
AVG.			7,749	651	1,722	131	1	1,983	569	0			24		1	77.0	0.0	5.0	68.4

RUN YEAR		CHINOOK	CHINOOK
TOTALS TO DATE		ADULT	JACK
SPRING		72,917	8,324
SUMMER		68,572	8,963
FALL		284,442	22,716
TOTAL		425,931	40,003

COHO	COHO	TOTAL		unclipped
ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD
53,359	4,107	294,811	87,405	29,709
				7

LAMPREY	STURGEON
17,925	225

TABLE 40

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped		PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Oct 1			3,044	362	740	53	0	1,044	269		0	2	1	70.3	0.0	5.0	66.0
Oct 2			2,262	258	699	65	0	1,052	271		0	1	1	65.7	0.0	5.0	65.6
Oct 3			797	170	335	41	0	479	141		0	2	-1	71.1	0.0	5.0	65.3
Oct 4			1,335	147	539	21	0	786	253		0	2	-2	71.7	0.0	5.0	65.0
Oct 5			1,930	257	1,274	51	0	874	260		0	2	-1	82.0	0.0	5.0	65.0
Oct 6			1,487	233	442	30	4	721	249		0	2	1	80.1	0.0	5.0	65.3
Oct 7			1,458	147	351	42	0	598	193		0	1	-1	77.4	0.0	5.0	65.4
Oct 8			1,875	234	355	32	0	466	166		0	-4	-1	72.8	0.0	5.0	65.3
Oct 9			1,720	168	360	33	0	472	161		0	4	0	84.3	0.0	5.0	65.1
Oct 10			1,808	181	212	35	0	372	152		0	4	0	79.6	0.0	5.0	64.9
Oct 11			1,432	156	130	34	0	302	129		0	0	0	77.4	0.0	5.0	64.4
Oct 12			1,417	116	284	18	0	270	92		0	1	-1	73.9	0.0	5.0	63.9
Oct 13			1,576	166	3,413	84	0	690	282		0	1	0	76.0	0.0	5.0	63.7
Oct 14			574	85	852	69	0	298	119		0	2	0	78.3	0.0	5.0	63.6
Oct 15			863	90	298	25	0	224	102		0	0	-1	79.3	0.0	5.0	63.5
Oct 16			606	101	169	15	0	168	74		0	1	0	75.4	0.0	5.0	63.4
Oct 17			608	66	145	9	0	163	79		0	0	-1	74.8	0.0	5.0	63.3
Oct 18			354	57	370	37	0	157	57		0	0	0	75.0	0.0	5.0	63.1
Oct 19			355	51	161	22	1	108	56		0	1	0	76.8	0.0	5.0	62.9
Oct 20			365	48	212	22	0	126	45		0	0	0	76.4	0.0	5.0	62.8
Oct 21			335	45	206	20	0	90	39		0	0	1	78.4	0.0	5.0	62.7
Oct 22			348	26	302	18	0	96	38		0	1	0	82.8	0.0	5.0	62.5
Oct 23			386	46	355	19	0	141	94		0	0	-1	70.8	0.0	5.0	62.0
Oct 24			217	29	232	17	0	103	50		1	0	1	71.7	0.0	5.0	61.3
Oct 25			157	35	135	18	0	74	31		0	1	0	76.7	0.0	5.0	60.6
Oct 26			201	38	584	12	0	111	38		0	0	0	95.0	0.0	5.0	60.4
Oct 27			276	49	269	22	0	123	53		0	0	0	87.9	0.0	5.0	60.3
Oct 28			220	14	142	4	0	53	30		0	0	0	80.9	0.0	5.0	59.9
Oct 29			247	46	500	26	0	58	28		0	0	0	74.0	0.0	5.0	59.4
Oct 30			200	34	360	7	0	61	31		0	0	0	65.1	0.0	5.0	58.8
Oct 31			253	19	524	12	0	88	51		0	0	1	78.7	0.0	5.0	58.3
TOTAL			28,706	3,474	14,950	913	5	10,368	3,633		1	24	-4				
AVG.			926	112	482	29	0	334	117		0	1	0	76.8	0.0	5.0	63.0

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	72,917	8,324
SUMMER	68,572	8,963
FALL	313,148	26,190
TOTAL	454,637	43,477

COHO	COHO	TOTAL		unclipped	PINK	CHUM	LAMPREY	STURGEON
ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				
68,309	5,020	294,816	97,773	33,342	7	1	17,949	221

Note: Visual counts ended October 31.

TABLE 41

**DISCHARGE AND WATER QUALITY DATA
THE DALLES PROJECT 2023**

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1	85.8	0.0	5.0	58.1	Dec 1	115.6	0.0	5.0	48.5
Nov 2	107.1	0.0	5.0	58.1	Dec 2	116.8	0.0	5.0	48.4
Nov 3	101.9	0.0	5.0	57.9	Dec 3	125.5	0.0	5.0	48.4
Nov 4	99.6	0.0	5.0	57.9	Dec 4	113.2	0.0	5.0	48.4
Nov 5	106.4	0.0	5.0	57.5	Dec 5	97.3	0.0	5.0	48.5
Nov 6	98.1	0.0	5.0	57.2	Dec 6	79.8	0.0	5.0	48.6
Nov 7	104.0	0.0	5.0	56.8	Dec 7	76.0	0.0	5.0	48.5
Nov 8	91.2	0.0	5.0	56.2	Dec 8	78.3	0.0	5.0	48.2
Nov 9	101.7	0.0	5.0	55.5	Dec 9	86.5	0.0	5.0	47.6
Nov 10	118.2	0.0	5.0	55.1	Dec 10	118.2	0.0	5.0	47.3
Nov 11	117.4	0.0	5.0	54.8	Dec 11	100.0	0.0	5.0	47.3
Nov 12	106.1	0.0	5.0	54.4	Dec 12	102.4	0.0	5.0	47.3
Nov 13	111.9	0.0	5.0	54.0	Dec 13	117.6	0.0	5.0	47.1
Nov 14	112.6	0.0	5.0	53.7	Dec 14	122.8	0.0	5.0	47.1
Nov 15	105.4	0.0	5.0	53.4	Dec 15	112.1	0.0	5.0	47.1
Nov 16	112.1	0.0	5.0	53.2	Dec 16	118.0	0.0	5.0	47.2
Nov 17	116.1	0.0	5.0	52.8	Dec 17	111.0	0.0	5.0	47.0
Nov 18	118.9	0.0	5.0	52.5	Dec 18	110.0	0.0	5.0	46.6
Nov 19	127.3	0.0	5.0	52.5	Dec 19	116.7	0.0	5.0	46.3
Nov 20	102.4	0.0	5.0	52.2	Dec 20	108.3	0.0	5.0	46.3
Nov 21	117.6	0.0	5.0	51.9	Dec 21	110.0	0.0	5.0	46.4
Nov 22	130.4	0.0	5.0	51.7	Dec 22	115.5	0.0	5.0	46.5
Nov 23	114.6	0.0	5.0	51.6	Dec 23	119.0	0.0	5.0	46.1
Nov 24	117.6	0.0	5.0	51.2	Dec 24	110.7	0.0	5.0	45.6
Nov 25	120.7	0.0	5.0	50.6	Dec 25	124.3	0.0	5.0	45.2
Nov 26	123.5	0.0	5.0	50.0	Dec 26	120.0	0.0	5.0	45.0
Nov 27	117.6	0.0	5.0	49.5	Dec 27	113.7	0.0	5.0	45.1
Nov 28	135.3	0.0	5.0	49.2	Dec 28	113.6	0.0	5.0	45.1
Nov 29	118.2	0.0	5.0	48.9	Dec 29	118.3	0.0	5.0	45.0
Nov 30	128.4	0.0	5.0	48.7	Dec 30	127.0	0.0	5.0	44.9
					Dec 31	118.7	0.0	5.0	44.7
AVG.	112.3	0.0	5.0	53.6	AVG.	110.2	0.0	5.0	46.8

TABLE 42

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

June 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				
Jun 1													
Jun 2													
Jun 3													
Jun 4													
Jun 5													
Jun 6													
Jun 7													
Jun 8													
Jun 9													
Jun 10													
Jun 11													
Jun 12													
Jun 13													
Jun 14													
Jun 15		40		2			144	0	0				410
Jun 16		50		7			227	6	6				1,335
Jun 17		53		2			286	0	0				936
Jun 18		31		2			245	0	0				630
Jun 19		39		3			288	11	11				410
Jun 20		20		0			426	0	0				537
Jun 21		38		2			742	1	0				587
Jun 22		41		8			686	2	2				841
Jun 23		59		2			451	1	1				918
Jun 24		92		0			562	1	0				619
Jun 25		46		8			485	3	1				625
Jun 26		87		6			546	2	2				573
Jun 27		40		0			570	0	0				683
Jun 28		45		0			1,072	0	0				483
Jun 29		63		0			1,112	0	0				861
Jun 30		44		0			1,122	8	0				897
TOTAL		788		42			8,964	35	23				11,345
AVG.		49		3			560	2	1				709

Note: Night counts are video counts from 2000-0400 PST.

TABLE 43

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

July 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Jul 1		55		58			1,058	5	0			547
Jul 2		61		6			927	2	2			504
Jul 3		85		-1			774	4	1			330
Jul 4		32		3			721	0	0			736
Jul 5		39		0			1,080	1	0			760
Jul 6		29		0			704	26	22			542
Jul 7		67		1			493	2	2			254
Jul 8		40		12			384	11	5			323
Jul 9		35		8			361	10	2			384
Jul 10		17		1			206	14	2			514
Jul 11		24		6			171	13	0			398
Jul 12		32		9			264	13	3			572
Jul 13		32		11			224	14	2			387
Jul 14		20		5			103	10	0			503
Jul 15		20		15			218	6	1			567
Jul 16		26		1			134	6	1			427
Jul 17		12		1			123	3	3			375
Jul 18		36		7			107	13	3			433
Jul 19		22		0			48	11	0			917
Jul 20		14		7			72	16	5			828
Jul 21		13		2			51	3	0			742
Jul 22		11		1			42	4	1			668
Jul 23		5		1			64	3	3			538
Jul 24		24		1			40	4	2			379
Jul 25		25		0			56	2	2			472
Jul 26		10		1			31	0	0			711
Jul 27		11		0			28	4	1			540
Jul 28		7		2			30	5	0			616
Jul 29		17		0			34	7	1			370
Jul 30		17		0			38	2	1			223
Jul 31		119		4			54	37	4			252
TOTAL		957		162			8,640	251	69			15,812
AVG		31		5			279	8	2			510

Note: Night counts are video counts from 2000-0400 PST.

TABLE 44

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

August 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Aug 1		30		1	0	0	23	7	2			280
Aug 2		39		0	0	0	18	9	5			258
Aug 3		25		0	0	0	19	6	5			149
Aug 4			14	0	0	0	12	7	3			395
Aug 5			44	4	0	0	14	2	0			281
Aug 6			36	2	0	0	8	16	0			302
Aug 7			21	0	0	0	11	13	6			268
Aug 8			26	0	0	0	5	12	4			337
Aug 9			12	1	0	0	1	12	2			330
Aug 10			20	0	0	0	11	7	4			339
Aug 11			36	0	0	0	12	19	7			353
Aug 12			27	0	0	0	5	14	4			358
Aug 13			20	0	0	0	1	24	7			382
Aug 14			46	6	0	0	1	12	4			249
Aug 15			12	0	0	0	5	13	1			132
Aug 16			30	6	0	0	2	11	3			203
Aug 17			91	8	0	0	3	10	6			232
Aug 18			30	0	0	0	1	9	0			149
Aug 19			39	0	0	0	0	13	5			153
Aug 20			85	1	0	0	2	21	12			121
Aug 21			37	2	1	0	1	30	12			111
Aug 22			161	3	4	0	2	60	18			139
Aug 23			97	2	4	0	1	42	10			224
Aug 24			100	5	1	0	3	36	11			135
Aug 25			76	6	0	1	2	34	5			138
Aug 26			135	1	2	0	6	75	15			64
Aug 27			114	11	1	0	1	72	10			187
Aug 28			148	0	5	0	1	83	26			166
Aug 29			106	6	3	0	0	107	23			154
Aug 30			244	18	5	5	0	151	34			83
Aug 31			171	21	20	0	0	130	31			176
TOTAL		94	1,978	104	46	6	171	1,057	275			6,848
AVG.		31	71	3	1	0	6	34	9			221

Note: Night counts are video counts from 2000-0400 PST.

TABLE 45

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

September 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD			
Sep 1			131	11	25	1	0	120	36		84
Sep 2			514	49	31	8	0	241	42		69
Sep 3			198	11	75	9	1	168	39		83
Sep 4			143	7	60	5	5	145	20		67
Sep 5			117	10	75	13	2	174	60		69
Sep 6			63	9	59	7	0	159	36		67
Sep 7			146	2	23	2	0	119	30		69
Sep 8			145	6	26	1	0	180	31		77
Sep 9			381	0	22	0	0	197	51		80
Sep 10			143	12	132	14	0	160	40		44
Sep 11			139	6	91	10	0	111	27		45
Sep 12			239	1	22	1	0	169	39		54
Sep 13			33	0	135	1	0	102	17		42
Sep 14			129	0	13	0	0	111	29		50
Sep 15			154	7	36	4	5	123	20		49
Sep 16			132	2	6	1	0	79	19		42
Sep 17			109	10	54	19	0	118	14		32
Sep 18			136	4	39	11	0	185	30		16
Sep 19			56	13	31	10	0	91	5		19
Sep 20			121	14	7	2	0	192	42		16
Sep 21			16	6	40	17	0	124	31		10
Sep 22			83	7	69	0	0	157	33		14
Sep 23			75	9	5	0	0	81	18		18
Sep 24			27	0	37	5	0	60	7		7
Sep 25			32	1	20	2	-1	53	14		12
Sep 26			159	1	492	4	0	402	86		16
Sep 27			116	1	24	3	0	138	26		11
Sep 28			139	3	391	9	0	218	55		-1
Sep 29			26	0	198	4	0	108	18		6
Sep 30			21	0	155	1	0	64	14		6
TOTAL			3,923	202	2,393	164	12	4,349	929		1,173

AVG.			131	7	80	5	0	145	31		39
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Note: Night counts are video counts from 2000-0400 PST.

TABLE 46

YEARLY DAYTIME TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM

1957 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTALS
1957	312,678	129,361	90,201	6,793	75	4	539,112
1958	301,960	121,420	111,039	2,395	31	5	536,850
1959	207,461	156,090	86,259	2,709	25	9	452,553
1960	196,962	111,189	59,441	3,000	35	5	370,632
1961	201,335	134,572	16,689	2,139		4	354,739
1962	187,132	163,301	27,127	3,696		5	381,261
1963	180,969	118,957	56,931	3,716	23	3	360,599
1964	183,842	110,033	79,042	5,978		5	378,900
1965	195,049	141,052	44,279	17,468	1	3	397,852
1966	240,671	146,172	147,886	32,279		1	567,009
1967	280,112	121,614	120,589	32,015	1	4	554,335
1968	262,975	147,481	116,897	42,687		1	570,041
1969	314,258	112,529	37,226	17,054		1	481,068
1970	261,457	99,187	77,678	23,219		4	461,545
1971	250,528	151,348	76,103	29,061		3	507,043
1972	268,628	135,303	44,671	16,562			465,164
1973	280,945	100,082	52,303	11,152		1	444,483
1974	217,181	70,875	28,827	14,655			331,538
1975	217,283	57,675	43,198	13,976			332,132
1976	216,163	82,568	27,747	19,392			345,870
1977	224,950	133,882	86,252	10,021			455,105
1978	199,228	60,485	11,845	18,877			290,435
1979	150,647	83,364	32,791	8,726		4	275,532
1980	113,951	93,963	42,088	6,326			256,328
1981	135,176	113,268	35,447	6,941		1	290,833
1982	172,682	117,434	33,331	7,383			330,830
1983	156,190	171,055	84,204	3,459	1		414,909
1984	203,920	219,123	101,177	3,142		1	527,363
1985	370,982	276,025	117,254	4,625		5	768,891
1986	443,013	281,953	48,477	4,842	3	4	778,292
1987	421,190	217,768	87,599	3,310	1	2	729,870
1988	378,080	198,499	55,802	9,226			641,607
1989	282,168	235,639	39,672	12,611			570,090
1990	207,556	129,271	40,230	4,645			381,702
1991	153,023	199,853	63,405	9,601		103	425,985
1992	168,507	232,179	66,384	3,825		3	470,898
1993	184,953	124,829	62,252	4,360			376,394
1994	161,758	112,254	9,356	4,376			287,744
1995	141,793	145,844	7,166	3,269			298,072
1996	167,911	162,456	25,055	4,583			360,005
1997	223,801	164,756	32,430	4,729			425,716
1998	154,132	116,682	8,826	8,970			288,610
1999	199,491	156,874	13,715	15,041		19	385,140
2000	316,836	205,241	73,383	29,536		1	624,997
2001	629,334	503,327	102,562	64,557			1,299,780
2002	583,155	387,920	40,554	12,786			1,024,415
2003	618,472	282,574	34,180	46,101	29	128	981,484
2004	562,737	241,123	107,466	41,645	5	0	952,976
2005	389,905	244,213	65,273	36,129	0	23	735,543
2006	341,371	249,223	30,026	34,339	3	3	654,965
2007	253,613	246,960	19,124	32,961	11	1	552,670
2008	397,766	277,640	177,984	42,682	0	12	896,084
2009	525,837	515,111	155,591	77,492	7	28	1,274,066
2010	618,699	333,033	325,133	31,374	0	1	1,308,240
2011	591,869	299,007	138,293	76,753	3	1,158	1,107,083
2012	539,930	201,640	410,099	34,019	7	2	1,185,697
2013	898,424	190,750	161,896	26,682	4	87	1,277,843
2014	905,449	255,691	586,188	157,646	0	2	1,904,976
2015	1,068,378	217,018	429,797	26,959	0	137	1,742,289

TABLE 46
Continued

YEARLY DAYTIME TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTALS
2011	591,869	299,007	138,293	76,753	3	1,158	1,107,083
2012	539,930	201,640	410,099	34,019	7	2	1,185,697
2013	898,424	190,750	161,896	26,682	4	87	1,277,843
2014	905,449	255,691	586,188	157,646	0	2	1,904,976
2015	1,068,378	217,018	429,797	26,959	0	137	1,742,289
2016	585,090	145,027	288,401	22,909	0	1	1,041,428
2017	394,690	96,803	64,058	36,911	0	7	592,469
2018	264,744	80,717	152,101	24,430	0	0	521,992
2019	301,131	60,994	50,726	43,230	0	23	456,104
2020	421,304	97,452	295,776	71,611	0	0	886,143
2021	426,678	62,532	128,223	169,785	3	48	787,269
2022	547,159	103,534	580,582	89,987	13	7	1,321,282
2023	498,118	97,843	294,816	73,392	1	7	964,177
Totals	26,477,430	12,717,744	8,887,396	2,088,809	296	3,262	50,174,937
10-Year Average	541,274	121,761	287,067	71,686	2	23	1,021,813

TABLE 47

MONTHLY COUNT OF CHINOOK SALMON
THE DALLES DAM 1957 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL	JACKS
														1 JAN- 3 JUN	4 JUN- 3 AUG	4 AUG- 31 DEC	
1957			22	42,161	59,410	86,096	35,643	28,828	56,753	3,564	201		312,678	109,723	116,661	86,294	37,374
1958			114	8,268	47,862	59,955	24,381	17,211	141,262	2,788	119		301,960	61,747	80,139	160,074	19,747
1959			8	16,771	32,634	27,799	42,817	20,142	65,229	2,022	39		207,461	50,874	71,362	85,225	39,857
1960				17,073	40,091	52,577	22,549	15,225	46,453	2,720	274		196,962	58,406	75,315	63,241	30,847
1961				43,822	35,059	24,478	24,596	16,866	53,371	3,143			201,335	79,183	50,824	71,328	35,409
1962				33,069	35,629	34,488	21,515	13,461	46,135	2,835			187,132	69,139	57,007	60,986	17,835
1963				19,119	33,207	25,063	20,414	21,865	57,248	4,053			180,969	52,937	47,333	80,699	54,749
1964			340	35,551	24,447	16,801	37,697	17,452	49,811	1,743			183,842	60,691	56,360	66,791	30,900
1965			190	17,870	24,930	17,900	31,072	25,119	74,904	3,064			195,049	43,617	50,527	100,905	67,552
1966		1,068		72,267	22,837	25,530	33,712	14,978	65,380	4,899			240,671	96,628	61,062	82,981	36,482
1967				48,744	22,817	24,718	45,346	23,927	107,427	7,133			280,112	71,976	72,582	135,554	98,817
1968			100	52,144	45,057	32,827	33,272	72,209	4,800		205		262,975	98,742	67,391	96,842	64,644
1969			65	19,025	80,162	33,432	27,750	29,330	118,890	5,604			314,258	100,482	61,978	151,798	96,244
1970				53,370	29,670	22,903	23,318	34,906	93,633	3,657			261,457	83,549	48,115	129,793	85,471
1971				28,227	44,181	22,011	29,655	16,190	103,370	6,894			250,528	73,655	51,847	125,026	75,329
1972				68,955	33,508	17,354	29,756	21,828	91,666	5,561			268,628	103,107	48,660	116,861	81,668
1973				94,334	15,040	19,548	19,181	23,341	101,771	7,730			280,945	111,088	38,774	131,083	72,088
1974				13,415	41,902	7,141	22,709	13,964	103,804	14,246			217,181	56,397	30,273	130,511	79,840
1975				18,526	32,869	12,155	26,447	28,973	90,193	8,120			217,283	52,483	39,062	125,738	74,418
1976				20,266	35,434	17,828	20,129	17,278	90,933	14,295			216,163	56,570	38,733	120,860	74,275
1977				72,726	16,672	22,084	22,059	12,266	69,927	9,216			224,950	90,373	44,378	90,199	55,067
1978				52,425	30,472	19,477	15,978	11,251	57,786	11,839			199,228	84,924	34,396	79,908	32,503
1979				13,993	12,569	14,310	17,687	20,458	61,757	9,516	357		150,647	27,297	32,298	91,052	42,886
1980				12,434	15,441	7,948	12,832	12,881	43,675	8,740			113,951	28,237	21,133	64,581	20,016
1981				24,227	16,335	8,491	10,779	15,802	53,840	5,702			135,176	41,160	19,676	74,340	33,919
1982				10,569	33,296	10,058	9,554	17,466	79,487	12,252			172,682	44,750	19,342	108,590	60,165
1983				13,270	22,893	8,766	8,430	12,501	73,942	16,388			156,190	36,856	17,051	102,283	41,335
1984				9,326	23,784	9,992	12,332	23,495	105,786	19,205			203,920	33,848	22,472	147,600	70,798
1985				36,035	39,173	15,785	10,332	37,806	203,470	27,058	1,323		370,982	76,514	25,385	269,083	145,007
1986			175	48,892	36,928	14,175	10,452	22,684	264,091	45,616			443,013	87,004	24,826	331,183	176,461
1987				48,812	27,586	17,923	12,145	50,680	236,216	27,828			421,190	77,453	30,804	312,933	65,115
1988				51,680	20,756	16,644	13,494	66,509	193,490	15,507			378,080	73,663	29,892	274,525	69,631
1989				24,474	27,477	15,539	13,899	58,674	130,931	10,438	736		282,168	53,014	30,555	198,599	28,671
1990			115	36,062	20,749	13,390	9,099	22,152	96,538	9,451			207,556	57,424	22,615	127,517	32,794
1991				14,513	17,313	10,949	7,638	8,384	84,861	9,365			153,023	32,359	18,467	102,197	36,820
1992				38,141	19,414	9,595	5,797	14,589	71,281	9,690			168,507	58,451	14,976	95,080	27,160
1993				42,391	25,824	14,165	6,481	19,297	71,395	5,400			184,953	69,356	20,063	95,534	12,298
1994				6,573	4,938	7,376	8,360	22,910	98,997	12,604			161,758	11,798	15,997	133,963	25,470
1995				3,008	4,244	6,176	7,111	23,094	82,723	15,437			141,793	7,553	13,558	120,682	32,813
1996				5,631	20,896	8,018	6,718	26,505	90,762	9,381			167,911	27,127	14,488	126,296	5,851
1997				25,639	42,467	14,718	8,011	23,666	100,652	8,648			223,801	69,740	21,456	132,605	16,249
1998				14,927	10,488	10,289	6,702	20,129	78,191	13,406			154,132	25,743	16,906	111,483	20,513
1999				5,396	17,579	10,972	13,864	30,830	107,411	13,439			199,491	23,743	24,937	150,811	28,412
2000				68,618	47,131	20,878	15,442	57,600	97,042	10,125			316,836	117,749	35,580	163,507	63,769
2001				228,568	79,627	50,030	35,889	38,452	172,871	23,897			629,334	313,865	82,388	233,081	72,644
2002				63,869	116,008	76,400	45,761	63,943	197,956	19,218			583,155	185,046	118,812	279,297	42,982
2003			11	7,227	84,312	54,173	70,347	43,926	42,146	280,091	3,085	84	618,472	149,967	111,931	356,574	62,007
2004				272	74,705	59,127	59,859	30,999	41,935	261,434	2,017	28	562,737	138,229	87,925	336,583	48,732
2005			1	44	18,797	41,560	48,505	27,685	25,764	203,518	958	9	389,905	64,219	73,136	252,550	24,991
2006				9	1,006	61,711	58,394	26,404	24,419	141,212	2,140	16	341,371	64,012	84,839	192,520	27,212
2007			1	51	19,338	46,147	34,405	19,510	21,415	93,517	1,326	20	253,613	68,253	52,062	133,298	65,306
2008					21,531	86,590	58,430	21,041	46,608	147,583	15,983		397,766	111,239	77,279	209,248	66,298
2009					8,464	132,674	83,688	30,189	74,468	176,655	19,699		525,837	147,554	107,794	270,489	175,120
2010					83,785	108,482	72,234	29,689	45,375	246,464	32,670		618,699	201,385	93,820	323,494	75,458
2011					8,526	150,084	76,725	47,267	37,941	230,089	41,237		591,869	164,310	120,968	306,591	151,007
2012				18	8,662	110,476	52,142	31,102	44,449	257,070	33,903	2,088	539,930	124,262	79,614	336,054	126,554
2013		4	2	**	18,841	79,731	70,063	37,731	99,513	513,045	79,494		898,424	101,513	106,389	690,522	141,021
2014					34,797	123,507	73,974	45,718	45,707	513,377	68,369		905,449	164,222	115,659	625,568	133,342
2015					103,729	95,758	89,752	53,573	78,324	524,977	122,265		1,068,378	206,423	139,373	722,582	115,226
2016					11,830	98,780	67,404	40,341	57,734	283,586	25,415		585,090	115,503	104,564	365,023	69,544
2017					660	65,479	54,335	28,049	20,970	182,869	37,614	4,622	394,690	70,806	78,523	245,361	50,114
2018		5	4	**	1,346	57,605	41,198	15,174	25,579	101,404	22,429		264,744	62,728	53,083	148,933	30,671
2019					864	40,377	34,137	17,820	26,711	147,602	33,620		301,131	43,804	50,145	207,182	40,069
2020					5,546	37,869	56,617	32,853	50,853	203,477	34,089		421,304	46,016	88,238	287,050	59,756
2021					8,240	58,603	54,376	26,478	65,611	189,938	23,432		426,678	70,215	78,065	278,398	64,891
2022				368	20,159	103,369	58,209	35,448	48,255	257,966	22,785	594	547,159	128,869	89,571	328,719	70,417
2023		2	2	**	6,240	70,706	56,476	23,662	56,854	251,996	32,180		498,118	81,245	77,535	339,338	43,477
Total				10,197	2,236,554	3,169,614	2,286,022	1,583,464	2,137,900	9,763,390	1,265,859	20,084	22,473,380	5,570,815	3,806,969	13,095,596	4,074,108
10-Year Average				19,341	75,205	58,648	31,912	47,660	265,719	42,220			541,274	98,983	87,476	354,815	67,751

*Jacks included

TABLE 48

**MONTHLY COUNT OF SOCKEYE SALMON
THE DALLES DAM
1957 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1957					125	33,476	54,294	2,081	221	4			90,201
1958					29	28,854	80,324	1,583	248	1			111,039
1959					413	7,176	76,347	2,245	77	1			86,259
1960					2	36,907	22,228	297	7				59,441
1961					66	5,863	10,629	116	15				16,689
1962					55	8,333	18,545	180	14				27,127
1963					199	17,914	38,633	185	0				56,931
1964					23	9,984	68,205	758	72				79,042
1965					184	11,023	31,622	1,438	12				44,279
1966					65	36,539	109,167	2,106	9				147,886
1967					114	15,713	103,862	892	8				120,589
1968					5	77,878	38,542	462	10				116,897
1969					22	15,165	21,933	102	3	1			37,226
1970					1	18,309	56,903	2,387	75	3			77,678
1971					0	8,887	66,841	369	6				76,103
1972					0	9,276	34,924	466	5				44,671
1973					8	19,510	32,674	105	6				52,303
1974					4	3,935	24,790	98	0				28,827
1975					0	7,679	35,291	225	2	1			43,198
1976					1	10,988	16,637	121	0				27,747
1977					5	60,049	26,146	52	0				86,252
1978					24	7,158	4,559	104	0				11,845
1979					0	14,750	17,734	307	0				32,791
1980					0	11,096	30,046	927	19				42,088
1981					0	17,692	17,686	68	1				35,447
1982					0	11,430	21,742	144	15				33,331
1983					1	34,684	49,302	197	19	1			84,204
1984					0	62,500	37,926	745	6				101,177
1985			1		17	75,603	41,107	521	4		1		117,254
1986					12	17,224	30,686	550	4	1			48,477
1987					1	48,798	38,443	348	8	1			87,599
1988					5	30,443	25,096	208	50				55,802
1989					1	22,196	17,321	152	2				39,672
1990					0	17,603	22,406	218	3				40,230
1991					1	14,106	48,824	443	27	4			63,405
1992					16	38,319	27,812	232	4	1			66,384
1993					2	36,517	25,584	146	3				62,252
1994					0	6,752	2,594	8	2				9,356
1995					1	4,195	2,890	61	15	4			7,166
1996					0	17,013	7,983	44	15				25,055
1997					4	11,707	20,292	395	29	3			32,430
1998					0	4,777	3,978	65	6				8,826
1999					0	5,210	8,445	57	3				13,715
2000					69	61,980	11,242	88	4				73,383
2001					12	85,939	16,527	82	2				102,562
2002					1	22,714	17,746	93	0				40,554
2003					8	21,233	12,862	70	3				34,180
2004					61	84,332	22,978	94	1			4	107,466
2005					4	38,474	26,688	98	7	2			65,273
2006					1	20,817	9,099	105	4				30,026
2007					10	13,475	5,540	99	0				19,124
2008					6	152,255	25,678	45	0				177,984
2009					27	114,162	41,260	126	16				155,591
2010			1		45	235,935	88,980	168	3	1			325,133
2011					1	50,335	87,699	255	3				138,293
2012					15	270,789	139,045	248	2				410,099
2013				1	24	89,464	71,889	514	4				161,896
2014					13	257,785	327,001	1,330	59				586,188
2015					113	290,869	136,068	2,448	273	26			429,797
2016					113	230,899	56,414	887	83	5			288,401
2017					14	40,575	23,139	250	76	4			64,058
2018					4	102,292	49,412	324	66	3			152,101
2019					8	33,503	16,925	212	39	39			50,726
2020					41	140,836	154,582	310	7	0			295,776
2021					15	73,684	53,751	749	21	3			128,223
2022					31	319,540	258,793	2,118	98	2			580,582
2023					13	154,249	139,745	767	37	5			294,816
Total				3	2,055	3,859,367	3,264,056	33,688	1,833	116	1	4	7,161,123
10-Year Average					37	164,423	121,583	940	76	10			287,067

TABLE 49
MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
1957							220	605	5,615	342	11		6,793	
1958								96	2,132	161	6		2,395	
1959								46	2,428	234	1		2,709	
1960								475	2,288	227	10		3,000	
1961							4	5	1,898	232			2,139	
1962							5	258	3,194	239			3,696	
1963							2	361	2,931	422			3,716	
1964								506	4,723	749			5,978	
1965							7	200	13,064	4,197			17,468	
1966							225	3,850	25,476	2,728			32,279	
1967							192	494	27,860	3,469			32,015	20,456
1968							372	3,319	36,568	2,346	82		42,687	13,035
1969							412	970	13,179	2,493			17,054	11,218
1970							96	2,064	19,983	1,076			23,219	11,327
1971							1	1,589	26,066	1,405			29,061	11,174
1972							3	1,090	14,564	905			16,562	10,272
1973								793	9,443	916			11,152	5,256
1974								522	10,715	3,418			14,655	9,054
1975								465	10,356	3,155			13,976	8,534
1976								608	14,609	4,175			19,392	13,083
1977							1	91	8,131	1,798			10,021	6,096
1978								355	13,069	5,453			18,877	13,533
1979								211	7,109	1,367	39		8,726	4,836
1980								287	5,064	975			6,326	2,970
1981								295	6,061	585			6,941	4,405
1982								336	5,792	1,255			7,383	3,047
1983								65	2,343	1,051			3,459	2,256
1984								24	2,521	597			3,142	1,282
1985						4		208	3,537	828	48		4,625	1,555
1986						2		1	3,772	1,067			4,842	1,458
1987						12		91	2,409	798			3,310	1,953
1988								232	7,082	1,912			9,226	2,701
1989								283	9,027	3,173	128		12,611	4,781
1990								60	3,229	1,356			4,645	2,340
1991								30	7,714	1,857			9,601	1,053
1992								11	3,119	695			3,825	1,239
1993								18	3,256	1,086			4,360	3,416
1994						1		121	2,922	1,332			4,376	590
1995						6		204	2,013	1,046			3,269	483
1996						3		73	3,795	712			4,583	967
1997								35	3,649	1,045			4,729	662
1998								7	3,520	5,443			8,970	774
1999								37	11,456	3,548			15,041	1,226
2000								2,248	20,526	6,762			29,536	4,570
2001								1,351	36,099	27,107			64,557	2,179
2002								275	8,286	4,225			12,786	3,021
2003								1,084	29,129	15,161	713	14	46,101	2,853
2004		-1						565	29,591	10,408	1,072	10	41,645	1,919
2005						1		438	20,376	13,814	1,500	0	36,129	2,187
2006						1		1,541	18,080	12,574	2,142	1	34,339	2,468
2007								596	17,545	14,608	198	14	32,961	2,095
2008								1,369	26,714	14,599			42,682	4,700
2009						4		8,214	29,912	39,362			77,492	8,552
2010								1,082	20,090	10,202			31,374	2,283
2011						2		3,172	52,196	21,383			76,753	4,633
2012						8		2,262	28,707	2,921	119	2	34,019	2,861
2013								840	17,205	8,637			26,682	2,572
2014								711	134,991	21,944			157,646	10,843
2015								510	22,447	4,002			26,959	3,182
2016								458	18,494	3,957			22,909	1,902
2017								392	28,602	7,734	305	15	37,048	3,139
2018		3	1					1,769	18,394	4,263			24,430	2,477
2019						1		1,094	26,111	16,024			43,230	4,488
2020								5,672	57,243	8,696			71,611	12,063
2021								22,341	127,424	20,020			169,785	9,277
2022								756	46,972	37,307	4,870	82	89,987	5,908
2023		66	-3					1,897	55,569	15,863			73,392	5,022
Total							1,585	82,028	1,258,385	413,441	11,244	138	1,766,887	282,226
10-Year Average								3,560	53,625	13,981			71,700	5,830

*Includes Jacks

TABLE 50

MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1957			1,603	951	977	4,782	45,445	33,319	35,396	6,545	343		129,361
1958			122	274	1,898	4,906	20,384	11,442	75,036	6,846	512		121,420
1959			1	541	502	2,227	46,271	60,841	41,026	4,502	179		156,090
1960				289	557	2,591	28,218	32,667	42,447	4,021	399		111,189
1961				305	307	1,396	21,906	17,850	87,344	5,464			134,572
1962				528	252	1,068	36,609	31,507	87,463	5,874			163,301
1963				153	451	1,361	30,485	25,360	48,066	13,081			118,957
1964			50	369	127	493	36,773	31,742	38,197	2,282			110,033
1965			36	502	484	896	60,522	21,132	53,389	4,091			141,052
1966		25	788	933	600	3,816	52,975	26,382	53,721	6,932			146,172
1967				258	183	435	27,914	22,746	56,082	13,996			121,614
1968			23	691	344	973	20,974	58,866	57,666	7,456	488		147,481
1969			54	953	414	1,442	33,952	22,963	44,146	8,605			112,529
1970				337	172	733	15,905	32,752	44,823	4,465			99,187
1971				408	233	821	40,712	31,812	69,602	7,760			151,348
1972				463	159	604	35,569	30,631	63,748	4,129			135,303
1973				723	326	1,981	29,067	25,437	38,017	4,531			100,082
1974				529	1,362	1,859	24,779	21,835	15,059	5,452			70,875
1975				1,018	1,334	1,973	18,046	20,531	11,519	3,254			57,675
1976				768	1,604	3,357	22,021	30,386	21,586	2,846			82,568
1977				1,666	1,332	5,038	42,859	13,022	61,678	8,287			133,882
1978				834	1,378	3,459	13,493	11,457	26,189	3,675			60,485
1979				478	244	1,942	23,054	21,974	20,961	14,079	632		83,364
1980				2,885	790	2,134	15,114	30,755	34,447	7,838			93,963
1981				1,389	1,632	3,768	34,242	36,537	26,837	8,863			113,268
1982				729	1,289	2,710	22,607	31,410	49,050	9,639			117,434
1983				438	324	1,492	37,029	47,521	75,210	9,041			171,055
1984				846	894	3,715	52,825	36,859	107,377	16,607			219,123
1985				2,405	1,511	5,679	41,534	102,866	107,574	13,337	1,119		276,025
1986			1,395	610	712	4,492	78,494	60,458	111,066	24,726			281,953
1987				1,069	366	3,280	55,395	58,850	76,461	22,347			217,768
1988				2,520	969	3,984	34,612	54,986	85,061	16,367			198,499
1989				1,810	849	3,950	35,167	45,694	119,322	25,880	2,967		235,639
1990			1,169	1,515	920	3,078	17,942	17,772	58,805	28,070			129,271
1991				1,826	630	1,755	25,686	37,560	104,833	27,563			199,853
1992				1,104	743	3,494	18,753	37,269	157,216	13,600			232,179
1993				2,367	731	3,847	17,962	20,194	61,600	18,128			124,829
1994				1,327	391	2,263	11,434	11,703	55,247	29,889			112,254
1995				435	407	2,329	11,953	46,428	59,604	24,688			145,844
1996				669	481	1,981	20,317	61,136	65,400	12,472			162,456
1997				658	483	2,187	18,916	34,055	84,006	24,451			164,756
1998				609	433	2,433	9,911	12,180	62,331	28,785			116,682
1999				279	343	1,625	25,277	56,665	60,762	11,923			156,874
2000				491	319	6,467	37,760	48,697	96,040	15,467			205,241
2001				788	582	13,063	100,501	95,859	226,711	65,823			503,327
2002				2,308	439	7,027	67,132	84,140	170,382	56,492			387,920
2003		485	2,389	801	271	4,882	36,960	35,275	158,525	36,458	6,004	524	282,574
2004		140	1,072	1,066	680	7,116	23,581	30,398	152,302	23,099	1,647	22	241,123
2005		107	688	558	616	4,483	33,476	33,332	126,710	41,174	3,020	49	244,213
2006		16	811	972	252	2,241	15,892	43,884	138,845	33,537	12,641	132	249,223
2007		195	1,948	1,033	255	2,155	25,008	66,310	121,058	26,079	2,776	143	246,960
2008				1,084	383	4,847	69,771	47,273	131,616	22,666			277,640
2009				986	392	4,181	51,667	165,723	233,187	58,975			515,111
2010				1,901	580	10,348	104,984	55,209	128,816	31,195			333,033
2011				1,098	352	1,611	56,247	127,161	91,517	21,021			299,007
2012			950	631	258	2,809	49,514	54,567	71,995	18,065	2,631	220	201,640
2013	6	73	**	560	220	1,723	32,103	41,629	93,711	20,725			190,750
2014				361	567	4,214	48,455	38,611	134,160	29,323			255,691
2015				280	181	2,399	21,871	51,038	110,344	30,905			217,018
2016				288	71	3,496	17,437	13,969	87,341	22,425			145,027
2017			1,078	136	64	306	4,984	12,098	64,951	12,694	422	70	96,803
2018	12	31	**	97	38	1,439	10,258	9,648	46,076	13,118			80,717
2019				202	21	572	8,587	10,731	27,662	13,219			60,994
2020				162	35	1,389	18,671	20,135	46,471	10,589			97,452
2021				179	35	557	4,609	11,972	35,988	9,192			62,532
2022			314	96	71	1,776	22,463	9,026	51,245	17,229	1,292	22	103,534
2023	41	29	**	120	36	1,339	8,290	18,145	59,475	10,368			97,843
Total	59	1,101	14,491	55,659	36,856	198,789	2,183,324	2,602,382	5,260,498	1,162,225	37,072	1,182	11,553,638

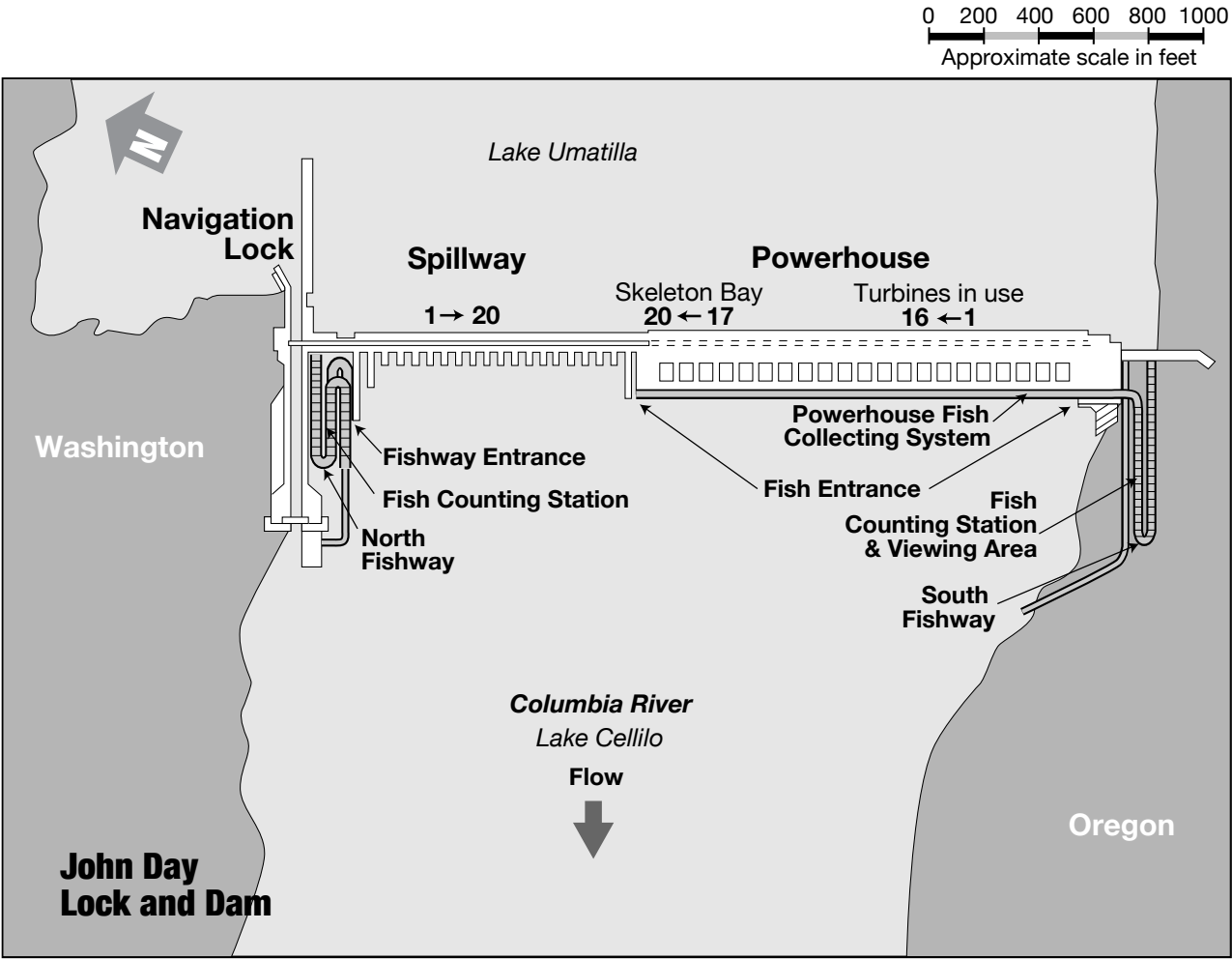
10-Year

Average

192	112	1,749	16,563	19,537	66,371	16,906
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121,761

Plate 4 John Day Lock and Dam



JOHN DAY DAM

FISH COUNTING SCHEDULE

Mar 1 – Mar 31	Video counting 0400-2000 hours Pacific Standard Time
Apr 1 – Oct 31	Visual daily counts (0400 - 2000 PST)
June 15 – Nov 30	Nighttime video counts (2000 - 0400 PST)
Nov 1 – Dec 31	Video counting 0400-2000 hours Pacific Standard Time

FISHWAY OPERATION SCHEDULE

JDA fish counting (visual and/or video) occurred March 1 – December 31 during the 2023 adult fish passage season, and all fish count data was posted to an online database. Fish counts were conducted at both the north fish ladder (NFL) and south fish ladder (SFL). Fish counts were conducted, under contract, by Four Peaks Environmental Science & Data Solutions.

2023 OPERATING SCHEDULE	
NORTH ADULT FISHWAY	
Regular Operation With AWS	January 12 th – December 31 st
AWS Off Half Day for ROV Inspection	August 8 th
On Orifice Flow - No AWS Operation	N/A
Dewatered for Maintenance	January 1 st – 11 th
SOUTH ADULT FISHWAY	
Regular Operation With AWS	(January 1 st - January 11 th) & (February 28 th – November 30 th)
AWS Off Half Day for ROV Inspection	August 8 th
On Orifice Flow – No AWS Operation	(January 12 th – 16 th) & (December 1 st – December 3 rd)
Dewatered for Maintenance	(January 17 th – February 27 th) & (December 4 th – December 31 st)
SMOLT MONITORING FACILITY	
Dewatered for Maintenance	(January 1 st – March 31 st) & (November 30 th – December 31 st)
Sampling (Monday-Friday) 7AM-1PM	April 3 rd – June 15 th
Sampling (Monday, Wednesday, Friday) 7AM-1PM	(June 16 th -July 5 th) & (September 8 th -15 th)
Limited Sampling (Water Temperature > 70F°)	July 6 th - September 7 th
Bypass for PIT Detections	September 16 th - November 29 th
JUVENILE BYPASS SYSTEM	
Normal Operation with STSs Deployed	(April 1 st - December 15 th all units)
SPILLWAY WITH 2 TSWs (Bays 18 & 19)	
On Seal	(January 1 st - April 9 th) & (December 1 st - December 31 st)
Fish Spill Per FPP Schedule	April 10 th - August 31 st
1.6 KCFS, Bay 2 Only (for NFL Attraction)	September 1 st - November 30 th
Early TSW Spill (Due to High Flows)	N/A

FISH SALVAGE PROCEDURES

Fishway Dewatering Procedures

Fishways are dewatered following standard operating procedures (SOPs). When fishways are dewatered, fisheries personnel enter, and salvage stranded fish. Salvaged fish are transported to either the forebay or tailrace depending on circumstances such as: fish species, dewatering location, age-class, or stress levels. Efforts are made to reduce stress by providing a continuous water supply and following minimal fish handling procedures. Follow-up

inspections are performed to account for any overlooked fish.

Turbine Dewatering Procedures

When following operational guidelines, turbine dewaterings require minimal fish salvage. If a turbine fails, the operational guidelines cannot always be followed and may result in fish entrainment. Procedures are continually evaluated to determine the best methods to minimize fish stress and mortality. Prior to fish salvage, all necessary equipment including nets, fish bags, and transport tanks, is staged. Typically, fish are transported via fish bag. Transport tanks are only used if fish numbers are higher than the two bags can safely handle since tanked fish are released via crane, and therefore require a crane operator on standby. Additionally, JDA has a trailer mounted transport tank. This tank is primarily used to transport high volumes of lamprey, making it easier to release lamprey well upstream of the dam (release site is approximately 2RM upstream), helping to reduce fallback.

2023 John Day Fish Salvage Report												
Key; adult=a, juvenile=j, carp=cp, catfish=ct, sculpin=sc, small mouth bass=smb, crappie=cr, whitefish=wf, perch=pr, bluegill=bg, walleye=we, sturgeon=st, shad=sh, chinook=Ch, steelhead=STH, coho=CO, sockeye=SO, su=sucker, lamprey=LA, Released In Good Condition=RIGC												
Date	Event	CH	STH	SO	CO	LA	Shad	Other	Comments	Mort	PIT	Cause
1/17	SFL Upper	0	1a, 2	0	0	0	0	4	STH - (1a-16") (2j-6"), 1 smb, 3sc	0	0	N/A
1/17	SFL LTS	0	0	0	0	370 a	0	0	RIGC at GF boat ramp	0	0	N/A
1/19	JBS Collection Ch	0	0	0	0	0	0	4	4-sc	0	0	N/A
1/24	MU5 Scroll Case	0	0	0	0	0	0	0	No Fish	0	0	N/A
1/25	MU5 Draft Tube	0	0	0	0	0	0	0	No Fish	0	0	N/A
5/17	12 B Gatewell	31			1	27j		6000	12B orifice slide gate had broken off from the shaft and blocked the opening leaving fish with no egress from that gatewell. ~6000 live smolts were removed and RIGC in adjacent gatewell. Gatewell was dewatered and 31 clipped CH and 1 unclipped CO smolts were recovered as well as 27j LA (alive).	32		No egress
6/12	MU6 Scroll Case	0	0	0	0	0	0	0	No Fish	0	0	N/A
6/27	MU8 Scroll Case	0	0	0	0	0	0	0	No Fish	0	0	N/A
6/28	MU8 Draft Tube	0	0	0	0	0	0	1	1 juvenile 10" sturgeon RIGC in the tailrace	0	0	N/A
7/25	12 B Gatewell	0	0	0	0	0	0	400	Orifice slide gate broke off again. Gatewell was dipped on 7/24 ~400 live smolts removed and RIGC in the forebay. Dewatered on 7/25, no fish	0	0	N/A
7/25	MU7 Scroll Case	0	0	0	0	0	0	0	No Fish	0	0	N/A
7/26	MU7 Draft Tube	0	1	0	0	0	0	210	200 ct and 10 st RIGC in the tailrace	0	0	N/A
7/31	MU15 Scroll Case	0	0	0	0	0	0	0	No Fish	0	0	N/A
8/1	MU15 Draft Tube	0	0	0	0	0	0	0	No fish	0	0	N/A
11/30	SMF (PDS)	35	35	0	0	20A, 4j	0	56	1-st, 5-we, 12-ct, 38-sc	0	unk	N/A
12/4	SFL LTS	0	5	0	0	100	25	5	1-wf, 2-ct, 2-we,	0	unk	N/A
12/11	SFL CC	0	8	0	0	0	10	9	3 -we, 3-ct, 1-su, 4-sc	0	unk	N/A
12/12	SFL CC	0	0	0	0	1	0	4	1-we, 1-wf, 1-pr, 1- smb	0	unk	N/A
12/13	SFL Triangle	0	6	1	0	0	0	5	1-ct, 2-smb, 2-we, (1- sth, 1- so mort observed previously dead)	2	unk	N/A
12/14	SFL AWS Channel	0	0	0	0	0	0	1	1-smb	1	unk	N/A

RESEARCH

Columbia River Inter-Tribal Fish Commission (CRITFC): Collected adult Pacific lamprey for the Tribal Pacific Lamprey Restoration Plan (TPLRP) and collected genetic samples on out-migrating juvenile lamprey.

Four Peaks Environmental Science & Data Solutions: Conducted fish ladder counts for the USACE Adult Fish Counting Program.

Oregon Department of Fish and Wildlife: Performed the monthly Fish Passage Operations and Maintenance (FPOM) directed inspections of all JDA adult and juvenile fishways (see the FPC's annual report.).

Pacific States Marine Fish Commission (PSMFC): Sampled juvenile salmonids, lamprey, and bycatch at the JDA SMF April 1st through September 15th. Additionally, PSMFC collected PIT tag readings from both fish ladders and the full-flow PIT tag detector.

United States Department of Agriculture (USDA): Performed piscivorous avian hazing below the JDA tailrace.

United States Geological Survey (USGS): Monitored total dissolved gas (TDG). Additionally, monitored forebay and tailrace water temperatures.

Washington Department of Fisheries and Wildlife (WDFW): Performed northern pikeminnow dam angling from the JDA tailrace.

TABLE 51

**MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER JOHN DAY DAM
2023**

DAYTIME-Live plus video

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*			3	3,670	65,970	51,062	23,993	32,462	180,688	28,822	1,115	22	387,807
STEELHEAD			258	181	16	750	6,085	9,774	56,811	13,742	2,480	472	90,569
SOCKEYE					9	134,775	146,140	819	93	9			281,845
COHO*								1,283	39,574	17,993	3,491	195	62,536
CHUM											1		1
PINK								1	13				14
TOTAL			261	3,851	65,995	186,587	176,218	44,339	277,179	60,566	7,087	689	822,772
LAMPREY					291	2,954	10,602	3,138	694	-9	-7		17,663
STURGEON							2	5	4	2			13
BULL TROUT													0

NIGHT-Video

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*						663	795	458	1,348	462	122		3,848
STEELHEAD						44	222	562	3,767	1,226	262		6,083
SOCKEYE						6,109	9,625	397	31	0	0		16,162
COHO*							0	44	1,954	2,682	1,021		5,701
CHUM													0
PINK									-1				-1
TOTAL						6,816	10,642	1,461	7,099	4,370	1,405		31,793
LAMPREY						7,077	19,842	6,599	1,296	-41	-12		34,761

RESEARCH - Trap and Removal

SPECIES	JUN	JUL	AUG	SEP	TOTAL
LAMPREY	1,389	1,212	493	46	3,140

*Jacks Included

Note: Shad are not counted at John Day Dam. For count schedules refer to the John Day Dam narrative.
For 24-hr counts add the Day and Night counts together.

TABLE 52
DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2023

JANUARY					FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	101.1	0.0	6.0	37.4	Feb 1	140.6	0.0	6.0	38.5
Jan 2	120.8	0.0	6.0	37.4	Feb 2	144.4	0.0	6.0	38.2
Jan 3	137.3	0.0	6.0	37.3	Feb 3	134.3	0.0	6.0	37.8
Jan 4	120.6	0.0	6.0	37.2	Feb 4	135.6	0.0	6.0	37.7
Jan 5	116.4	0.0	6.0	37.3	Feb 5	122.2	0.0	6.0	37.3
Jan 6	133.5	0.0	6.0	37.3	Feb 6	115.5	0.0	6.0	37.2
Jan 7	111.1	0.0	6.0	37.5	Feb 7	126.3	0.0	6.0	37.1
Jan 8	112.7	0.0	6.0	37.7	Feb 8	116.1	0.0	6.0	37.2
Jan 9	120.5	0.0	6.0	37.8	Feb 9	123.7	0.0	6.0	37.3
Jan 10	135.3	0.0	6.0	37.9	Feb 10	133.9	0.0	6.0	37.2
Jan 11	142.9	0.0	6.0	38.1	Feb 11	121.8	0.0	6.0	36.9
Jan 12	138.2	0.0	6.0	38.1	Feb 12	128.3	0.0	6.0	36.8
Jan 13	117.7	0.0	6.0	38.2	Feb 13	124.1	0.0	6.0	36.9
Jan 14	117.6	0.0	6.0	38.3	Feb 14	131.5	0.0	6.0	37.2
Jan 15	118.1	0.0	6.0	38.4	Feb 15	137.2	0.0	6.0	37.3
Jan 16	130.7	0.0	6.0	38.5	Feb 16	128.5	0.0	6.0	37.5
Jan 17	112.5	0.0	6.0	38.6	Feb 17	123.4	0.0	6.0	37.6
Jan 18	122.8	0.0	6.0	38.7	Feb 18	127.2	0.0	6.0	37.6
Jan 19	134.6	0.0	6.0	39.0	Feb 19	128.1	0.0	6.0	37.6
Jan 20	139.2	0.0	6.0	39.1	Feb 20	111.8	0.0	6.0	37.6
Jan 21	139.3	0.0	6.0	39.1	Feb 21	120.8	0.0	6.0	37.6
Jan 22	117.5	0.0	6.0	39.1	Feb 22	129.4	0.0	6.0	37.6
Jan 23	147.3	0.0	6.0	39.2	Feb 23	122.7	0.0	6.0	37.6
Jan 24	123.3	0.0	6.0	39.2	Feb 24	130.6	0.0	6.0	37.6
Jan 25	129.6	0.0	6.0	39.2	Feb 25	132.1	0.0	6.0	37.6
Jan 26	125.5	0.0	6.0	39.2	Feb 26	135.4	0.0	6.0	37.6
Jan 27	117.8	0.0	6.0	39.4	Feb 27	119.1	0.0	6.0	37.6
Jan 28	127.0	0.0	6.0	39.3	Feb 28	119.8	0.0	6.0	37.6
Jan 29	138.3	0.0	6.0	38.9					
Jan 30	157.7	0.0	6.0	38.7					
Jan 31	152.9	0.0	6.0	38.7					
AVG.	127.7	0.0	6.0	38.4	AVG.	127.3	0.0	6.0	37.5

TABLE 53

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS														MARCH 2023			
DATE	CHINOOK ADULT			CHINOOK		COHO		COHO		unclipped				DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Mar 1	0							0	0					124.0	0.0	6.0	37.6
Mar 2	0							2	0					111.8	0.0	6.0	37.7
Mar 3	0							0	0					100.2	0.0	6.0	37.7
Mar 4	0							0	0					103.7	0.0	6.0	37.7
Mar 5	0							1	0					103.0	0.0	6.0	37.8
Mar 6	0							0	0					108.5	0.0	6.0	38.0
Mar 7	0							5	3					107.2	0.0	6.0	38.0
Mar 8	-1							3	1					109.9	0.0	6.0	38.0
Mar 9	0							2	1					117.8	0.0	6.0	37.6
Mar 10	0							6	2					111.8	0.0	6.0	37.5
Mar 11	0							4	2					97.5	0.0	6.0	37.7
Mar 12	0							3	2					106.7	0.0	6.0	38.0
Mar 13	0							7	2					101.4	0.0	6.0	38.4
Mar 14	0							5	3					120.6	0.0	6.0	38.8
Mar 15	0							14	10					103.4	0.0	6.0	39.2
Mar 16	0							9	6					107.9	0.0	6.0	39.5
Mar 17	0							8	7					111.3	0.0	6.0	39.9
Mar 18	0							25	16					110.6	0.0	6.0	40.4
Mar 19	0							15	7					115.8	0.0	6.0	41.0
Mar 20	0							12	4					104.0	0.0	6.0	41.3
Mar 21	0							9	4					108.2	0.0	6.0	41.2
Mar 22	0							13	6					109.2	0.0	6.0	41.7
Mar 23	0							14	11					87.4	0.0	6.0	41.9
Mar 24	-1							21	2					105.9	0.0	6.0	42.1
Mar 25	1							17	11					110.7	0.0	6.0	42.1
Mar 26	0							19	8					103.2	0.0	6.0	42.4
Mar 27	0							9	2					119.9	0.0	6.0	42.6
Mar 28	0							10	5					107.9	0.0	6.0	43.2
Mar 29	4							10	7					137.2	0.0	6.0	43.3
Mar 30	1							9	6					93.5	0.0	6.0	43.3
Mar 31	-1							6	3					122.0	0.0	6.0	43.5
TOTAL	3							258	131								

AVG.

109.1	0.0	6.0	40.0
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Note: From March 1 to March 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

TABLE 54

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS**APRIL 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped		PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Apr 1	1			0				13	10				99.9	0.0	6.0	43.7
Apr 2	5			0				7	3				105.8	0.0	6.0	43.9
Apr 3	1			0				3	2				120.8	0.0	6.0	43.9
Apr 4	3			0				8	7				100.5	0.0	6.0	44.1
Apr 5	16			0				4	2				93.9	0.0	6.0	44.3
Apr 6	9			1				5	5				93.0	0.0	6.0	44.5
Apr 7	12			0				3	3				104.0	0.0	6.0	44.5
Apr 8	6			2				8	5				94.0	0.0	6.0	44.4
Apr 9	20			0				2	0				109.8	0.0	6.0	44.6
Apr 10	11			1				6	5				112.2	50.8	6.0	45.5
Apr 11	12			1				9	7				132.4	63.4	6.0	45.3
Apr 12	13			1				5	5				168.9	90.3	4.0	45.8
Apr 13	6			0				14	11				160.7	83.4	4.5	46.0
Apr 14	9			-1				15	12				147.6	74.1	4.0	46.4
Apr 15	6			0				16	13				141.0	69.5	4.0	46.8
Apr 16	18			2				10	9				131.7	63.6	4.0	46.9
Apr 17	39			1				3	3				137.8	69.0	4.0	46.8
Apr 18	32			1				6	6				142.1	70.2	4.0	47.2
Apr 19	58			3				7	6				136.3	68.3	4.0	47.5
Apr 20	65			4				4	4				135.1	59.2	4.5	47.6
Apr 21	62			7				3	3				135.8	65.7	4.0	48.0
Apr 22	70			3				8	5				138.4	68.3	4.0	48.4
Apr 23	61			1				4	4				131.2	63.0	4.0	49.1
Apr 24	131			6				3	3				131.7	64.3	4.0	48.5
Apr 25	208			10				5	2				135.0	65.7	4.0	49.0
Apr 26	234			14				1	1				135.8	65.4	4.0	49.8
Apr 27	501			39				3	2				155.1	81.4	4.0	50.8
Apr 28	432			13				1	1				153.8	79.8	4.0	51.8
Apr 29	533			17				2	2				170.2	89.6	4.0	52.2
Apr 30	936			34				3	3				174.2	94.0	4.0	51.9
TOTAL	3,510			160				181	144							
AVG.	117			5				6	5				130.9	50.0	4.8	47.0

Temps taken from the tailrace

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
 Official Spring Chinook run started April 1.

TABLE 55

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
May 1	883			35			0	0	0			0		224.0	125.8	4.0	52.3
May 2	705			38			0	2	2			0		261.3	150.8	4.0	52.4
May 3	803			29			0	1	2			1		310.9	168.1	3.5	53.3
May 4	850			34			0	1	1			0		330.2	172.9	3.5	53.7
May 5	1,277			73			0	2	2			0		309.1	172.0	3.0	53.8
May 6	1,103			51			0	0	0			0		352.5	192.3	4.0	53.7
May 7	743			32			0	1	1			0		346.7	192.2	4.0	54.2
May 8	509			38			0	-1	0			0		337.9	189.1	4.0	53.7
May 9	851			73			0	0	0			0		350.3	188.8	4.0	53.8
May 10	680			69			0	0	0			0		340.4	203.0	3.5	54.3
May 11	1,299			125			0	1	1			3		332.2	181.3	3.5	54.6
May 12	2,005			170			0	1	0			1		311.0	175.4	3.5	54.9
May 13	2,871			219			0	1	1			7		312.3	192.9	3.5	55.2
May 14	3,629			344			0	1	1			1		343.9	206.2	3.5	55.3
May 15	4,929			513			0	1	1			58		364.5	198.5	3.5	55.4
May 16	3,087			357			0	1	1			3		404.4	208.9	3.0	55.4
May 17	3,083			484			1	1	1			4		413.8	212.8	3.0	55.9
May 18	2,450			477			0	-1	-2			30		417.2	204.8	3.0	56.3
May 19	2,603			411			0	0	0			106		414.7	202.6	3.5	56.4
May 20	2,998			622			0	0	0			12		415.6	202.3	3.5	57.0
May 21	4,144			761			0	0	0			4		417.1	202.8	3.5	57.1
May 22	3,225			545			0	1	1			4		415.4	211.6	3.5	57.3
May 23	2,071			302			1	0	0			21		416.3	212.7	3.5	57.8
May 24	1,782			373			0	1	0			14		373.2	173.7	3.5	58.3
May 25	1,248			278			1	0	0			-1		356.4	180.9	3.5	58.6
May 26	1,825			340			0	1	0			6		320.7	165.4	3.5	58.5
May 27	1,952			349			0	-1	-1			6		296.0	159.0	3.5	58.1
May 28	1,345			264			1	0	0			-1		278.0	155.1	3.5	58.4
May 29	1,382			228			4	0	0			12		282.0	156.9	3.5	58.8
May 30	785			173			0	0	0			-3		277.3	158.6	4.0	59.1
May 31	886			160			1	2	1			3		266.1	157.8	4.0	59.8
TOTAL	58,003			7,967			9	16	13			291					
							0	1	0			9		341.7	183.1	3.6	55.9

RUN YEAR	CHINOOK	CHINOOK
	ADULT	JACK
SPRING	61,513	8,127

unclipped	
SOCKEYE	STEELHEAD
9	197
157	

LAMPREY
291

TABLE 56

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Jun 1	848			170			2	0	0			5		259.6	151.3	4.0	59.8
Jun 2	790			184			10	2	1			4		225.2	129.6	4.0	60.2
Jun 3	1,020			178			15	0	0			2		232.7	132.4	4.0	60.4
Jun 4	1,154			155			25	0	0			8		218.7	122.6	4.0	60.5
Jun 5	1,091			161			31	1	1			6		223.1	125.2	4.0	61.4
Jun 6		987		143			50	2	2			13		225.5	127.6	4.0	63.8
Jun 7		1,365		192			83	1	1			21		232.3	131.6	5.0	62.8
Jun 8		1,202		158			139	0	0			19		225.8	127.4	5.0	62.2
Jun 9		2,203		220			213	0	0			11		204.7	113.7	4.5	62.4
Jun 10		1,470		186			211	3	2			15		177.3	96.3	4.5	62.6
Jun 11		1,871		165			230	2	2			44		169.1	87.0	4.5	63.0
Jun 12		1,723		185			345	5	5			44		185.9	93.1	4.5	63.9
Jun 13		2,241		176			740	2	1			72		182.4	94.3	4.5	64.1
Jun 14		1,987		190			1,254	7	4			58		182.1	96.6	5.0	63.9
Jun 15		1,455		139			1,945	8	3			43		209.2	114.3	5.0	63.8
Jun 16		2,095		253			2,061	10	7			69		189.2	65.9	5.0	64.2
Jun 17		1,931		191			2,224	13	5			147		171.1	59.7	5.0	64.6
Jun 18		1,890		254			3,310	8	5			151		168.8	59.1	5.0	64.6
Jun 19		2,158		252			5,029	17	7			119		156.6	54.4	5.0	64.3
Jun 20		1,407		219			6,405	20	12			104		172.0	60.5	5.0	64.0
Jun 21		829		137			7,503	15	9			102		171.7	59.9	5.0	64.3
Jun 22		981		209			8,632	35	17			99		165.5	57.8	5.0	65.0
Jun 23		1,594		237			11,014	32	20			168		169.6	59.5	5.0	64.9
Jun 24		1,600		247			9,859	66	50			99		152.1	53.3	5.0	64.3
Jun 25		1,945		244			9,150	48	32			108		142.2	49.4	5.0	64.2
Jun 26		1,842		268			10,187	73	42			205		149.1	51.9	5.0	64.4
Jun 27		1,309		300			11,049	75	42			202		162.5	56.5	6.0	64.9
Jun 28		1,129		193			13,274	79	47			260		160.4	56.3	6.0	65.5
Jun 29		1,126		246			13,221	105	56			386		164.6	57.8	6.0	65.6
Jun 30		1,687		280			16,564	121	47			370		154.1	53.8	6.0	66.0
TOTAL	4,903	40,027		6,132			134,775	750	420			2,954					
AVG.	981	1,601		204			4,493	25	14			98		186.8	86.6	4.9	63.5

RUN YEAR	CHINOOK	CHINOOK
	ADULT	JACK
SPRING	66,416	8,975
SUMMER	40,027	5,284
TOTAL	106,443	14,259

unclipped	
SOCKEYE	STEELHEAD
134,784	947
	577

LAMPREY
3,245

TABLE 57

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS**JULY 2023**

DATE	CHINOOK ADULT			CHINOOK		COHO		unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD						KCFS	KCFS	SECCHI	DEG F
Jul 1		1,611		406			15,609	132	74				292	0	142.3	49.8	6.0	66.7
Jul 2		1,698		310			16,027	222	132				487	0	131.1	46.1	6.0	67.2
Jul 3		1,241		392			14,311	168	97				392	0	134.2	47.1	6.0	68.2
Jul 4		1,201		232			14,330	203	106				444	0	134.3	46.9	6.0	69.9
Jul 5		665		165			11,106	199	119				342	0	154.7	53.6	6.0	69.9
Jul 6		939		172			10,983	203	116				431	0	149.8	52.0	6.0	69.3
Jul 7		1,208		358			12,236	276	151				343	0	137.4	48.1	6.0	69.6
Jul 8		982		329			9,606	357	215				399	0	139.6	48.7	6.0	68.9
Jul 9		758		110			6,808	319	189				376	0	139.5	48.6	6.0	69.8
Jul 10		986		291			6,861	332	174				477	0	132.2	45.4	6.0	69.9
Jul 11		698		165			4,940	340	165				489	0	141.8	49.2	6.0	70.0
Jul 12		602		224			4,120	374	170				321	0	150.4	52.7	6.0	70.2
Jul 13		533		94			3,118	279	145				305	0	147.3	51.4	6.0	70.4
Jul 14		706		118			3,837	317	192				357	0	178.2	62.2	6.0	70.5
Jul 15		485		81			3,249	301	186				315	0	165.2	57.5	6.0	70.8
Jul 16		560		78			2,167	313	185				284	0	149.1	51.7	6.0	70.7
Jul 17		665		100			1,847	322	193				256	0	143.1	50.0	6.0	70.6
Jul 18		531		86			1,241	215	125				330	0	159.4	55.7	6.0	71.0
Jul 19		355		121			865	168	112				274	0	157.3	54.6	6.0	72.0
Jul 20		458		59			657	146	85				311	0	144.0	50.0	6.0	72.4
Jul 21		420		134			518	188	115				532	0	139.2	48.4	6.0	72.0
Jul 22		395		58			343	135	80				538	0	136.4	47.1	6.0	72.2
Jul 23		255		67			235	77	39				288	0	128.5	44.7	6.0	72.2
Jul 24		204		50			261	69	43				320	0	137.3	47.5	6.0	72.0
Jul 25		128		22			144	61	33				243	1	150.0	52.4	6.0	72.0
Jul 26		180		28			123	50	33				260	0	154.8	53.9	6.0	72.0
Jul 27		265		30			115	55	43				235	1	163.5	56.8	6.0	72.1
Jul 28		209		36			121	44	28				249	0	153.0	53.6	6.0	72.0
Jul 29		201		29			128	61	37				278	0	145.3	50.4	6.0	71.8
Jul 30		179		50			124	79	57				206	0	131.9	46.0	6.0	71.7
Jul 31		244		36			110	80	61				228	0	157.3	55.1	6.0	71.4
TOTAL		19,562		4,431			146,140	6,085	3,500				10,602	2				
AVG		631		143			4,714	196	113				342	0	146.1	50.9	6.0	70.6

RUN YEAR	CHINOOK	
	ADULT	JACK
TOTALS TO DATE		
SPRING	66,416	8,975
SUMMER	59,589	9,715
TOTAL	126,005	18,690

unclipped	
SOCKEYE	STEELHEAD
280,924	7,032
4,077	

LAMPREY	STURGEON
13,847	2

TABLE 58

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT. PORTLAND

JOHN DAY PROJECT - FISH COUNTS**AUGUST 2023**

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped				PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Aug 1		320		92	0	0	99	89	59	0		142	0	138.2	48.3	6.0	71.3
Aug 2		334		118	0	0	91	162	97	0		150	0	133.6	47.0	6.0	71.5
Aug 3		395		115	0	0	70	181	115	0		131	0	113.5	39.6	6.0	71.6
Aug 4		230		70	0	0	78	138	84	0		197	0	120.6	42.4	6.0	71.6
Aug 5		436		86	0	0	57	150	87	0		133	0	137.7	48.0	6.0	71.7
Aug 6			325	55	1	0	72	158	91	0		124	0	134.7	47.0	6.0	71.6
Aug 7			335	44	3	0	45	153	76	0		184	0	127.0	44.4	6.0	71.3
Aug 8			273	29	0	0	37	145	62	0		115	0	133.6	46.6	6.0	71.8
Aug 9			300	46	1	0	33	213	115	0		138	0	129.7	45.2	6.0	71.9
Aug 10			280	34	2	0	31	232	108	0		189	1	142.0	49.6	6.0	72.0
Aug 11			388	65	1	0	26	258	131	0		90	0	155.1	54.1	6.0	71.7
Aug 12			512	72	1	0	16	257	122	0		134	0	149.6	51.8	6.0	71.6
Aug 13			606	61	1	0	24	283	133	0		64	0	144.0	50.2	6.0	71.6
Aug 14			422	59	2	0	18	315	139	0		38	0	153.1	53.3	6.0	72.6
Aug 15			484	48	0	0	13	372	203	0		92	2	157.1	20.8	6.0	72.9
Aug 16			589	46	2	0	5	253	104	0		124	0	157.3	20.9	6.0	72.2
Aug 17			713	51	0	0	6	194	83	0		126	0	150.1	20.9	6.0	72.6
Aug 18			775	62	1	0	3	252	107	0		125	0	149.6	21.0	6.0	72.3
Aug 19			537	63	0	0	0	181	81	0		96	0	150.3	21.0	6.0	72.3
Aug 20			268	25	4	0	8	146	68	0		93	0	142.1	21.0	6.0	72.9
Aug 21			142	10	2	0	3	111	40	0		80	0	123.9	20.9	6.0	73.0
Aug 22			343	68	3	0	10	214	68	0		78	1	123.9	20.9	6.0	72.0
Aug 23			739	73	0	0	6	225	75	0		77	1	104.8	20.9	6.0	71.9
Aug 24			1,841	115	9	0	6	265	110	0		54	0	129.5	20.9	6.0	71.9
Aug 25			1,855	85	88	6	1	309	96	0		33	0	126.8	20.9	6.0	72.2
Aug 26			1,237	110	34	12	3	265	91	0		47	0	117.4	20.8	6.0	72.2
Aug 27			874	52	41	4	4	342	120	0		43	0	127.3	20.9	6.0	72.0
Aug 28			2,602	132	48	9	5	603	228	0		48	0	128.7	20.6	6.0	71.7
Aug 29			3,832	288	250	55	5	888	272	1		99	0	117.6	20.6	6.0	71.3
Aug 30			3,386	297	182	106	17	1,032	321	0		57	0	121.4	20.5	6.0	70.7
Aug 31			4,388	230	347	68	27	1,388	460	0		37	0	136.8	20.1	6.0	70.3
TOTAL		1,715	28,046	2,701	1,023	260	819	9,774	3,946	1		3,138	5				
AVG.		343	1,079	87	33	8	26	315	127			101	0	134.7	32.9	6.0	71.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	66,416	8,975
SUMMER	61,304	10,196
FALL	28,046	2,220
TOTAL	155,766	21,391

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
1,023	260	281,743	16,806	8,023	1

LAMPREY	STURGEON
16,985	7

TABLE 59

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped				CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK				KCFS	KCFS	SECCHI	DEG F
Sep 1		7,044	854	253	70	4	2,177	686	0		57	0		103.3	1.3	6.0	70.2
Sep 2		4,414	288	224	42	6	1,144	384	1		55	0		93.9	1.3	6.0	70.3
Sep 3		8,558	757	731	174	13	3,146	944	3		46	2		93.8	1.3	6.0	70.2
Sep 4		12,013	596	1,930	205	9	3,312	1,115	2		36	0		81.6	1.3	6.0	69.9
Sep 5		6,389	469	1,480	125	2	2,759	908	1		60	0		86.7	1.3	6.0	69.6
Sep 6		6,075	387	1,542	137	2	2,415	786	2		27	-1		83.6	1.3	6.0	69.3
Sep 7		5,966	250	1,917	110	0	2,628	571	0		44	0		77.2	1.3	6.0	69.2
Sep 8		4,243	753	1,267	260	2	2,113	579	0		41	0		83.3	1.3	6.0	69.0
Sep 9		4,572	368	1,466	237	12	1,481	410	0		29	0		77.6	1.3	6.0	69.1
Sep 10		7,864	494	1,947	257	6	1,783	507	1		16	0		77.4	1.3	6.0	69.1
Sep 11		11,950	537	2,004	186	2	2,365	434	0		24	1		69.5	1.3	6.0	69.0
Sep 12		6,713	1,282	1,681	304	3	1,915	434	0		35	0		77.1	1.5	6.0	69.0
Sep 13		6,946	713	2,546	334	2	1,620	459	0		42	0		85.7	1.3	6.0	69.1
Sep 14		5,347	892	1,195	259	2	1,475	330	0		38	1		94.9	1.3	6.0	69.2
Sep 15		4,045	449	1,195	186	1	1,402	410	0		7	0		83.5	1.3	6.0	69.5
Sep 16		6,001	681	1,400	169	3	1,672	444	0		25	1		69.5	1.3	6.0	69.5
Sep 17		7,421	790	1,389	228	6	1,866	428	1		17	0		67.6	1.3	6.0	69.4
Sep 18		5,637	414	1,189	145	2	1,874	394	0		35	0		66.3	1.2	6.0	69.1
Sep 19		4,729	1,155	814	175	3	2,085	587	0		14	1		69.5	1.4	6.0	68.9
Sep 20		3,793	791	680	103	0	1,791	518	0		20	0		80.4	1.2	6.0	68.7
Sep 21		3,565	578	327	60	2	1,539	463	0		6	0		72.4	1.1	6.0	68.5
Sep 22		2,735	690	455	125	5	1,706	486	1		12	0		71.4	1.2	6.0	68.3
Sep 23		2,710	963	518	120	1	1,780	504	0		4	0		73.6	1.0	6.0	68.3
Sep 24		3,015	628	466	95	0	1,667	418	0		5	0		75.3	1.2	6.0	68.2
Sep 25		4,282	923	445	72	1	1,151	327	1		3	0		64.8	1.2	6.0	68.0
Sep 26		4,000	428	324	109	0	830	250	0		-6	0		69.9	1.2	6.0	67.9
Sep 27		2,239	347	627	61	0	1,413	477	0		8	-1		73.5	1.2	6.0	67.6
Sep 28		3,328	350	1,102	65	2	2,500	815	0		-8	0		78.0	1.4	6.0	67.3
Sep 29		3,147	514	1,556	144	0	1,708	491	0		2	0		75.5	1.4	6.0	67.1
Sep 30		2,714	892	2,117	230	2	1,494	449	0		0	0		69.9	1.2	6.0	66.8
TOTAL		161,455	19,233	34,787	4,787	93	56,811	16,008	13		694	4					
AVG.		5,382	641	1,160	160	3	1,894	534	0		23	0		78.2	1.3	6.0	68.8

RUN YEAR		CHINOOK	CHINOOK
TOTALS TO DATE		ADULT	JACK
SPRING		66,416	8,975
SUMMER		61,304	10,196
FALL		189,501	21,453
TOTAL		317,221	40,624

COHO	COHO	unclipped	
ADULT	JACK	SOCKEYE	STEELHEAD
35,810	5,047	281,836	73,617
			24,031
			14

LAMPREY	STURGEON
17,679	11

TABLE 60

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS**OCTOBER 2023**

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Oct 1			2,147	531	1,354	103	1	1,253	392			2	0	69.0	1.2	6.0	66.4
Oct 2			2,065	779	780	106	2	1,194	335			-3	0	71.3	1.2	6.0	66.1
Oct 3			1,460	295	1,055	98	0	1,112	329			2	-1	74.1	1.2	6.0	65.8
Oct 4			630	309	630	130	0	809	268			3	1	82.6	1.2	6.0	65.4
Oct 5			961	220	1,026	88	0	954	352			-1	0	85.8	1.2	6.0	65.4
Oct 6			1,698	135	1,672	61	2	1,285	470			1	0	81.6	1.1	6.0	65.4
Oct 7			1,100	199	726	49	3	943	369			-1	0	72.9	1.1	6.0	65.3
Oct 8			884	117	448	17	0	616	242			1	0	85.9	1.2	6.0	65.2
Oct 9			1,359	159	338	26	1	518	175			-2	0	85.5	1.1	6.0	64.9
Oct 10			1,178	358	348	43	0	467	168			0	0	79.3	1.1	6.0	64.5
Oct 11			1,298	454	270	110	0	462	180			-7	0	77.3	1.1	6.0	64.5
Oct 12			1,056	225	127	18	0	319	128			-1	1	74.4	0.8	6.0	64.3
Oct 13			1,250	500	377	60	0	417	169			-4	0	86.4	1.1	6.0	64.1
Oct 14			1,361	218	2,490	144	0	707	329			0	0	82.9	1.1	6.0	63.9
Oct 15			532	217	892	133	0	447	209			-3	1	76.4	1.1	6.0	63.7
Oct 16			571	160	318	31	0	248	107			-1	0	77.3	1.1	6.0	63.7
Oct 17			458	21	370	16	0	310	123			0	0	75.4	1.1	6.0	63.5
Oct 18			442	63	140	23	0	172	80			2	0	78.6	1.1	6.0	63.3
Oct 19			211	15	341	5	0	138	49			5	0	80.5	1.1	6.0	63.1
Oct 20			276	126	174	39	0	174	90			0	0	82.7	1.1	6.0	62.9
Oct 21			280	85	135	18	0	144	61			-2	0	84.8	1.1	6.0	62.8
Oct 22			282	108	145	21	0	132	54			-2	0	73.4	1.1	6.0	62.6
Oct 23			271	34	291	19	0	151	57			1	0	73.5	1.1	6.0	62.4
Oct 24			237	103	332	51	0	169	86			1	0	80.5	1.1	6.0	62.0
Oct 25			175	36	182	10	0	100	53			-1	0	92.4	1.1	6.0	61.7
Oct 26			164	58	127	15	0	101	58			-1	0	101.8	1.0	6.0	61.5
Oct 27			205	38	391	17	0	111	48			3	0	86.0	1.1	6.0	61.2
Oct 28			118	28	195	9	0	102	40			-2	0	75.2	1.1	6.0	60.9
Oct 29			147	29	135	13	0	57	33			1	0	65.2	1.1	6.0	60.5
Oct 30			200	26	371	8	0	58	23			0	0	80.4	1.0	6.0	60.0
Oct 31			100	60	309	23	0	72	38			0	0	92.8	1.0	6.0	59.5
TOTAL			23,116	5,706	16,489	1,504	9	13,742	5,115			-9	2				
AVG.			746	184	532	49		443	165			0		80.2	1.1	6.0	63.4

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	66,416	8,975
SUMMER	61,304	10,196
FALL	212,617	27,159
TOTAL	340,337	46,330

COHO	COHO
ADULT	JACK
52,299	6,551
281,845	87,359

unclipped	
STEELHEAD	PINK
29,146	14

LAMPREY	STURGEON
17,670	13

Note: Live window counts ended October 31.

TABLE 61

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped						DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Nov 1			94	20	394	34		74	42		0	-1		124.1	1.0	6.0	58.8
Nov 2			87	10	332	25		105	57		0	-1		109.5	1.0	6.0	58.4
Nov 3			64	5	257	16		181	75		0	-2		111.4	0.9	6.0	58.2
Nov 4			107	9	540	37		256	99		0	0		115.4	1.0	6.0	57.8
Nov 5			119	25	526	86		672	328		0	-1		103.9	1.0	6.0	57.4
Nov 6			196	40	322	27		353	122		0	-1		113.6	0.9	6.0	57.2
Nov 7			60	17	269	34		312	98		0	-1		95.0	0.9	6.0	56.5
Nov 8			20	3	150	15		123	51		0	0		110.1	1.0	6.0	56.1
Nov 9			29	6	61	4		84	36		0	0		128.2	0.9	6.0	55.7
Nov 10			20	3	79	2		45	18		0	0		124.9	0.9	6.0	55.2
Nov 11			15	15	32	-1		33	16		0	0		111.9	0.9	6.0	54.8
Nov 12			29	2	46	2		53	16		0	0		119.1	1.0	6.0	54.2
Nov 13			30	1	21	2		36	10		0	0		123.3	1.0	6.0	53.9
Nov 14			4	1	18	-3		19	8		0	0		107.3	0.9	6.0	53.7
Nov 15			10	3	14	4		20	10		1	0		125.1	0.9	6.0	53.5
Nov 16			16	0	19	10		13	4		0	0		125.1	1.0	6.0	53.3
Nov 17			13	2	11	5		12	7		0	0		128.7	0.9	6.0	53.1
Nov 18			6	0	11	1		11	2		0	0		130.7	1.0	6.0	53.1
Nov 19			1	1	9	2		10	5		0	0		103.8	0.9	6.0	52.9
Nov 20			2	3	1	1		12	6		0	0		129.4	1.0	6.0	52.5
Nov 21			4	0	20	6		9	3		0	0		147.3	0.9	6.0	52.1
Nov 22			0	0	-2	7		8	3		0	0		122.3	0.9	6.0	51.8
Nov 23			3	1	4	-1		9	3		0	0		126.8	0.9	6.0	51.5
Nov 24			5	1	0	2		6	4		0	0		128.8	0.9	6.0	51.2
Nov 25			0	2	8	7		5	3		0	0		127.2	0.9	6.0	50.7
Nov 26			2	0	7	-2		-1	0		0	0		133.1	0.8	6.0	50.4
Nov 27			3	0	1	2		4	1		0	0		144.7	0.9	6.0	50.0
Nov 28			2	3	4	2		5	1		0	0		126.6	0.9	6.0	49.9
Nov 29			0	-1	0	0		3	1		0	0		137.6	0.9	6.0	49.5
Nov 30			1	1	13	-2		8	4		0	0		122.5	0.9	6.0	49.3
TOTAL			942	173	3,167	324		2,480	1,033		1	-7					
AVG.			31	6	106	11		83	34		0	0		121.9	0.9	6.0	53.8

RUN YEAR	CHINOOK		COHO	COHO	unclipped					PINK	CHUM	LAMPREY	STURGEON
	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD						
SPRING	66,416	8,975			52,299	6,551	281,845	87,359	29,146	14	1	17,670	13
SUMMER	61,304	10,196											
FALL	212,617	27,159											
TOTAL	340,337	46,330											

Note: From November 1 to December 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
Official Fall Chinook run ended October 31st. November and December counts are not added to fall totals, exception of Pink, Chum, and Sturgeon counts which are for the entire year.

TABLE 62

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

DECEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Dec 1			1	0	15	3		27	6					123.2	0.0	6.0	48.9
Dec 2			2	0	1	-1		6	2					130.4	0.0	6.0	49.0
Dec 3			0	0	4	0		2	1					110.0	0.0	6.0	49.0
Dec 4			0	0	7	-4		26	17					103.0	0.0	6.0	48.4
Dec 5			1	2	24	4		90	51					79.1	0.0	6.0	48.4
Dec 6			0	0	77	0		36	12					74.6	0.0	6.0	48.4
Dec 7			4	0	52	0		4	2					76.4	0.0	6.0	48.3
Dec 8			0	0	-2	0		47	26					92.1	0.0	6.0	48.2
Dec 9			1	0	1	2		29	19					129.0	0.0	6.0	48.0
Dec 10			0	0	2	0		24	17					106.4	0.0	6.0	48.0
Dec 11			2	0	2	2		21	11					104.7	0.0	6.0	48.0
Dec 12			1	0	1	-1		29	18					118.8	0.0	6.0	47.4
Dec 13			1	0	0	0		34	15					132.0	0.0	6.0	47.3
Dec 14			1	0	2	1		20	5					118.6	0.0	6.0	47.4
Dec 15			1	1	2	-1		7	3					122.4	0.0	6.0	47.5
Dec 16			1	0	1	-2		10	5					116.9	0.0	6.0	47.2
Dec 17			1	1	0	0		13	7					118.3	0.0	6.0	46.9
Dec 18			0	0	1	-2		9	4					127.4	0.0	6.0	46.7
Dec 19			1	0	2	-3		11	6					114.8	0.0	6.0	46.6
Dec 20			0	0	0	-2		6	2					115.2	0.0	6.0	46.7
Dec 21			0	0	1	2		8	0					123.5	0.0	6.0	46.6
Dec 22			0	0	0	0		1	0					123.6	0.0	6.0	46.3
Dec 23			1	0	5	0		3	1					124.8	0.0	6.0	46.0
Dec 24			0	0	1	0		0	0					130.8	0.0	6.0	45.7
Dec 25			0	0	0	0		3	2					133.4	0.0	6.0	45.4
Dec 26			0	0	0	0		2	0					121.0	0.0	6.0	45.3
Dec 27			-1	0	0	1		2	0					118.0	0.0	6.0	45.3
Dec 28			0	0	0	-2		0	0					127.7	0.0	6.0	45.1
Dec 29			0	0	0	0		1	1					131.0	0.0	6.0	44.9
Dec 30			0	0	-1	0		1	0					120.5	0.0	6.0	44.7
Dec 31			0	0	0	0		0	0					114.7	0.0	6.0	44.6
TOTAL			18	4	198	-3		472	233								

AVG.	1	0	6	0			15	8						115.6	0.0	6.0	47.0
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RUN YEAR TOTALS TO DATE	CHINOOK	CHINOOK					unclipped					
	ADULT	JACK	COHO	COHO	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	
	SPRING	66,416	8,975	52,299	6,551	281,845	87,359	29,146	14	1	17,670	13
	SUMMER	61,304	10,196									
	FALL	212,617	27,159									
TOTAL	340,337	46,330										

Note: From November 1 to December 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Official Fall Chinook run ended October 31st. November and December counts were not added to fall totals.

TABLE 63

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
Jun 1											
Jun 2											
Jun 3											
Jun 4											
Jun 5											
Jun 6											
Jun 7											
Jun 8											
Jun 9											
Jun 10											
Jun 11											
Jun 12											
Jun 13											
Jun 14											
Jun 15		47		0			128	2	1		232
Jun 16		28		0			116	-1	0		421
Jun 17		22		0			121	3	1		557
Jun 18		18		3			273	-2	-2		496
Jun 19		25		11			227	0	0		429
Jun 20		24		22			188	0	0		302
Jun 21		7		30			261	0	0		459
Jun 22		19		2			604	2	2		305
Jun 23		17		4			510	0	0		261
Jun 24		25		2			474	0	0		202
Jun 25		37		72			488	4	2		457
Jun 26		22		43			330	8	5		504
Jun 27		20		39			476	9	6		678
Jun 28		38		30			520	13	9		678
Jun 29		20		5			711	2	2		462
Jun 30		29		2			682	4	2		634
TOTAL		398		265			6,109	44	28		7,077
AVG.		25		17			382	3	2		442

Note: Night counts are video counts from 2000-0400 PST.

TABLE 64

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT -NIGHT FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
Jul 1		33		146			938	72	69		1,096
Jul 2		31		33			636	16	12		1,146
Jul 3		5		5			657	3	1		345
Jul 4		6		0			669	4	0		295
Jul 5		3		27			675	18	16		946
Jul 6		22		17			581	2	1		825
Jul 7		14		0			497	7	4		475
Jul 8		31		1			510	5	4		606
Jul 9		24		6			466	5	3		682
Jul 10		16		20			653	3	1		985
Jul 11		13		8			574	6	1		1,044
Jul 12		24		1			430	7	3		681
Jul 13		19		2			578	2	2		415
Jul 14		13		3			341	7	5		668
Jul 15		10		0			198	4	4		572
Jul 16		26		0			269	10	0		292
Jul 17		10		7			168	2	1		736
Jul 18		23		4			109	7	4		813
Jul 19		19		1			123	4	3		1,015
Jul 20		23		1			64	3	1		961
Jul 21		19		0			113	0	0		646
Jul 22		11		0			68	3	3		857
Jul 23		5		9			25	7	4		892
Jul 24		7		7			26	4	2		581
Jul 25		6		0			33	1	0		347
Jul 26		11		2			38	5	1		302
Jul 27		9		1			66	0	0		274
Jul 28		8		0			33	1	0		399
Jul 29		16		0			41	3	1		176
Jul 30		7		13			26	6	5		482
Jul 31		13		4			20	5	5		288
TOTAL		477		318			9,625	222	156		19,842

AVG

15

10

310

7

5

640

Note: Night counts are video counts from 2000-0400 PST.

TABLE 65

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD		
Aug 1		12		6	0	0	32	5	3		354
Aug 2		11		0	0	0	23	7	4		296
Aug 3		11		0	0	0	22	2	1		271
Aug 4		2		0	0	0	12	6	6		284
Aug 5		12		2	0	0	19	3	2		235
Aug 6			10	0	0	0	145	1	0		446
Aug 7			13	3	0	0	13	5	3		163
Aug 8			4	4	0	0	15	3	2		281
Aug 9			6	0	0	0	21	7	4		436
Aug 10			7	1	0	0	8	9	3		235
Aug 11			3	0	0	0	8	6	3		297
Aug 12			4	0	0	0	9	5	2		304
Aug 13			-8	0	0	0	5	9	3		391
Aug 14			-2	-1	0	0	2	12	7		165
Aug 15			-3	0	0	0	3	3	2		156
Aug 16			4	0	0	0	3	4	2		238
Aug 17			1	1	0	0	7	5	1		179
Aug 18			27	0	0	0	3	8	4		193
Aug 19			10	0	0	0	1	3	1		267
Aug 20			8	0	0	0	2	4	1		238
Aug 21			5	0	0	0	2	4	2		252
Aug 22			8	4	0	0	2	13	6		181
Aug 23			28	4	3	0	5	26	8		85
Aug 24			11	0	0	0	-1	23	8		51
Aug 25			22	0	0	0	7	27	6		75
Aug 26			12	0	0	0	6	16	4		106
Aug 27			29	0	3	0	7	22	8		58
Aug 28			15	11	3	0	9	41	11		77
Aug 29			31	0	11	1	3	58	20		150
Aug 30			26	1	12	0	2	73	32		67
Aug 31			102	1	11	0	2	152	61		68
TOTAL		48	373	37	43	1	397	562	220		6,599
AVG.		10	14	1	1	0	13	18	7		213

Note: Night counts are video counts from 2000-0400 PST.

TABLE 66

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped					
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	LAMPREY
Sep 1			34	0	17	0	3	84	34	0	125
Sep 2			69	0	19	0	2	167	62	-1	120
Sep 3			264	36	63	0	3	318	114	0	62
Sep 4			45	20	19	4	-2	165	55	0	58
Sep 5			38	3	48	-1	0	180	35	0	56
Sep 6			37	6	29	1	0	156	47	0	83
Sep 7			53	2	34	1	0	110	26	0	55
Sep 8			11	2	57	11	0	98	19	0	49
Sep 9			36	0	50	2	0	108	28	0	72
Sep 10			51	29	30	10	-3	124	40	0	58
Sep 11			15	6	19	7	4	99	34	0	91
Sep 12			41	11	25	8	-3	121	39	0	100
Sep 13			10	1	73	5	8	77	18	0	30
Sep 14			12	0	57	14	15	69	21	0	84
Sep 15			15	0	40	4	1	74	15	0	53
Sep 16			15	0	62	2	0	121	33	0	54
Sep 17			32	8	33	7	0	97	26	0	38
Sep 18			41	32	58	1	0	145	34	0	23
Sep 19			15	13	28	1	0	122	36	0	20
Sep 20			10	8	6	6	-1	80	18	0	3
Sep 21			31	11	34	1	1	99	28	0	3
Sep 22			28	0	52	4	1	125	34	0	5
Sep 23			11	0	36	0	1	136	26	0	2
Sep 24			22	28	19	2	1	96	23	0	3
Sep 25			16	18	36	1	0	88	22	0	19
Sep 26			4	26	36	0	0	111	35	0	18
Sep 27			17	1	174	0	0	302	84	0	-6
Sep 28			-1	0	209	0	1	86	19	0	9
Sep 29			3	0	393	2	0	87	20	0	15
Sep 30			85	27	102	3	-1	122	38	0	-6
TOTAL			1,060	288	1,858	96	31	3,767	1,063	-1	1,296
AVG.			35	10	62	3	1	126	35	0	43

Note: Night counts are video counts from 2000-0400 PST.

TABLE 67

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
Oct 1			36	13	52	0	0	93	36		-8
Oct 2			22	50	91	3	-1	139	35		4
Oct 3			15	37	71	2	1	75	35		-12
Oct 4			6	0	50	0	0	28	10		5
Oct 5			57	0	203	9	0	165	69		3
Oct 6			10	0	100	4	0	55	7		0
Oct 7			8	0	36	1	0	58	24		4
Oct 8			7	6	22	0	0	38	18		3
Oct 9			8	3	17	0	0	45	17		3
Oct 10			0	0	44	0	0	6	1		5
Oct 11			0	0	23	0	0	21	6		4
Oct 12			2	0	35	1	0	26	13		-3
Oct 13			23	25	244	9	0	102	47		-1
Oct 14			6	6	173	7	0	66	37		-2
Oct 15			5	12	33	4	0	32	15		-7
Oct 16			1	3	55	0	0	29	13		3
Oct 17			5	0	15	0	0	20	12		-1
Oct 18			5	2	45	3	0	23	7		-12
Oct 19			5	0	75	4	0	26	11		-3
Oct 20			2	1	47	6	0	14	6		-1
Oct 21			-1	0	65	0	0	7	1		-4
Oct 22			6	3	54	6	0	13	4		-2
Oct 23			30	18	124	10	0	28	14		-10
Oct 24			4	3	43	3	0	29	15		-3
Oct 25			2	0	33	1	0	25	6		0
Oct 26			3	3	201	5	0	22	11		-1
Oct 27			0	0	135	0	0	11	4		-1
Oct 28			4	0	49	0	0	6	4		-2
Oct 29			1	2	128	9	0	9	4		-1
Oct 30			1	1	125	5	0	11	7		-1
Oct 31			1	0	153	49	0	4	2		0
TOTAL			274	188	2,541	141	0	1,226	491		-41

AVG.	9	6	82		0	40	16		-1
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Note: Night counts are video counts from 2000-0400 PST.

TABLE 68

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	LAMPREY
Nov 1			0	4	132	17		10	5		-2
Nov 2			0	0	51	1		12	6		0
Nov 3			0	0	145	8		29	17		-1
Nov 4			-3	1	242	13		57	35		-2
Nov 5			18	1	109	15		20	11		0
Nov 6			59	16	143	14		61	16		0
Nov 7			1	3	28	7		19	13		0
Nov 8			1	1	30	0		14	6		0
Nov 9			2	3	15	0		3	1		0
Nov 10			0	0	8	0		2	2		0
Nov 11			0	0	3	0		3	2		0
Nov 12			2	0	3	0		2	2		0
Nov 13			1	0	2	-2		7	3		0
Nov 14			0	0	2	0		3	2		-1
Nov 15			2	1	0	0		1	0		0
Nov 16			0	0	2	1		0	0		0
Nov 17			1	3	3	1		1	0		0
Nov 18			1	0	2	0		4	2		0
Nov 19			0	0	7	1		7	5		0
Nov 20			1	-1	5	0		1	0		0
Nov 21			-1	0	5	0		0	0		0
Nov 22			0	0	-1	0		0	0		0
Nov 23			2	0	1	0		0	0		0
Nov 24			0	-1	0	0		0	0		0
Nov 25			1	0	0	0		1	0		-1
Nov 26			1	0	1	0		1	0		-2
Nov 27			0	0	3	0		0	0		0
Nov 28			0	0	1	0		1	0		0
Nov 29			1	0	0	0		1	0		-1
Nov 30			1	0	3	0		2	0		-2
TOTAL			91	31	945	76		262	128		-12

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Note: Night counts are video counts from 2000-0400 PST.

TABLE 69

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
JOHN DAY DAM
1968 - 2023**

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	PINK	TOTAL
1968	233,654	121,256	87,847	38,233	1	480,991
1969	276,051	86,348	39,847	13,589	1	415,836
1970	222,506	82,440	78,133	19,543	0	402,622
1971	193,881	115,977	72,232	40,830	0	422,920
1972	225,631	141,628	51,793	17,533	0	436,585
1973	249,492	101,440	64,744	13,359	8	429,043
1974	167,888	43,756	33,121	14,651	1	259,417
1975	159,079	32,651	50,774	6,305	45	248,854
1976	175,911	59,808	30,446	5,806	6	271,977
1977	194,931	102,558	85,701	1,123	3	384,316
1978	174,852	44,188	13,778	8,355	0	241,173
1979	118,154	55,877	43,630	5,061	6	222,728
1980	100,664	78,199	50,675	1,924	0	231,462
1981	114,359	95,172	46,146	2,562	0	258,239
1982	144,082	108,603	37,970	4,063	0	294,718
1983	139,866	154,425	91,917	1,640	0	387,848
1984	188,373	201,154	107,951	2,080	0	499,558
1985	337,624	247,093	124,941	1,652	0	711,310
1986	346,700	238,010	46,327	1,933	0	632,970
1987	327,752	170,654	75,529	3,355	0	577,290
1988	277,251	164,650	48,095	6,813	0	496,809
1989	208,254	193,460	39,374	9,663	0	450,751
1990	156,313	107,849	42,077	3,023	0	309,262
1991	118,921	160,257	63,760	8,021	1	350,960
1992	132,025	195,194	69,731	2,633	0	399,583
1993	141,705	95,642	61,218	2,995	0	301,560
1994	126,645	93,075	11,170	2,842	0	233,732
1995	107,277	123,246	8,667	2,117	0	241,307
1996	130,602	156,002	25,698	4,279	0	316,581
1997	185,240	157,038	35,830	4,229	0	382,337
1998	130,028	158,547	9,837	8,497	0	306,909
1999	163,282	165,314	14,809	13,232	1	356,638
2000	269,371	220,328	88,372	23,969	0	602,040
2001	510,987	483,409	107,869	51,181	0	1,153,446
2002	447,729	390,300	41,915	9,272	0	889,216
2003	472,340	305,042	35,417	38,765	18	851,582
2004	447,891	233,431	113,497	35,522	0	830,341
2005	322,991	232,103	69,770	36,205	12	661,081
2006	290,161	231,355	35,387	38,374	3	595,281
2007	215,876	237,517	24,277	39,421	0	517,091
2008	342,952	277,162	193,409	44,898	0	858,421
2009	451,974	581,645	157,402	71,739	-1	1,262,759
2010	534,247	283,812	324,128	23,272	0	1,165,459
2011	497,771	257,345	143,605	65,668	698	965,087
2012	444,136	162,083	394,166	33,859	15	1,034,259
2013	710,149	155,742	155,498	18,139	64	1,039,604
2014	766,218	203,232	557,531	115,841	0	1,642,822
2015	891,578	179,506	366,364	21,828	10	1,459,286
2016	507,088	130,626	289,976	19,635	2	947,327
2017	313,886	83,253	66,041	34,246	1	497,427
2018	229,860	73,352	168,469	19,802	0	491,483
2019	249,977	51,086	52,526	34,117	4	387,710
2020	353,213	79,703	309,959	55,106	0	797,981
2021	325,969	54,780	126,708	145,619	40	653,116
2022	403,695	90,269	630,888	63,671	1	1,188,524
2023	387,807	90,569	281,845	62,536	14	822,772
TOTALS	16,356,859	9,139,161	6,398,787	1,374,626	954	33,270,401
10-Year Average	442,929	103,638	285,031	57,240	7	888,845

*Jacks included

Total includes in 2006 -1 chum, 2013 - 12 Chum, 2023- 1 Chum

TABLE 70

MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL	JACKS
														Apr 1- Jun 5	Jun 6- Aug 5	Aug 6- Oct 31	
1968				29,973	46,272	30,702	42,212	16,726	62,709	4,851	209		233,654	77,482	75,494	80,678	67,284
1969			6	4,266	72,966	35,899	31,071	18,523	103,778	9,542			276,051	81,724	64,732	129,595	93,928
1970				35,750	35,248	20,439	21,542	24,784	80,969	3,774			222,506	72,555	43,093	106,858	74,090
1971				13,995	40,620	24,364	25,692	10,403	73,157	5,650			193,881	56,625	50,030	87,226	61,380
1972				28,535	41,882	15,833	27,484	14,208	90,181	7,508			225,631	71,569	44,542	109,520	82,646
1973				67,467	27,091	18,972	15,067	16,995	89,913	13,987			249,492	96,710	34,206	118,576	73,687
1974				5,174	38,058	8,115	18,985	8,112	77,296	12,148			167,888	46,191	25,865	95,832	61,669
1975				7,727	27,989	11,058	21,359	18,250	65,367	7,329			159,079	37,716	32,179	89,184	62,403
1976				10,428	32,985	17,836	18,506	10,114	72,467	13,575			175,911	45,419	36,037	94,455	62,793
1977				55,061	19,422	15,674	13,764	7,853	71,302	11,855			194,931	75,782	29,194	89,955	60,386
1978				34,735	35,206	15,104	16,764	8,149	52,975	11,919			174,852	72,723	30,371	71,758	36,289
1979				8,224	12,568	9,537	13,580	14,128	50,977	8,566	574		118,154	21,981	23,572	72,601	41,364
1980				7,995	18,311	7,125	12,522	9,063	37,023	8,625			100,664	27,202	19,664	53,798	25,877
1981				18,178	18,325	7,292	8,992	8,524	44,626	8,422			114,359	37,677	15,813	60,869	34,547
1982				3,396	30,444	11,031	7,359	10,881	67,271	13,700			144,082	36,530	16,360	91,192	56,966
1983				7,123	25,391	7,990	7,064	8,195	66,078	18,025			139,866	33,480	14,834	91,552	43,440
1984				4,329	26,561	9,706	12,892	15,422	96,399	22,255	809		188,373	32,035	22,795	133,543	69,874
1985				27,539	42,487	15,585	9,663	27,387	178,322	34,192	2,449		337,624	72,389	23,489	241,746	149,281
1986		21		38,075	37,959	13,227	9,703	10,797	194,928	41,990			346,700	77,884	22,051	246,765	133,827
1987				33,985	26,852	13,641	8,948	9,948	196,596	23,367			327,752	62,313	22,244	243,195	53,794
1988				33,323	20,170	14,731	9,648	37,002	147,553	14,824			277,251	55,195	23,569	198,487	51,330
1989				12,510	23,983	12,793	10,124	35,985	101,794	11,065			208,254	37,773	23,868	146,613	25,092
1990				23,689	18,854	11,209	9,199	13,542	71,508	8,312			156,313	43,127	20,532	92,654	22,195
1991				7,419	13,668	8,868	8,390	4,879	64,950	10,747			118,921	21,847	16,872	80,202	28,646
1992				27,538	16,623	9,452	5,263	7,677	58,140	7,332			132,025	45,457	13,910	72,658	22,084
1993				26,309	28,204	13,295	6,311	10,703	51,667	5,216			141,705	56,144	18,364	67,197	9,621
1994				4,436	4,937	6,305	6,397	13,345	79,538	11,687			126,645	9,745	12,935	103,965	18,867
1995				2,034	3,378	4,977	6,273	14,694	61,273	14,648			107,277	5,776	11,476	90,025	24,192
1996				1,860	18,616	7,419	6,356	18,550	68,198	9,603			130,602	21,599	13,148	95,855	12,071
1997				13,579	45,408	16,551	8,328	10,355	81,039	9,980			185,240	62,580	21,769	100,891	1,588
1998				9,279	12,439	10,076	7,535	11,073	62,107	17,519			130,028	22,177	17,780	90,071	13,745
1999				3,008	16,517	10,206	14,226	20,201	86,380	12,744			163,282	20,498	24,714	118,070	19,611
2000				48,176	47,705	19,201	13,579	44,377	86,737	9,596			269,371	98,710	31,056	139,605	56,892
2001				187,104	74,233	46,449	33,904	20,506	128,230	20,561			510,987	270,385	74,235	166,367	57,877
2002				36,677	99,270	69,941	44,890	37,086	143,126	16,739			447,729	142,290	110,969	194,470	37,568
2003			3,951	61,184	45,880	62,159	45,782	22,222	201,192	28,666	1,238	66	472,340	111,642	105,615	249,828	54,680
2004			127	62,999	50,288	55,728	30,998	24,383	192,606	29,301	1,410	51	447,891	118,520	83,060	244,723	47,708
2005			15	13,680	39,563	45,107	28,340	15,637	158,917	21,319	411	2	322,991	58,742	69,439	194,382	37,622
2006				420	49,051	50,206	28,688	14,821	118,233	27,015	1,710	17	290,161	52,406	77,964	158,064	28,507
2007			3	13,080	40,896	30,282	19,378	12,140	81,091	17,462	1,256	288	215,876	57,042	47,908	109,379	61,316
2008				14,050	77,177	58,652	22,929	29,293	126,961	13,890			342,952	96,697	77,329	168,926	60,788
2009				5,282	112,503	75,623	31,549	51,444	155,522	20,051			451,974	126,539	99,136	226,299	164,110
2010				69,747	108,746	64,519	30,528	29,389	197,139	34,179			534,247	191,240	83,430	259,577	69,502
2011				2,856	131,343	70,070	46,154	26,983	182,441	37,924			497,771	143,224	110,919	243,628	138,591
2012				5,071	100,761	47,139	30,572	27,013	205,132	28,448			444,136	114,410	71,229	258,497	108,693
2013				12,822	68,212	62,206	35,505	48,428	411,708	68,664	2,559	45	710,149	85,948	94,962	526,635	137,790
2014	6		21	23,812	110,984	66,933	41,310	26,053	429,579	67,520			766,218	142,300	103,688	520,203	116,443
2015				73,181	94,629	77,299	46,700	53,294	429,186	117,289			891,578	177,529	119,756	594,293	82,816
2016				7,999	87,686	63,313	39,073	35,950	247,376	25,691			507,088	101,921	97,974	307,193	55,724
2017				413	52,174	47,364	25,966	11,340	138,707	37,922			313,886	59,150	67,779	186,957	41,269
2018			10	612	49,475	37,030	15,054	15,982	87,782	21,648	2,190	77	229,860	55,615	47,128	124,840	28,248
2019	5	2		501	36,976	31,337	18,288	15,707	116,429	30,732			249,977	41,127	47,116	161,727	38,306
2020				3,221	35,067	50,851	31,358	29,516	169,277	33,923			353,213	43,111	79,535	230,567	48,416
2021				4,534	52,531	45,418	24,211	42,474	135,000	21,801			325,969	61,416	66,109	198,444	48,959
2022				13,576	95,595	50,994	36,962	29,523	157,704	19,341			403,695	116,306	82,342	205,047	65,122
2023			3	3,670	65,970	51,062	23,993	32,462	180,688	28,822	1,115	22	387,807	75,391	71,500	239,776	46,330
TOTAL				4,157	1,271,606	2,606,149	1,713,895	1,186,930	1,176,906	7,187,244	1,193,461	15,930	16,356,859	4,079,566	2,785,680	9,475,013	3,227,844
10-Year Average				13,152	68,109	52,160	30,292	29,230	209,173	40,469			442,929	87,387	78,293	276,905	57,163
*Jacks included																	

TABLE 71

**MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM
1968 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1968						42,175	44,942	690	32	7	1		87,847
1969						13,383	26,174	245	37	8			39,847
1970						18,029	58,176	1,909	19				78,133
1971						5,219	66,183	787	38	5			72,232
1972						6,762	43,704	1,257	68	2			51,793
1973					2	21,283	42,588	864	6	1			64,744
1974						2,024	30,687	403	6	1			33,121
1975						6,154	44,454	163	2	1			50,774
1976						8,907	21,278	258	1	2			30,446
1977					6	52,852	32,269	537	34	3			85,701
1978						5,633	8,006	119	20				13,778
1979						13,466	29,603	560	1				43,630
1980						9,596	40,536	530	13				50,675
1981						17,064	28,975	94	13				46,146
1982						8,708	28,974	286	2				37,970
1983						27,372	63,995	506	37	7			91,917
1984						54,975	51,728	1,230	16	2			107,951
1985						78,326	46,184	421	10				124,941
1986						13,472	32,116	738	0	1			46,327
1987						35,022	39,983	513	11				75,529
1988						25,001	22,855	225	12	2			48,095
1989						18,883	20,330	148	12	1			39,374
1990					1	15,247	26,580	245	4				42,077
1991					0	10,917	52,130	699	9	5			63,760
1992					1	38,618	30,788	303	20	1			69,731
1993					1	30,668	30,348	198	2	1			61,218
1994					0	7,004	4,141	22	2	1			11,170
1995					1	4,242	4,352	71	1				8,667
1996					0	15,316	10,323	59	0				25,698
1997					10	11,605	23,604	603	4	4			35,830
1998					0	4,371	5,314	131	19	2			9,837
1999					1	4,803	9,910	88	2	5			14,809
2000					15	73,119	15,122	108	7	1			88,372
2001					7	86,624	21,062	100	75	1			107,869
2002					1	20,044	21,772	96	1	1			41,915
2003					0	19,260	16,004	151	2				35,417
2004					34	84,659	28,663	133	5	3			113,497
2005					-3	35,616	33,988	162	6	1			69,770
2006					0	20,279	14,949	154	5				35,387
2007					6	16,083	7,994	141	53				24,277
2008					1	150,928	42,325	153	2				193,409
2009					3	100,136	57,110	142	8	3			157,402
2010					14	226,244	97,705	153	8	4			324,128
2011					0	41,854	101,278	471	2	0			143,605
2012					2	241,353	152,501	285	22	3			394,166
2013					23	80,403	74,530	516	24	2			155,498
2014					6	230,010	325,778	1,712	25	0			557,531
2015					60	252,165	109,674	3,917	510	38			366,364
2016					65	226,742	62,085	988	96	0			289,976
2017					21	39,962	25,744	186	109	19			66,041
2018					5	110,952	57,120	369	23	0			168,469
2019					3	30,762	21,544	200	17	0			52,526
2020					16	139,970	169,489	458	26	0			309,959
2021					9	70,479	55,699	330	192	-1			126,708
2022					14	307,571	320,952	2,255	96				630,888
2023					9	134,775	146,140	819	93	9			281,845
TOTAL						334	3,367,087	3,000,458	28,901	1,860	146	1	6,398,787
10-Year Average						21	154,339	129,423	1,123	119			285,031

TABLE 72
MONTHLY COUNT OF COHO SALMON
JOHN DAY DAM 1968 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
1968							4	1,311	32,882	3,848	188		38,233
1969							25	308	9,879	3,377			13,589
1970							14	1,026	17,272	1,231			19,543
1971								944	36,401	3,485			40,830
1972								1,253	14,965	1,315			17,533
1973								788	11,350	1,221			13,359
1974								730	11,253	2,668			14,651
1975								85	4,266	1,954			6,305
1976								57	3,739	2,010			5,806
1977								8	534	581			1,123
1978								6	2,676	5,673			8,355
1979							1	132	2,853	1,753	322		5,061
1980								27	1,431	466			1,924
1981								90	2,030	442			2,562
1982								145	3,032	886			4,063
1983								99	1,353	188			1,640
1984								4	1,736	331	9		2,080
1985								95	1,140	395	22		1,652
1986									1,527	406			1,933
1987							1	16	3,205	133			3,355
1988							3	241	5,170	1,399			6,813
1989								264	6,832	2,567			9,663
1990								1	1,890	1,132			3,023
1991								5	6,140	1,876			8,021
1992									2,153	480			2,633
1993								11	2,233	751			2,995
1994								164	1,892	786			2,842
1995								63	1,199	855			2,117
1996								11	3,432	836			4,279
1997								1	2,860	1,368			4,229
1998								18	2,806	5,673			8,497
1999								8	9,471	3,753			13,232
2000					2			921	15,355	7,691			23,969
2001							49	480	23,204	27,448			51,181
2002								66	5,101	4,105			9,272
2003								282	24,786	13,509	183	5	38,765
2004								161	24,884	9,710	766	1	35,522
2005								334	20,981	12,882	2,005	3	36,205
2006								613	20,825	12,340	4,543	53	38,374
2007						1	1	248	21,179	17,799	193		39,421
2008								810	29,451	14,637			44,898
2009							1	4,826	29,003	37,909			71,739
2010							10	375	14,126	8,761			23,272
2011								2,234	37,683	25,751			65,668
2012							9	1,393	28,826	3,631			33,859
2013							1	309	8,939	8,279	554	57	18,139
2014	1						0	151	95,529	20,160			115,841
2015							0	287	17,531	4,010			21,828
2016								103	14,537	4,995			19,635
2017								90	25,508	8,648			34,246
2018								630	15,055	3,686	299	132	19,802
2019	8	-2					2	443	19,910	13,756			34,117
2020								1,740	45,785	7,581			55,106
2021								13,935	105,617	26,067			145,619
2022								201	30,898	32,572			63,671
2023								1,283	39,574	17,993	3,491	195	62,536
TOTAL	9	-2	0	0	2	1	121	39,826	923,889	397,759	12,575	446	1,374,626
10-Year Average								1,886	40,994	13,947			57,240

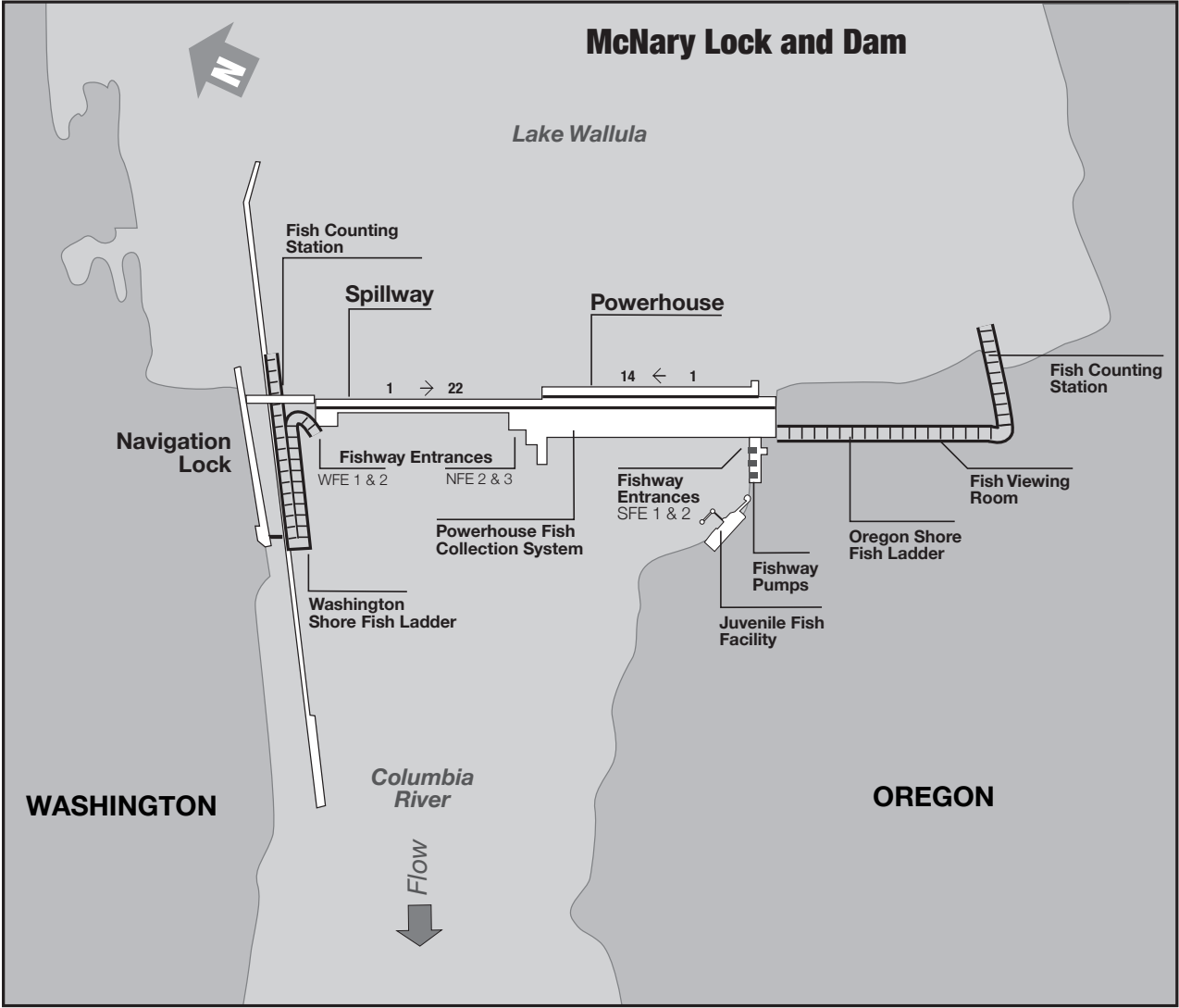
*Jacks included

TABLE 73

**MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1968				3,939	2,659	151	6,094	26,824	68,791	11,405	1,393		121,256
1969			314	3,986	3,691	714	12,004	13,267	40,082	12,290			86,348
1970				1,987	1,279	253	7,373	19,412	46,036	6,100			82,440
1971				1,472	592	263	17,459	19,693	63,868	12,630			115,977
1972				1,523	1,966	356	17,656	20,502	78,138	21,487			141,628
1973				8,019	3,546	785	12,134	15,608	46,566	14,782			101,440
1974				1,713	2,363	1,361	9,713	8,419	12,479	7,708			43,756
1975				760	428	648	6,251	8,583	9,977	6,004			32,651
1976				929	1,248	1,868	9,254	17,964	22,754	5,791			59,808
1977				1,319	418	2,341	18,366	7,088	56,134	16,892			102,558
1978				741	631	1,601	5,573	6,911	22,896	5,835			44,188
1979				602	136	253	8,012	10,717	16,202	18,072	1,883		55,877
1980				4,131	555	577	5,850	18,114	34,700	14,272			78,199
1981				2,061	1,539	2,515	15,999	18,283	34,098	20,677			95,172
1982				3,393	1,698	1,167	10,168	19,693	50,725	21,759			108,603
1983				1,492	434	560	15,088	31,453	83,215	22,183			154,425
1984				3,316	1,787	2,101	21,442	19,743	100,437	46,506	5,822		201,154
1985				6,821	1,723	3,583	19,631	64,456	109,488	37,227	4,164		247,093
1986			3,611	2,040	887	2,362	37,732	31,576	107,002	52,800			238,010
1987				3,926	-747	942	23,614	34,203	69,585	39,131			170,654
1988				4,290	525	2,188	17,649	25,741	81,859	32,398			164,650
1989				2,940	508	2,445	18,254	22,548	104,521	42,244			193,460
1990				3,339	600	1,902	10,544	9,445	42,888	39,131			107,849
1991				2,547	660	1,256	12,827	18,310	87,277	37,380			160,257
1992				1,334	406	2,337	10,732	17,326	143,823	19,236			195,194
1993				3,453	808	2,845	9,434	11,018	46,447	21,637			95,642
1994				2,286	413	1,647	6,961	7,140	44,175	30,453			93,075
1995				1,498	488	1,757	7,755	26,450	45,087	40,211			123,246
1996				1,597	462	1,576	11,885	42,853	67,171	30,458			156,002
1997				2,171	810	2,021	12,847	22,179	75,119	41,891			157,038
1998				4,367	1,018	2,460	9,827	9,053	67,322	64,500			158,547
1999				2,702	764	1,975	17,083	42,160	72,719	27,911			165,314
2000				2,607	784	4,500	23,496	37,827	113,619	37,495			220,328
2001				1,946	550	11,031	52,946	50,723	230,803	135,410			483,409
2002				7,330	972	5,875	42,167	59,430	170,893	103,633			390,300
2003			9,792	1,327	222	4,888	28,019	23,687	177,058	50,975	7,666	1,408	305,042
2004		186	2,591	1,437	537	6,840	20,250	24,594	145,241	28,300	3,401	54	233,431
2005		106	2,571	843	456	3,424	24,705	27,445	116,336	49,965	6,158	94	232,103
2006		32	1,252	2,104	343	2,575	15,719	25,008	125,323	46,050	12,909	40	231,355
2007		400	3,584	1,592	641	2,450	16,497	43,710	119,499	42,809	5,509	826	237,517
2008				2,363	1,004	5,973	45,572	41,931	144,781	35,538			277,162
2009				2,502	674	5,136	43,692	167,086	262,375	100,180			581,645
2010				2,156	442	7,589	73,271	36,206	123,408	40,740			283,812
2011				2,396	408	1,090	32,498	101,526	83,950	35,477			257,345
2012				1,657	277	1,995	27,799	34,466	67,996	27,893			162,083
2013				754	197	1,837	18,416	22,217	78,355	29,179	3,133	1,654	155,742
2014	181	696	1,517	363	422	2,906	27,211	18,916	116,932	34,088			203,232
2015				421	197	1,924	8,535	27,537	106,510	34,382			179,506
2016				335	50	2,175	10,933	6,283	82,654	28,196			130,626
2017				482	47	181	3,072	3,724	57,876	17,871			83,253
2018			235	115	31	816	5,889	4,767	43,544	15,848	1,767	340	73,352
2019	109	23		223	14	347	4,520	4,084	25,071	16,695			51,086
2020				187	30	714	9,920	7,709	46,427	14,716			79,703
2021				240	19	426	2,792	6,698	33,286	11,319			54,780
2022				99	48	1,113	17,993	5,443	45,778	19,795			90,269
2023			258	181	16	750	6,085	9,774	56,811	13,742	2,480	472	90,569
TOTAL	290	1,443	25,725	120,354	42,676	125,365	987,208	1,457,523	4,526,107	1,791,297	56,285	4,888	9,139,161
10-YR Average				265	87	1,135	9,695	9,494	61,489	20,665			103,638

Plate 5 McNary Lock and Dam



McNARY DAM

FISH COUNTING SCHEDULE

1 January – 28 February	Video counts daily (0400-2000 hours PST).
1 April – 31 October	Visual counts daily (0400-2000 hours PST).
15 June – 30 September	Nightly video lamprey counts (2000-0400 hours PST).

FISH LADDER OPERATING SCHEDULE

Washington Ladder

1- 13 January	Ladder dewatered for annual maintenance.
13 January – 31 December	Ladder in service.

Oregon Ladder

1 January – 17 January	Ladder in service.
17 January – 28 February	Ladder dewatered for annual maintenance.
28 February – 31 December	Ladder in service.

FISHWAY ACTIVITIES

Automated system temperature monitoring occurred in both ladders year-round.

Washington ladder maintenance activities, and lamprey passage structure installation were completed. Diffuser grating was physically inspected.

The Wasco County PUD system did not provide auxiliary water from 5 December 2022 to 13 January 2023.

Oregon ladder maintenance activities, and lamprey passage structure installation were completed. All diffuser grating was physically inspected for the second year in a row. The 1,000 cubic feet per second (cfs) auxiliary conduit intake valve was closed to allow for these inspections.

The fish pumps were also out of service from 17 January to 28 February for annual maintenance. After stator rewind repairs, which carried over from last year, fish pump 2 returned to service on 12 April.

From 27 March to 13 December, the juvenile bypass channel was operated for both juvenile and adult fallback passage (primary or secondary bypass). From 13 to 19 December, the system was in emergency bypass. The remainder of the year, the system was out of service for maintenance. When in emergency bypass or out of service, the system does not provide auxiliary flow to the Oregon ladder's north powerhouse entrances.

Over winter, the two old floating orifice gates (FOG's) were replaced with two new gates. Nine gates are new or rehabilitated. All gates have new lifting cables attached. Slots W32, W37 and W 41 remain closed. Nine of 12 slots are open. Three new gates need to be built.

TABLE 74

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER McNARY DAM

DAYTIME-LIVE

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*	8			1,362	54,046	47,088	24,177	20,960	157,284	38,571			343,496
STEELHEAD	203	53		232	6	342	5,460	6,208	48,560	18,000			79,064
SOCKEYE					0	87,666	140,581	572	102	8			228,929
COHO*	7	-1						191	28,403	20,071			48,671
CHUM													0
PINK						1	1						2
TOTAL	218	52		1,594	54,052	135,097	170,219	27,931	234,349	76,650			700,162
SHAD					1,916	1,043,138	327,619	2,038					1,374,711
LAMPREY				1	5	184	1,701	1,233	234	13			3,371
STURGEON													0
BULL TROUT													0

NIGHT-VIDEO

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*						389	707	343	1,336				2,775
STEELHEAD						11	173	364	3,318				3,866
SOCKEYE						8,351	14,081	69	9				22,510
COHO*								15	789				804
CHUM													0
PINK													0
TOTAL						8,751	14,961	791	5,452				29,955
LAMPREY						210	3,187	2,729	657				6,783
BULL TROUT													0

*Jacks Included

Note: For fish count schedules refer to the McNary Dam narrative.

Add Daytime and Night Totals for 24 hour passage total.

TABLE 75

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JANUARY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	TOTAL		unclipped		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD							SECCH	DEG F
Jan 1	0			0	1	0		5	2					100.4	0.0	5.5	39.0
Jan 2	0			0	1	0		7	1					131.9	0.0	4.5	38.0
Jan 3	1			0	2	0		12	4					123.8	0.0	4.5	38.0
Jan 4	0			0	1	0		5	2					112.4	0.0	4.5	38.0
Jan 5	0			0	0	0		6	2					104.9	0.0	5.0	38.0
Jan 6	0			0	0	0		22	13					139.5	0.0	6.0	38.0
Jan 7	0			0	3	1		20	7					114.8	0.0	6.0	38.0
Jan 8	0			0	2	0		7	3					113.7	0.0	6.0	38.0
Jan 9	-1			0	0	0		12	2					113.8	0.0	6.0	38.0
Jan 10	0			0	0	0		25	3					130.3	0.0	6.0	38.0
Jan 11	1			0	0	0		9	3					138.9	0.0	6.0	39.0
Jan 12	0			0	0	0		13	4					126.9	0.0	6.0	39.0
Jan 13	0			0	0	0		15	6					124.5	0.0	6.0	40.0
Jan 14	2			1	0	0		7	6					115.2	0.0	6.0	40.0
Jan 15	2			0	0	0		4	1					114.0	0.0	5.8	40.0
Jan 16	1			0	0	0		8	6					123.0	0.0	6.0	40.0
Jan 17	0			0	0	0		1	0					110.2	0.0	6.0	40.0
Jan 18	0			0	0	0		0	0					126.7	0.0	6.0	40.0
Jan 19	1			0	0	0		0	0					127.2	0.0	6.0	40.0
Jan 20	0			0	-2	0		1	1					131.7	0.0	6.0	40.0
Jan 21	0			0	0	0		2	1					136.4	0.0	6.0	40.0
Jan 22	0			0	0	0		5	2					120.3	0.0	6.0	39.0
Jan 23	0			0	0	0		6	1					137.5	0.0	6.0	39.0
Jan 24	0			0	0	0		4	3					124.1	0.0	6.0	38.0
Jan 25	-2			0	-1	0		3	2					122.8	0.0	6.0	38.0
Jan 26	1			0	0	0		1	1					126.5	0.0	6.0	38.0
Jan 27	0			0	-1	0		2	0					105.9	0.0	6.0	38.0
Jan 28	1			0	0	0		1	0					121.7	0.0	6.0	38.0
Jan 29	0			0	0	0		0	0					139.1	0.0	6.0	38.0
Jan 30	0			0	0	0		0	0					152.7	0.0	6.0	38.0
Jan 31	0			0	0	0		0	0					159.1	0.0	6.0	39.0
TOTAL	7			1	6	1		203	76								
AVG.	0			0	0	0		7	2					124.8	0.0	5.8	38.8

Note: January counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
Official Spring Chinook run started April 1. January counts were not added to spring totals.

TABLE 76

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

MCNARY PROJECT - FISH COUNTS**FEBRUARY 2023**

DATE	CHINOOK ADULT			CHINOOK COHO		COHO		TOTAL		unclipped		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD LAMPREY STURGEON			SECCH	DEG F
Feb 1					0			0	0			143.3	0.0	6.0	37.0
Feb 2					0			1	1			152.1	0.0	6.0	36.0
Feb 3					0			0	0			134.2	0.0	6.0	36.0
Feb 4					0			1	1			129.1	0.0	6.0	36.0
Feb 5					0			1	1			127.9	0.0	6.0	36.0
Feb 6					0			5	2			103.3	0.0	6.0	36.0
Feb 7					0			1	1			113.1	0.0	6.0	36.0
Feb 8					0			2	0			113.1	0.0	6.0	37.0
Feb 9					0			2	1			131.1	0.0	6.0	37.0
Feb 10					0			1	1			141.8	0.0	6.0	37.0
Feb 11					0			1	1			126.4	0.0	6.0	37.0
Feb 12					0			0	0			127.6	0.0	6.0	37.0
Feb 13					0			3	1			107.2	0.0	6.0	37.0
Feb 14					0			4	2			110.3	0.0	6.0	38.0
Feb 15					0			3	3			117.1	0.0	6.0	38.0
Feb 16					-1			0	0			130.2	0.0	6.0	38.0
Feb 17					0			1	0			122.9	0.0	6.0	38.0
Feb 18					0			0	0			121.1	0.0	6.0	38.0
Feb 19					0			7	4			120.9	0.0	6.0	38.0
Feb 20					0			0	0			121.6	0.0	6.0	38.0
Feb 21					0			10	5			135.7	0.0	6.0	39.0
Feb 22					0			2	1			126.7	0.0	5.0	39.0
Feb 23					0			2	1			123.8	0.0	6.0	39.0
Feb 24					0			2	1			139.8	0.0	6.0	38.0
Feb 25					0			1	0			136.6	0.0	6.0	38.0
Feb 26					0			1	0			122.4	0.0	6.0	37.0
Feb 27					0			0	0			124.1	0.0	6.0	37.0
Feb 28					0			2	0			120.5	0.0	6.0	36.0

TOTAL					-1			53	27
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AVG.					0			2	1	125.9	0.0	6.0	37.3
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TABLE 77

DISCHARGE AND WATER QUALITY DATA

MCNARY PROJECT 2023

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	127.2	2.3	6.0	36.0
Mar 2	108.6	0.0	6.0	36.0
Mar 3	105.0	2.4	6.0	38.0
Mar 4	100.7	0.0	6.0	38.0
Mar 5	98.8	2.2	6.0	38.0
Mar 6	102.0	0.0	6.0	38.0
Mar 7	99.9	0.0	6.0	38.0
Mar 8	117.5	2.3	6.0	38.0
Mar 9	124.2	0.0	6.0	39.0
Mar 10	111.7	2.3	6.0	39.0
Mar 11	107.2	0.0	6.0	40.0
Mar 12	120.8	2.4	6.0	40.0
Mar 13	99.4	0.0	6.0	40.0
Mar 14	90.3	0.0	6.0	40.0
Mar 15	100.9	2.2	6.0	41.0
Mar 16	105.2	0.0	6.0	41.0
Mar 17	109.2	2.3	6.0	41.0
Mar 18	119.6	0.0	5.5	41.0
Mar 19	114.3	2.1	6.0	41.0
Mar 20	119.8	0.0	6.0	42.0
Mar 21	114.3	0.0	6.0	42.0
Mar 22	92.0	2.0	6.0	42.0
Mar 23	91.9	0.0	6.0	42.0
Mar 24	107.4	2.2	6.0	42.0
Mar 25	105.5	0.0	6.0	43.0
Mar 26	97.0	2.2	6.0	43.0
Mar 27	107.7	0.0	6.0	43.0
Mar 28	98.1	0.0	6.0	43.0
Mar 29	132.3	2.3	6.0	43.0
Mar 30	101.4	0.0	6.0	43.0
Mar 31	123.7	2.1	6.0	43.0
AVG.	108.2	1.0	6.0	40.5

TABLE 78

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

APRIL 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				KCFS	KCFS	SECCHI	DEG F
Apr 1	0			0				14	9			0	96.2	0.0	5.0	43.0
Apr 2	2			0				6	5			0	98.8	2.4	6.0	43.0
Apr 3	1			0				15	8			0	112.6	0.0	6.0	43.0
Apr 4	2			0				3	3			0	97.8	0.0	6.0	44.0
Apr 5	5			0				13	11			0	100.8	2.5	6.0	44.0
Apr 6	3			1				9	4			0	106.6	0.0	6.0	45.0
Apr 7	1			0				10	8			0	94.3	2.3	6.0	45.0
Apr 8	2			0				4	4			0	106.0	0.0	6.0	45.0
Apr 9	17			0				9	7			0	103.8	2.4	6.0	46.0
Apr 10	2			0				9	4			0	108.1	51.5	6.0	46.0
Apr 11	3			0				13	10			0	126.2	70.1	6.0	46.0
Apr 12	20			0				11	9			0	164.7	109.3	6.0	46.0
Apr 13	10			1				19	16			0	150.6	95.3	6.0	47.0
Apr 14	6			0				10	8			0	140.6	84.8	6.0	47.0
Apr 15	9			0				12	9			0	136.0	80.1	6.0	48.0
Apr 16	7			0				9	8			0	130.9	75.3	6.0	47.0
Apr 17	4			0				6	2			0	137.2	81.8	5.0	47.0
Apr 18	5			1				8	6			0	136.7	81.2	5.0	48.0
Apr 19	3			0				10	9			0	130.7	75.2	5.0	48.0
Apr 20	17			1				3	3			0	135.4	79.8	6.0	48.0
Apr 21	26			3				7	7			0	136.5	81.4	6.0	48.0
Apr 22	47			3				9	8			0	136.1	80.8	6.0	48.0
Apr 23	51			1				5	3			0	130.2	75.3	6.0	48.0
Apr 24	67			1				8	5			0	135.2	80.0	5.0	48.0
Apr 25	86			0				6	5			0	135.3	80.0	6.0	48.0
Apr 26	64			0				-2	-2			0	140.1	84.6	5.0	50.0
Apr 27	99			0				2	2			0	149.2	93.7	5.0	51.0
Apr 28	138			7				3	2			0	149.9	94.3	5.0	51.0
Apr 29	183			2				1	0			1	160.2	105.0	5.0	52.0
Apr 30	454			7				0	1			0	165.3	110.0	5.0	52.0
TOTAL	1,334			28				232	174			1				
AVG.	44			1				8	6			0	128.4	59.3	5.7	47.1

Note: Live counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
Official Spring Chinook run started April 1.

TABLE 79

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT			CHINOOK		COHO		TOTAL		unclipped		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK						SECCHI	DEG F
May 1	252			7				2	2			0	0	219.9	164.0	5.0	52.0
May 2	496			2				2	2			0	0	251.1	194.8	4.5	53.0
May 3	773			19				0	1			0	0	301.5	244.2	5.0	53.0
May 4	482			4				-1	0			0	0	302.9	245.1	4.5	53.0
May 5	839			16				0	0			0	0	323.3	265.0	4.0	53.0
May 6	879			23				0	0			0	0	345.4	264.9	4.0	53.0
May 7	673			10				-2	-1			0	0	329.1	266.7	4.0	53.0
May 8	1,095			27				0	0			0	0	324.5	265.9	4.5	53.0
May 9	740			18				0	0			0	0	319.8	259.7	4.0	53.0
May 10	548			11				2	2			0	0	336.1	259.7	4.0	53.0
May 11	405			20				1	1			0	0	324.6	262.1	4.0	53.0
May 12	1,069			76				0	0			0	-2	300.6	244.9	3.5	53.0
May 13	809			71				0	0			0	0	307.2	251.9	3.0	54.0
May 14	1,312			101				-1	0			0	-1	333.5	265.0	3.5	54.0
May 15	1,851			110				1	1			0	0	353.4	265.0	3.5	54.0
May 16	2,870			197				2	2			0	0	409.8	264.6	4.0	54.0
May 17	3,358			240				-2	-2			0	0	399.4	265.3	4.0	55.0
May 18	2,787			236				-1	-1			0	0	406.2	264.9	4.0	55.0
May 19	2,551			272				0	0			0	0	404.0	264.3	5.0	55.0
May 20	2,607			360				1	1			0	0	407.6	264.8	4.5	56.0
May 21	2,514			403				0	0			0	0	405.4	264.8	4.5	57.0
May 22	2,001			380				1	1			3	1	406.8	306.7	4.0	57.0
May 23	2,256			469				0	0			3	1	406.1	297.1	3.0	57.0
May 24	3,015			520				0	0			7	1	353.6	265.2	3.0	57.0
May 25	3,038			434				2	2			10	0	355.3	264.7	3.0	57.0
May 26	1,798			295				-3	-2			39	1	302.7	243.4	3.0	58.0
May 27	1,543			320				-1	-1			36	0	294.6	237.6	4.5	59.0
May 28	1,522			306				0	0			27	2	293.4	236.2	3.5	59.0
May 29	1,812			365				0	0			168	1	268.4	212.2	4.5	60.0
May 30	966			191				1	1			387	1	280.1	223.4	3.0	60.0
May 31	1,455			227				2	2			1236	0	258.5	202.0	3.5	60.0
TOTAL	48,316			5,730				6	11			1,916	5				

AVG.	1,559			185				0	0			62	0	333.0	251.5	3.9	55.3
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RUN YEAR		CHINOOK	CHINOOK
TOTALS TO DATE		ADULT	JACK
SPRING		49,650	5,758

TOTAL		unclipped
SOCKEYE	STEELHEAD	STEELHEAD
0	238	185

SHAD	LAMPREY
1,916	6

TABLE 80

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				KCFS	KCFS	SECCHI	DEG F
Jun 1	936			181			0	1	1	0	881	0	255.8	200.0	3.0	59.0
Jun 2	978			162			0	0	0	0	5,602	0	226.7	171.2	3.5	60.0
Jun 3	695			126			5	2	1	0	2,417	1	234.2	178.8	4.5	60.0
Jun 4	968			175			5	0	0	0	6,063	1	219.0	163.3	4.5	61.0
Jun 5	657			149			16	1	1	0	5,466	1	212.9	157.3	4.5	61.0
Jun 6	991			150			13	1	1	0	6,999	1	225.9	170.0	5.0	62.0
Jun 7	1,111			128			28	1	1	0	9,839	1	220.8	165.5	5.0	62.0
Jun 8	1,025			119			44	0	0	0	13,623	0	214.7	159.9	5.0	62.0
Jun 9		1,320		241			96	2	1	0	22,735	3	195.6	141.2	5.0	62.0
Jun 10		1,095		181			132	3	2	0	28,759	4	177.2	123.0	5.0	62.0
Jun 11		1,496		197			185	1	1	0	42,606	3	172.8	117.6	5.0	63.0
Jun 12		1,502		155			187	1	1	0	25,685	1	177.9	122.7	5.0	64.0
Jun 13		1,667		162			232	1	0	0	31,503	4	189.0	133.3	5.0	64.0
Jun 14		1,866		196			428	5	2	0	23,276	3	190.1	135.0	5.0	65.0
Jun 15		2,394		202			610	3	3	0	65,448	3	196.3	141.8	5.0	65.0
Jun 16		1,708		145			936	1	1	0	49,046	4	188.6	111.1	5.0	64.0
Jun 17		1,823		153			1,860	5	3	0	46,840	0	176.3	105.2	5.0	64.0
Jun 18		2,227		170			1,822	8	8	0	38,303	1	169.0	99.0	5.0	63.0
Jun 19		2,004		104			1,798	5	5	0	46,333	3	163.8	94.9	5.0	63.0
Jun 20		1,710		141			2,855	7	4	0	24,673	0	180.1	92.0	5.5	63.0
Jun 21		1,483		188			4,020	7	0	0	45,793	1	162.9	99.0	6.0	63.0
Jun 22		1,464		163			4,903	12	9	0	49,483	3	168.1	92.0	6.0	63.0
Jun 23		1,434		180			7,278	20	9	0	42,867	3	175.4	94.5	6.0	63.0
Jun 24		985		137			7,867	15	9	0	79,283	25	151.7	97.3	5.0	63.0
Jun 25		1,656		256			10,355	30	16	0	70,674	27	139.8	85.7	4.0	64.0
Jun 26		1,760		177			8,288	48	23	0	72,678	17	151.7	80.3	5.0	64.0
Jun 27		1,768		92			7,716	33	22	0	68,984	12	166.0	84.1	5.0	65.0
Jun 28		1,256		77			6,994	30	20	0	37,036	12	158.2	92.0	5.5	65.0
Jun 29		1,128		84			7,898	38	25	0	48,896	19	161.3	89.3	5.5	66.0
Jun 30		1,236		154			11,095	61	28	1	31,347	31	151.1	90.0	5.0	67.0
TOTAL	7,361	34,982		4,745			87,666	342	197	1	1,043,138	184				
AVG.	920	1,590		158			2,922	11	7	0	34,771	6	185.8	122.9	5.0	63.1

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	57,011	6,948
SUMMER	34,982	3,555
TOTAL	91,993	10,503

	TOTAL	unclipped			
SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY
87,666	580	382	1	1,045,054	190

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

JULY 2023

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	57,011	6,948
SUMMER	55,984	6,730
TOTAL	112,995	13,678

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TABLE 82

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				KCFS	KCFS	SECCHI	DEG F
Aug 1		203		42	0	0	48	40	23		400	46	139.4	83.9	6.0	71.0
Aug 2		212		28	0	0	56	78	45		458	75	139.5	79.0	6.0	71.0
Aug 3		289		41	0	0	32	82	55		132	53	122.1	66.8	6.0	71.0
Aug 4		306		82	0	0	36	102	67		129	44	127.1	69.1	6.0	71.0
Aug 5		411		82	0	0	56	172	111		147	23	137.3	71.9	6.0	71.0
Aug 6		246		42	0	0	45	103	71		227	35	138.5	77.3	6.0	71.0
Aug 7		433		104	0	0	43	130	91		89	33	129.6	74.4	6.0	71.0
Aug 8		304		62	0	0	50	168	103		90	34	129.1	74.1	6.0	71.0
Aug 9			338	41	4	0	28	131	71		52	34	128.1	73.3	6.0	71.0
Aug 10			232	32	0	0	26	144	87		32	28	152.4	72.7	6.0	70.0
Aug 11			313	43	0	0	23	182	95		57	15	161.3	81.2	6.0	70.0
Aug 12			255	18	0	0	27	178	113		31	27	150.4	88.7	6.0	71.0
Aug 13			293	26	0	0	14	208	101		26	46	148.9	84.9	6.0	71.0
Aug 14			452	26	0	0	7	146	74		31	46	156.9	83.2	6.0	71.0
Aug 15			557	54	0	1	14	232	104		27	91	153.9	20.0	6.0	72.0
Aug 16			300	36	0	0	9	160	84		15	142	151.6	20.0	6.0	72.0
Aug 17			442	31	0	0	7	286	130		31	86	165.3	23.3	6.0	72.0
Aug 18			593	39	0	0	5	277	152		19	47	164.8	20.0	6.0	72.0
Aug 19			568	27	1	0	3	252	124		6	36	155.8	20.0	6.0	72.0
Aug 20			697	56	1	0	3	224	107		5	21	151.7	19.9	6.0	72.0
Aug 21			550	51	1	1	2	181	82		3	24	126.7	20.3	6.0	71.0
Aug 22			294	27	0	0	5	146	82		4	11	125.0	20.0	6.0	70.0
Aug 23			170	12	0	0	3	168	95		6	18	117.6	20.1	6.0	70.0
Aug 24			192	22	2	0	7	137	57		7	29	126.5	20.1	6.0	70.0
Aug 25			563	33	0	1	3	159	68		3	42	118.7	20.2	6.0	69.0
Aug 26			1,626	73	4	6	6	229	91		5	17	134.5	19.8	6.0	70.0
Aug 27			1,766	124	8	3	3	223	79		4	26	131.4	20.1	6.0	70.0
Aug 28			1,277	67	6	2	3	250	92		2	35	134.5	20.2	6.0	71.0
Aug 29			1,006	53	3	2	2	308	106		-5	31	127.1	20.2	6.0	70.0
Aug 30			1,880	95	25	11	4	523	217		2	29	123.8	20.1	6.0	70.0
Aug 31			2,558	165	103	6	2	589	202		3	9	133.5	20.2	6.0	70.0
TOTAL		2,404	16,922	1,634	158	33	572	6,208	2,979		2,038	1,233				
AVG.		301	736	53	5	1	18	200	96		66	40	138.8	46.0	6.0	70.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	57,011	6,948
SUMMER	58,388	7,213
FALL	16,922	1,151
TOTAL	132,321	15,312

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
158	33	228,819	12,248	6,416	2	1,374,711	3,124

TABLE 83

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				KCFS	KCFS	SECCHI	DEG F
Sep 1			3,044	205	76	34	5	699	222			14	130.7	2.4	6.0	70.0
Sep 2			2,791	250	228	142	0	465	132			24	111.8	0.0	6.0	70.0
Sep 3			6,840	516	353	96	5	1,318	473			15	87.6	2.3	6.0	69.0
Sep 4			5,613	428	282	128	6	2,324	697			7	80.0	0.0	6.0	69.0
Sep 5			7,662	490	535	198	18	3,076	917			7	90.7	0.0	6.0	69.0
Sep 6			8,933	814	784	166	7	2,566	738			8	94.4	2.3	6.0	69.0
Sep 7			5,894	554	1,139	246	6	2,589	736			11	71.2	0.0	6.0	69.0
Sep 8			4,731	309	922	54	4	1,963	611			10	100.4	2.3	6.0	69.0
Sep 9			4,695	269	1,158	57	2	2,102	645			11	84.3	0.0	6.0	69.0
Sep 10			5,175	344	1,031	102	2	1,841	522			7	83.5	2.2	6.0	69.0
Sep 11			5,039	262	1,006	72	0	1,488	416			17	69.8	0.0	6.0	69.0
Sep 12			7,235	707	1,519	220	3	2,477	637			10	75.4	0.0	6.0	69.0
Sep 13			7,480	605	1,312	240	4	1,627	470			14	90.8	2.4	6.0	69.0
Sep 14			4,326	739	1,296	495	8	1,373	298			8	95.3	0.0	6.0	69.0
Sep 15			5,358	358	1,025	122	2	1,088	278			19	79.1	2.3	6.0	69.0
Sep 16			4,905	717	921	250	14	1,172	218			6	72.5	0.0	6.0	69.0
Sep 17			5,392	767	979	337	2	1,283	272			6	69.0	2.2	6.0	69.0
Sep 18			5,836	697	1,223	334	4	1,902	457			11	67.8	0.0	6.0	69.0
Sep 19			8,321	675	1,499	142	2	2,491	626			4	66.9	0.0	6.0	69.0
Sep 20			4,410	424	696	133	0	1,540	395			3	81.1	2.2	6.0	69.0
Sep 21			2,752	286	439	73	0	911	238			6	70.6	0.0	6.0	68.0
Sep 22			1,445	330	182	82	2	588	141			1	77.3	2.1	6.0	68.0
Sep 23			3,019	377	386	118	0	902	226			8	91.8	0.0	6.0	68.0
Sep 24			5,606	1,346	877	241	2	3,030	780			2	65.0	0.0	6.0	68.0
Sep 25			2,538	595	626	215	0	1,750	449			0	65.9	2.2	6.0	67.0
Sep 26			1,560	267	574	129	2	1,157	296			2	66.4	0.0	6.0	66.0
Sep 27			3,985	822	710	176	2	1,522	375			0	75.0	2.2	6.0	65.0
Sep 28			3,816	633	611	153	0	1,562	351			0	82.9	0.0	6.0	65.0
Sep 29			2,667	405	701	151	0	1,251	390			2	75.6	2.2	6.0	65.0
Sep 30			888	137	341	66	0	503	171			1	65.6	0.0	6.0	64.0
TOTAL			141,956	15,328	23,431	4,972	102	48,560	13,177			234				
AVG.			4,732	511	781	166	3	1,619	439			8	81.3	1.0	6.0	68.2

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	57,011	6,948
SUMMER	58,388	7,213
FALL	158,878	16,479
TOTAL	274,277	30,640

COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY
ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
23,589	5,005	228,921	60,808	19,593	2	1,374,711	3,358

TABLE 84

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				KCFS	KCFS	SECCHI	DEG F
Oct 1			3,764	288	890	44	0	1,211	420			0	72.2	2.1	6.0	64.0
Oct 2			4,031	356	1,993	67	1	1,943	612			1	70.3	0.0	6.0	64.0
Oct 3			2,992	687	2,319	224	0	2,148	620			0	86.5	0.0	6.0	64.0
Oct 4			2,105	436	1,249	133	3	1,605	447			1	81.5	2.3	6.0	64.0
Oct 5			1,792	363	834	132	0	1,083	293			1	87.0	0.0	6.0	64.0
Oct 6			884	162	591	71	0	868	241			2	82.8	2.7	6.0	63.0
Oct 7			868	128	556	68	0	727	207			0	80.8	0.0	6.0	64.0
Oct 8			1,378	127	1,089	59	0	878	304			1	81.9	2.3	6.0	64.0
Oct 9			1,332	168	1,024	76	0	1,035	387			0	93.8	0.0	6.0	64.0
Oct 10			1,301	131	757	41	0	928	385			1	77.9	0.0	6.0	64.0
Oct 11			1,215	112	499	37	0	801	321			2	77.6	2.2	6.0	64.0
Oct 12			1,173	106	271	17	0	459	164			0	71.6	0.0	6.0	64.0
Oct 13			1,294	352	218	44	0	467	160			0	87.9	2.3	6.0	64.0
Oct 14			1,423	426	198	53	0	445	160			1	74.8	0.0	6.0	64.0
Oct 15			925	220	231	38	0	265	106			2	79.3	2.3	6.0	63.0
Oct 16			1,657	219	1,379	81	1	486	186			0	79.8	0.0	6.0	63.0
Oct 17			767	143	1,018	59	0	418	185			0	88.8	0.0	6.0	63.0
Oct 18			482	98	637	53	0	321	126			0	89.0	2.1	6.0	63.0
Oct 19			647	76	318	37	3	307	110			0	81.1	1.7	6.0	62.0
Oct 20			608	64	168	16	0	199	79			0	82.7	2.9	6.0	62.0
Oct 21			498	43	195	17	0	186	82			1	82.5	0.0	6.0	62.0
Oct 22			298	65	183	18	0	184	91			0	72.4	2.1	6.0	62.0
Oct 23			351	55	179	31	0	146	61			0	68.2	0.0	6.0	62.0
Oct 24			359	113	218	46	0	229	97			0	78.5	0.0	6.0	62.0
Oct 25			255	42	184	22	0	147	65			0	94.0	2.1	6.0	61.0
Oct 26			87	35	169	17	0	59	32			0	106.7	0.0	6.0	60.0
Oct 27			163	22	224	13	0	61	27			0	86.7	2.2	6.0	60.0
Oct 28			186	38	243	12	0	92	45			0	75.2	0.0	6.0	59.0
Oct 29			276	41	278	19	0	93	57			0	77.4	1.7	6.0	59.0
Oct 30			188	21	169	12	0	136	61			0	86.3	0.0	6.0	57.0
Oct 31			119	16	214	19	0	73	27			0	92.5	0.0	6.0	57.0
TOTAL			33,418	5,153	18,495	1,576	8	18,000	6,158			13				
AVG.			1078	166	597	51	0	581	199			0	82.2	1.0	6.0	62.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	57,011	6,948
SUMMER	58,388	7,213
FALL	192,296	21,632
TOTAL	307,695	35,793

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
42,084	6,581	228,929	78,808	25,751	2	1,374,711	3,371

Official Fall Chinook run ended October 31.

TABLE 85

DISCHARGE AND WATER QUALITY DATA

MCNARY PROJECT 2023

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1	112.2	1.6	6.0	56.0	Dec 1	120.8	0.0	6.0	49.0
Nov 2	108.5	0.0	6.0	56.0	Dec 2	108.5	0.0	6.0	49.0
Nov 3	94.6	1.6	6.0	55.0	Dec 3	106.4	0.0	6.0	49.0
Nov 4	109.3	0.0	6.0	55.0	Dec 4	87.1	0.0	6.0	49.0
Nov 5	95.3	2.2	6.0	55.0	Dec 5	73.4	0.0	6.0	49.0
Nov 6	107.9	0.0	6.0	55.0	Dec 6	76.8	0.0	6.0	48.0
Nov 7	95.6	0.0	6.0	55.0	Dec 7	95.9	0.0	6.0	48.0
Nov 8	110.7	2.2	6.0	55.0	Dec 8	104.3	0.0	6.0	48.0
Nov 9	125.9	0.0	6.0	55.0	Dec 9	115.3	0.0	6.0	48.0
Nov 10	132.6	2.2	6.0	54.0	Dec 10	104.9	0.0	6.0	48.0
Nov 11	111.3	0.0	6.0	54.0	Dec 11	112.2	0.0	6.0	48.0
Nov 12	113.5	2.1	6.0	54.0	Dec 12	118.5	0.0	6.0	47.0
Nov 13	127.8	0.0	6.0	53.0	Dec 13	109.5	0.0	6.0	47.0
Nov 14	126.4	0.0	6.0	53.0	Dec 14	119.0	0.0	6.0	47.0
Nov 15	137.8	2.1	6.0	53.0	Dec 15	130.2	0.0	6.0	47.0
Nov 16	122.1	0.0	6.0	53.0	Dec 16	106.0	0.0	6.0	47.0
Nov 17	143.5	0.0	6.0	52.0	Dec 17	109.0	0.0	6.0	47.0
Nov 18	122.1	0.0	6.0	52.0	Dec 18	114.3	0.0	6.0	47.0
Nov 19	117.3	0.0	6.0	52.0	Dec 19	130.0	0.0	6.0	47.0
Nov 20	126.6	0.0	6.0	52.0	Dec 20	114.8	0.0	6.0	46.0
Nov 21	135.4	0.0	6.0	52.0	Dec 21	116.0	0.0	6.0	46.0
Nov 22	124.9	0.0	6.0	52.0	Dec 22	121.1	0.0	6.0	46.0
Nov 23	128.1	0.0	6.0	51.0	Dec 23	105.0	0.0	6.0	46.0
Nov 24	130.6	0.0	6.0	51.0	Dec 24	130.3	0.0	6.0	46.0
Nov 25	146.7	0.0	6.0	51.0	Dec 25	143.1	0.0	6.0	45.0
Nov 26	132.7	0.0	6.0	51.0	Dec 26	139.0	0.0	6.0	45.0
Nov 27	133.1	0.0	6.0	50.0	Dec 27	127.8	0.0	6.0	45.0
Nov 28	152.1	0.0	6.0	50.0	Dec 28	126.9	0.0	6.0	44.0
Nov 29	133.1	0.0	6.0	49.0	Dec 29	131.2	0.0	6.0	44.0
Nov 30	119.4	0.0	6.0	49.0	Dec 30	118.5	0.0	6.0	44.0
AVG.	122.6	0.5	6.0	52.8	Dec 31	101.5	0.0	6.0	44.0
					AVG.	113.5	0.0	6.0	46.8

TABLE 86

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL	unclipped	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		
Jun 1											
Jun 2											
Jun 3											
Jun 4											
Jun 5											
Jun 6											
Jun 7											
Jun 8											
Jun 9											
Jun 10											
Jun 11											
Jun 12											
Jun 13											
Jun 14											
Jun 15		39		0			90	0	0		11
Jun 16		15		2			102	0	0		14
Jun 17		36		3			196	0	0		4
Jun 18		16		2			110	0	0		0
Jun 19		29		0			136	0	0		2
Jun 20		11		0			254	0	0		7
Jun 21		24		0			512	0	0		6
Jun 22		12		1			318	0	0		5
Jun 23		12		0			398	0	0		5
Jun 24		15		0			834	0	0		12
Jun 25		12		1			727	1	0		14
Jun 26		18		1			689	0	0		21
Jun 27		34		2			943	8	6		27
Jun 28		41		2			1,051	0	0		14
Jun 29		36		3			1,097	0	0		32
Jun 30		19		3			894	2	2		36
TOTAL		369		20			8,351	11	8		210

Note: Night counts are video counts from 2000-0400 PST.

TABLE 87

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		
Jul 1		42		3			1,448	4	3		25
Jul 2		25		2			818	0	0		31
Jul 3		42		3			958	3	1		69
Jul 4		39		4			1,008	4	3		46
Jul 5		40		3			1,256	5	3		79
Jul 6		27		2			964	7	5		41
Jul 7		27		6			1,034	5	4		92
Jul 8		19		3			954	8	5		133
Jul 9		29		4			1,206	7	4		155
Jul 10		18		1			1,047	10	4		113
Jul 11		29		1			822	13	7		172
Jul 12		23		3			556	8	6		81
Jul 13		16		1			448	14	4		111
Jul 14		26		4			354	9	5		190
Jul 15		29		3			301	9	6		83
Jul 16		20		3			206	8	3		102
Jul 17		18		4			233	8	4		84
Jul 18		18		2			141	7	2		137
Jul 19		18		2			81	9	6		84
Jul 20		17		1			64	8	4		75
Jul 21		13		2			43	3	2		65
Jul 22		15		4			45	4	1		159
Jul 23		13		4			23	4	2		205
Jul 24		9		5			9	1	1		137
Jul 25		9		1			11	6	5		109
Jul 26		7		0			9	7	5		132
Jul 27		10		0			12	-1	0		112
Jul 28		6		2			4	1	0		59
Jul 29		13		1			9	0	0		91
Jul 30		6		0			9	1	1		83
Jul 31		9		1			8	1	1		132
TOTAL		632		75			14,081	173	97		3,187
AVG.		20		2			454	6	3		103

Note: Night counts are video counts from 2000-0400 PST.

TABLE 88

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL	unclipped	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		
Aug 1		5		2	0	0	10	0	0		100
Aug 2		14		0	0	0	3	3	3		127
Aug 3		13		1	0	0	2	7	4		191
Aug 4		18		3	0	0	3	9	5		72
Aug 5		6		0	0	0	9	7	4		110
Aug 6		10		0	0	0	1	4	2		64
Aug 7		4		0	0	1	2	5	4		88
Aug 8		11		0	0	0	8	4	2		87
Aug 9			6	1	0	0	5	8	5		72
Aug 10			5	0	0	0	6	8	5		64
Aug 11			6	0	0	0	2	7	5		68
Aug 12			8	1	0	1	8	8	4		137
Aug 13			4	0	0	0	0	8	6		85
Aug 14			9	0	0	0	0	5	3		119
Aug 15			5	0	0	0	3	14	7		360
Aug 16			13	2	0	0	0	12	8		174
Aug 17			9	1	0	1	1	12	5		130
Aug 18			8	0	0	0	1	9	3		105
Aug 19			10	0	0	0	0	9	4		58
Aug 20			3	0	0	0	0	6	4		63
Aug 21			5	0	0	0	2	10	6		31
Aug 22			5	0	0	0	0	9	5		37
Aug 23			3	2	1	1	1	5	2		35
Aug 24			2	0	0	0	1	8	3		32
Aug 25			15	1	1	0	1	15	8		24
Aug 26			14	0	0	0	0	11	5		67
Aug 27			16	1	0	0	0	17	6		43
Aug 28			10	0	0	0	0	9	4		79
Aug 29			47	1	3	0	0	35	15		37
Aug 30			14	1	2	0	0	42	15		29
Aug 31			28	0	3	1	0	58	25		41
TOTAL		81	245	17	10	5	69	364	177		2,729

AVG.	10	11	1	0	0	2	12	6		88
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Note: Night counts are video counts from 2000-0400 PST.

TABLE 89

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL	unclipped	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		
Sep 1			74	2	3	3	2	67	30		68
Sep 2			90	5	4	2	0	71	22		74
Sep 3			42	2	5	3	0	115	45		60
Sep 4			167	7	8	5	1	287	83		24
Sep 5			102	1	15	1	2	161	57		37
Sep 6			38	1	16	0	1	114	40		27
Sep 7			22	4	9	1	0	107	36		20
Sep 8			35	1	19	1	0	121	30		25
Sep 9			27	1	11	2	0	84	28		34
Sep 10			20	2	22	0	0	104	33		29
Sep 11			68	2	27	1	0	127	39		23
Sep 12			33	5	42	2	0	104	31		21
Sep 13			57	4	36	4	0	137	47		34
Sep 14			41	2	19	2	0	48	12		27
Sep 15			50	3	15	4	0	46	13		22
Sep 16			61	1	20	2	0	60	18		24
Sep 17			16	1	11	0	0	77	19		14
Sep 18			30	4	22	1	0	164	56		23
Sep 19			13	2	11	2	0	87	29		16
Sep 20			19	1	16	0	0	109	24		14
Sep 21			17	4	17	2	1	52	4		10
Sep 22			13	2	9	1	0	55	16		8
Sep 23			55	4	37	4	1	147	29		4
Sep 24			38	11	58	10	0	239	64		12
Sep 25			7	2	21	4	1	99	28		1
Sep 26			32	10	55	7	0	127	23		1
Sep 27			14	8	31	2	0	122	35		1
Sep 28			15	7	63	4	0	143	35		3
Sep 29			19	2	27	1	0	58	24		0
Sep 30			19	1	65	4	0	86	37		1
TOTAL			1,234	102	714	75	9	3,318	987		657
AVG.			41	3	24	3	0	111	33		22

Note: Night counts are video counts from 2000-0400 PST.

TABLE 90
YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS*
1954	126,555	75,059	108,181	950	310,745
1955	108,915	85,575	173,758	643	368,891
1956	114,342	42,554	102,145	683	259,724
1957	292,696	105,728	85,460	2,855	486,739
1958	226,092	87,890	102,397	1,350	417,729
1959	171,490	110,475	83,977	1,970	367,912
1960	176,767	96,895	55,372	1,580	330,614
1961	154,996	103,743	16,388	2,045	277,172
1962	152,756	163,181	29,372	3,195	348,504
1963	154,459	113,646	59,744	3,113	330,962
1964	167,934	100,742	83,931	3,317	355,924
1965	150,907	118,960	42,052	2,700	314,619
1966	223,141	145,130	173,028	8,525	549,824
1967	195,653	77,700	105,635	27,226	406,214
1968	200,488	112,522	101,007	39,518	453,535
1969	213,407	76,681	29,787	53,716	373,591
1970	168,892	69,759	59,636	36,399	334,686
1971	171,448	109,630	52,867	39,358	373,303
1972	168,821	93,820	26,422	45,635	334,698
1973	184,112	64,620	42,731	17,682	309,145
1974	127,858	26,932	26,505	13,746	195,041
1975	133,150	23,663	43,143	3,975	203,931
1976	163,314	54,000	24,632	7,539	249,485
1977	183,581	87,712	80,781	4,622	356,696
1978	144,148	34,740	18,511	20,356	217,755
1979	95,275	50,304	37,792	12,800	196,171
1980	80,773	66,524	44,301	571	192,169
1981	80,619	61,985	26,644	3,736	172,984
1982	102,225	75,099	15,077	3,119	195,520
1983	121,636	125,254	40,903	2,470	290,263
1984	159,071	135,515	56,906	2,841	354,333
1985	288,483	188,204	98,457	6,917	582,061
1986	342,417	193,481	46,443	1,374	583,715
1987	286,638	148,811	72,190	615	508,254
1988	243,608	151,765	50,080	2,010	447,463
1989	176,407	170,467	41,318	3,383	391,575
1990	147,439	95,061	46,145	2,059	290,704
1991	114,841	168,962	69,365	2,272	355,440
1992	135,707	194,026	68,737	1,801	400,271
1993	143,412	93,183	66,485	481	303,561
1994	128,868	94,427	10,603	1,735	235,633
1995	113,354	114,910	8,320	1,021	237,605
1996	114,947	124,177	28,585	1,853	269,562
1997	162,946	129,817	38,043	2,580	333,386
1998	114,604	99,705	9,391	6,173	229,873
1999	121,946	84,088	11,884	4,934	222,852
2000	191,231	130,332	60,242	11,152	392,957
2001	489,784	398,784	97,188	24,730	1,010,486
2002	417,090	286,805	39,424	3,192	746,511
2003	423,363	246,898	32,037	20,231	722,529
2004	384,808	212,683	89,707	20,570	707,768
2005	270,003	224,292	63,540	20,600	578,435
2006	219,191	206,155	29,295	13,923	468,564
2007	180,435	221,534	18,175	22,825	442,969
2008	267,979	221,310	146,924	21,806	658,019
2009	358,505	408,157	121,672	37,270	925,604
2010	463,000	262,513	278,799	15,089	1,019,401
2011	440,427	246,069	113,952	44,304	844,752
2012	405,202	157,018	364,147	18,801	945,168
2013	674,362	144,354	134,202	13,881	966,799
2014	715,072	209,772	546,012	112,587	1,583,443
2015	822,516	177,137	279,744	19,901	1,299,298
2016	449,621	118,763	261,696	12,013	842,093
2017	282,735	82,472	58,022	23,607	446,836
2018	207,507	66,332	155,480	13,928	443,247
2019	228,951	47,510	51,561	28,145	356,167
2020	328,492	76,079	284,924	47,491	736,986
2021	321,451	50,897	111,756	106,814	590,918
2022	367,503	87,179	595,712	61,909	1,112,303
2023	343,496	79,064	228,929	48,671	700,160
Totals	16,803,862	9,109,231	6,778,271	1,170,883	33,862,247
10-Year Average	406,734	99,521	257,384	47,507	811,145

*Jacks included

TABLE 91

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING MAR 15- JUN 8	SUMMER JUN 9- AUG 8	FALL AUG 9- OCT 31
1954			14	919	42,625	28,510	35,993	9,287	8,626	568	13		126,555	52,014	61,065	13,476
1955				86	12,778	26,125	46,021	14,773	7,220	1,648	264		108,915	21,309	71,180	16,426
1956			7	307	10,746	34,360	50,409	11,073	5,636	1,360	444		114,342	12,717	90,335	11,290
1957			6	14,489	67,939	91,473	41,485	25,621	48,685	2,998			292,696	99,511	122,578	70,607
1958				1,864	36,684	61,898	25,140	11,120	82,890	6,496			226,092	54,910	73,654	97,528
1959				3,914	31,923	23,461	51,478	14,929	42,756	3,029			171,490	40,775	74,985	55,730
1960				4,808	44,721	49,506	25,710	13,376	35,329	3,317			176,767	52,490	76,940	47,337
1961				21,669	44,260	19,722	23,192	10,661	31,447	4,045			154,996	68,539	45,257	41,200
1962				10,527	44,053	28,621	21,008	11,751	33,541	3,255			152,756	55,884	52,756	44,116
1963				7,765	42,804	22,454	18,659	13,757	43,731	5,289			154,459	52,336	44,760	57,363
1964				19,856	33,310	10,893	39,334	14,930	45,514	4,097			167,934	54,279	55,062	58,593
1965				6,114	20,559	14,094	28,599	12,856	60,185	8,500			150,907	29,206	45,375	76,326
1966				53,484	32,282	21,161	35,895	13,811	58,275	8,233			223,141	87,195	60,827	75,119
1967				32,790	28,174	13,244	44,612	10,788	54,314	11,731			195,653	62,591	59,975	73,087
1968				13,328	51,443	20,456	37,127	15,713	53,597	8,824			200,488	67,092	60,639	72,757
1969				809	60,241	39,074	30,556	12,200	59,889	10,638			213,407	70,079	63,953	79,375
1970				28,015	34,027	18,661	23,132	13,773	44,635	6,649			168,892	63,982	43,356	61,554
1971				5,642	32,688	24,007	35,152	9,680	55,297	8,982			171,448	42,601	59,129	69,718
1972				25,911	41,609	12,553	35,322	10,154	37,131	6,141			168,821	69,023	50,491	49,307
1973				44,878	31,727	16,836	14,520	10,400	57,716	8,035			184,112	79,047	31,812	73,253
1974				1,918	34,767	7,976	18,181	6,251	45,845	12,920			127,858	40,037	25,812	62,009
1975				4,694	24,752	11,590	20,497	12,485	53,125	6,007			133,150	32,718	31,713	68,719
1976				4,868	30,435	16,714	19,821	9,143	64,863	17,470			163,314	38,505	36,818	87,991
1977				40,692	23,895	16,768	16,256	7,348	64,785	13,837			183,581	66,934	32,277	84,370
1978				27,191	37,613	14,505	18,095	7,799	30,273	7,296	1,376		144,148	68,414	31,589	44,145
1979			6	5,424	13,696	9,763	14,601	8,030	34,702	8,171	882		95,275	21,153	24,161	49,961
1980			3	3,481	18,108	6,705	12,166	7,001	24,409	8,284	616		80,773	23,001	18,862	38,910
1981			3	12,923	16,904	8,288	8,243	5,584	23,323	4,926	425		80,619	32,330	15,141	33,148
1982			3	1,638	23,487	10,357	8,749	5,091	44,276	8,624			102,225	28,352	16,574	57,299
1983				4,481	25,074	9,202	7,882	5,217	54,339	15,441			121,636	31,636	16,199	73,801
1984				1,772	23,806	9,235	12,256	8,845	79,004	23,391	767		159,076	27,474	21,201	110,401
1985			18	18,267	41,962	14,117	9,912	17,222	140,034	46,951			288,483	63,265	22,029	203,189
1986			2	28,739	44,459	14,515	12,315	9,636	168,230	64,521			342,417	76,077	25,798	240,542
1987				26,258	32,171	12,889	11,219	19,123	151,410	33,568			286,638	60,396	25,353	200,889
1988				26,267	22,245	14,605	9,282	30,714	115,878	24,617			243,608	51,178	23,621	168,809
1989				9,625	24,281	12,484	11,112	23,034	80,089	15,782			176,407	35,954	24,708	115,745
1990				19,309	23,861	11,007	11,148	7,306	61,718	13,090			147,439	44,499	22,248	80,692

TABLE 91

(Continued)

**MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING MAR 15- JUN 8	SUMMER JUN 9- AUG 8	FALL AUG 9- OCT 31
1991				4,942	15,838	9,289	9,409	4,328	56,251	13,674	1,074	36	114,841	22,631	17,588	74,622
1992				25,549	22,799	9,511	6,159	5,846	51,961	13,882			135,707	50,590	14,414	70,703
1993				18,649	37,255	14,880	8,119	8,414	48,093	8,002			143,412	59,556	20,374	63,482
1994				2,940	5,513	5,486	8,242	11,085	80,693	14,909			128,868	8,987	14,313	105,568
1995				1,392	3,871	4,343	8,270	13,224	61,633	20,621			113,354	5,930	13,219	94,205
1996				426	15,212	8,242	8,206	13,964	56,847	12,050			114,947	17,832	15,102	82,013
1997				6,529	44,264	18,384	10,584	6,892	63,484	12,809			162,946	56,826	23,649	82,471
1998				6,645	11,964	9,965	8,249	5,652	50,987	21,142			114,604	19,752	17,634	77,218
1999				1,193	10,841	7,570	13,475	15,402	59,360	14,105			121,946	13,232	21,618	87,096
2000				25,136	46,396	16,096	13,641	27,931	50,138	11,893			191,231	75,644	27,696	87,891
2001				164,846	86,605	50,064	36,562	16,605	111,369	23,733			489,784	265,372	77,514	146,898
2002				14,867	108,862	65,935	56,149	26,798	123,089	21,390			417,090	133,229	116,747	167,114
2003			853	53,947	46,116	57,732	50,157	13,667	166,635	32,349	1,750	157	423,363	107,522	104,948	208,982
2004			72	53,405	53,267	47,903	32,067	12,212	149,297	34,795	1,659	131	384,808	115,251	74,217	193,550
2005			4	6,750	38,439	45,654	28,928	11,655	111,701	25,976	825	71	270,003	55,056	66,858	147,189
2006			1	121	43,778	40,077	27,708	10,210	71,105	24,186	1,810	195	219,191	48,363	65,960	102,863
2007			3	7,073	38,622	27,760	18,036	8,565	60,291	18,455	1,538	92	180,435	51,104	42,436	85,262
2008				7,133	64,596	48,906	24,035	13,094	94,986	15,229			267,979	80,213	65,974	121,792
2009				1,821	98,882	63,510	26,828	30,161	117,844	19,459			358,505	113,741	78,319	166,445
2010				48,451	98,345	58,192	30,587	18,708	166,173	42,544			463,000	163,257	74,589	225,154
2011				683	118,537	64,599	46,170	21,482	144,223	44,733			440,427	132,995	102,786	204,646
2012				1,877	94,385	45,725	31,612	19,396	174,650	36,164	1,306	87	405,202	107,550	69,532	226,727
2013	7	-1	**	4,718	62,493	58,146	36,003	32,050	382,331	98,615			674,362	74,449	90,549	509,358
2014				10,091	102,818	63,317	47,458	18,523	395,599	77,266			715,072	123,180	104,996	486,896
2015				54,895	97,690	62,853	47,043	37,795	381,931	140,309			822,516	164,918	105,010	552,588
2016				5,606	78,622	57,638	39,343	24,867	212,562	30,983			449,621	94,565	90,395	264,661
2017			-1	195	39,803	45,382	26,396	7,238	111,360	47,122	5,058	182	282,735	51,313	61,984	164,199
2018	0	1	**	166	39,647	35,532	16,695	10,538	80,583	24,345			207,507	47,898	45,162	114,446
2019				185	30,986	29,498	18,977	10,372	100,861	38,072			228,951	36,792	44,304	147,855
2020				1,734	29,370	46,683	34,199	23,709	153,064	39,733			328,492	37,498	77,726	213,268
2021				2,580	47,359	42,409	25,053	27,859	146,267	29,924			321,451	56,886	61,734	202,831
2022			39	5,807	89,351	41,665	43,597	22,271	141,831	22,340	571	31	367,503	105,809	76,726	184,327
2023	8		**	1,362	54,046	47,088	24,177	20,960	157,284	38,571			343,496	63,959	65,601	213,928
Total	15	0	1,033	1,076,436	2,982,681	2,027,863	1,747,213	1,001,955	6,437,200	1,508,111	20,378	982	16,803,867	4,439,403	3,607,907	8,741,030
10-Year Average				8,262	60,969	47,207	32,294	20,413	188,134	48,867			406,734	78,282	73,364	254,500

*Jacks included

**Extended season end, no counts in March

Note: 2010 Spring total has been corrected.

TABLE 92

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM: 1954 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1954					1	1,107	93,452	11,382	2,214	25			108,181
1955					43	287	163,902	9,402	121	3			173,758
1956					1	639	94,352	6,882	262	7	2		102,145
1957					13	6,318	74,874	4,233	22				85,460
1958						12,542	82,547	5,474	1,819	15			102,397
1959					21	2,031	73,735	7,981	209				83,977
1960						9,374	43,749	2,241	8				55,372
1961						1,088	14,149	1,138	11	2			16,388
1962						1,721	27,134	511	6				29,372
1963					78	8,712	50,415	535	4				59,744
1964						770	81,536	1,617	8				83,931
1965						328	40,790	923	10	1			42,052
1966						6,202	162,267	4,548	11				173,028
1967						1,935	101,044	2,647	9				105,635
1968						28,928	70,413	1,666					101,007
1969						5,787	23,353	647					29,787
1970						7,152	47,339	5,134	11				59,636
1971						317	50,568	1,982					52,867
1972						366	24,452	1,604					26,422
1973						9,011	32,301	999	420				42,731
1974						188	25,816	486	15				26,505
1975						1,517	41,011	615					43,143
1976						4,461	19,319	415	437				24,632
1977					8	36,708	43,077	739	207	42			80,781
1978						3,211	10,376	714	1,583	2,627			18,511
1979						6,317	29,571	1,547	321	36			37,792
1980						3,400	40,469	432					44,301
1981						4,419	22,042	180	1	2			26,644
1982						812	13,489	281	292	203			15,077
1983						5,897	33,851	997	142	16			40,903
1984						18,762	37,409	637	85	11	2		56,906
1985				1		60,067	36,567	522	593	707			98,457
1986						8,362	36,863	819	348	51			46,443
1987					4	28,742	42,464	889	85	6			72,190
1988						23,466	25,984	599	14	17			50,080
1989					1	14,721	26,239	334	21	2			41,318
1990					1	8,922	36,791	427	0	4			46,145

TABLE 92

(Continued)

MONTHLY COUNT OF SOCKEYE SALMON

McNARY DAM: 1954 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1991					1	6,509	61,780	1,024	38	11	1	1	69,365
1992					7	30,339	37,915	448	28				68,737
1993						26,492	39,607	377	9				66,485
1994					1	5,910	4,672	20	0				10,603
1995					1	3,001	5,259	58	0	1			8,320
1996						11,594	16,927	64	0				28,585
1997						7,706	29,645	688	4				38,043
1998						3,585	5,754	45	7				9,391
1999						2,842	8,940	99	1	2			11,884
2000					4	44,379	15,752	106	1				60,242
2001					4	70,327	26,610	225	17	5			97,188
2002					1	12,518	26,745	156	2	2			39,424
2003					4	13,277	18,728	28	0				32,037
2004					10	61,547	28,107	38	5				89,707
2005						27,341	36,009	182	8				63,540
2006						14,675	14,473	142	5				29,295
2007					1	11,087	6,974	105	6	2			18,175
2008					1	96,655	50,196	70	2				146,924
2009					5	62,066	59,564	31	9	-3			121,672
2010					7	166,127	112,474	194	-4	1			278,799
2011						20,773	92,461	703	15				113,952
2012					1	165,803	198,037	292	14				364,147
2013					2	58,594	74,774	809	19	4			134,202
2014						178,748	365,457	1,760	43	4			546,012
2015					42	183,645	91,482	3,454	982	139			279,744
2016			1		10	190,659	70,113	864	47	2			261,696
2017					1	29,957	27,893	117	47	7			58,022
2018					2	91,285	63,831	349	13				155,480
2019						24,684	26,625	244	7	1			51,561
2020					1	102,299	181,422	1,164	37	1			284,924
2021					3	52,330	59,115	199	109				111,756
2022				2	6	190,938	401,669	3,083	9	5			595,712
2023						87,666	140,581	572	102	8			228,929
Total				4	286	2,389,945	4,273,301	99,889	10,871	3,969	5	1	6,778,271
10-Year Average						113,221	142,819	1,181	140				257,384

TABLE 93

**MONTHLY COUNT OF COHO SALMON
McNARY DAM: 1954 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1954								4	751	180	14	1	950
1955									350	260	33		643
1956								16	462	157	48		683
1957							18	208	2,364	265			2,855
1958								29	1,091	230			1,350
1959								32	1,892	46			1,970
1960								24	1,432	124			1,580
1961								22	1,731	292			2,045
1962							5	106	2,884	200			3,195
1963							5	437	2,259	412			3,113
1964							3	307	2,734	273			3,317
1965							22	105	2,264	309			2,700
1966								811	7,195	519			8,525
1967							11	11	22,492	4,712			27,226
1968								1,010	36,260	2,248			39,518
1969								1,643	45,497	6,576			53,716
1970								3,576	31,161	1,662			36,399
1971								927	33,828	4,603			39,358
1972								2,433	38,747	4,455			45,635
1973							66	1,768	14,452	1,396			17,682
1974								1,160	10,052	2,534			13,746
1975							1	268	3,675	31			3,975
1976								373	5,201	1,965			7,539
1977						2		274	2,698	1,648			4,622
1978						1		138	10,445	7,459	2,313		20,356
1979				1		4	194	652	9,058	2,431	460		12,800
1980								2	180	203	186		571
1981								421	2,840	435	40		3,736
1982							141	235	2,148	595			3,119
1983								229	1,536	705			2,470
1984						6		147	2,506	154	28		2,841
1985					14	37	44	2,040	4,493	289			6,917

TABLE 93

(Continued)

**MONTHLY COUNT OF COHO SALMON
McNARY DAM; 1954 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1991									1,105	937	211	19	2,272
1992								1	1,130	670			1,801
1993								2	254	225			481
1994								9	978	748			1,735
1995								8	344	669			1,021
1996							2	1	1,212	638			1,853
1997								29	1,577	974			2,580
1998								6	687	5,480			6,173
1999								6	2,931	1,997			4,934
2000								309	6,947	3,896			11,152
2001								59	11,631	13,040			24,730
2002								10	1,765	1,417			3,192
2003								25	11,788	8,017	401		20,231
2004								17	13,954	6,161	427	11	20,570
2005								59	11,327	8,390	819	5	20,600
2006								90	7,893	5,350	588	2	13,923
2007								9	11,263	11,315	238		22,825
2008								63	14,588	7,155			21,806
2009								1,193	16,626	19,451			37,270
2010								54	9,555	5,480			15,089
2011								917	24,682	18,705			44,304
2012								424	14,779	2,998	550	50	18,801
2013		1						15	4,983	8,882			13,881
2014								36	86,736	25,815			112,587
2015						18	0	162	13,928	5,793			19,901
2016								169	8,859	2,985			12,013
2017								3	15,134	8,064	406		23,607
2018								88	9,985	3,855			13,928
2019								36	13,699	14,410			28,145
2020								1,163	37,019	9,309			47,491
2021								4,582	79,757	22,475			106,814
2022								15	24,017	33,823	4,018	36	61,909
2023	7	-1						191	28,403	20,071			48,671
TOTAL	7	0	0	1	14	68	515	29,237	799,702	330,435	10,780	124	1,170,883

10-Year
Average

645	31,754	14,660
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47,507

*Jacks included

TABLE 94

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1954			376	5,569	2,307	128	2,628	20,939	26,944	11,627	2,937	1,604	75,059
1955	931	35	70	3,279	1,791	162	5,257	36,035	17,463	16,941	2,874	737	85,575
1956	66	753	563	2,365	1,218	276	5,440	14,492	8,245	6,787	2,349		42,554
1957			840	2,084	147	334	18,100	28,926	34,478	20,775	8	36	105,728
1958	62	137	1,069	877	334	1,265	9,967	6,535	50,229	17,415			87,890
1959				1,317	685	748	10,508	32,872	49,542	14,803			110,475
1960				1,579	1,236	908	8,475	22,443	51,749	10,505			96,895
1961				896	580	1,281	7,469	11,428	64,521	17,568			103,743
1962				1,650	762	1,108	11,321	28,288	98,042	22,010			163,181
1963				813	1,751	2,639	8,252	26,282	47,982	25,927			113,646
1964				1,789	805	486	7,602	25,918	53,180	10,962			100,742
1965				1,361	363	231	11,749	31,155	54,450	19,651			118,960
1966				2,279	954	1,476	18,241	26,062	71,180	24,938			145,130
1967				1,434	1,130	152	5,771	14,894	32,310	22,009			77,700
1968				5,451	3,361	247	4,058	22,268	61,167	15,970			112,522
1969				2,304	1,792	711	7,668	13,641	35,836	14,729			76,681
1970				1,347	1,001	340	5,183	15,236	39,150	7,502			69,759
1971				813	374	271	8,931	21,324	62,083	15,834			109,630
1972				1,614	393	130	8,155	20,548	46,393	16,587			93,820
1973				3,178	846	270	6,898	11,121	32,701	9,606			64,620
1974				847	715	681	4,093	5,242	8,648	6,706			26,932
1975				612	209	254	3,623	6,708	9,329	2,928			23,663
1976				936	1,372	1,949	5,772	16,145	22,423	5,403			54,000
1977				1,730	987	2,916	13,132	7,833	43,792	17,322			87,712
1978				1,266	701	1,832	3,444	4,863	15,627	5,708	1,299		34,740
1979			970	681	156	93	4,955	9,970	14,648	15,580	3,251		50,304
1980			1,753	3,355	608	381	2,740	14,431	27,706	12,776	2,774		66,524
1981			861	1,479	809	878	7,212	12,839	19,961	15,652	2,294		61,985
1982			1,530	1,764	825	321	4,279	12,621	36,282	17,477			75,099
1983				1,051	215	137	7,746	25,821	70,369	19,915			125,254
1984				1,858	860	653	13,165	14,944	68,837	33,608	1,590		135,515
1985			1,583	6,483	1,383	2,949	13,818	46,632	87,026	28,330			188,204
1986			1,282	1,184	414	1,193	27,563	32,339	74,769	54,737			193,481
1987				2,082	413	885	16,658	35,661	59,326	33,786			148,811
1988				4,176	1,095	2,117	11,609	25,875	69,259	37,634			151,765
1989				3,269	598	1,921	16,002	20,819	87,722	40,136			170,467
1990				2,754	660	1,489	9,105	10,368	33,452	37,233			95,061

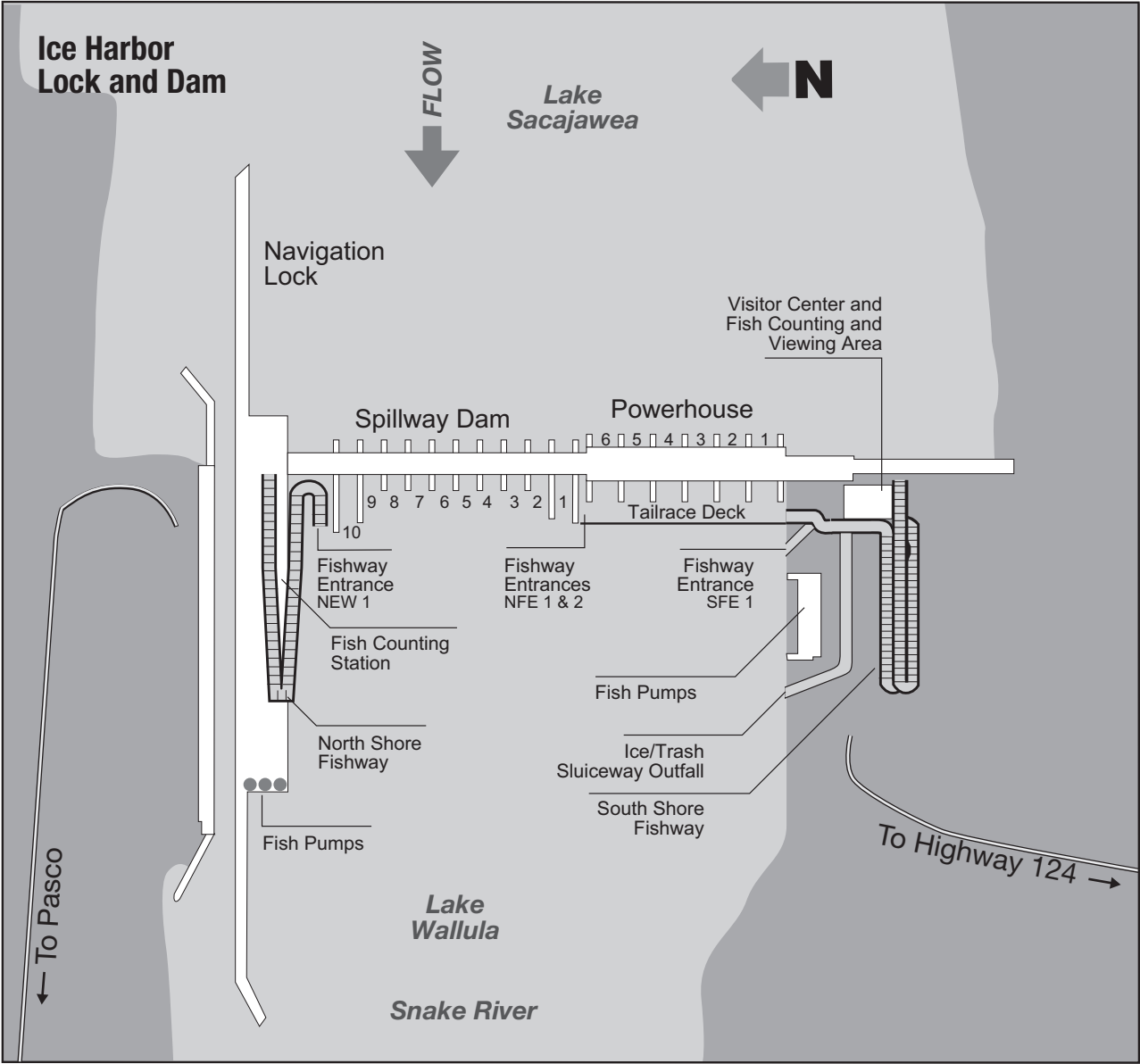
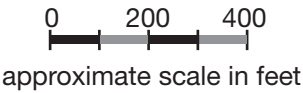
TABLE 94

(Continued)

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1991				2,245	630	846	9,921	17,752	78,363	46,941	9,388	2,876	168,962
1992				1,427	642	1,921	10,989	15,504	127,626	35,917			194,026
1993				5,194	588	2,197	9,692	10,003	35,287	30,222			93,183
1994				2,622	336	1,169	7,436	5,468	40,871	36,525			94,427
1995				774	325	998	8,042	21,720	45,237	37,814			114,910
1996				701	301	950	8,726	34,385	50,723	28,391			124,177
1997				1,210	435	1,241	10,174	19,917	58,210	38,630			129,817
1998				1,236	364	1,391	6,372	4,040	38,324	47,978			99,705
1999				253	248	905	7,175	27,592	35,243	12,672			84,088
2000				588	238	1,901	16,311	23,148	59,803	28,343			130,332
2001				1,337	487	7,741	46,981	50,463	190,205	101,570			398,784
2002				4,650	271	2,957	29,979	48,226	120,936	79,786			286,805
2003			8,696	1,309	145	2,298	20,439	15,184	139,321	51,722	6,307	1,477	246,898
2004			4,316	1,133	480	3,901	14,376	10,863	132,387	37,931	4,348	2,948	212,683
2005			2,271	847	377	2,669	17,371	19,933	109,198	63,710	7,248	668	224,292
2006			1,388	2,009	175	1,272	9,214	14,519	104,009	52,826	17,808	2,935	206,155
2007			6,155	1,693	241	1,616	13,232	32,652	109,015	50,339	4,805	1,786	221,534
2008				2,066	362	2,342	27,375	26,588	122,078	40,499			221,310
2009				2,144	293	2,108	20,407	85,285	204,948	92,972			408,157
2010				1,974	397	3,668	51,028	39,689	122,146	43,611			262,513
2011				2,283	348	714	17,533	94,372	87,138	43,681			246,069
2012			3,009	1,521	234	1,744	18,373	33,983	62,318	28,580	4,931	2,325	157,018
2013	136	88		1,073	177	1,171	12,018	23,277	62,187	44,227			144,354
2014				519	341	2,269	23,228	21,019	119,067	43,329			209,772
2015				589	153	1,325	6,295	24,569	101,373	42,833			177,137
2016				471	4	1,359	8,818	6,325	67,132	34,654			118,763
2017			1,869	643	15	80	1,967	2,739	50,813	22,749	1,344	253	82,472
2018	176	10		178	0	459	4,872	3,247	37,714	19,676			66,332
2019				264	13	168	3,900	3,095	22,103	17,967			47,510
2020				216	16	393	7,779	7,978	39,938	19,759			76,079
2021				320	1	195	2,464	3,803	31,609	12,505			50,897
2022			745	142	15	404	13,863	7,083	38,270	23,799	2,733	125	87,179
2023	203	53		232	6	342	5,460	6,208	48,560	18,000			79,064
Total	1,574	1,076	39,346	121,389	42,508	88,526	808,399	1,494,147	4,378,973	2,037,235	78,288	17,770	9,109,231
10-Year													
Avg.				357	56	699	7,865	8,607	55,658	25,527			99,521

Plate 6 Ice Harbor Lock and Dam



ICE HARBOR DAM

FISH COUNTING SCHEDULE

1 January – 28 Feb	No counts
1 March – 31 March	Review daily video recorded 0400-2000 hours PST
1 April – 31 October	Visual counting daily from 0400-2000 hours PST
1 November – 31 December	Review daily video recorded 0400-2000 hours PST

FISH LADDER OPERATING SCHEDULE

North Ladder

1 January – 5 February	Ladder in service
6 February – 28 February	Ladder dewatered for annual maintenance
1 March – 31 December	Ladder in service

South Ladder

1 January – 2 January	Ladder in service
3 January – 1 February	Ladder dewatered for annual maintenance
2 February – 31 December	Ladder in service

FISHWAY ACTIVITIES

Water temperature loggers were set to record hourly, from 1 January to 31 December, from both fish ladder exit pools, the south fish ladder junction pool, the north fish ladder collection channel upstream of the fish entrance, and the first bend of the north fish ladder upstream of the collection channel.

The adult lamprey passage structure at the south shore entrance #2 was open from 1 June to 2 October.

The Juvenile Fish Facility was operated for juvenile fish bypass and adult fallbacks from 23 March to 13 December. Juvenile fish were sampled from 3 April to 10 July, on Mondays and Thursdays. Sampling ended before the scheduled end of the sampling season (17 July) due to warm water temperatures.

The removable spillway weir (RSW) operated for juvenile fish passage from 3 April to 1 August. The RSW was closed before the end of the summer spill season (31 August) because of low river flows. The RSW was opened for four hours between 0500 and 1100, three days per week on nonconsecutive days, from 1 March to 2 April and from 1 September to 15 November, for the downstream passage of adult steelhead that may have strayed into the Snake River.

The replacement of turbine unit 1 runner with a fish-friendly runner began on 27 June.

Biological and environmental testing of the new runner in unit 3 with live fish and sensor fish began on 21 September. However, the biological testing was cancelled the next because of warm river temperatures causing additive stress on fish. Biological testing resumed on 2 November and the study was completed on 15 November.

TABLE 95

**MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER ICE HARBOR DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				343	35,561	20,956	3,809	11,405	43,171	5,675	490	3	121,413
STEELHEAD			447	366	56	136	2,943	2,931	42,787	19,520	2,074	580	71,840
SOCKEYE						146	2,084	34	5				2,269
COHO*								8	8,881	6,174	735	5	15,803
PINK									1				1
TOTAL			447	709	35,617	21,238	8,836	14,378	94,845	31,369	3,299	588	211,326
SHAD					8	249,755	53,951	184					303,898
LAMPREY				-1	15	222	2,178	516	386	6			3,322
STURGEON													0
BULL TROUT													0

*Jacks included

TABLE 96
DISCHARGE AND WATER QUALITY DATA
ICE HARBOR PROJECT 2023

JANUARY					FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	30.4	0.0	10.0	38.0	Feb 1	34.3	0.0	5.8	38.0
Jan 2	47.2	0.0	11.0	38.0	Feb 2	29.3	0.0	5.6	38.0
Jan 3	20.7	0.0	11.0	38.0	Feb 3	25.7	0.0	5.6	38.0
Jan 4	18.8	0.0	11.0	38.0	Feb 4	29.8	0.0	5.6	38.0
Jan 5	17.7	0.0	12.0	37.0	Feb 5	36.2	0.0	6.2	38.0
Jan 6	23.5	0.0	12.0	38.0	Feb 6	19.5	0.0	6.2	38.0
Jan 7	24.9	0.0	12.0	38.0	Feb 7	23.0	0.0	6.2	38.0
Jan 8	26.6	0.0	12.0	38.0	Feb 8	22.8	0.0	6.5	38.0
Jan 9	30.3	0.0	12.0	38.0	Feb 9	28.4	0.0	6.5	38.0
Jan 10	23.9	0.0	2.2	38.0	Feb 10	34.2	0.0	6.5	38.0
Jan 11	28.5	0.0	2.0	37.0	Feb 11	30.5	0.0	6.5	38.0
Jan 12	25.3	0.0	2.8	37.0	Feb 12	32.8	0.0	7.0	38.0
Jan 13	26.4	0.0	2.8	38.0	Feb 13	21.0	0.0	7.0	38.0
Jan 14	27.0	0.0	3.6	38.0	Feb 14	22.8	0.0	7.0	39.0
Jan 15	37.7	0.0	3.6	37.0	Feb 15	27.8	0.0	7.1	39.0
Jan 16	29.9	0.0	6.0	38.0	Feb 16	20.1	0.0	8.0	39.0
Jan 17	26.8	0.0	7.0	38.0	Feb 17	23.1	0.0	8.6	39.0
Jan 18	30.7	0.0	8.8	39.0	Feb 18	22.2	0.0	8.0	39.0
Jan 19	31.0	0.0	9.2	38.0	Feb 19	27.7	0.0	8.0	39.0
Jan 20	28.4	0.0	9.6	38.0	Feb 20	20.0	0.0	8.0	39.0
Jan 21	27.0	0.0	9.6	38.0	Feb 21	24.3	0.0	8.2	39.0
Jan 22	33.3	0.0	9.8	38.0	Feb 22	23.9	0.0	7.3	39.0
Jan 23	24.1	0.0	9.2	38.0	Feb 23	24.0	0.0	7.2	39.0
Jan 24	25.9	0.0	9.2	38.0	Feb 24	21.5	0.0	7.5	38.0
Jan 25	28.0	0.0	9.2	38.0	Feb 25	26.2	0.0	8.5	38.0
Jan 26	27.7	0.0	8.0	38.0	Feb 26	23.8	0.0	8.0	38.0
Jan 27	27.2	0.0	8.0	38.0	Feb 27	33.3	0.0	8.0	39.0
Jan 28	25.4	0.0	8.0	38.0	Feb 28	19.2	0.0	7.0	39.0
Jan 29	32.3	0.0	6.6	39.0					
Jan 30	23.3	0.0	7.1	39.0					
Jan 31	32.0	0.0	5.6	38.0					
AVG.	27.8	0.0	8.1	38.0	AVG.	26.0	0.0	7.1	38.4

TABLE 97

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

ICE HARBOR PROJECT - FISH COUNTS**MARCH 2023**

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	STEELHEAD unclipped	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1								2	2					22.8	2.1	6.8	38.0
Mar 2								4	1					28.0	0.0	7.2	38.0
Mar 3								9	1					24.5	2.2	6.4	38.0
Mar 4								10	4					25.2	0.0	6.0	38.0
Mar 5								7	4					23.6	2.1	6.0	38.0
Mar 6								5	2					22.7	0.0	7.8	38.0
Mar 7								8	2					25.3	0.0	7.2	38.0
Mar 8								8	2					23.9	2.1	8.0	38.0
Mar 9								11	8					25.5	0.0	6.8	39.0
Mar 10								10	6					28.0	2.0	8.0	38.0
Mar 11								14	4					31.3	0.0	7.0	39.0
Mar 12								10	4					30.1	2.1	7.0	39.0
Mar 13								13	5					30.2	0.0	8.0	40.0
Mar 14								12	6					25.8	0.0	7.7	40.0
Mar 15								12	3					26.9	2.0	8.0	40.0
Mar 16								16	10					31.6	0.0	8.0	40.0
Mar 17								12	6					27.8	2.1	8.6	40.0
Mar 18								17	7					29.5	0.0	8.8	40.0
Mar 19								22	10					31.7	2.1	9.0	40.0
Mar 20								15	5					27.9	0.0	9.0	41.0
Mar 21								15	7					43.8	0.0	8.2	41.0
Mar 22								16	7					26.9	1.8	8.2	41.0
Mar 23								20	10					32.2	0.0	9.0	41.0
Mar 24								24	14					47.1	2.2	8.6	41.0
Mar 25								35	19					34.0	0.0	8.5	41.0
Mar 26								28	14					33.0	2.2	8.5	42.0
Mar 27								25	13					40.1	0.0	7.5	43.0
Mar 28								13	2					39.7	0.0	5.2	43.0
Mar 29								17	10					44.7	2.0	5.0	43.0
Mar 30								21	14					41.1	0.0	5.0	43.0
Mar 31								16	9					44.6	1.7	5.8	43.0
TOTAL								447	211					31.3	0.9	7.4	40.1
AVG.								14	7								

Note: March counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
Official Spring Chinook run started April 1. January Chinook counts were not added to "Run Year" totals.

TABLE 98
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

APRIL 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Apr 1	0			0				12	7			0		34.5	0.0	6.0	44.0
Apr 2	0			0				18	10			0		39.2	1.8	6.1	44.0
Apr 3	0			0				10	8			0		31.6	21.2	5.8	44.0
Apr 4	0			0				13	6			0		34.9	24.5	6.2	44.0
Apr 5	0			0				8	5			0		34.5	24.0	6.8	44.0
Apr 6	0			0				17	11			0		35.3	24.9	6.8	44.0
Apr 7	0			0				15	9			0		36.4	25.8	6.8	44.0
Apr 8	5			0				20	14			0		34.4	23.8	7.0	45.0
Apr 9	0			0				5	4			0		34.5	24.2	7.2	45.0
Apr 10	0			0				19	9			0		44.3	33.9	7.8	45.0
Apr 11	3			0				11	6			0		57.3	46.6	7.8	46.0
Apr 12	2			0				13	9			-1		80.1	68.5	7.8	46.0
Apr 13	0			0				17	13			0		67.6	56.7	6.6	46.0
Apr 14	0			0				8	2			0		69.9	61.6	6.0	46.0
Apr 15	0			0				6	5			0		61.0	50.4	6.0	46.0
Apr 16	4			0				20	13			0		54.4	43.7	6.0	47.0
Apr 17	7			1				9	6			0		59.6	48.8	6.0	47.0
Apr 18	9			0				14	9			0		62.5	51.8	5.8	47.0
Apr 19	1			0				12	9			0		63.5	52.0	5.6	47.0
Apr 20	3			0				10	8			0		61.7	50.7	5.0	47.0
Apr 21	9			0				17	15			0		61.2	50.4	5.0	47.0
Apr 22	14			0				15	11			0		57.1	46.3	5.6	48.0
Apr 23	10			0				14	11			0		56.3	45.7	5.5	48.0
Apr 24	16			0				18	8			0		55.2	44.6	5.0	49.0
Apr 25	22			1				9	6			0		65.0	54.2	4.5	49.0
Apr 26	10			1				6	6			0		64.2	53.4	4.0	49.0
Apr 27	20			1				8	8			0		71.3	60.2	4.5	49.0
Apr 28	37			2				8	8			0		71.3	60.4	4.2	49.0
Apr 29	86			1				9	3			0		85.1	74.0	4.2	50.0
Apr 30	75			3				5	4			0		85.5	74.4	4.7	50.0
TOTAL	333			10				366	243			-1					
AVG.	11			0				12	8			0		55.6	43.3	5.9	46.5

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
South shore ladder was counted by direct observation while the north shore ladder was counted using closed circuit TV.
Official Spring Chinook run started April 1.

TABLE 99
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS													MAY 2023			
DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
May 1	121			3				4	3	0	0		119.3	102.8	4.9	50.0
May 2	148			0				13	8	0	0		126.5	107.4	5.0	50.0
May 3	219			8				5	4	0	0		147.6	109.7	4.4	51.0
May 4	283			13				4	3	0	0		143.8	108.9	3.9	52.0
May 5	265			6				5	3	0	2		148.8	109.4	3.9	53.0
May 6	438			3				6	5	0	1		150.2	109.8	3.7	53.0
May 7	260			5				4	3	0	0		132.9	109.3	3.0	53.0
May 8	241			3				3	3	0	0		119.4	107.5	2.8	52.0
May 9	219			3				2	0	0	0		118.6	107.1	2.9	52.0
May 10	383			16				1	1	0	0		114.0	96.6	2.7	52.0
May 11	381			15				1	1	0	2		102.4	89.7	2.7	52.0
May 12	810			38				0	0	0	0		110.1	89.9	2.7	52.0
May 13	882			29				1	1	0	0		108.8	89.6	3.1	53.0
May 14	648			34				2	1	0	0		109.5	90.1	3.5	54.0
May 15	845			83				0	0	0	0		137.1	90.0	3.7	54.0
May 16	1,314			108				1	1	0	0		140.1	98.9	3.7	54.0
May 17	1,840			114				0	0	0	0		152.1	98.4	4.0	54.0
May 18	2,041			185				1	0	0	1		149.0	109.7	4.0	55.0
May 19	2,749			208				0	0	0	3		154.9	109.6	4.6	56.0
May 20	1,744			134				0	0	0	0		159.8	109.8	4.5	56.0
May 21	1,059			153				1	1	0	1		165.0	109.5	4.5	56.0
May 22	550			96				0	0	0	0		155.6	110.1	4.0	56.0
May 23	440			67				0	0	0	0		183.2	116.2	4.0	56.0
May 24	217			48				0	0	0	1		155.2	109.5	3.5	56.0
May 25	1,220			134				0	0	0	1		132.5	109.4	3.0	56.0
May 26	2,539			294				0	0	3	1		125.3	108.8	3.0	56.0
May 27	2,874			400				1	1	0	0		120.1	108.7	3.0	56.0
May 28	2,052			404				0	0	1	0		110.9	99.0	2.5	57.0
May 29	1,154			235				1	1	0	0		120.3	108.4	2.2	58.0
May 30	2,145			405				0	0	0	0		106.6	95.1	2.2	58.0
May 31	1,825			411				0	0	4	2		113.1	97.0	2.5	58.0
TOTAL	31,906			3,655				56	40	8	15					
AVG.	1029			118				2	1	0	0		133.3	103.7	3.5	54.2
RUN YEAR		CHINOOK	CHINOOK						unclipped							
TOTALS TO DATE		ADULT	JACK					STEELHEAD	STEELHEAD	SHAD	LAMPREY					
SPRING		32,239	3,665					422	283	8	14					

TABLE 100
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD							SECCHI	DEG F
Jun 1	1,796			394			0	1		36	0		105.8	93.9	3.0	58.0
Jun 2	889			213			0	1		50	0		108.7	92.9	3.7	58.0
Jun 3	816			150			0	1		134	1		97.9	85.8	4.1	58.0
Jun 4	662			123			0	1		196	0		100.8	89.6	4.3	58.0
Jun 5	677			156			0	1		400	1		93.2	82.2	4.5	59.0
Jun 6	479			118			0	1		886	2		94.7	83.5	4.5	60.0
Jun 7	723			133			1	0		568	1		92.9	81.7	5.5	60.0
Jun 8	771			145			0	0		574	0		90.7	79.8	5.5	60.0
Jun 9	699			140			1	0		4,592	2		83.3	72.3	5.5	61.0
Jun 10	788			177			0	2		5,227	2		83.1	72.1	4.9	61.0
Jun 11	545			133			0	0		4,605	12		78.3	67.4	4.9	61.0
Jun 12		860		98			0	0		7,729	3		77.3	66.4	4.9	62.0
Jun 13		614		107			0	0		8,266	5		75.3	64.2	4.6	62.0
Jun 14		603		87			1	1		8,109	9		74.7	63.9	5.0	63.0
Jun 15		650		137			0	3		11,894	0		70.6	59.9	4.2	63.0
Jun 16		753		108			3	3		8,808	3		64.2	52.9	4.8	63.0
Jun 17		722		72			2	1		11,387	3		56.3	45.4	4.8	63.0
Jun 18		592		75			4	1		8,808	-1		56.3	45.5	4.4	63.0
Jun 19		727		135			4	1		13,072	9		55.3	44.6	4.2	64.0
Jun 20		600		115			2	4		14,113	5		56.6	44.9	4.0	63.0
Jun 21		366		97			0	7		10,383	2		63.4	18.5	3.9	63.0
Jun 22		331		102			3	3		14,089	3		65.2	18.8	4.8	65.0
Jun 23		240		90			9	5		15,824	7		51.7	15.0	4.2	64.0
Jun 24		296		109			4	2		16,706	5		55.4	16.5	4.1	64.0
Jun 25		167		104			9	3		23,001	15		45.6	13.6	4.8	65.0
Jun 26		206		65			9	5		15,174	18		49.4	14.9	4.6	65.0
Jun 27		188		87			22	21		12,209	15		47.2	14.4	5.4	65.0
Jun 28		216		76			20	20		16,119	42		42.7	10.7	5.0	65.0
Jun 29		192		89			16	24		7,973	25		45.6	13.9	6.0	65.0
Jun 30		95		58			36	24		8,823	33		57.0	17.0	6.8	66.0
TOTAL	8,845	8,418		3,693			146	136		249,755	222					
AVG.	804	443		123			5	5		8,325	7		71.3	51.4	4.7	62.2
RUN YEAR	CHINOOK ADULT		CHINOOK JACK	SOCKEYE		STEELHEAD	unclipped STEELHEAD	SHAD		LAMPREY						
TOTALS TO DATE	SPRING	41,084	5,547	146		558	371	249,763		236						
	SUMMER	8,418	1,811													
	TOTAL	49,502	7,358													

TABLE 101

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS**JULY 2023**

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD							SECCHI	DEG F
Jul 1		164		62			28	34	19		7,510	51		44.4	13.2	6.6	66.0
Jul 2		130		58			38	42	18		5,982	47		41.8	12.6	6.5	66.0
Jul 3		91		51			37	35	19		5,967	30		40.9	12.3	6.5	66.0
Jul 4		141		85			59	39	21		4,183	31		47.6	14.3	6.5	66.0
Jul 5		227		46			85	29	16		6,300	53		45.4	13.4	6.6	67.0
Jul 6		147		58			142	64	33		4,766	48		46.6	13.9	6.6	67.0
Jul 7		130		70			120	57	31		5,482	88		44.9	13.5	5.6	67.0
Jul 8		140		59			147	86	43		2,797	75		47.8	14.4	5.8	67.0
Jul 9		99		62			131	104	53		997	68		37.9	11.3	5.8	67.0
Jul 10		161		96			146	147	79		2,146	117		44.4	13.3	5.8	68.0
Jul 11		117		64			185	158	83		678	121		37.3	11.0	5.7	69.0
Jul 12		112		57			167	134	79		1,920	117		41.7	12.4	5.9	70.0
Jul 13		108		67			178	189	102		1,302	117		35.9	10.6	5.6	70.0
Jul 14		53		29			90	156	84		1,236	125		39.0	11.7	6.6	70.0
Jul 15		69		31			60	139	80		525	93		32.3	9.7	6.8	71.0
Jul 16		64		16			50	125	67		416	87		33.9	10.1	7.0	72.0
Jul 17		82		41			91	182	107		393	79		32.0	9.6	7.0	71.0
Jul 18		49		22			57	114	65		189	108		36.1	9.9	5.0	72.0
Jul 19		57		23			30	111	74		390	81		37.9	10.0	5.0	72.0
Jul 20		48		32			27	122	82		259	93		31.0	9.0	5.0	72.0
Jul 21		59		23			50	174	98		42	115		31.1	9.1	6.8	72.0
Jul 22		49		15			35	149	88		39	54		27.3	8.5	6.8	72.0
Jul 23		36		14			10	80	44		80	69		34.6	10.4	5.2	72.0
Jul 24		57		28			50	136	78		63	58		26.0	8.3	5.8	72.0
Jul 25		51		16			30	98	50		41	39		28.3	8.8	7.6	72.0
Jul 26		32		5			6	63	31		51	34		29.1	8.3	8.0	72.0
Jul 27		41		12			6	57	34		15	38		27.1	8.6	8.0	72.0
Jul 28		22		7			5	46	31		111	49		31.6	9.4	8.3	72.0
Jul 29		22		9			8	26	16		38	28		32.9	9.7	8.5	72.0
Jul 30		39		6			11	27	16		20	27		29.2	9.0	8.0	72.0
Jul 31		40		8			5	20	12		13	38		29.9	8.7	8.0	72.0

TOTAL	2,637	1,172		2,084	2,943	1,653	53,951	2,178						36.3	10.8	6.5	69.9
AVG.	85	38		67	95	53	1,740	70									

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	41,084	5,547
SUMMER	11,055	2,983
TOTAL	52,139	8,530

SOCKEYE	STEELHEAD	unclipped STEELHEAD
2,230	3,501	2,024

SHAD	LAMPREY
303,714	2,414

TABLE 102
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped			DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY			KCFS	SECCHI
Aug 1		35		16	0	0	8	29	15		14	25			25.9	7.5
Aug 2		26		8	0	0	0	27	16		41	21			29.1	7.5
Aug 3		38		5	0	0	1	20	12		36	37			28.1	6.7
Aug 4		64		8	0	0	10	30	13		21	13			22.3	7.4
Aug 5		99		8	0	0	5	33	21		20	9			31.5	7.4
Aug 6		119		10	0	0	0	34	25		9	12			28.8	7.4
Aug 7		100		10	0	0	0	51	30		8	1			25.5	7.4
Aug 8		214		16	0	0	1	41	21		4	12			27.1	7.2
Aug 9		179		18	0	0	1	50	29		4	6			29.9	7.2
Aug 10		174		18	0	0	1	59	35		4	15			32.8	6.8
Aug 11		146		11	0	0	2	76	43		6	10			33.2	9.9
Aug 12			187	14	0	0	0	54	37		5	22			30.6	7.3
Aug 13			138	16	0	0	1	56	34		3	40			30.1	7.3
Aug 14			168	31	0	0	0	58	30		2	15			30.4	7.6
Aug 15			266	32	1	0	0	75	42		3	15			21.6	7.6
Aug 16			271	27	0	0	0	80	44		0	5			27.6	8.1
Aug 17			154	11	0	0	0	49	25		3	4			34.2	7.7
Aug 18			557	50	0	0	1	219	83		0	22			21.9	7.7
Aug 19			342	30	0	0	0	140	67		0	9			29.0	8.5
Aug 20			426	19	0	0	0	137	71		0	20			21.7	8.1
Aug 21			401	44	0	0	0	105	52		0	22			22.0	8.7
Aug 22			577	50	0	0	0	152	64		0	26			22.0	7.7
Aug 23			233	20	0	0	2	119	49		0	21			22.5	7.5
Aug 24			219	31	0	0	0	106	58		0	16			34.0	8.0
Aug 25			226	20	0	0	0	85	37		0	6			30.7	7.5
Aug 26			349	35	0	0	0	93	38		0	32			31.3	7.5
Aug 27			1,040	81	0	0	1	131	52		0	5			26.7	8.0
Aug 28			800	141	0	0	0	116	44		1	18			35.0	7.5
Aug 29			951	143	1	0	0	212	82		0	21			26.1	7.5
Aug 30			717	48	3	0	0	238	84		0	25			26.9	8.0
Aug 31			1,091	127	1	2	0	256	95		0	11			30.4	7.0
TOTAL		1,194	9,113	1,098	6	2	34	2,931	1,348		184	516				
AVG.		109	456	35	0	0	1	95	43		6	17			28.0	7.5
RUN YEAR	CHINOOK	CHINOOK		COHO	COHO				unclipped							
TOTALS TO DATE	ADULT	JACK		ADULT	JACK		SOCKEYE	STEELHEAD	STEELHEAD		SHAD	LAMPREY				
SPRING	41,084	5,547		6	2		2,264	6,432	3,372		303,898	2,930				
SUMMER	12,249	3,111														
FALL	9,113	970														
TOTAL	62,446	9,628														

TABLE 103
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD								SECCHI	DEG F
Sep 1			1,149	90	1	0	0	211	78	0			37		30.6	2.2	6.8	72.0
Sep 2			1,486	73	2	0	3	341	112	0			24		28.1	0.0	6.8	72.0
Sep 3			2,080	99	14	2	0	542	179	0			36		21.9	2.1	6.8	72.0
Sep 4			3,292	202	49	6	0	883	302	0			31		22.0	0.0	6.8	72.0
Sep 5			2,665	215	63	2	0	1,385	422	0			26		28.0	0.0	7.0	71.0
Sep 6			2,752	216	82	8	0	1,987	610	0			13		30.7	1.9	6.8	71.0
Sep 7			2,649	262	116	17	0	1,816	523	0			19		27.1	0.0	7.7	70.0
Sep 8			2,136	141	197	5	0	1,945	566	0			20		33.4	1.8	8.0	70.0
Sep 9			1,674	142	273	6	-1	1,449	441	0			25		27.9	0.0	7.0	70.0
Sep 10			1,579	132	252	14	0	2,070	555	0			15		28.2	1.7	7.0	70.0
Sep 11			1,378	173	387	28	0	1,965	533	0			9		24.4	0.0	7.8	70.0
Sep 12			1,220	175	443	41	0	1,866	471	1			14		24.7	0.0	7.8	70.0
Sep 13			1,650	233	319	15	0	1,469	399	0			23		28.4	2.0	8.0	70.0
Sep 14			1,325	198	478	15	0	1,560	413	0			13		26.0	0.0	8.6	70.0
Sep 15			1,120	270	522	33	0	1,975	492	0			15		26.8	2.0	8.6	70.0
Sep 16			1,012	180	460	30	0	1,185	304	0			10		22.7	0.0	7.4	69.0
Sep 17			957	159	448	39	0	1,188	266	0			6		17.0	0.0	7.4	69.0
Sep 18			1,029	204	492	62	0	1,474	352	0			11		23.8	1.9	7.4	69.0
Sep 19			892	176	497	61	0	1,329	315	0			3		24.5	0.0	7.5	69.0
Sep 20			991	243	402	32	0	1,974	495	0			5		23.1	0.1	7.4	69.0
Sep 21			588	246	381	39	0	1,432	363	0			6		24.4	2.0	7.0	69.0
Sep 22			675	225	371	13	0	1,463	334	0			1		27.0	0.0	7.5	69.0
Sep 23			375	144	154	4	0	791	162	0			8		23.2	2.1	6.8	68.0
Sep 24			402	154	214	36	0	1,175	232	0			0		18.4	0.0	6.5	68.0
Sep 25			646	177	185	37	1	1,549	356	0			7		23.6	2.1	7.0	67.0
Sep 26			556	269	362	64	0	2,379	599	0			5		23.8	0.0	7.6	68.0
Sep 27			407	200	305	42	1	1,724	414	0			3		23.9	2.0	7.2	68.0
Sep 28			467	233	352	32	1	1,942	466	0			-1		25.0	0.0	8.2	68.0
Sep 29			323	142	183	19	0	1,078	250	0			2		23.4	1.8	7.6	68.0
Sep 30			228	95	137	38	0	640	156	0			0		20.2	0.0	5.8	66.0
TOTAL			37,703	5,468	8,141	740	5	42,787	11,160	1			386					
AVG.			1257	182	271	25	0	1,426	372	0			13		25.1	0.9	7.3	69.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	41,084	5,547
SUMMER	12,249	3,111
FALL	46,816	6,438
TOTAL	100,149	15,096

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
8,147	742	2,269	49,219	14,532	1	303,898	3,316

TABLE 104
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS													OCTOBER 2023					
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL		unclipped	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD	SECCHI							DEG F*	
Oct 1			198	87	127	28		755	196				1		19.7	2.0	5.8	66.0
Oct 2			262	129	317	24		1,307	298				2		20.4	0.0	6.0	65.0
Oct 3			439	158	793	60		2,088	565				-1		23.5	1.9	6.2	65.0
Oct 4			244	119	716	40		1,467	359				1		28.2	0.0	7.6	65.0
Oct 5			254	109	357	0		1,342	356				-1		22.0	2.1	7.2	65.0
Oct 6			399	160	270	12		1,847	459				0		28.1	0.0	7.4	65.0
Oct 7			259	159	162	3		1,242	285				0		22.1	0.0	7.8	65.0
Oct 8			213	104	97	0		891	219				1		21.8	2.1	8.0	64.0
Oct 9			218	84	171	8		777	210				0		22.5	0.0	8.6	65.0
Oct 10			142	59	406	23		1,189	321				-3		19.3	2.0	8.8	65.0
Oct 11			110	58	208	29		736	225				0		16.8	0.0	8.1	65.0
Oct 12			83	63	154	16		815	275				0		17.1	1.6	8.4	64.0
Oct 13			70	65	119	2		495	150				1		18.2	0.0	8.7	64.0
Oct 14			109	43	88	8		546	162				1		17.2	0.0	9.0	64.0
Oct 15			105	48	66	30		435	134				1		16.6	0.0	9.0	64.0
Oct 16			75	50	66	21		461	132				1		19.4	2.0	8.7	64.0
Oct 17			100	55	359	25		459	171				2		16.7	0.0	9.7	64.0
Oct 18			69	30	259	17		284	86				0		19.3	0.0	8.8	64.0
Oct 19			84	39	219	10		361	115				1		18.7	2.1	9.0	64.0
Oct 20			70	23	177	8		357	107				-1		20.1	0.0	10.0	64.0
Oct 21			62	30	60	3		248	69				1		15.2	2.0	9.5	64.0
Oct 22			26	21	72	3		208	58				-1		16.2	0.0	9.5	64.0
Oct 23			30	11	74	4		242	76				-1		15.0	2.1	9.5	63.0
Oct 24			24	12	53	3		176	58				1		13.7	0.0	10.0	64.0
Oct 25			36	15	52	7		165	50				0		23.9	0.0	9.0	63.0
Oct 26			63	12	81	2		135	40				0		18.5	1.9	9.2	63.0
Oct 27			63	17	47	8		182	46				0		16.4	0.0	9.0	62.0
Oct 28			38	9	44	2		87	30				0		14.9	1.8	9.2	62.0
Oct 29			9	8	29	2		55	27				0		16.0	0.0	10.0	61.0
Oct 30			16	7	60	3		72	29				0		22.1	1.7	9.2	60.0
Oct 31			17	4	67	3		96	33				0		15.9	0.0	9.6	60.0
TOTAL			3,887	1,788	5,770	404		19,520	5,341				6					
AVG.			125	58	186	13		630	172				0		19.2	0.8	8.6	63.8
RUN YEAR	CHINOOK ADULT		CHINOOK JACK		COHO ADULT		COHO JACK		unclipped STEELHEAD		PINK		SHAD		LAMPREY			
TOTALS TO DATE																		
SPRING	41,084		5,547		13,917		1,146		2,269		68,739		19,873		1		303,898	
SUMMER	12,249		3,111															
FALL	50,703		8,226															
TOTAL	104,036		16,884															

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
South shore ladder was counted by direct observation while the north shore ladder was counted using closed circuit TV.

TABLE 105
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD						SECCHI	DEG F
Nov 1			36	7	76	5		103	36				18.6	0.0	8.6	60.0
Nov 2			51	13	68	9		102	37				19.3	1.6	9.0	60.0
Nov 3			37	15	50	2		72	24				21.1	0.0	9.0	60.0
Nov 4			32	4	58	7		57	16				26.8	1.6	10.6	58.0
Nov 5			34	6	60	7		75	30				26.7	0.0	11.0	58.0
Nov 6			18	9	54	1		72	35				31.2	2.0	11.0	58.0
Nov 7			22	9	79	3		107	46				27.3	0.0	10.0	58.0
Nov 8			21	11	78	3		124	50				28.1	0.0	11.6	58.0
Nov 9			9	10	51	3		134	57				31.5	2.0	9.0	57.0
Nov 10			12	13	41	4		228	98				27.2	0.0	9.5	57.0
Nov 11			19	5	28	9		246	119				23.0	2.0	9.9	56.0
Nov 12			15	4	13	2		154	69				27.7	0.0	9.9	56.0
Nov 13			14	0	10	1		106	48				22.3	1.9	9.9	56.0
Nov 14			10	2	2	0		90	52				20.9	0.0	9.9	56.0
Nov 15			5	2	4	1		46	22				20.2	1.5	9.6	55.0
Nov 16			8	2	2	0		87	49				20.0	0.0	9.6	55.0
Nov 17			4	2	1	0		30	14				24.8	0.0	9.0	56.0
Nov 18			3	1	1	-1		35	24				24.8	0.0	8.7	55.0
Nov 19			6	3	0	0		48	21				15.8	0.0	8.6	55.0
Nov 20			2	0	1	1		36	14				27.2	0.0	9.0	55.0
Nov 21			2	0	0	0		15	5				18.5	0.0	8.6	55.0
Nov 22			2	0	0	0		24	11				20.1	0.0	8.8	54.0
Nov 23			5	0	0	0		20	7				23.7	0.0	8.4	53.0
Nov 24			-1	0	-1	0		12	4				20.3	0.0	8.8	52.0
Nov 25			2	0	0	0		9	2				21.4	0.0	8.2	52.0
Nov 26			2	0	1	1		14	6				20.6	0.0	8.5	52.0
Nov 27			2	1	0	0		11	3				24.4	0.0	8.6	52.0
Nov 28			0	-2	0	0		4	2				19.2	0.0	9.0	52.0
Nov 29			0	0	0	0		5	1				13.4	0.0	9.3	51.0
Nov 30			1	0	0	0		8	6				14.2	0.0	8.8	51.0
TOTAL			373	117	677	58		2,074	908							

AVG.	12	4	23	2	69	30	22.7	0.4	9.3	55.4
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RUN YEAR	CHINOOK		COHO		TOTAL	unclipped		PINK	SHAD	LAMPREY
	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
TOTALS TO DATE										
SPRING	41,084	5,547	13,917	1,146	2,269	68,739	19,873	1	303,898	3,322
SUMMER	12,249	3,111								
FALL	50,703	8,226								
TOTAL	104,036	16,884								

Note: November counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
Official Fall Chinook run ended October 31. November and December Chinook counts were not added to fall totals.

TABLE 106
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

DECEMBER 2023

DATE	CHINOOK ADULT		CHINOOK JACK		COHO ADULT		COHO JACK		TOTAL		unclipped		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY							SECCHI	DEG F
Dec 1			1	1	0	0		6	5								21.6	0.0	8.8	51.0
Dec 2			1	1	0	0		3	1								29.6	0.0	8.8	50.0
Dec 3			1	0	0	0		7	2								29.9	0.0	8.0	50.0
Dec 4			0	0	0	0		2	1								19.8	0.0	8.6	50.0
Dec 5			0	0	0	0		12	5								17.0	0.0	10.2	50.0
Dec 6			0	0	1	0		11	2								19.4	0.0	10.0	50.0
Dec 7			0	0	1	0		4	1								21.6	0.0	10.1	50.0
Dec 8			1	-1	1	0		11	6								34.0	0.0	10.1	50.0
Dec 9			-1	0	0	0		5	4								32.4	0.0	9.0	50.0
Dec 10			1	1	4	1		20	7								37.6	0.0	9.0	48.0
Dec 11			0	0	0	0		41	13								28.3	0.0	10.0	48.0
Dec 12			0	0	0	1		51	18								23.4	0.0	10.6	48.0
Dec 13			0	0	0	0		46	21								24.1	0.0	10.0	47.0
Dec 14			0	-1	0	0		47	24								25.9	0.0	11.0	47.0
Dec 15			0	-1	0	0		41	16								25.5	0.0	9.5	47.0
Dec 16			0	1	0	-2		31	16								20.7	0.0	10.0	46.0
Dec 17			-1	0	0	-1		28	8								21.4	0.0	9.6	46.0
Dec 18			0	0	0	0		28	12								20.6	0.0	9.2	46.0
Dec 19			0	0	0	-1		26	16								20.7	0.0	9.8	46.0
Dec 20			0	-2	0	0		27	9								26.0	0.0	8.8	46.0
Dec 21			0	0	0	0		27	14								28.6	0.0	8.9	46.0
Dec 22			0	0	0	0		14	4								26.7	0.0	9.2	46.0
Dec 23			0	0	0	0		10	4								25.6	0.0	9.0	46.0
Dec 24			0	0	0	0		18	10								29.5	0.0	9.2	46.0
Dec 25			0	1	0	0		20	12								25.4	0.0	9.0	45.0
Dec 26			0	0	0	0		9	4								24.1	0.0	8.9	44.0
Dec 27			0	0	0	0		11	2								25.7	0.0	9.0	44.0
Dec 28			0	0	0	0		8	1								20.0	0.0	10.0	44.0
Dec 29			0	0	0	0		6	2								24.8	0.0	9.7	44.0
Dec 30			0	-1	0	0		5	2								21.4	0.0	9.7	44.0
Dec 31			0	1	0	0		5	1								25.2	0.0	9.7	44.0
TOTAL			3	0	7	-2		580	243											

AVG.	0	0	0	0	19	8	25.0	0.0	9.5	47.1
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RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY		
SPRING	41,084	3,111			13,917	1,146	2,269	68,739	19,873	1	303898	3322
SUMMER	12,249	3,111										
FALL	50,703	8,226										
TOTAL	104,036	14,448										

Note: December counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
Official Fall Chinook run ended October 31. November and December Chinook counts were not added to fall totals.

TABLE 107
YEARLY TOTALS OF SALMONIDS COUNTED OVER
ICE HARBOR DAM
1962 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS*
1962	94,301	115,796	38	3,207	213,342
1963	61,190	74,539	1,118	1,933	138,780
1964	60,097	58,860	1,276	2,071	122,304
1965	39,233	62,873	317	320	102,743
1966	75,882	65,798	278	878	142,836
1967	84,930	44,205	717	3,770	133,622
1968	98,681	82,383	1,165	6,227	188,456
1969	100,514	63,889	745	5,316	170,464
1970	77,698	53,870	797	3,636	136,001
1971	70,248	67,029	532	2,969	140,778
1972	82,632	63,593	363	2,522	149,110
1973	81,821	38,311	233	2,443	122,808
1974	32,444	12,528	204	1,334	46,510
1975	31,686	16,218	243	1,559	49,706
1976	36,556	23,885	771	1,991	63,203
1977	56,514	54,820	582	1,561	113,477
1978	61,352	27,142	86	652	89,232
1979	13,929	23,117	30	398	37,474
1980	14,717	50,221	36	58	65,032
1981	22,092	41,290	142	82	63,606
1982	22,646	73,405	174	348	96,573
1983	20,259	88,475	216	465	109,415
1984	17,757	94,030	105	22	111,914
1985	47,981	128,481	24	10	176,496
1986	52,615	144,292	20	0	196,927
1987	47,477	74,491	13	0	121,981
1988	48,066	99,714	22	0	147,802
1989	27,234	151,101	4	0	178,339
1990	31,841	54,758	1	1	86,601
1991	23,175	123,762	9	1	146,947
1992	36,021	160,614	33	0	196,668
1993	34,991	73,107	17	0	108,115
1994	7,577	51,704	0	1	59,282
1995	7,990	92,026	5	4	100,025
1996	16,419	100,805	1	0	117,225
1997	55,412	103,830	15	128	159,385
1998	26,117	85,122	3	15	111,257
1999	23,331	84,163	8	144	107,646
2000	72,154	126,424	215	1,224	200,017
2001	215,697	283,694	38	1,595	501,024
2002	137,507	211,762	61	289	349,619
2003	143,329	191,675	37	1,431	336,472
2004	130,218	171,380	91	3,519	305,208
2005	58,361	156,920	18	1,621	216,920
2006	52,501	124,812	48	971	178,332
2007	69,106	157,620	55	2,147	228,928
2008	123,007	172,453	539	3,003	299,002
2009	180,349	328,105	867	5,436	514,757
2010	199,092	206,959	1,302	1,735	409,088
2011	177,586	198,805	1,141	6,727	384,259
2012	150,625	105,269	453	2,985	259,332
2013	152,174	116,162	895	2,530	271,761
2014	192,966	151,966	2,392	16,077	363,401
2015	219,408	128,521	1,052	1,492	350,473
2016	137,810	94,473	898	2,141	235,322
2017	78,076	61,961	392	5,737	146,166
2018	62,844	48,262	382	1,580	113,068
2019	53,045	31,824	320	6,798	91,987
2020	71,885	56,210	2,330	9,742	140,167
2021	91,405	38,570	954	19,467	150,396
2022	141,894	69,204	1,850	19,482	232,430
2023	121,413	71,840	2,269	15,803	211,325
Totals	4,775,878	6,129,118	28,942	177,598	11,111,536
10-Year Average	117,075	75,283	1,284	9,832	203,474

*Jacks included

Video daytime counts during extended count seasons are included.

TABLE 108

**MONTHLY COUNT OF CHINOOK SALMON
ICE HARBOR DAM
1962 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING 1 APR- 11 JUN	SUMMER 12 JUN- 11 AUG	FALL 12 AUG- 31 OCT
1962				2,579	28,951	23,250	8,315	3,547	20,578	7,081			94,301	33,613	30,639	30,049
1963				3,434	21,790	14,001	7,591	1,415	9,342	2,918	677	22	61,190	26,778	20,875	13,537
1964		1	2	4,048	19,611	5,409	18,832	2,161	8,159	1,701	156	17	60,097	24,304	24,696	11,097
1965			4	1,677	9,649	5,072	10,209	803	9,318	2,152	349		39,233	12,178	14,701	12,354
1966				23,382	19,294	10,611	7,166	1,933	10,756	2,740			75,882	43,881	16,983	15,018
1967				15,973	18,137	9,020	22,218	820	11,947	6,815			84,930	35,593	30,315	19,022
1968				1,595	41,398	12,119	17,751	3,433	16,588	5,275	493	29	98,681	44,773	29,531	24,377
1969			195	697	43,181	24,918	12,861	2,369	12,027	3,555	708	3	100,514	52,090	30,917	17,507
1970				12,167	33,881	12,338	8,185	1,747	7,702	1,456	219	3	77,698	47,931	19,382	10,385
1971				1,104	25,089	19,265	13,364	873	8,960	1,593			70,248	32,638	26,606	11,004
1972				14,535	34,734	7,544	15,177	1,869	6,089	2,684			82,632	50,350	22,846	9,436
1973				34,277	23,627	10,925	4,254	840	6,657	1,241			81,821	60,639	12,829	8,353
1974				842	16,670	5,315	6,494	483	2,066	574			32,444	19,361	10,269	2,814
1975				1,314	17,796	5,817	3,972	506	1,875	406			31,686	21,401	7,727	2,558
1976				3,146	19,269	8,544	3,921	349	1,123	204			36,556	25,056	10,026	1,474
1977				24,003	17,626	9,328	3,606	297	1,370	284			56,514	44,421	10,337	1,756
1978				14,891	29,333	9,999	4,888	892	1,064	269	16		61,352	49,303	10,440	1,609
1979				1,731	6,528	2,234	1,216	379	1,489	333	19		13,929	9,247	2,608	2,074
1980				1,678	7,321	2,285	1,569	301	1,034	504	25		14,717	9,668	3,305	1,744
1981			1	6,744	8,542	2,884	1,751	161	1,530	470	9		22,092	16,167	3,814	2,111
1982			3	656	11,543	4,522	2,347	283	2,601	691			22,646	14,600	4,527	3,519
1983				1,925	9,418	4,132	1,921	316	1,945	602			20,259	12,602	4,922	2,735
1984				823	7,292	5,353	1,943	223	1,762	361			17,757	9,183	6,307	2,267
1985				12,245	18,334	6,885	1,294	546	5,414	3,263			47,981	33,527	5,290	9,164
1986			1	14,764	22,025	8,299	1,672	169	3,664	2,021			52,615	39,087	7,745	5,783
1987				11,141	18,821	6,550	2,437	329	6,089	2,110			47,477	32,083	6,982	8,412
1988				14,274	17,196	8,609	1,904	702	3,621	1,760			48,066	34,394	7,790	5,882
1989				3,307	11,724	4,946	1,143	776	3,917	1,421			27,234	17,029	4,215	5,990
1990				7,578	12,166	5,353	1,337	320	3,314	1,773			31,841	20,730	5,794	5,317
1991				1,639	7,953	5,367	2,101	155	4,053	1,907			23,175	11,288	5,861	6,026
1992				11,462	12,001	5,791	1,189	228	3,716	1,634			36,021	26,114	4,377	5,530
1993				5,776	15,879	8,705	1,405	338	2,087	801			34,991	24,935	6,919	3,137
1994				717	2,268	1,183	289	170	1,693	1,257			7,577	3,472	1,003	3,102
1995				256	1,253	928	315	387	2,920	1,931			7,990	1,873	915	5,202
1996				97	6,254	3,954	1,367	792	2,983	928	44		16,419	7,671	4,086	4,662
1997				3,442	30,332	14,678	2,224	411	2,502	1,680	143		55,412	41,473	9,318	4,621
1998				3,850	7,285	6,001	1,165	421	4,324	3,006	64	1	26,117	12,564	5,777	7,776
1999				260	5,717	5,659	1,461	917	6,283	2,943	89	2	23,331	8,008	5,211	10,112
2000				13,749	29,916	9,877	2,076	1,928	9,763	4,738	105	2	72,154	48,278	7,420	16,456
2001				104,883	55,788	26,709	4,268	1,327	18,315	4,262	140	5	215,697	174,199	17,667	23,831
2002				5,016	71,511	33,555	5,750	2,752	15,874	2,946	100	3	137,507	87,033	29,044	21,327
2003			132	42,343	34,581	28,636	5,732	1,286	23,445	7,174			143,329	86,190	25,344	31,663
2004			5	36,168	37,934	19,580	4,094	908	26,998	4,531			130,218	81,752	16,185	32,276
2005				1,763	20,798	14,089	2,323	1,389	14,672	3,327			58,361	29,306	9,817	19,238
2006				29	21,660	11,042	2,438	1,534	11,976	3,822			52,501	26,309	9,085	17,107
2007			1	3,277	27,506	11,597	3,167	1,984	17,456	4,118			69,106	35,355	10,599	23,151
2008				4,447	45,174	34,258	5,381	3,461	26,145	4,141			123,007	60,899	28,657	33,451
2009				1,173	65,190	40,728	9,465	10,549	49,471	3,773			180,349	83,658	33,256	63,435
2010				32,517	66,010	34,208	6,921	5,381	45,279	8,776			199,092	107,235	33,086	58,771
2011				374	74,309	38,699	12,109	5,817	39,184	7,094			177,586	87,467	39,136	50,983
2012				488	63,407	22,704	3,337	4,531	51,132	5,026			150,625	74,862	15,663	60,100
2013			8	1,979	48,023	18,657	5,350	10,876	60,731	6,220	325	5	152,174	56,620	18,233	76,983
2014				5,641	75,061	23,863	8,276	4,760	67,206	8,159			192,966	91,726	21,907	79,333
2015				36,199	75,507	26,847	6,784	8,657	55,175	10,239			219,408	122,207	24,215	72,986
2016				2,708	60,972	19,249	3,930	7,881	38,408	4,662			137,810	72,513	15,518	49,779
2017				98	25,398	17,807	3,065	2,098	24,051	5,559			78,076	35,255	11,371	31,450
2018			5	81	26,169	13,430	1,288	2,985	14,816	3,332	698	40	62,844	34,792	6,368	20,941
2019	-2			60	21,151	7,820	1,709	2,552	16,522	3,233			53,045	25,215	5,849	21,983
2020				738	18,819	10,695	2,536	7,324	28,434	3,339			71,885	24,772	8,690	38,423
2021				1,406	30,098	11,692	3,076	8,014	33,408	3,711			91,405	36,831	9,725	44,849
2022				2,118	59,613	18,812	4,470	11,198	41,442	4,241			141,894	69,173	16,932	55,789
2023				343	35,561	20,956	3,809	11,405	43,171	5,675	490	3	121,413	46,631	15,360	58,929
TOTAL	-2	1	357	561,627	1,750,044	823,303	312,208	153,258	975,636	194,442	4,869	135	4,775,878	2,608,303	865,012	1,300,750
10-Year Average				4,939	42,835	17,117	3,894	6,687	36,263	5,215			117,075	55,912	13,594	47,446

*Jacks included

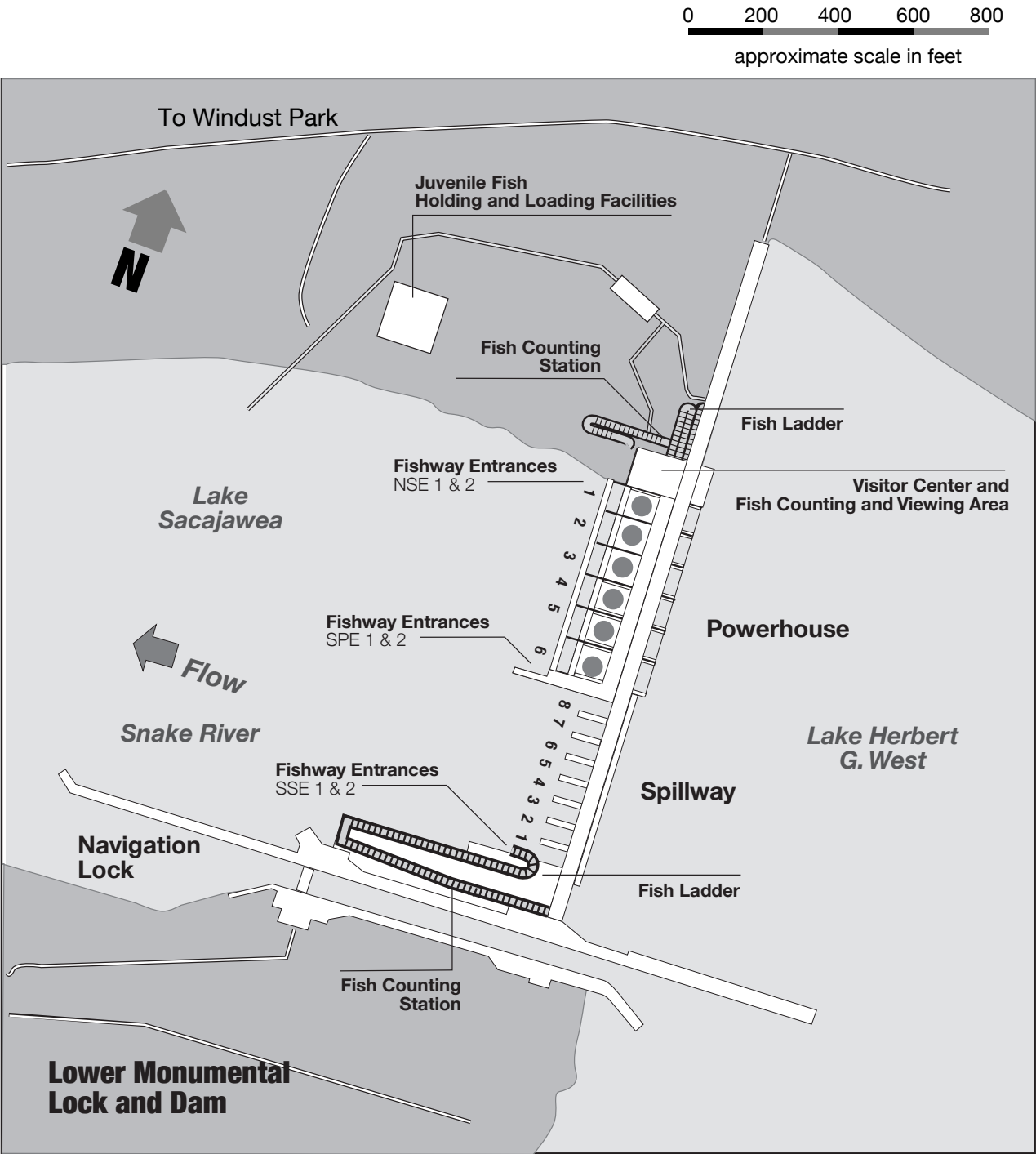
Video counts done during extended count seasons are included.

TABLE 109
MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
1962				8,758	716	261	2,384	7,450	75,924	20,303			115,796
1963				969	895	163	2,157	6,514	35,382	24,070	4,042	347	74,539
1964	105	136	796	2,269	807	153	1,596	9,462	34,435	7,357	1,347	397	58,860
1965	31	110	673	1,976	488	439	3,739	4,497	33,595	13,522	3,803		62,873
1966				2,161	810	413	1,383	2,517	40,185	18,329			65,798
1967				1,266	894	345	972	953	18,914	20,861			44,205
1968				2,558	2,933	357	952	8,107	45,552	17,270	3,692	962	82,383
1969	132	41	807	4,971	2,430	321	3,348	5,715	27,219	14,953	3,874	78	63,889
1970				1,597	1,067	389	2,620	7,611	30,101	8,290	1,891	304	53,870
1971			458	1,938	843	215	3,064	2,996	42,481	15,034			67,029
1972				1,853	553	152	3,062	6,503	34,134	17,336			63,593
1973				1,570	827	254	1,785	2,699	22,021	9,155			38,311
1974				972	359	104	1,482	2,202	3,661	3,748			12,528
1975				564	409	76	1,223	3,878	6,816	3,252			16,218
1976				508	142	165	1,714	5,138	11,141	5,077			23,885
1977				685	220	308	3,654	3,017	30,610	16,326			54,820
1978				908	88	43	1,308	2,907	15,094	6,092	702		27,142
1979			454	538	114	60	1,995	1,778	6,136	9,717	2,325		23,117
1980			1,420	2,796	563	39	1,303	4,333	22,064	15,424	2,279		50,221
1981			797	1,106	433	137	2,305	1,431	16,563	16,669	1,849		41,290
1982			1,471	1,931	918	45	2,564	8,895	30,574	27,007			73,405
1983				1,001	150	36	3,773	9,875	48,519	25,121			88,475
1984				2,218	488	49	4,103	4,554	50,638	31,980			94,030
1985			1,892	7,353	439	306	3,070	14,468	75,378	25,575			128,481
1986			2,561	1,642	187	174	6,600	8,679	63,598	60,851			144,292
1987				2,136	235	262	3,292	4,972	28,491	35,103			74,491
1988				4,865	580	671	3,251	5,955	46,838	37,554			99,714
1989				4,326	355	487	7,399	8,916	80,799	48,819			151,101
1990				2,793	148	252	2,631	2,000	18,728	28,206			54,758
1991				2,297	256	166	3,254	1,275	55,447	61,067			123,762
1992				1,433	232	742	4,190	8,137	89,281	56,599			160,614
1993				7,418	287	745	5,896	8,086	21,614	29,061			73,107
1994				3,040	126	394	3,295	3,162	16,702	24,985			51,704
1995				828	84	193	4,699	14,521	39,494	32,207			92,026
1996				743	81	229	3,427	15,391	48,722	28,657	2,303	1,252	100,805
1997				1,187	216	280	4,323	11,522	40,238	37,036	8,484	544	103,830
1998				1,719	74	259	3,226	3,114	25,408	43,844	5,400	2,078	85,122
1999				713	93	246	3,784	16,120	40,424	18,887	2,809	1,087	84,163
2000				805	91	870	7,202	11,684	65,713	33,899	5,510	650	126,424
2001				1,322	139	3,682	17,607	27,925	136,208	68,837	22,449	5,525	283,694
2002				4,507	134	943	12,760	30,321	87,357	66,151	8,770	819	211,762
2003			5,201	1,548	74	1,128	11,558	12,267	109,101	50,798			191,675
2004			2,483	1,690	118	1,467	9,875	6,593	111,826	37,328			171,380
2005			1,379	1,205	124	1,364	4,619	11,902	76,394	59,933			156,920
2006			1,181	2,628	78	490	2,797	7,265	67,556	42,817			124,812
2007			4,001	2,183	107	903	4,743	11,723	83,713	50,247			157,620
2008				2,942	241	702	14,056	20,872	97,545	36,095			172,453
2009				2,906	154	1,218	13,616	43,697	167,918	98,596			328,105
2010				2,773	289	1,431	29,670	25,794	106,546	40,456			206,959
2011				2,691	360	201	9,931	55,460	86,211	43,951			198,805
2012				2,111	266	816	2,875	5,820	64,613	28,768			105,269
2013			1,531	2,159	156	923	5,886	16,367	46,775	37,027	4,635	703	116,162
2014	211	287		911	366	1,278	10,030	10,929	87,114	40,840			151,966
2015				942	203	953	2,707	11,206	74,537	37,973			128,521
2016				1,254	112	547	4,699	4,033	49,702	34,126			94,473
2017				972	94	77	874	994	35,223	23,727			61,961
2018			634	587	81	263	2,007	895	24,184	16,381	2,789	441	48,262
2019	130	52		813	43	43	1,497	1,155	13,981	14,110			31,824
2020				245	17	148	3,540	3,219	29,545	19,496			56,210
2021				428	39	65	773	1,390	24,458	11,417			38,570
2022				197	53	192	6,195	4,034	33,086	25,447			69,204
2023			447	366	56	136	2,943	2,931	42,787	19,520	2,074	580	71,840
Totals	609	626	28,186	125,791	23,935	29,770	297,283	567,826	3,095,014	1,853,284	91,027	15,767	6,129,118
10-Year Average				672	106	370	3,527	4,079	41,462	24,304			75,283

Video daytime counts during extended count seasons are included.

Plate 7 Lower Monumental Lock and Dam



LOWER MONUMENTAL DAM

FISH COUNTING SCHEDULE

North Ladder Schedule

1 January – 31 March	No counting.
1 April – 31 October	Visual counts daily (0500-2100 hours PST).
1 November – 31 December	No counting.

South Ladder Schedule

1 January – 31 March	No counting.
1 April – 31 October	Visual counts daily (0500-2100 hours PST).
1 November – 31 December	No counting.

FISH LADDER OPERATING SCHEDULE

South Ladder

1– 5 January	Ladder in service.
5 January – 23 January	Ladder dewatered for annual maintenance.
23 January – 31 December	Ladder in service.

North Ladder

1 January – 23 January	Ladder in service.
23 January – 1 February	Ladder dewatered for annual maintenance.
1 February – 31 December	Ladder in service.

FISHWAY ACTIVITIES

The fish pumps were out of service from 4 January to 28 February for annual maintenance.

Temperature monitoring occurred in both ladders year-round using automated systems.

South and North ladder maintenance activities in January and February consisted of checking all the systems and regular maintenance activities according to the fish passage plan. The upper fish ladder maintenance activities included debris removal, diffuser grating and structural support inspections, picketed lead cleaning, cleaning of fish counting windows and staff gauges, and maintenance of the window cleaning mechanisms. The lower ladder maintenance activities included removing debris and diffuser grating and structural support inspections. The replacement of the diffuser grates and clasps will continue to be ongoing issue and will be addressed on an annual basis. On 10 January an electrician observed the south entrance #2 brakes dragging and emitting smoke. The gate was unable to be lowered fully until the brakes were replaced on 11 January.

From 27 February to 15 December, the primary dewatering structure was operated for both juvenile and adult fallback passage. On 15 December, the system was dewatered and out of service for maintenance.

TABLE 110

**MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER MONUMENTAL DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				166	33,411	23,384	3,676	9,952	42,227	5,026			117,842
STEELHEAD				513	122	76	2,558	2,641	39,635	20,131			65,676
SOCKEYE						90	1,985	54	1	1			2,131
COHO*									6,770	7,064			13,834
PINK									2				2
TOTAL				679	33,533	23,550	8,219	12,647	88,635	32,222			199,485
LAMPREY					-2	122	966	370	76	-23			1,509
STURGEON													0
BULL TROUT					7	3							10

*Jacks included

TABLE 111

DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2023

DATE	JANUARY			
	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	26.2	0.0	5.0	37.0
Jan 2	42.2	0.0	5.0	37.0
Jan 3	21.8	5.0	5.0	37.0
Jan 4	19.3	12.2	3.0	36.0
Jan 5	19.4	12.4	3.0	36.0
Jan 6	23.7	16.8	3.0	36.0
Jan 7	28.8	10.6	3.0	37.0
Jan 8	24.4	0.0	3.0	37.0
Jan 9	23.3	0.0	3.0	37.0
Jan 10	22.5	0.0	4.0	38.0
Jan 11	23.6	0.0	4.0	38.0
Jan 12	21.8	0.0	4.0	38.0
Jan 13	21.5	0.0	4.0	38.0
Jan 14	24.0	0.0	4.0	38.0
Jan 15	30.5	0.0	4.0	38.0
Jan 16	26.8	0.4	4.0	38.0
Jan 17	23.2	0.0	4.0	38.0
Jan 18	27.2	0.0	4.0	38.0
Jan 19	29.5	0.0	4.0	38.0
Jan 20	24.1	0.0	4.0	38.0
Jan 21	20.4	0.0	4.0	39.0
Jan 22	28.6	0.0	4.0	39.0
Jan 23	21.2	0.0	4.0	39.0
Jan 24	24.0	0.0	4.0	39.0
Jan 25	23.6	0.0	4.0	39.0
Jan 26	23.4	0.0	4.0	39.0
Jan 27	22.0	0.0	4.0	39.0
Jan 28	23.8	0.0	4.0	38.0
Jan 29	26.5	0.0	4.0	38.0
Jan 30	20.8	2.2	4.0	38.0
Jan 31	26.8	0.0	4.0	37.0

AVG 24.7 1.9 3.9 37.8

DATE	FEBRUARY			
	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	28.4	0.0	4.0	37.0
Feb 2	27.5	0.0	4.0	37.0
Feb 3	23.0	0.6	4.0	37.0
Feb 4	25.9	0.0	4.0	37.0
Feb 5	30.0	0.0	4.5	38.0
Feb 6	18.0	8.6	4.5	38.0
Feb 7	22.3	15.6	4.5	38.0
Feb 8	22.1	15.4	4.5	38.0
Feb 9	26.0	8.1	4.5	38.0
Feb 10	31.4	0.0	5.5	38.0
Feb 11	25.7	0.0	6.0	38.0
Feb 12	28.3	0.0	6.5	38.0
Feb 13	19.0	0.0	7.0	38.0
Feb 14	19.4	0.0	7.0	38.0
Feb 15	20.2	0.0	7.0	38.0
Feb 16	20.2	0.0	7.0	38.0
Feb 17	21.1	0.0	7.0	38.0
Feb 18	18.9	0.0	7.0	38.0
Feb 19	23.3	0.0	7.0	38.0
Feb 20	18.7	0.0	7.0	38.0
Feb 21	21.7	0.0	7.0	38.0
Feb 22	23.8	0.0	7.0	38.0
Feb 23	20.1	0.0	7.0	36.0
Feb 24	19.3	0.0	7.0	36.0
Feb 25	23.3	0.0	7.0	36.0
Feb 26	21.1	0.0	6.5	36.0
Feb 27	27.5	0.0	6.5	36.0
Feb 28	16.2	0.0	6.5	36.0

AVG 22.9 1.7 6.0 37.4

DATE	MARCH			
	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	21.3	1.3	6.5	36.0
Mar 2	26.4	0.0	6.5	36.0
Mar 3	21.4	1.4	6.5	36.0
Mar 4	21.1	0.0	6.5	37.0
Mar 5	19.7	1.4	6.5	38.0
Mar 6	20.3	0.0	6.5	38.0
Mar 7	20.9	0.0	6.5	38.0
Mar 8	21.3	1.4	6.5	38.0
Mar 9	21.4	0.0	6.5	38.0
Mar 10	24.4	1.5	6.5	38.0
Mar 11	28.0	0.0	6.5	38.0
Mar 12	28.5	1.3	6.5	38.0
Mar 13	25.9	0.0	6.5	38.0
Mar 14	20.6	0.0	6.0	38.0
Mar 15	24.4	1.4	6.0	39.0
Mar 16	25.1	0.0	6.0	39.0
Mar 17	23.9	1.5	6.0	39.0
Mar 18	26.2	0.0	6.0	40.0
Mar 19	27.8	1.4	6.0	40.0
Mar 20	23.1	0.0	5.0	40.0
Mar 21	34.6	0.0	5.0	41.0
Mar 22	28.1	1.6	5.0	41.0
Mar 23	24.9	0.0	3.0	41.0
Mar 24	38.3	1.5	3.0	41.0
Mar 25	32.7	0.0	3.0	41.0
Mar 26	28.4	1.6	3.0	42.0
Mar 27	34.0	0.0	3.0	42.0
Mar 28	33.5	0.0	3.0	42.0
Mar 29	37.8	1.4	4.0	42.0
Mar 30	39.0	0.0	4.0	42.0
Mar 31	41.8	1.2	4.0	43.0

AVG 27.3 0.6 5.3 39.4

TABLE 112

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

APRIL 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	BULL				DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
Apr 1	0			0				34	23					35.9	0.0	4.0	43.0
Apr 2	0			0				21	9					35.7	1.2	4.0	43.0
Apr 3	0			0				10	6					31.9	19.1	4.0	43.0
Apr 4	0			0				6	4					30.8	17.8	4.0	43.0
Apr 5	0			0				10	5					33.1	20.3	4.0	43.0
Apr 6	0			0				15	8					33.6	21.0	4.0	44.0
Apr 7	0			0				16	10					33.8	21.1	4.0	44.0
Apr 8	0			0				15	5					37.5	24.8	4.0	45.0
Apr 9	0			0				16	7					33.1	20.3	4.0	45.0
Apr 10	0			0				13	8					43.0	30.1	4.0	45.0
Apr 11	0			0				17	9					56.7	43.8	4.0	45.0
Apr 12	0			0				20	7					76.5	63.3	4.0	45.0
Apr 13	1			0				22	10					64.8	51.7	4.0	45.0
Apr 14	3			0				21	14					65.5	52.7	4.0	46.0
Apr 15	2			0				13	9					58.0	45.1	4.0	46.0
Apr 16	1			0				9	4					54.3	41.4	4.0	46.0
Apr 17	0			0				13	8					57.9	45.1	4.0	47.0
Apr 18	0			0				13	8					62.8	49.7	4.0	47.0
Apr 19	7			1				19	14					60.0	47.1	4.0	47.0
Apr 20	6			0				20	14					60.3	47.2	4.0	47.0
Apr 21	4			1				9	7					59.1	46.2	4.0	47.0
Apr 22	3			0				18	10					57.3	44.4	4.0	47.0
Apr 23	2			0				15	10					55.7	42.7	4.0	48.0
Apr 24	4			1				22	14					54.3	35.0	4.5	48.0
Apr 25	14			1				32	20					62.4	41.5	4.5	49.0
Apr 26	7			0				19	12					59.7	39.2	4.5	49.0
Apr 27	14			2				24	16					69.5	47.1	4.5	49.0
Apr 28	17			1				23	18					70.5	47.8	4.5	49.0
Apr 29	34			2				10	9					81.7	57.1	5.5	49.0
Apr 30	35			3				18	13					87.5	62.5	6.0	49.0
TOTAL	154			12				513	311								
AVG.	5			0				17	10					54.1	37.5	4.2	46.1

Note: Official Spring Chinook run started April 1.

TABLE 113

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	STURGEON	BULL		DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD			TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
May 1	93			7				22	15			0	0	116.9	78.4	6.5	49.0
May 2	106			8				21	17			0	0	129.6	74.7	7.0	51.0
May 3	82			6				14	9			1	0	148.4	83.4	7.0	51.0
May 4	150			4				12	10			0	0	148.0	80.3	7.0	53.0
May 5	221			17				5	4			0	0	148.9	75.5	7.0	53.0
May 6	141			10				3	-1			0	0	150.3	79.2	7.0	52.0
May 7	93			10				11	8			0	0	130.7	76.3	7.0	52.0
May 8	127			35				2	1			0	0	123.0	69.4	7.0	52.0
May 9	205			15				2	2			0	0	119.1	75.3	7.0	52.0
May 10	235			18				4	1			2	0	112.7	56.7	7.0	52.0
May 11	200			14				4	3			1	0	101.3	42.9	7.0	52.0
May 12	429			38				2	2			0	0	104.8	41.5	7.0	52.0
May 13	814			54				1	0			0	0	105.9	42.8	7.0	52.0
May 14	937			83				2	2			0	0	110.0	42.9	7.0	52.0
May 15	710			89				5	4			0	0	132.0	44.6	6.5	52.0
May 16	888			103				-1	-1			0	0	141.8	45.3	6.5	52.0
May 17	1,015			147				1	1			0	0	154.1	61.1	6.5	56.0
May 18	1,783			160				0	0			0	1	151.3	70.6	6.5	56.0
May 19	1,740			212				1	1			1	-1	150.9	78.2	6.5	56.0
May 20	1,080			169				0	0			1	0	156.7	79.4	6.5	56.0
May 21	938			189				0	0			0	0	163.7	84.0	6.5	56.0
May 22	1,194			208				0	0			0	0	163.3	75.5	6.5	55.0
May 23	612			121				1	1			0	0	177.7	81.4	6.5	56.0
May 24	833			152				2	2			0	1	151.2	74.1	6.5	56.0
May 25	1,088			174				6	5			0	-2	131.4	73.2	6.5	57.0
May 26	606			125				0	0			0	0	125.0	69.8	6.5	57.0
May 27	1,294			245				0	0			0	-1	117.4	73.4	6.5	57.0
May 28	1,581			344				0	0			0	0	115.0	69.3	6.5	57.0
May 29	3,797			523				1	1			0	0	113.4	75.5	6.5	57.0
May 30	2,869			515				1	1			0	0	106.9	70.7	6.5	58.0
May 31	3,175			580				0	0			1	0	109.8	58.3	6.0	58.0
TOTAL	29,036			4,375				122	88			7	-2				
AVG.	937			141				4	3			0	0	132.6	67.9	6.7	54.1
RUN YEAR	CHINOOK		CHINOOK						unclipped				BULL				
TOTALS TO DATE	ADULT		JACK						STEELHEAD				TROUT		LAMPREY		
SPRING	29,190		4,387						635				7		-2		

TABLE 114

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	BULL			DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
Jun 1	2,234			550			0	0	0			1	2	104.6	38.4	6.0	59.0
Jun 2	1,734			387			0	0	0			0	1	106.7	38.4	6.0	59.0
Jun 3	972			220			0	1	1			0	0	97.7	34.0	6.0	59.0
Jun 4	822			181			0	2	2			0	1	100.7	35.2	6.0	59.0
Jun 5	690			124			0	0	0			0	2	92.5	34.1	6.0	59.0
Jun 6	740			158			0	0	0			0	2	94.0	35.3	2.5	60.0
Jun 7	449			122			0	0	0			0	-1	89.9	46.4	2.5	60.0
Jun 8	555			104			0	0	0			0	0	90.0	63.2	3.5	61.0
Jun 9	740			135			0	0	0			0	0	84.0	58.1	3.5	62.0
Jun 10	707			139			0	0	0			1	1	81.4	56.6	3.5	62.0
Jun 11	706			165			0	1	1			0	2	75.1	50.1	3.5	62.0
Jun 12	420			115			0	1	1			0	1	74.4	50.9	3.0	62.0
Jun 13	947			165			0	0	0			1	0	74.0	49.9	3.5	62.0
Jun 14		722		127			1	0	0			0	8	70.6	47.8	3.5	62.0
Jun 15		420		72			0	0	0			0	3	69.3	46.8	3.5	63.0
Jun 16		661		119			0	0	0			0	2	61.6	40.6	3.5	64.0
Jun 17		658		122			0	4	4			0	2	54.4	34.3	3.5	64.0
Jun 18		813		126			0	1	0			0	4	53.9	34.1	3.5	64.0
Jun 19		628		144			0	1	1			0	3	55.2	36.8	3.5	64.0
Jun 20		657		125			0	0	0			0	1	56.8	38.0	3.5	64.0
Jun 21		629		119			2	4	1			0	2	56.8	17.2	3.5	64.0
Jun 22		440		111			1	4	2			0	3	57.0	16.9	4.0	64.0
Jun 23		304		96			0	3	3			0	1	49.1	17.2	4.0	64.0
Jun 24		223		77			4	2	2			0	5	48.7	17.1	4.0	64.0
Jun 25		254		129			7	4	2			0	4	42.3	17.1	4.0	65.0
Jun 26		199		110			5	2	2			0	8	44.9	17.3	4.0	65.0
Jun 27		158		108			11	4	4			0	13	42.9	17.0	4.0	66.0
Jun 28		155		97			18	16	9			0	19	43.0	17.1	4.0	66.0
Jun 29		178		100			15	16	8			0	18	45.6	17.1	5.0	66.0
Jun 30		139		83			26	10	7			0	15	51.0	17.1	5.0	65.0
TOTAL	11,716	7,238		4,430			90	76	50			3	122				
AVG.	901	426		148			3	3	2			0	4	68.9	34.7	4.1	62.7
RUN YEAR	CHINOOK ADULT		CHINOOK JACK					SOCKEYE STEELHEAD		unclipped STEELHEAD		BULL TROUT LAMPREY					
TOTALS TO DATE	SPRING	40,906	6,952					90	711	449		10	120				
	SUMMER	7,238	1,865														
	TOTAL	48,144	8,817														

TABLE 115

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT		FALL	CHINOOK	COHO ADULT	COHO	TOTAL		unclipped		BULL			DISCH SPILL TURBIDITY			
	SPRING	SUMMER		JACK		JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
Jul 1		125		68			18	23	14			22	44.1	17.2	5.0	65.0	
Jul 2		114		69			24	23	10			15	41.1	17.1	5.0	66.0	
Jul 3		76		32			25	35	24			15	42.2	17.3	5.0	66.0	
Jul 4		64		39			31	34	18			11	46.7	16.9	5.0	66.0	
Jul 5		82		51			38	28	17			8	43.3	17.0	5.0	66.0	
Jul 6		137		94			47	35	14			21	45.7	17.0	5.0	67.0	
Jul 7		88		86			50	45	22			16	44.2	16.9	5.0	67.0	
Jul 8		135		100			151	61	33			12	48.3	17.1	5.0	67.0	
Jul 9		158		89			159	62	22			24	39.4	17.5	5.0	68.0	
Jul 10		107		73			166	68	40			29	42.5	17.3	5.0	68.0	
Jul 11		158		82			150	108	55			43	39.7	17.5	5.0	68.0	
Jul 12		142		74			151	139	65			47	41.2	17.3	5.0	68.0	
Jul 13		82		47			149	128	70			39	35.0	17.1	5.0	69.0	
Jul 14		98		71			125	110	62			51	37.5	17.0	5.0	70.0	
Jul 15		66		33			96	128	54			39	33.6	17.0	5.0	70.0	
Jul 16		52		26			47	94	58			21	31.3	17.1	5.0	70.0	
Jul 17		73		26			92	165	87			38	32.1	17.2	5.0	70.0	
Jul 18		83		24			87	118	61			30	31.8	17.2	5.0	70.0	
Jul 19		34		20			43	116	66			30	33.8	17.1	5.0	70.0	
Jul 20		36		14			16	86	60			30	32.2	17.0	5.0	69.0	
Jul 21		86		39			87	129	66			24	31.0	17.1	5.0	69.0	
Jul 22		65		13			44	89	46			35	29.9	17.1	5.0	70.0	
Jul 23		58		11			34	141	85			36	34.2	17.0	5.0	70.0	
Jul 24		56		13			36	108	55			57	27.0	15.6	5.0	70.0	
Jul 25		48		16			41	109	71			44	30.6	17.5	5.0	70.0	
Jul 26		30		10			23	88	50			57	31.0	17.0	5.0	70.0	
Jul 27		35		2			12	52	22			37	30.9	17.2	5.0	72.0	
Jul 28		36		16			20	70	34			40	31.4	17.0	5.0	72.0	
Jul 29		30		8			6	63	30			32	34.2	17.3	5.0	72.0	
Jul 30		30		11			10	50	27			34	28.8	17.2	5.0	72.0	
Jul 31		30		5			7	53	33			29	29.3	17.1	5.0	72.0	
TOTAL		2,414		1,262			1,985	2,558	1,371			966					
AVG.		78		41			64	83	44			31	36.3	17.1	5.0	69.0	

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
	40,906	6,952
SUMMER	9,652	3,127
TOTAL	50,558	10,079

SOCKEYE	STEELHEAD	unclipped STEELHEAD
		1,820
2,075	3,269	

BULL TROUT	LAMPREY
	1,086
10	

TABLE 116

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS**AUGUST 2023**

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped	BULL				DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
Aug 1		53		12			5	35	24				37	26.9	15.3	5.0	72.0
Aug 2		27		5			5	22	8				29	29.4	17.9	5.0	72.0
Aug 3		41		8			5	27	24				18	27.0	17.0	6.0	72.0
Aug 4		71		18			9	105	60				10	23.6	10.3	6.0	72.0
Aug 5		18		4			4	23	10				23	26.3	13.3	6.0	72.0
Aug 6		44		4			2	8	4				3	27.9	15.1	6.0	72.0
Aug 7		140		16			8	41	30				11	23.8	11.0	6.0	72.0
Aug 8		94		9			1	35	25				22	25.4	12.5	6.0	72.0
Aug 9		126		3			3	34	19				8	26.4	13.6	6.0	72.0
Aug 10		239		17			5	40	19				7	29.0	16.1	6.0	70.0
Aug 11		179		19			2	40	19				8	29.6	16.9	6.0	70.0
Aug 12		148		12			1	56	37				15	27.2	14.2	6.0	70.0
Aug 13		106		13			0	43	28				9	27.0	14.1	6.0	70.0
Aug 14			95	3			1	29	16				11	26.9	14.1	6.0	70.0
Aug 15			118	5			0	41	26				10	21.1	8.2	6.0	70.0
Aug 16			239	11			0	131	79				8	29.1	8.1	6.0	70.0
Aug 17			142	15			-1	47	30				11	32.7	8.1	6.0	70.0
Aug 18			392	27			0	89	50				10	24.2	8.0	6.0	70.0
Aug 19			543	26			2	99	58				6	25.8	8.0	6.0	71.0
Aug 20			360	7			0	96	41				6	21.1	8.1	6.0	71.0
Aug 21			232	9			0	105	46				6	23.6	8.0	6.0	71.0
Aug 22			267	6			0	64	27				6	22.1	8.0	7.0	71.0
Aug 23			644	52			0	154	71				14	21.1	7.9	7.0	71.0
Aug 24			599	37			0	277	144				5	28.6	8.0	7.0	71.0
Aug 25			303	23			1	154	76				13	28.9	8.0	7.0	71.0
Aug 26			178	24			0	147	67				10	30.2	8.0	7.0	71.0
Aug 27			263	30			1	78	47				10	28.0	8.1	7.0	71.0
Aug 28			483	33			0	63	31				15	30.6	8.3	7.0	71.0
Aug 29			1,195	90			0	130	59				6	26.0	8.3	7.0	71.0
Aug 30			1,022	100			0	200	79				14	26.2	8.1	7.0	71.0
Aug 31			859	94			0	228	91				9	29.3	8.1	7.0	71.0
TOTAL		1,286	7,934	732			54	2,641	1,345				370				
AVG.		99	441	24			2	85	43				12	26.6	10.9	6.3	71.0

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	40,906	6,952
SUMMER	10,938	3,267
FALL	7,934	592
TOTAL	59,778	10,811

SOCKEYE	STEELHEAD	unclipped
STEELHEAD	STEELHEAD	
2,129	5,910	3,165

BULL	
TROUT	LAMPREY
10	1,456

TABLE 117

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS**SEPTEMBER 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped	BULL			DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
Sep 1			607	40	0	0	0	156	56	0			3	26.2	1.4	7.0	70.0
Sep 2			1,358	158	0	0	0	298	128	0			3	23.0	0.0	7.0	69.0
Sep 3			1,332	105	0	0	0	295	119	0			4	19.0	1.2	7.0	68.0
Sep 4			2,132	135	9	4	0	531	149	0			2	20.2	0.0	7.0	68.0
Sep 5			2,965	250	12	3	0	717	216	0			1	23.8	0.0	7.0	68.0
Sep 6			2,944	213	0	0	0	992	424	0			3	28.7	1.2	7.0	68.0
Sep 7			2,584	270	5	0	0	1,312	429	0			0	22.8	0.0	7.0	68.0
Sep 8			2,435	420	26	8	0	1,910	708	0			10	29.7	1.4	7.0	68.0
Sep 9			1,624	212	75	5	0	1,608	529	0			8	27.2	0.0	7.0	68.0
Sep 10			1,502	313	6	2	0	1,549	544	0			2	25.0	1.3	6.0	68.0
Sep 11			1,433	196	200	11	0	1,364	391	0			1	23.2	0.0	6.0	68.0
Sep 12			1,445	193	195	9	0	1,911	518	0			3	23.0	0.0	6.0	68.0
Sep 13			1,421	169	162	2	0	1,997	679	0			9	24.1	1.3	6.0	68.0
Sep 14			1,448	225	276	9	0	1,654	482	0			4	25.5	0.0	6.0	68.0
Sep 15			1,185	243	164	16	0	1,592	508	2			1	23.5	0.0	6.0	68.0
Sep 16			691	209	136	15	0	1,217	383	0			2	19.7	0.0	6.0	68.0
Sep 17			1,031	259	396	1	0	1,610	484	0			3	17.0	0.0	6.0	68.0
Sep 18			1,055	239	561	21	0	1,598	422	0			3	21.6	0.0	6.0	68.0
Sep 19			1,169	262	430	17	0	1,504	366	0			6	21.7	0.0	6.0	67.0
Sep 20			808	263	418	9	0	1,373	422	0			-1	21.7	0.0	6.0	67.0
Sep 21			645	281	438	2	0	1,274	384	0			-1	21.7	1.3	6.0	67.0
Sep 22			602	271	494	35	0	1,257	331	0			1	25.5	0.0	6.0	67.0
Sep 23			548	364	459	13	0	1,779	526	0			1	19.3	1.3	6.0	66.0
Sep 24			355	209	323	1	0	1,342	375	0			4	17.7	1.3	6.0	66.0
Sep 25			318	140	238	6	0	1,027	233	0			6	19.2	1.4	6.0	65.0
Sep 26			468	164	280	11	1	1,177	251	0			1	21.2	1.4	6.0	66.0
Sep 27			445	278	335	4	0	1,991	613	0			-2	21.2	1.3	6.0	66.0
Sep 28			387	334	415	12	0	2,231	644	0			-3	19.8	0.0	6.0	66.0
Sep 29			263	234	260	18	0	1,462	401	0			1	22.6	1.3	6.0	65.0
Sep 30			223	155	211	12	0	907	240	0			1	18.6	0.0	6.0	65.0
TOTAL			35,423	6,804	6,524	246	1	39,635	11,955	2			76				
AVG.			1,181	227	217	8	0	1,321	399	0			3	22.4	0.6	6.3	67.3

RUN YEAR

TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	40,906	6,952
SUMMER	10,938	3,267
FALL	43,357	7,396
TOTAL	95,201	17,615

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
6,524	246	2,130	45,545	15,120	2

BULL TROUT	LAMPREY
10	1,532

TABLE 118

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped		BULL			DISCH SPILL TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCH	DEG F
Oct 1			239	154	218	5	0	964	277				-4	18.7	1.4	6.0	65.0
Oct 2			223	140	174	26	0	802	221				-1	16.4	0.0	6.0	65.0
Oct 3			215	123	196	11	1	1,012	223				-2	21.4	0.0	6.0	65.0
Oct 4			278	196	765	10	0	1,759	552				-3	27.3	1.3	6.0	65.0
Oct 5			154	106	509	6	0	1,203	410				0	18.5	3.6	5.0	65.0
Oct 6			111	156	599	27	0	1,394	399				0	24.4	1.3	5.0	64.0
Oct 7			200	172	547	15	0	1,604	468				2	23.5	0.0	5.0	64.0
Oct 8			139	161	360	3	0	1,300	356				0	19.1	1.4	5.0	64.0
Oct 9			97	104	265	17	0	892	224				-1	19.1	0.0	5.0	64.0
Oct 10			124	83	246	17	0	1,037	256				0	17.5	0.0	5.0	64.0
Oct 11			89	94	323	11	0	914	281				-3	16.8	1.3	5.0	64.0
Oct 12			60	83	318	13	0	929	287				0	16.5	0.0	5.0	64.0
Oct 13			57	92	183	7	0	830	263				0	15.7	1.4	5.0	64.0
Oct 14			56	87	170	9	0	643	206				-1	16.6	0.0	5.0	63.0
Oct 15			60	62	89	1	0	503	182				0	17.3	1.4	5.0	63.0
Oct 16			71	71	82	7	0	481	143				-2	18.2	0.0	5.0	63.0
Oct 17			44	45	82	4	0	421	124				0	16.7	0.0	5.0	63.0
Oct 18			57	97	230	1	0	519	187				-1	17.0	1.5	5.0	63.0
Oct 19			52	53	333	7	0	407	169				-1	17.3	0.0	5.0	63.0
Oct 20			34	68	273	15	0	373	139				0	18.4	1.5	5.0	62.0
Oct 21			40	34	189	13	0	383	127				-1	14.0	0.0	5.0	63.0
Oct 22			39	28	123	4	0	253	75				-2	16.1	1.3	5.0	63.0
Oct 23			28	14	89	6	0	259	73				-1	14.2	0.0	5.0	62.0
Oct 24			34	21	68	5	0	225	84				0	13.8	0.0	5.0	62.0
Oct 25			11	12	72	4	0	180	66				-2	18.0	1.4	5.0	61.0
Oct 26			15	17	27	3	0	187	69				0	16.7	0.0	5.0	60.0
Oct 27			56	26	93	5	0	245	86				0	15.6	1.4	5.0	60.0
Oct 28			24	18	50	4	0	145	57				0	15.7	0.0	5.0	59.0
Oct 29			41	18	55	4	0	106	40				0	17.8	1.5	5.0	59.0
Oct 30			26	7	30	3	0	88	30				0	18.2	0.0	5.0	59.0
Oct 31			8	2	42	1	0	73	31				0	16.1	0.0	5.0	59.0
TOTAL			2,682	2,344	6,800	264	1	20,131	6,105				-23				
AVG.			87	76	219	9	0	649	197				-1	17.8	0.7	5.1	62.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
	40,906	6,952
SUMMER	10,938	3,267
FALL	46,039	9,740
TOTAL	97,883	19,959

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
13,324	510	2,131	65,676	21,225	2

BULL TROUT	LAMPREY
10	1,509

TABLE 119

DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2023

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F				SECCHI	DEG F
Nov 1	17.3	1.4	5.0	59.0	Dec 1	20.1	0.0	6.0	47.0
Nov 2	16.6	0.0	5.0	59.0	Dec 2	24.5	0.0	6.0	46.0
Nov 3	19.3	1.3	5.0	59.0	Dec 3	27.5	0.0	6.0	46.0
Nov 4	21.5	0.0	5.0	59.0	Dec 4	18.1	0.0	6.0	45.0
Nov 5	23.6	1.3	5.0	59.0	Dec 5	13.1	0.0	6.0	45.0
Nov 6	27.0	0.0	5.0	57.0	Dec 6	11.5	0.0	6.0	46.0
Nov 7	24.4	0.0	5.0	56.0	Dec 7	19.1	0.0	6.0	46.0
Nov 8	25.3	1.4	5.0	56.0	Dec 8	33.3	0.0	6.0	46.0
Nov 9	26.1	0.0	5.0	55.0	Dec 9	24.1	0.0	6.0	45.0
Nov 10	24.9	1.6	5.0	55.0	Dec 10	32.7	0.0	6.0	45.0
Nov 11	17.8	0.0	5.0	55.0	Dec 11	23.8	0.0	6.0	45.0
Nov 12	24.8	1.3	5.0	55.0	Dec 12	20.1	0.0	6.0	45.0
Nov 13	20.8	0.4	5.0	54.0	Dec 13	20.8	0.0	6.0	45.0
Nov 14	20.4	0.3	5.0	54.0	Dec 14	24.2	0.0	6.0	44.0
Nov 15	18.3	1.3	5.5	54.0	Dec 15	20.8	0.0	6.0	44.0
Nov 16	19.1	0.0	5.0	54.0	Dec 16	22.2	0.0	6.0	44.0
Nov 17	20.4	1.0	5.0	54.0	Dec 17	17.9	0.0	6.0	44.0
Nov 18	20.8	0.0	6.0	53.0	Dec 18	16.6	0.0	6.0	44.0
Nov 19	15.1	0.0	6.0	53.0	Dec 19	17.3	0.0	6.0	43.0
Nov 20	25.5	0.0	6.0	53.0	Dec 20	19.8	0.0	6.0	43.0
Nov 21	17.1	0.0	6.0	51.0	Dec 21	25.4	0.0	6.0	43.0
Nov 22	19.5	0.0	6.0	50.0	Dec 22	19.6	0.0	6.0	42.0
Nov 23	19.5	0.0	6.0	50.0	Dec 23	20.7	0.0	6.0	42.0
Nov 24	19.2	0.0	6.0	50.0	Dec 24	22.3	0.0	6.0	42.0
Nov 25	18.6	0.0	6.0	49.0	Dec 25	19.1	0.0	6.0	42.0
Nov 26	18.7	0.0	6.0	49.0	Dec 26	21.3	0.0	6.0	42.0
Nov 27	20.5	0.0	6.0	48.0	Dec 27	22.5	0.0	6.0	41.0
Nov 28	18.6	0.0	6.0	48.0	Dec 28	20.3	0.0	6.0	41.0
Nov 29	13.2	0.0	6.0	47.0	Dec 29	18.0	0.0	6.0	41.0
Nov 30	13.6	0.0	6.0	47.0	Dec 30	19.9	0.0	6.0	41.0
					Dec 31	21.6	0.0	6.0	41.0
AVG.	20.3	0.4	5.5	53.4	AVG.	21.2	0.0	6.0	43.7

TABLE 120
YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER MONUMENTAL DAM
1969 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1969	86,700	71,436	1,127	6,466	165,729
1970	75,310	62,167	240	2,972	140,689
1971	68,885	70,114	808	2,171	141,978
1972	72,220	66,857	415	733	140,225
1973	80,557	39,530	206	1,333	121,626
1974	31,728	15,139	114	812	47,793
1975	33,013	17,363	146	572	51,094
1976	34,395	21,822	364	361	56,942
1977	49,301	47,749	293	122	97,465
1978	56,835	20,540	96	218	77,689
1979	11,288	17,794	31	194	29,307
1980	10,885	34,322	48	73	45,328
1981	19,991	35,923	136	63	56,113
1982	21,965	62,772	154	89	84,980
1983	19,082	80,562	118	110	99,872
1984	17,866	88,655	63	26	106,610
1985	42,437	109,718	68	24	152,247
1986	50,584	120,479	26	9	171,098
1987	42,434	62,586	16	6	105,042
1988	44,262	84,746	35	3	129,046
1989	25,590	129,618	9	17	155,234
1990	28,215	44,907	0	1	73,123
1991	18,210	98,315	6	5	116,536
1992	30,145	130,429	15	0	160,589
1993	34,195	70,992	18	0	105,205
1994	7,219	49,917	7	0	57,143
1995	7,883	90,157	4	4	98,048
1996	15,606	96,609	3	6	112,224
1997	51,556	85,602	16	30	137,204
1998	21,537	66,118	2	0	87,657
1999	20,271	72,842	15	88	93,216
2000	68,961	112,616	291	750	182,618
2001	225,667	285,745	32	1,210	512,654
2002	124,897	232,809	46	158	357,910
2003	123,158	187,338	14	1,106	311,616
2004	114,030	158,792	80	3,665	276,567
2005	52,281	153,792	18	2,095	208,186
2006	54,482	135,566	17	1,181	191,246
2007	73,333	154,104	44	2,231	229,712
2008	123,018	186,058	722	4,513	314,311
2009	183,451	317,275	1,162	5,617	507,505
2010	200,817	213,811	1,652	2,003	418,283
2011	178,281	187,272	1,395	4,829	371,777
2012	144,661	101,523	486	2,501	249,171
2013	151,421	106,649	1,014	2,325	261,409
2014	193,400	170,270	2,805	19,855	386,330
2015	213,045	131,476	888	1,353	346,762
2016	135,313	94,196	1,024	3,293	233,826
2017	80,253	66,499	346	7,587	154,685
2018	70,462	50,031	398	2,058	122,949
2019	54,496	35,131	195	7,668	97,490
2020	76,267	54,936	1,257	8,971	141,431
2021	91,977	40,453	953	21,979	155,362
2022	142,341	67,768	1,953	18,774	230,836
2023	117,842	65,676	2,131	13,834	199,483
Total	4,124,019	5,375,566	23,522	156,064	9,679,171
10-Year Average	117,540	77,644	1,195	10,537	206,915

*Jacks included

2001-2004 and 2014, 2015, and 2020 extended season video counts are included.

TABLE 121
MONTHLY COUNT OF CHINOOK SALMON
LOWER MONUMENTAL DAM
1969-2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1969			1	67	38,702	25,289	13,832	1,776	5,069	1,619	340	5	86,700
1970	1		1	9,194	32,623	15,818	9,369	1,720	5,178	1,281	122	3	75,310
1971				358	19,340	23,842	14,492	857	8,599	1,397			68,885
1972				6,838	36,448	6,989	15,501	1,835	3,737	872			72,220
1973				27,168	31,973	11,282	4,343	678	4,273	840			80,557
1974				327	15,796	4,904	7,241	602	1,972	886			31,728
1975				704	17,421	6,648	4,884	548	2,428	380			33,013
1976				1,995	19,292	7,731	3,172	175	1,609	421			34,395
1977				19,125	17,093	7,884	3,092	300	1,321	486			49,301
1978				12,324	30,067	8,941	3,853	831	536	283			56,835
1979				1,332	5,637	2,010	922	211	916	260			11,288
1980				1,008	5,198	2,318	1,315	319	405	322			10,885
1981				4,039	9,012	3,349	1,924	97	1,100	470			19,991
1982				372	11,319	5,031	2,773	264	1,631	575			21,965
1983				1,250	10,262	3,841	2,103	220	1,008	398			19,082
1984				513	7,186	6,297	2,549	205	789	327			17,866
1985				7,360	20,572	7,303	1,279	402	2,451	3,070			42,437
1986				10,893	25,454	7,436	1,821	123	2,786	2,071			50,584
1987				8,706	21,166	5,492	2,400	278	2,625	1,767			42,434
1988				11,451	19,823	7,851	1,832	607	1,752	946			44,262
1989				159	14,924	4,858	1,615	476	1,852	706			24,590
1990				6,830	12,127	5,197	1,594	181	1,205	1,081			28,215
1991				925	6,537	5,491	1,936	127	2,177	1,017			18,210
1992				10,529	10,822	5,001	1,220	188	1,729	656			30,145
1993				3,848	16,154	9,720	2,016	313	1,591	509	44		34,195
1994				574	2,448	1,287	322	156	1,308	1,124			7,219
1995				210	1,435	1,092	471	280	2,183	2,212			7,883
1996				62	5,836	4,442	1,407	395	2,547	917			15,606
1997				1,493	26,966	16,833	2,484	309	2,174	1,297			51,556
1998				2,325	6,626	5,095	1,222	272	3,418	2,579			21,537
1999				124	4,551	4,951	1,630	623	5,499	2,893			20,271
2000				10,018	30,132	11,068	2,469	1,367	8,950	4,957			68,961
2001				104,119	60,247	32,422	6,261	1,472	16,390	4,411	334	11	225,667
2002	1		7	3,881	60,767	31,795	6,496	2,367	15,707	3,660	214	2	124,897
2003			50	33,435	31,906	28,381	6,247	951	15,255	6,642	288	3	123,158
2004			1	29,462	36,732	18,114	3,721	566	21,620	3,670	145	-1	114,030
2005				1,174	18,726	13,028	2,942	948	12,215	3,248			52,281
2006				10	17,659	12,916	3,541	1,816	12,534	6,006			54,482
2007				2,143	27,277	13,221	5,238	1,804	17,407	6,243			73,333
2008				2,468	43,772	37,105	7,801	3,334	24,325	4,213			123,018
2009				483	64,754	45,527	10,839	7,310	49,587	4,951			183,451
2010				23,522	70,028	39,285	9,253	2,937	44,326	11,466			200,817
2011				193	71,045	44,773	15,764	4,502	34,401	7,603			178,281
2012				203	59,645	23,507	4,218	4,103	47,126	5,859			144,661
2013				1,102	45,917	19,984	7,105	9,070	61,547	6,696			151,421
2014				4,044	75,066	28,085	9,916	4,481	62,903	8,547	351	7	193,400
2015				29,958	77,723	26,209	7,468	7,711	54,597	9,379			213,045
2016				1,924	60,370	19,277	4,308	7,594	36,859	4,981			135,313
2017				97	22,869	21,572	3,578	1,792	24,634	5,711			80,253
2018				73	26,689	16,436	1,758	2,883	18,287	4,336			70,462
2019				33	21,052	8,464	1,679	2,236	17,241	3,637	156	-2	54,496
2020	1	0		501	18,897	12,267	2,476	6,328	31,235	4,562			76,267
2021				878	30,916	12,498	3,465	6,353	34,215	3,652			91,977
2022				591	58,019	23,361	5,202	9,608	41,757	3,803			142,341
2023				166	33,411	23,384	3,676	9,952	42,227	5,026			117,842
Total	3	0	60	402,581	1,566,429	796,902	250,035	116,853	821,213	166,921	1,994	28	4,123,019
10-Year Average				3,827	42,501	19,155	4,353	5,894	36,396	5,363			117,540

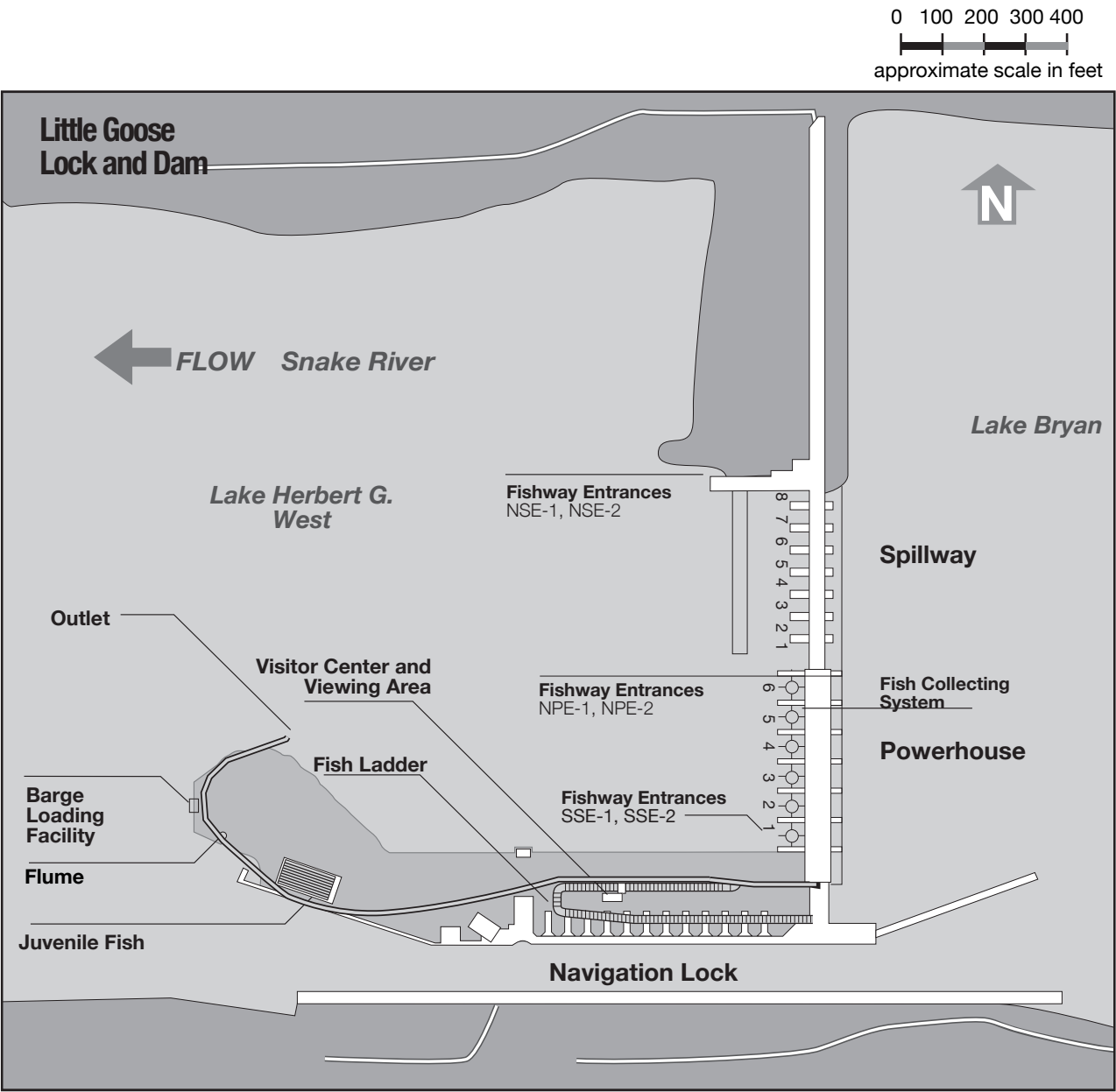
*Jacks included
Extended season video counts are included.

TABLE 122
MONTHLY COUNT OF STEELHEAD
LOWER MONUMENTAL DAM
1969 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
1969		5	1,525	9,235	5,475	248	2,141	6,410	26,647	15,195	4,189	366	71,436
1970	252	1,025	1,519	3,143	2,134	232	1,989	7,947	30,701	11,194	1,615	416	62,167
1971			422	2,404	1,510	131	2,199	2,992	42,438	18,018			70,114
1972				2,182	744	86	2,336	7,184	32,417	21,908			66,857
1973				2,061	658	82	2,060	3,505	21,241	9,923			39,530
1974				1,221	256	17	1,237	2,835	4,929	4,644			15,139
1975				745	444	24	873	4,417	7,437	3,423			17,363
1976				806	256	146	1,092	4,409	10,328	4,785			21,822
1977				849	192	127	3,026	2,991	22,494	18,070			47,749
1978				1,324	128	16	719	2,522	10,477	5,354			20,540
1979				643	118	28	1,314	1,937	4,898	8,856			17,794
1980				2,467	573	70	754	3,725	14,078	12,655			34,322
1981				996	321	75	1,783	1,632	12,416	18,700			35,923
1982				2,026	1,123	35	1,851	7,373	22,426	27,938			62,772
1983				1,021	131	14	3,027	10,101	40,004	26,264			80,562
1984				2,663	482	52	3,150	4,820	42,788	34,700			88,655
1985				6,889	548	189	1,888	10,086	63,734	26,384			109,718
1986				1,914	205	89	5,082	7,751	46,876	58,562			120,479
1987				2,483	264	142	2,531	4,692	20,766	31,708			62,586
1988				4,274	604	411	1,903	5,725	35,290	36,539			84,746
1989				1,067	389	304	6,364	8,093	63,026	50,375			129,618
1990				2,691	197	189	1,804	1,579	14,209	24,238			44,907
1991				2,211	288	70	2,275	1,497	41,894	50,080			98,315
1992				1,456	182	285	2,890	7,223	68,606	49,787			130,429
1993				7,752	277	564	5,367	8,197	16,146	30,228	2,461		70,992
1994				2,844	76	186	2,595	2,998	14,901	26,317			49,917
1995				1,072	162	138	4,074	10,424	38,890	35,397			90,157
1996				934	96	137	3,199	12,413	47,234	32,596			96,609
1997				1,044	162	177	3,422	9,326	34,521	36,950			85,602
1998				1,501	62	198	2,361	1,835	19,892	40,269			66,118
1999				559	59	98	2,652	11,170	37,899	20,405			72,842
2000				937	-26	546	5,741	9,045	61,072	35,301			112,616
2001				1,636	113	2,874	19,045	26,264	126,517	76,474	23,900	8,922	285,745
2002	3,687	1,858	3,429	4,876	196	688	10,901	25,998	94,310	75,670	9,028	2,168	232,809
2003	775	3,686	5,325	1,872	45	850	7,704	8,122	93,190	60,813	3,945	1,011	187,338
2004	115	1,036	2,619	1,473	127	1,052	6,477	4,020	90,900	45,380	4,101	1,492	158,792
2005				783	181	1,062	5,193	7,445	70,701	68,427			153,792
2006				2,756	98	454	3,392	7,778	63,849	57,239			135,566
2007				2,174	143	914	5,735	8,657	77,612	58,869			154,104
2008				3,520	510	552	12,664	21,947	97,562	49,303			186,058
2009				4,294	426	1,358	12,112	23,920	167,680	107,485			317,275
2010				3,621	489	1,377	19,765	25,351	109,728	53,480			213,811
2011				3,331	548	196	7,342	45,999	82,453	47,403			187,272
2012				3,189	421	518	2,960	4,550	55,979	33,906			101,523
2013				2,310	196	539	4,476	12,809	45,280	41,039			106,649
2014			3,603	1,179	497	1,163	10,001	11,417	79,686	51,670	8,778	2,276	170,270
2015	423	1,240		1,575	194	560	2,104	8,763	70,875	45,742			131,476
2016				1,324	113	508	4,002	4,319	42,587	41,343			94,196
2017				1,326	113	61	796	1,020	32,569	30,614			66,499
2018				1,121	81	161	1,938	1,128	25,245	20,357			50,031
2019				960	72	61	1,377	1,172	13,199	16,397	1,698	195	35,131
2020	89	404		418	29	104	2,528	3,295	26,268	21,801			54,936
2021				676	76	49	711	1,125	24,424	13,392			40,453
2022				358	63	125	4,971	5,128	28,305	28,818			67,768
2023				513	122	76	2,558	2,641	39,635	20,131			65,676
Total	5,341	9,254	18,442	118,699	22,943	20,408	232,451	449,722	2,529,229	1,892,516	59,715	16,846	5,375,566
10-Year Average				945	136	287	3,099	4,001	38,279	29,027			77,644

Note - Counts include extended season video counts.

Plate 8 Little Goose Lock and Dam



LITTLE GOOSE DAM 2023

FISH COUNTING SCHEDULE

01 January – 31 March	No counting
01 April – 31 October	Visual counting daily from 0500-2100 hours PDT

FISH LADDER OPERATING SCHEDULE

01 January – 08 January	Ladder in service
09 January – 13 February	Ladder dewatered for annual maintenance.
14 -15 February	Ladder returned to service
16 February – 22 February	Ladder dewatered for viewing room window leak repair
23 February – 31 December	Ladder in service
07 June – 29 June	Ladder cooling pump in service

FISHWAY ACTIVITIES

Adult fishways were inspected for proper operating criteria daily with an average of three fishway inspections per week during fish passage season.

Water temperature in the ladder was recorded on an hourly basis at the ladder exit, turn pool and junction pool using permanently mounted equipment. Little Goose was able to install the permanent fish ladder cooling system in 2018 and completed the permanent power install in 2020. The system continues to experience issues with pump reliability, causing the pump to be out of operation prematurely on 29 June.

Water clarity was measured during all adult fish passage facility inspections. Measurements were taken in the adult fish ladder using a Secchi disk that could be lowered to a maximum depth of just over 6 feet. Measurements above 6 foot are noted as 6+ feet.

Collection channel subsurface water velocities were measured monthly using a rickly velocity meter. Measurements were taken just below the surface, at mid depth and just above bottom and averaged. Additionally, collection channel surface water velocities were measured using a floating stick or bubble that was timed over a distance and calculated into feet per second.

Invasive species were monitored, with particular attention to Zebra Mussels and Quagga Mussels. Reports were submitted weekly to district.

Four Peaks and USACE conducted fish counting activities and monitored for and reported bull trout migration past the adult fish ladder. Sightings are reported annually to U.S. Fish and Wildlife Services.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks counts from March 25 to November 1.

The adjustable spillway weir was in operation from April 03 until August 1 upon meeting low flow criteria. Comprised of 3 non-consecutive days and a duration of 4 hours, spring ASW adult steelhead surface spill operations transpired between March 1 and April 2, while fall ASW steelhead natal stream overshoot spill operations commenced September 1 and ended November 15.

TABLE 119

**MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LITTLE GOOSE DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				86	27,995	28,027	4,238	8,453	37,191	4,893			110,883
STEELHEAD				411	175	61	1,292	2,168	38,024	21,531			63,662
SOCKEYE						54	1,687	61	1				1,803
COHO									6,937	7,186			14,123
PINK								1					1
TOTAL				497	28,170	28,142	7,217	10,683	82,153	33,610			190,472
LAMPREY						11	378	45	-70	-8			356
STURGEON													0
BULL TROUT				1	3	4	1						9

*Jacks included

TABLE 124

**DISCHARGE AND WATER QUALITY DATA
LITTLE GOOSE PROJECT 2023**

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	25.0	0.0	**	**
Jan 2	22.9	0.0	**	**
Jan 3	37.8	0.0	**	**
Jan 4	20.6	0.0	**	**
Jan 5	18.4	0.0	**	**
Jan 6	16.9	0.0	**	**
Jan 7	20.0	0.0	**	**
Jan 8	24.2	0.0	**	**
Jan 9	23.3	0.0	**	**
Jan 10	21.4	0.0	**	**
Jan 11	21.8	0.0	**	**
Jan 12	24.4	0.0	**	**
Jan 13	20.9	0.0	**	**
Jan 14	19.7	0.0	**	**
Jan 15	23.0	0.0	**	**
Jan 16	29.0	0.0	**	**
Jan 17	25.6	0.0	**	**
Jan 18	21.0	0.0	**	**
Jan 19	26.0	0.0	**	**
Jan 20	28.1	0.0	**	**
Jan 21	22.9	0.0	**	**
Jan 22	20.0	0.0	**	**
Jan 23	25.5	0.0	**	**
Jan 24	20.1	0.0	**	**
Jan 25	24.8	0.0	**	**
Jan 26	23.1	0.0	**	**
Jan 27	22.9	0.3	**	**
Jan 28	21.7	0.0	**	**
Jan 29	21.1	0.0	**	**
Jan 30	22.7	0.0	**	**
Jan 31	24.8	0.0	**	**

AVG.

23.2	0.0
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FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	24.9	0.0	**	**
Feb 2	27.5	0.0	**	**
Feb 3	23.2	0.0	**	**
Feb 4	25.0	0.0	**	**
Feb 5	25.0	0.0	**	**
Feb 6	25.8	0.0	**	**
Feb 7	23.0	0.0	**	**
Feb 8	17.9	0.0	**	**
Feb 9	18.6	0.0	**	**
Feb 10	25.4	0.0	**	**
Feb 11	28.8	0.0	**	**
Feb 12	28.4	0.3	**	**
Feb 13	27.6	0.5	**	**
Feb 14	17.5	8.7	**	**
Feb 15	19.1	11.0	**	**
Feb 16	20.8	12.5	**	**
Feb 17	21.3	13.3	**	**
Feb 18	21.6	13.7	**	**
Feb 19	21.9	14.2	**	**
Feb 20	22.1	14.3	**	**
Feb 21	22.0	14.2	**	**
Feb 22	22.4	14.6	**	**
Feb 23	24.5	16.7	**	**
Feb 24	25.0	11.5	**	**
Feb 25	22.2	0.0	**	**
Feb 26	21.7	0.0	**	**
Feb 27	21.2	0.0	**	**
Feb 28	23.1	0.0	**	**

AVG.

23.1	5.2
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MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	16.4	0.0	**	**
Mar 2	22.2	1.2	**	**
Mar 3	25.2	0.0	**	**
Mar 4	21.5	1.2	**	**
Mar 5	20.1	0.0	**	**
Mar 6	20.3	1.1	**	**
Mar 7	20.1	0.0	6.0	**
Mar 8	20.8	1.2	6.0	**
Mar 9	21.0	0.0	6.0	**
Mar 10	21.3	1.2	**	**
Mar 11	23.9	0.0	**	**
Mar 12	27.8	0.0	**	**
Mar 13	28.7	1.3	6.0	**
Mar 14	24.4	0.0	6.0	**
Mar 15	20.2	1.2	6.0	**
Mar 16	23.8	0.0	**	**
Mar 17	24.6	1.3	**	**
Mar 18	22.3	0.0	**	**
Mar 19	24.8	0.0	**	**
Mar 20	28.0	1.2	6.0	**
Mar 21	24.1	0.0	**	**
Mar 22	32.3	1.4	6.0	**
Mar 23	28.4	0.0	6.0	**
Mar 24	24.7	1.2	**	**
Mar 25	35.8	0.0	**	**
Mar 26	32.2	0.0	5.0	42.6
Mar 27	26.3	1.2	**	**
Mar 28	33.9	0.0	**	43.5
Mar 29	32.9	1.2	**	**
Mar 30	33.4	6.8	4.5	43.7
Mar 31	38.2	1.2	**	**

AVG.

25.8	0.8	5.8	43.3
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*Water temps are from water quality sensor located in the tailrace

**Data unavailable

TABLE 125

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS**APRIL 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	BULL	DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE			STEELHEAD	STEELHEAD	PINK	TROUT	LAMPREY
Apr 1	0			0			29	14		0		41.0	0.0	3.8	43.9
Apr 2	0			0			25	13		0		36.5	0.0	**	**
Apr 3	0			0			14	7		0		35.4	1.2	**	44.4
Apr 4	0			0			10	3		0		30.9	14.0	**	**
Apr 5	0			0			14	7		0		29.3	14.0	4.2	45.3
Apr 6	0			0			12	9		0		31.6	15.6	4.0	**
Apr 7	0			0			11	7		0		31.8	16.6	**	44.4
Apr 8	0			0			13	6		0		32.3	17.2	**	**
Apr 9	0			0			9	4		0		34.9	17.7	5.5	44.6
Apr 10	0			0			8	5		0		31.2	15.9	**	**
Apr 11	0			0			9	6		0		39.6	21.7	**	45.3
Apr 12	0			0			17	12		0		53.1	32.1	**	**
Apr 13	0			0			10	4		0		73.0	46.1	4.0	46.6
Apr 14	0			0			13	6		0		61.6	41.0	**	**
Apr 15	0			0			10	5		0		61.8	38.9	5.2	47.1
Apr 16	0			0			15	8		0		55.5	34.2	**	**
Apr 17	1			0			12	7		1		49.8	30.8	**	48.1
Apr 18	2			0			23	8		0		54.7	34.6	**	**
Apr 19	0			0			8	5		0		59.6	36.6	2.5	48.0
Apr 20	1			0			9	3		0		58.4	36.7	2.0	**
Apr 21	5			0			14	6		0		56.4	34.8	3.1	46.9
Apr 22	4			0			16	8		0		55.3	33.9	**	**
Apr 23	3			0			11	7		0		54.4	33.0	**	48.4
Apr 24	3			0			6	4		0		51.9	32.0	4.0	48.4
Apr 25	2			2			12	6		0		52.7	33.2	3.5	48.4
Apr 26	3			0			24	16		0		59.7	38.0	**	48.4
Apr 27	10			0			15	10		0		60.4	42.1	3.8	49.6
Apr 28	7			-1			15	10		0		65.2	41.4	4.9	49.8
Apr 29	8			0			15	11		0		68.2	44.1	**	50.2
Apr 30	34			2			12	9		0		79.0	52.2	**	51.8
TOTAL	83			3			411	226		1					
AVG.	3			0			14	8		0		50.2	28.3	3.9	47.3

**Data unavailable

*April 2-Oct 31 water temps collected from juvenile fish collection channel.
 Visual fish counting started April 1.

TABLE 126

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD						SECCHI	DEG F
May 1	32			3				18	15		0		87.8	58.8	4.0	51.6
May 2	41			2				19	12		0		112.4	63.5	**	52.3
May 3	95			5				21	17		0		130.4	65.7	**	53.1
May 4	73			3				15	10		0		143.2	66.0	2.4	53.6
May 5	88			13				10	3		0		148.9	66.1	**	53.2
May 6	123			5				13	6		0		149.4	65.2	2.5	52.2
May 7	113			12				5	0		0		147.7	63.7	**	51.4
May 8	78			13				8	4		0		131.5	64.7	2.2	51.3
May 9	81			14				5	4		0		122.9	64.7	**	51.3
May 10	206			18				5	4		0		114.3	63.8	3.0	51.3
May 11	259			19				1	1		1		112.0	50.1	**	51.6
May 12	154			12				2	1		0		100.7	36.7	3.4	51.6
May 13	313			19				5	4		0		106.0	36.2	**	53.6
May 14	573			26				10	10		0		103.5	35.0	**	52.5
May 15	831			53				10	10		1		110.7	36.9	3.1	54.3
May 16	860			106				3	3		0		131.1	40.6	**	55.2
May 17	1,093			178				4	4		0		141.1	46.1	**	55.9
May 18	783			127				3	3		0		151.1	53.5	2.8	56.5
May 19	621			129				3	2		0		149.9	69.0	3.9	55.2
May 20	782			115				1	1		0		153.5	101.0	**	54.7
May 21	830			165				2	2		0		158.2	105.8	3.1	55.0
May 22	913			252				0	0		0		163.5	111.0	**	55.6
May 23	565			146				2	1		0		169.5	99.7	**	55.9
May 24	667			146				0	0		0		177.7	107.7	2.7	56.3
May 25	2,144			237				1	1		1		154.9	84.9	2.3	56.1
May 26	628			175				1	0		0		130.4	59.9	3.2	55.9
May 27	1,030			179				0	0		0		125.3	62.1	**	56.1
May 28	1,431			250				5	1		0		116.0	61.1	2.6	57.0
May 29	1,600			279				3	1		0		117.2	61.5	**	57.6
May 30	3,071			827				0	0		0		111.7	61.3	**	58.3
May 31	3,551			838				0	0		0		109.2	61.4	4.6	57.9
TOTAL	23,629			4,366				175	120		3					
AVG.	762			141				6	4		0		131.7	65.3	3.1	54.3
RUN YEAR																**Data unavailable
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	unclipped STEELHEAD		BULL TROUT					
SPRING		23,712	4,369					586	346		4					

TABLE 127

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

LITTLE GOOSE PROJECT - FISH COUNTS**JUNE 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	BULL		DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		TROUT	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Jun 1	3,183			791			0	2	2		1	0	107.1	46.2	**	57.9
Jun 2	2,494			561			0	0	0		0	0	103.6	32.5	**	58.8
Jun 3	1,857			388			0	1	1		0	0	105.6	31.0	3.5	59.7
Jun 4	1,403			305			0	0	0		0	0	95.9	29.1	2.4	60.8
Jun 5	969			204			0	0	0		0	0	98.8	28.1	**	60.8
Jun 6	840			171			0	1	1		1	0	90.8	28.3	3.8	61.3
Jun 7	625			154			0	-1	-1		0	1	91.2	28.3	**	62.1
Jun 8	349			111			0	1	1		0	0	90.4	43.9	3.8	62.8
Jun 9	341			87			0	0	0		0	1	87.8	58.2	4.0	62.2
Jun 10	684			137			0	0	0		0	0	85.2	56.6	**	62.2
Jun 11	664			129			0	0	0		0	1	78.7	51.7	**	62.2
Jun 12	838			163			0	0	0		0	-1	76.7	49.6	3.9	63.9
Jun 13	634			127			0	2	2		0	0	71.0	45.8	**	64.9
Jun 14	925			132			0	1	1		1	0	73.1	46.3	**	63.7
Jun 15	812			122			1	0	0		0	0	70.5	45.6	3.8	63.7
Jun 16		469		93			0	0	0		1	0	67.7	44.3	**	64.0
Jun 17		491		96			2	0	0		0	0	60.6	38.5	4.1	64.2
Jun 18		742		123			1	2	2		0	2	54.5	33.2	4.7	64.2
Jun 19		718		112			1	3	2		0	0	52.9	32.0	**	64.2
Jun 20		518		156			1	0	0		0	0	57.3	37.4	**	64.2
Jun 21		730		159			1	2	2		0	0	56.5	36.4	**	63.9
Jun 22		639		126			0	2	1		0	0	57.6	17.2	4.2	64.2
Jun 23		489		114			1	5	5		0	1	55.1	16.5	**	64.6
Jun 24		332		99			0	5	3		0	1	49.2	14.8	**	64.6
Jun 25		189		56			4	4	4		0	1	47.3	14.4	4.1	65.1
Jun 26		167		96			4	3	2		0	-1	41.2	12.4	**	64.2
Jun 27		186		77			6	3	1		0	2	44.6	13.3	**	63.7
Jun 28		150		102			11	4	2		0	1	42.3	12.8	5.6	63.9
Jun 29		164		86			12	9	6		0	2	41.5	12.5	5.9	64.4
Jun 30		246		102			9	12	7		0	0	43.9	13.2	6.0	64.6

TOTAL	16,618	6,230		5,179			54	61	44		4	11
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AVG.	1,108	415		173			2	2	1				70.0	32.3	4.3	63.0
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**Data unavailable

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	40,330	7,951
SUMMER	6,230	1,597
TOTALS	46,560	9,548

SOCKEYE	STEELHEAD	unclipped STEELHEAD
54	647	390

BULL TROUT	LAMPREY
8	11

TABLE 128

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	BULL		DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		TROUT	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Jul 1		204		59			23	7	3		0	3	47.8	14.4	**	64.8
Jul 2		211		78			9	8	5		0	9	41.6	12.4	6.0	65.5
Jul 3		154		67			21	12	9		1	16	38.7	11.7	**	66.6
Jul 4		125		38			18	19	12		0	20	41.3	12.5	**	67.3
Jul 5		68		35			7	17	11		0	16	42.6	12.8	6.0	67.3
Jul 6		168		52			37	36	23		0	7	42.0	12.5	**	68.4
Jul 7		135		89			17	24	19		0	18	43.3	13.0	**	68.5
Jul 8		109		63			45	26	12		0	12	42.4	12.8	6.0	69.3
Jul 9		136		107			62	19	13		0	4	46.0	13.7	**	68.9
Jul 10		121		105			117	19	14		0	10	36.4	10.9	**	69.1
Jul 11		154		74			122	31	21		0	17	40.6	12.3	6.0	68.5
Jul 12		140		61			138	45	24		0	13	38.5	11.6	**	69.1
Jul 13		150		75			137	51	27		0	17	37.6	11.3	6.0	68.2
Jul 14		111		69			138	52	26		0	26	35.9	10.9	**	68.4
Jul 15		95		40			100	73	35		0	7	35.3	10.6	6.0	68.8
Jul 16		68		33			83	59	32		0	23	33.5	10.0	**	68.4
Jul 17		70		35			73	43	25		0	18	31.0	9.3	**	67.8
Jul 18		27		32			70	62	38		0	9	32.9	11.0	6.0	68.2
Jul 19		78		32			74	80	48		0	10	31.1	11.7	5.5	69.4
Jul 20		56		13			48	46	25		0	14	31.5	10.8	**	69.4
Jul 21		52		19			44	41	27		0	14	31.5	10.8	6.0	69.4
Jul 22		73		30			49	67	33		0	5	31.5	11.0	**	69.1
Jul 23		89		16			52	57	35		0	6	29.6	10.9	**	69.4
Jul 24		58		20			33	57	45		0	14	31.8	10.7	6.0	69.4
Jul 25		62		13			31	90	52		0	13	27.3	10.6	6.0	69.4
Jul 26		52		12			43	59	39		0	10	28.0	10.8	**	69.6
Jul 27		53		9			41	65	42		0	7	30.5	10.7	**	70.0
Jul 28		23		15			21	39	32		0	13	27.9	10.6	**	70.3
Jul 29		31		14			17	42	29		0	7	28.6	9.0	6.0	69.6
Jul 30		28		15			9	31	18		0	8	32.9	11.8	**	69.3
Jul 31		13		4			8	15	11		0	12	28.5	8.8	**	68.9
TOTAL		2,914		1,324			1,687	1,292	785		1	378				

AVG.

94

43

54

42

25

0

12

35.4

11.4

6.0

68.6

**Data unavailable

RUN YEAR

TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	40,330	7,951
SUMMER	9,144	2,921
TOTAL	49,474	10,872

	SOCKEYE	STEELHEAD	unclipped STEELHEAD
	1,741	1,939	1,175

	BULL TROUT	LAMPREY
	9	389

TABLE 129

**MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND**

LITTLE GOOSE PROJECT - FISH COUNTS**AUGUST 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	BULL	DISCH	SPILL	TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			PINK	TROUT	LAMPREY	KCFS	KCFS
Aug 1		32		5			6	24	11	0		10	26.8	15.7	**	69.1
Aug 2		23		10			18	27	14	0		3	23.7	11.6	6.0	69.1
Aug 3		32		7			6	29	13	0		0	29.0	17.0	6.0	69.3
Aug 4		29		13			6	32	21	0		4	26.9	14.9	**	69.1
Aug 5		31		10			2	20	7	0		0	21.7	10.2	6.0	68.7
Aug 6		48		8			2	15	10	0		-6	24.8	7.7	**	68.7
Aug 7		29		3			3	24	13	0		5	26.3	9.5	**	68.4
Aug 8		84		21			2	27	18	0		4	22.3	10.4	6.0	68.4
Aug 9		66		6			0	27	21	0		0	25.1	12.7	6.0	68.2
Aug 10		128		11			4	32	21	0		10	26.6	14.1	**	67.8
Aug 11		250		31			4	76	31	0		-9	26.6	13.9	6.0	69.1
Aug 12		143		13			0	67	42	0		5	30.4	9.5	**	69.1
Aug 13		142		7			2	48	25	0		-1	25.7	11.0	**	69.4
Aug 14		91		6			0	45	26	0		7	25.9	9.5	6.0	70.0
Aug 15		83		3			0	30	20	0		-1	26.5	9.6	**	70.0
Aug 16			66	3			1	41	23	0		-2	22.5	6.5	6.0	70.0
Aug 17			265	13			1	56	36	0		1	26.6	6.5	**	70.5
Aug 18			164	19			0	60	32	0		0	31.2	6.5	6.0	69.6
Aug 19			358	55			0	47	29	0		2	23.4	6.4	**	69.8
Aug 20			349	34			0	54	38	0		1	26.2	6.4	**	70.9
Aug 21			207	21			0	45	27	0		-1	19.3	6.4	6.0	70.0
Aug 22			258	16			0	34	20	0		4	21.6	6.4	**	69.4
Aug 23			386	28			0	63	28	0		0	20.4	6.4	**	69.1
Aug 24			584	71			2	189	82	0		1	20.4	6.5	6.0	68.5
Aug 25			526	32			0	165	94	0		3	28.6	6.6	**	68.7
Aug 26			330	28			0	190	87	0		3	29.5	6.5	**	68.4
Aug 27			222	20			1	139	65	0		1	27.1	6.6	6.0	68.5
Aug 28			257	12			0	102	45	0		0	27.6	6.6	**	68.4
Aug 29			352	39			0	100	38	0		-1	28.6	6.6	**	68.7
Aug 30			984	120			0	126	53	1		1	23.9	6.6	**	67.8
Aug 31			1,123	146			1	234	103	0		1	25.4	6.5	6.0	68.4
TOTAL		1,211	6,431	811			61	2,168	1,093	1		45				
AVG.		81	402	26			2	70	35	0		1	25.5	9.1	6.0	69.1

**Data unavailable

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	40,330	7,951
SUMMER	10,355	3,075
FALL	6,431	657
TOTALS	57,116	11,683

		unclipped			BULL
SOCKEYE	STEELHEAD	STEELHEAD	PINK	TROUT	LAMPREY
1,802	4,107	2,268	1	9	434

TABLE 130

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS**SEPTEMBER 2023**

DATE	CHINOOK ADULT			CHINOOK		COHO		TOTAL		unclipped	PINK	BULL	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	ADULT	STEELHEAD	STEELHEAD	STEELHEAD		TROUT				SECCHI	DEG F
Sep 1			537	72	0	0	0	206	78				-8	26.5	6.4	**	68.9
Sep 2			762	52	0	0	0	226	92				2	23.3	1.3	**	68.7
Sep 3			891	91	0	0	0	188	69				-3	21.7	0.0	5.5	68.2
Sep 4			1,401	119	0	0	0	355	127				-1	19.4	1.2	**	67.1
Sep 5			1,998	202	1	0	0	590	179				-4	20.2	0.0	**	67.6
Sep 6			2,591	215	4	2	0	746	241				1	24.0	1.2	6.0	68.0
Sep 7			2,710	216	3	0	0	836	288				2	26.9	0.0	6.0	67.8
Sep 8			2,574	189	13	1	0	1,126	369				-1	24.6	1.7	**	67.8
Sep 9			1,991	217	11	2	0	1,118	313				-4	30.9	0.0	5.0	67.3
Sep 10			1,659	177	12	0	0	1,530	474				2	23.3	0.0	5.7	66.7
Sep 11			1,192	389	13	7	0	1,446	450				-1	25.3	1.2	**	66.7
Sep 12			1,444	342	75	16	0	1,666	480				-12	21.8	0.0	**	66.7
Sep 13			1,381	307	152	47	0	2,057	571				0	23.2	1.2	**	66.6
Sep 14			972	175	137	18	0	1,555	428				0	24.9	0.0	6.0	66.9
Sep 15			1,131	173	141	21	1	1,772	476				-1	24.4	1.2	**	67.5
Sep 16			1,162	142	211	30	0	1,546	392				-4	22.6	0.0	6.0	67.3
Sep 17			736	132	156	26	0	1,441	344				-4	20.1	0.0	**	67.5
Sep 18			747	109	160	19	0	1,750	447				-5	17.5	1.3	**	67.3
Sep 19			1,259	269	412	66	0	1,915	472				-4	20.7	0.0	6.0	67.3
Sep 20			903	193	308	74	0	1,484	345				-2	22.0	1.2	**	67.3
Sep 21			608	161	268	61	0	1,014	279				-2	21.7	0.0	6.0	67.1
Sep 22			582	158	532	107	0	1,479	376				-1	22.1	1.5	**	67.1
Sep 23			608	83	729	99	0	1,596	344				-2	26.1	0.0	6.0	66.9
Sep 24			439	90	636	121	0	1,426	342				-10	18.1	0.0	**	66.9
Sep 25			276	65	518	56	0	1,149	258				1	19.5	1.2	**	66.7
Sep 26			322	63	358	17	0	1,328	300				-2	18.8	0.0	**	66.7
Sep 27			387	49	299	12	0	1,005	221				-5	20.0	1.2	6.0	66.6
Sep 28			523	86	361	15	0	1,893	445				0	21.4	0.0	6.0	66.4
Sep 29			390	126	310	29	0	2,071	511				-2	19.3	1.2	**	66.0
Sep 30			271	82	256	15	0	1,510	323				0	23.0	0.0	**	65.8
TOTAL			32,447	4,744	6,076	861	1	38,024	10,034				-70				
AVG.			1,082	158	203	29	0	1,267	334				-2	22.4	0.8	5.9	67.2

**Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK		COHO		unclipped		BULL	
	ADULT	JACK	ADULT	JACK	STEELHEAD	STEELHEAD	TROUT	LAMPREY
SPRING	40,330	7,951	6,076	861	1,803	42,131	12,302	364
SUMMER	10,355	3,075						
FALL	38,878	5,401						
TOTALS	89,563	16,427						

TABLE 131

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS**OCTOBER 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	BULL	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		TROUT		KCFS	KCFS	SECCHI	DEG F
Oct 1			373	73	284	19		1,389	325			1	18.7	0.0	**	65.3
Oct 2			263	69	253	13		1,045	215			1	18.6	1.2	**	65.3
Oct 3			187	26	270	14		875	218			-1	15.5	0.0	5.6	65.3
Oct 4			202	45	330	31		1,194	299			2	20.6	1.2	5.3	64.9
Oct 5			255	44	605	17		1,322	333			0	24.7	0.0	5.5	64.6
Oct 6			262	54	557	10		1,407	347			-2	21.7	1.1	**	64.2
Oct 7			207	40	536	18		1,277	297			1	23.4	0.0	**	64.2
Oct 8			233	37	477	12		1,345	364			-1	24.5	0.0	**	64.0
Oct 9			212	33	358	9		1,175	269			-2	17.7	1.2	5.5	64.0
Oct 10			84	28	157	17		815	185			-3	19.5	0.0	6.0	64.0
Oct 11			137	35	269	16		1,008	251			1	17.9	1.2	**	63.9
Oct 12			173	44	314	15		1,270	306			-1	16.5	0.0	6.0	63.7
Oct 13			55	9	379	27		997	253			-3	17.2	1.2	**	63.7
Oct 14			58	5	249	12		645	185			0	15.3	0.0	5.2	64.0
Oct 15			99	7	294	14		977	295			0	18.4	0.0	**	63.7
Oct 16			49	12	113	4		463	131			0	17.1	1.2	**	63.7
Oct 17			92	19	86	3		512	166			-1	18.2	0.0	6.0	63.3
Oct 18			97	15	77	1		444	138			-1	17.3	1.3	5.0	63.3
Oct 19			152	16	156	3		426	127			0	18.4	0.0	5.0	63.0
Oct 20			142	31	209	8		438	142			-2	17.2	1.4	**	63.0
Oct 21			132	19	193	8		431	159			-1	16.2	0.0	6.0	62.8
Oct 22			146	35	151	4		383	132			2	14.2	0.0	**	62.8
Oct 23			90	18	134	6		359	106			-1	16.5	1.1	**	62.6
Oct 24			74	13	118	3		244	65			2	14.6	0.0	**	62.2
Oct 25			49	8	39	5		207	64			1	14.7	1.2	5.4	62.9
Oct 26			24	3	42	5		138	50			-1	15.9	0.0	5.3	61.5
Oct 27			62	12	27	1		148	41			0	17.5	1.2	**	61.0
Oct 28			55	8	51	1		180	59			0	15.8	0.0	6.0	60.6
Oct 29			58	13	65	3		183	62			-1	15.3	0.0	**	60.1
Oct 30			54	9	38	1		133	38			2	17.7	1.2	**	59.5
Oct 31			35	2	55	0		101	34			0	16.3	0.0	5.2	59.2
TOTAL			4,111	782	6,886	300		21,531	5,656			-8				
AVG.			133	25	222	10		695	182			0	17.8	0.5	5.5	63.1

**Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK									
	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY			
	SPRING	40,330	7,951	12,962	1,161	1,803	63,662	17,958	1	9	356
	SUMMER	10,355	3,075								
	FALL	42,989	6,183								
TOTALS	93,674	17,209									

TABLE 132

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2023

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	15.8	1.2	**	58.8	Dec 1	15.5	0.0	**	**
Nov 2	16.7	0.0	5.5	**	Dec 2	21.9	0.0	**	**
Nov 3	15.7	1.2	**	**	Dec 3	24.9	0.0	**	**
Nov 4	19.0	0.0	5.6	**	Dec 4	27.6	0.0	6.0	**
Nov 5	20.3	0.0	**	**	Dec 5	13.7	3.1	6.0	**
Nov 6	25.6	1.1	**	**	Dec 6	14.1	6.0	6.0	**
Nov 7	26.4	0.0	**	**	Dec 7	11.8	6.2	**	**
Nov 8	26.5	1.7	5.4	**	Dec 8	19.4	4.6	**	**
Nov 9	25.4	0.0	**	**	Dec 9	34.8	0.0	**	**
Nov 10	25.6	1.2	**	**	Dec 10	25.0	0.0	**	**
Nov 11	23.7	0.0	6.0	**	Dec 11	33.5	0.0	6.0	**
Nov 12	17.7	0.0	**	**	Dec 12	23.5	0.0	6.0	**
Nov 13	23.2	1.2	6.0	**	Dec 13	18.1	0.0	6.0	**
Nov 14	22.3	0.0	6.0	**	Dec 14	21.1	0.0	6.0	**
Nov 15	20.6	1.1	6.0	**	Dec 15	22.1	0.0	**	**
Nov 16	19.1	0.0	6.0	**	Dec 16	20.7	0.0	**	**
Nov 17	18.5	0.0	**	**	Dec 17	22.3	0.0	**	**
Nov 18	19.7	0.0	**	**	Dec 18	17.5	0.0	6.0	**
Nov 19	20.4	0.0	**	**	Dec 19	16.5	0.0	**	**
Nov 20	15.2	0.0	6.0	**	Dec 20	15.4	0.0	6.0	**
Nov 21	25.0	0.0	6.0	**	Dec 21	20.3	0.0	6.0	**
Nov 22	18.9	0.0	6.0	**	Dec 22	25.9	0.0	**	**
Nov 23	19.9	0.0	**	**	Dec 23	19.1	0.0	**	**
Nov 24	19.5	0.0	**	**	Dec 24	20.6	0.0	**	**
Nov 25	19.3	0.0	**	**	Dec 25	21.8	0.0	**	**
Nov 26	19.5	0.0	**	**	Dec 26	19.0	0.0	6.0	**
Nov 27	20.1	0.0	6.0	**	Dec 27	20.7	0.0	6.0	**
Nov 28	19.2	0.0	6.0	**	Dec 28	21.2	0.0	6.0	**
Nov 29	15.2	2.6	6.0	**	Dec 29	21.3	0.0	**	**
Nov 30	15.0	0.0	6.0	**	Dec 30	17.2	0.0	**	**
					Dec 31	20.3	0.0	**	**
AVG.	20.3	0.4	5.9	58.8	AVG.	20.9	0.6	6.0	**

** Data unavailable

Temperature collected at the turn pool and recorded in °F .

TABLE 133

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2023**

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1970	72,971	59,640	163	2,480	135,254
1971	61,402	70,013	891	2,701	135,007
1972	64,211	63,638	408	799	129,056
1973	70,605	38,820	192	1,157	110,774
1974	26,787	14,784	124	532	42,227
1975	26,960	15,225	173	697	43,055
1976	32,359	20,894	644	733	54,630
1977	49,176	47,388	574	438	97,576
1978	56,069	24,927	168	307	81,471
1979	12,515	21,049	72	390	34,026
1980	10,605	38,627	88	124	49,444
1981	19,086	38,680	200	120	58,086
**					
1991	13,737	96,830	10	1	110,578
1992	26,746	117,698	12	0	144,456
1993	32,384	59,740	16	0	92,140
1994	5,457	45,815	44	0	51,316
1995	5,061	77,744	17	9	82,831
1996	13,538	82,203	1	0	95,742
1997	49,664	74,219	10	59	123,952
1998	19,798	63,753	5	1	83,557
1999	17,235	65,471	16	89	82,811
2000	62,886	101,030	296	313	164,525
2001	214,726	261,132	72	768	476,698
2002	119,429	215,251	38	133	334,851
2003	114,902	176,193	23	865	291,983
2004	100,998	151,406	81	3,042	255,527
2005	46,553	143,537	13	1,992	192,095
2006	44,695	124,440	26	972	170,133
2007	60,398	135,414	37	2,141	197,990
2008	108,953	168,105	594	3,806	281,458
2009	163,562	305,436	1,061	5,239	475,298
2010	189,451	193,891	1,658	2,008	387,008
2011	197,424	175,328	1,436	4,851	379,039
2012	142,119	98,278	453	2,662	243,512
2013	149,442	95,871	996	2,136	248,445
2014	185,367	144,980	2,811	21,468	354,626
2015	202,671	126,271	587	1,986	331,515
2016	129,158	95,404	962	2,518	228,042
2017	77,071	59,259	288	7,891	144,509
2018	63,903	45,584	280	1,752	111,519
2019	53,229	29,066	84	7,006	89,385
2020	71,899	50,523	831	8,004	131,257
2021	89,779	41,646	713	20,386	152,524
2022	140,102	66,606	2,099	17,815	226,622
2023	110,883	63,662	1,803	14,123	190,471
Total	3,525,966	4,205,471	21,070	144,514	7,897,021
10-Yr Avg	112,406	72,300	1,046	10,295	196,047

*Jacks included

**1981 was the last year visual counts were made at Little Goose Project until 1991.

Includes 2001 extended season counts for November and December 0600-1600 PST.

Includes 2002 extended season counts for February and March 0800-1600 PST and

November and December 0600-1600 PST.

Includes 2003 and 2004 extended season counts for January, February, and March 0800-

1600 PST and November and December 0600-1600 PST.

Includes 2016 and 2021 extended season counts for March, November, and December 0400 - 2000 PST.

Includes 2022 extended season counts for January and February 0400 - 2000 PST.

TABLE 134

**MONTHLY COUNT OF CHINOOK SALMON
LITTLE GOOSE DAM; 1970-1981, 1991-2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1970				6,765	32,616	15,204	11,200	1,529	4,508	965	178	6	72,971
1971				133	16,012	24,096	14,473	707	5,319	606	55	1	61,402
1972				2,226	37,991	5,585	14,747	1,614	1,445	576	27		64,211
1973				17,490	34,570	10,661	4,344	520	2,472	528	19	1	70,605
1974				136	14,224	4,451	6,213	556	749	449	9		26,787
1975				152	14,161	6,487	4,182	540	1,143	295			26,960
1976				612	17,403	9,470	3,575	302	642	355			32,359
1977				16,973	19,936	6,707	4,181	182	842	355			49,176
1978				8,190	29,195	10,676	6,172	717	621	498			56,069
1979				947	4,436	4,396	1,391	254	802	289			12,515
1980				508	5,250	2,560	1,488	191	368	240			10,605
1981				2,798	9,399	3,214	2,217	108	724	626			19,086
**													
1991				469	4,968	5,066	1,949	85	715	394	91		13,737
1992				8,000	11,108	4,932	1,217	94	959	331	105		26,746
1993				2,032	16,308	10,018	2,425	241	989	317	54		32,384
1994				294	2,307	1,281	282	98	540	610	45		5,457
1995				82	1,117	1,041	481	146	1,179	1,015			5,061
1996				57	4,872	4,695	1,450	280	1,572	612			13,538
1997				519	26,980	16,769	3,007	296	1,302	791			49,664
1998				1,327	6,787	5,655	1,422	207	2,020	2,380			19,798
1999				73	3,990	4,878	1,937	432	3,787	2,138			17,235
2000				7,510	31,034	11,091	2,680	749	5,148	4,674			62,886
2001				96,386	61,247	31,686	6,792	1,082	12,222	4,953	356	2	214,726
2002			1	1,807	60,391	32,782	6,846	1,493	12,631	3,374	96	8	119,429
2003			2	32,082	29,615	26,129	5,838	829	14,048	5,917	433	9	114,902
2004				21,955	34,443	16,941	3,946	473	19,087	3,888	264	1	100,998
2005				599	16,952	11,484	3,638	679	10,362	2,839			46,553
2006				10	14,632	10,859	4,432	1,108	9,228	4,426			44,695
2007				998	21,050	14,741	4,650	1,154	12,109	5,696			60,398
2008				1,294	39,284	35,674	7,926	2,252	18,892	3,631			108,953
2009				173	52,369	43,467	11,800	4,289	44,304	7,160			163,562
2010				14,935	72,430	37,156	9,058	2,761	39,443	13,668			189,451
2011				145	60,525	67,803	21,088	5,064	31,454	11,345			197,424
2012				113	58,343	22,568	6,156	3,227	43,726	7,986			142,119
2013				611	43,290	19,104	8,331	7,440	60,363	10,303			149,442
2014				2,321	74,676	25,209	12,744	3,873	56,194	10,350			185,367
2015				21,188	80,186	23,558	7,211	6,218	51,580	12,730			202,671
2016			3	1,201	56,569	18,814	5,413	6,530	34,090	5,871	664	3	129,158
2017				61	14,893	28,020	4,507	1,479	22,135	5,976			77,071
2018				54	19,932	20,021	2,046	2,149	15,659	4,042			63,903
2019				19	15,892	12,378	2,653	1,840	16,072	4,375			53,229
2020				356	16,102	14,851	3,064	5,518	27,498	4,510			71,899
2021			3	460	27,918	13,609	3,891	4,514	31,610	7,284	470	20	89,779
2022	2		†	297	53,351	26,543	6,633	8,000	38,437	6,839			140,102
2023				86	27,995	28,027	4,238	8,453	37,191	4,893			110,883
Total			9	274,444	1,296,749	750,357	243,934	90,273	696,181	171,100	2,866	51	3,525,966
10-Year Average				2,604	38,751	21,103	5,240	4,857	33,047	6,687			112,406

**1981 was the last year visual counts were made at Little Goose Project until 1991.

*Jacks included

† Extended count season end February 28 no count in March.

Includes 2001 extended season counts for November and December 0600-1600 PST.

Includes 2002 extended season counts for February and March 0800-1600 PST, November and December 0600-1600 PST

Includes 2003 and 2004 extended season counts for January, February, and March 0800-1600 PST and November and December 0600-1600 PST.

Includes 2016 and 2021 extended season counts for March, November, and December 0400-2000 PST.

Includes 2022 extended season counts for January and February 0400-2000 PST.

TABLE 135

MONTHLY COUNT OF STEELHEAD
LITTLE GOOSE DAM

1970 - 1981, 1991 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970			3,346	4,148	1,762	167	1,485	7,487	27,898	11,931	1,136	280	59,640
1971			586	1,968	1,319	85	1,286	3,337	38,988	19,674	2,161	609	70,013
1972	248	251	943	2,565	720	54	1,209	6,637	25,089	24,323	1,258	341	63,638
1973	133	80	1,039	2,051	829	65	1,249	2,856	16,650	12,420	1,129	319	38,820
1974	191	294	543	1,105	278	5	726	2,203	3,970	4,721	583	165	14,784
1975	96	75	70	732	472	16	390	3,433	6,230	3,711			15,225
1976				1,052	345	133	678	3,556	8,988	6,142			20,894
1977				1,340	272	155	1,951	2,738	18,753	22,179			47,388
1978				1,625	216	20	593	2,617	11,547	8,309			24,927
1979				742	222	16	1,614	2,326	5,278	10,851			21,049
1980				3,063	668	43	821	3,858	15,305	14,869			38,627
1981				1,360	424	119	1,740	2,024	11,559	21,454			38,680
**													
1991				804	266	99	1,637	559	31,818	53,734	7,913		96,830
1992				472	189	141	997	2,652	54,585	48,870	9,792		117,698
1993				1,569	343	322	3,601	5,891	12,770	32,357	2,887		59,740
1994				771	148	162	1,522	2,239	8,828	25,830	6,315		45,815
1995				1,130	232	107	1,644	5,743	31,493	37,395			77,744
1996				936	99	105	1,489	7,560	40,468	31,546			82,203
1997				1,208	197	92	1,919	6,629	25,883	38,291			74,219
1998				1,924	107	139	1,090	912	12,939	46,642			63,753
1999				841	78	61	1,796	7,444	33,818	21,433			65,471
2000				841	112	384	3,355	5,361	54,244	36,733			101,030
2001				1,818	179	1,505	9,814	17,590	111,452	90,311	20,313	8150	261,132
2002		1,387	3,342	5,873	294	455	5,853	21,066	86,596	83,357	5,483	1545	215,251
2003	310	2,067	6,744	2,001	109	586	4,741	6,701	81,173	65,715	5,020	1026	176,193
2004	106	911	2,702	1,814	87	524	3,133	4,118	83,925	48,491	4,326	1269	151,406
2005				896	128	494	2,528	5,165	62,611	71,715			143,537
2006				2,569	120	129	978	3,547	54,727	62,370			124,440
2007				2,096	205	339	2,062	4,560	63,517	62,635			135,414
2008				2,127	490	179	5,770	15,499	93,240	50,800			168,105
2009				4,839	538	595	5,655	13,821	160,927	119,061			305,436
2010				2,755	369	632	9,165	19,891	103,207	57,872			193,891
2011				5,505	697	151	4,283	29,183	83,281	52,228			175,328
2012				3,416	510	184	1,419	3,031	52,470	37,248			98,278
2013				2,024	184	180	1,773	6,888	41,043	43,779			95,871
2014				1,175	385	534	6,113	7,120	73,440	56,213			144,980
2015				1,308	183	158	948	4,639	66,554	52,481			126,271
2016			2,077	1,151	181	252	2,751	3,278	36,658	43,067	5,267	722	95,404
2017				1,338	149	23	368	565	25,303	31,513			59,259
2018				1,124	97	107	1,059	753	21,412	21,032			45,584
2019				735	130	30	1,018	888	10,429	15,836			29,066
2020				397	69	73	1,381	2,478	24,716	21,409			50,523
2021			1,360	566	112	36	375	636	21,647	14,309	2,138	467	41,646
2022	4	134	†	284	94	118	3,015	4,337	26,999	31,621			66,606
2023				411	175	61	1,292	2,168	38,024	21,531			63,662
Total	1,088	5,199	22,752	78,469	14,783	9,835	108,286	265,984	1,920,452	1,688,009	75,721	14,893	4,205,471
10-Year Average				849	158	139	1,832	2,686	34,518	30,901			72,300

** 1981 was the last year visual counts were made at Little Goose Project until 1991.

† Extended count season end February 28, no counts in March.

Includes 2001 extended season counts for November and December 0600-1600 PST.

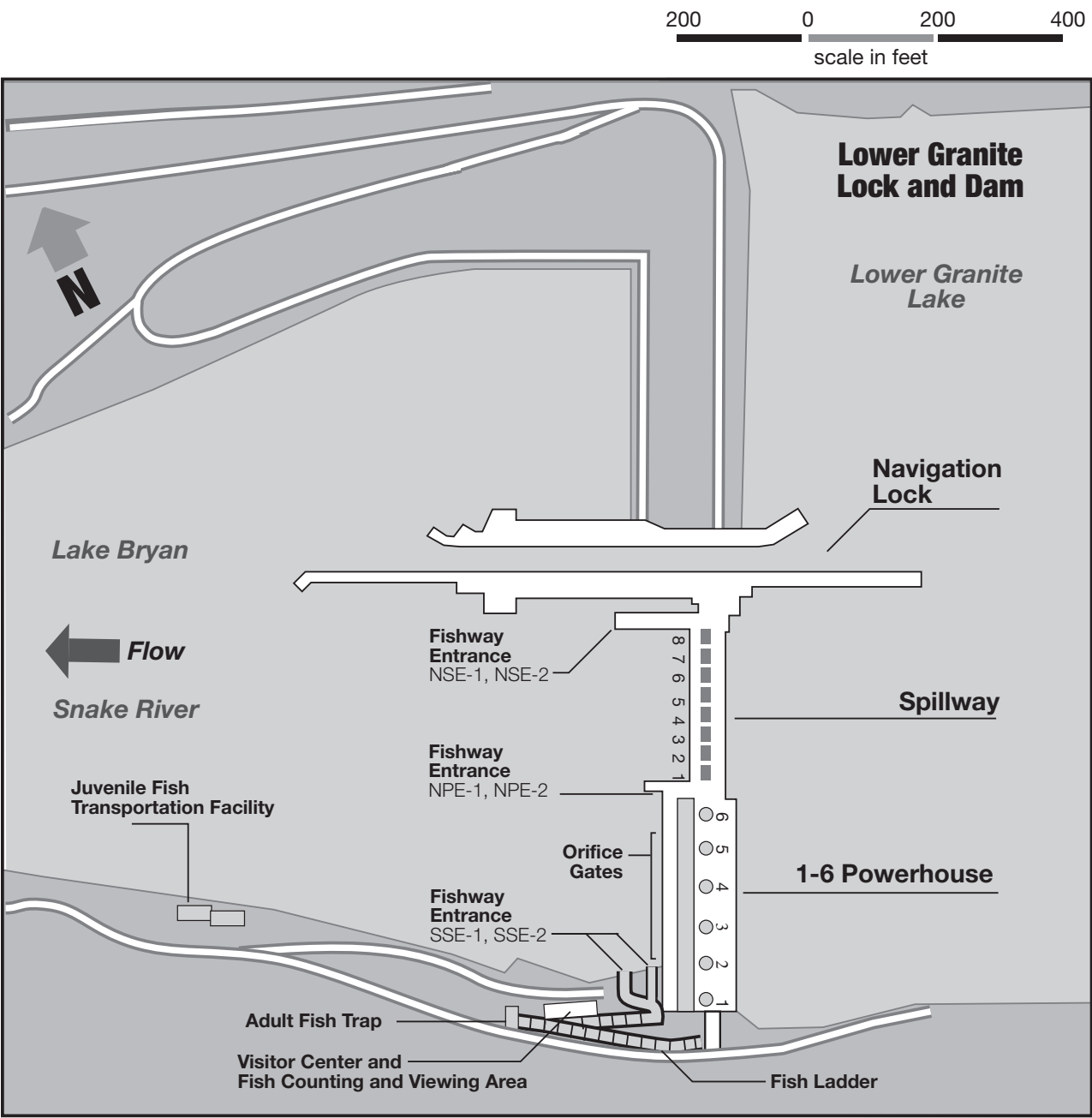
Includes 2002 extended season counts for February and March 0800-1600 PST, November and December 0600-1600 PST.

Includes 2003 and 2004 extended season counts for January, February, and March 0800-1600 PST, November and December 0600-1600 PST.

Includes 2016 and 2021 extended season counts for March, November, and December 0400-2000 PST.

Includes 2022 extended season counts for January and February 0400-2000 PST.

Plate 9 Lower Granite Lock and Dam



LOWER GRANITE DAM FISHWAY SUMMARY 2018

FISH COUNTING SCHEDULE

1 Jan – 28 Feb	No counting.
1 Mar – 31 Mar	Video counting daily 0600 – 1600 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400 – 2000 hours PST.
15 Jun – 31 Aug	Night video counts for sockeye 2000 – 0400 hours PST.
1 Nov – 31 Dec	Video counting daily 0600 – 1600 hours PST.

FISH LADDER OPERATING SCHEDULE

1 Jan – 2 Jan	Ladder in service
3 Jan – 5 Mar	Dewatered for annual maintenance/NSE 3 and NPE 3 permanent closure
28 Feb – 31 Dec	Ladder in service

FISHWAY ACTIVITIES

An expansion joint leak with the potential to impact roadway bridge and substrate integrity below the ladder was identified when the ladder was watered up February 28. The ladder was dewatered February 28 for expansion joint repair and returned to service March 5. Fish ladder water temperatures were monitored hourly at the ladder exit, diffuser 14, turn pool, and junction pool from June 1 – September 30. Project temperatures were also monitored with eight digital loggers activated during winter maintenance. The temperature control system pumps were operated from 1300 hours June 21 until 1710 hours September 18.

Substrate media at the ladder exit pool was examined monthly for zebra and quagga mussels from March through December. No mussels were found.

The fish ladder AWS pumps were out of service for annual maintenance from January 1 – February 28. AWS Fish pump 2 outage was extended to June 19 for lower guide bearing replacement.

Lower Granite adult fish trap was operated March 7 – November 18. Fish ladder water temperatures did not impact adult trap operations this season. Adult fall Chinook were collected and transported by Nez Perce Tribe and WDFW August 17 – October 30 for hatchery broodstock. Adult Coho collection for Nez Perce run reconstruction ended November 18.

The juvenile fish facility was operated for fish transport/bypass from April 1 – October 31. Operation was changed to emergency bypass mode November 13 – 15 to evaluate sensor fish through the emergency bypass system. The juvenile collection gallery and facility were dewatered November 15 for continued Phase 1 construction.

TABLE 134

**MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER GRANITE DAM
2023**

DAYTIME-Live

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				41	23,035	34,123	4,662	6,454	40,811	5,623	1,036	2	115,787
STEELHEAD			1,428	884	229	32	1,092	1,856	36,503	24,732	2,614	377	69,747
SOCKEYE						30	1,386	135	12	3			1,566
COHO*									5,756	8,695	687	5	15,143
PINK									1				1
TOTAL			1,428	925	23,264	34,185	7,140	8,445	83,083	39,053	4,337	384	202,244
SHAD						5,597	24,600	178					30,375
LAMPREY						7	244	318	54	4			627
STURGEON													0
BULL TROUT						1							1

NIGHT-Video

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*						837	470	50	492				1,849
STEELHEAD						1	47	39	2,034				2,121
SOCKEYE						13	328	18					359
COHO*									134				134
PINK													0
TOTAL						851	845	107	2,660				4,463
LAMPREY						-4	1,492	1,564	378				3,430
BULL TROUT													0

*Jacks included

Note: Count schedule found in the project narrative.

For annual totals add the Daytime-Live total to Night-Video total for each species.

TABLE 137
DISCHARGE AND WATER DATA
LOWER GRANITE PROJECT 2023

JANUARY				FEBRUARY			
	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI* DEG F*		DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI* DEG F*
Jan 1	23.4	0.0		Feb 1	23.4	0.0	
Jan 2	27.6	0.0		Feb 2	24.6	0.0	
Jan 3	22.0	0.0		Feb 3	26.1	0.0	
Jan 4	23.4	0.0		Feb 4	26.4	0.0	
Jan 5	20.6	0.0		Feb 5	23.4	0.0	
Jan 6	22.0	0.0		Feb 6	25.2	0.0	
Jan 7	21.6	0.0		Feb 7	23.7	0.0	
Jan 8	23.6	0.0		Feb 8	23.2	0.0	
Jan 9	21.9	9.4		Feb 9	24.2	0.0	
Jan 10	24.2	16.8		Feb 10	22.6	0.0	
Jan 11	27.2	19.6		Feb 11	21.1	0.0	
Jan 12	27.0	19.7		Feb 12	22.0	0.0	
Jan 13	26.9	19.7		Feb 13	21.2	0.0	
Jan 14	27.9	20.7		Feb 14	21.5	0.0	
Jan 15	30.5	23.2		Feb 15	19.2	0.0	
Jan 16	27.6	20.1		Feb 16	22.2	0.0	
Jan 17	31.0	23.5		Feb 17	21.5	0.0	
Jan 18	31.5	23.9		Feb 18	21.8	0.0	
Jan 19	29.3	15.0		Feb 19	20.7	0.0	
Jan 20	23.9	0.0		Feb 20	19.3	0.0	
Jan 21	21.7	0.0		Feb 21	23.6	0.0	
Jan 22	21.4	0.0		Feb 22	24.0	0.0	
Jan 23	19.9	0.0		Feb 23	20.4	0.0	
Jan 24	23.2	0.0		Feb 24	23.5	0.0	
Jan 25	22.2	0.0		Feb 25	21.8	0.0	
Jan 26	22.9	0.0		Feb 26	21.1	0.0	
Jan 27	21.9	0.0		Feb 27	19.1	0.0	
Jan 28	21.2	0.0		Feb 28	23.1	0.0	
Jan 29	23.4	0.0					
Jan 30	25.2	0.0					
Jan 31	23.9	0.0					
AVG.	24.5	6.8		AVG.	22.5	0.0	

**Data unavailable

TABLE 138
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS												MARCH 2023					
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK						SOCKEYE	STEELHEAD	STEELHEAD	KCFS	KCFS	SECCHI
Mar 1								30	10				20.6	1.6	5.0	38.0	
Mar 2								19	6				24.6	0.0	5.0	37.9	
Mar 3								17	2				20.1	1.5	**	**	
Mar 4								12	3				20.4	0.0	**	**	
Mar 5								6	2				20.1	1.7	**	**	
Mar 6								6	2				19.4	0.0		37.5	
Mar 7								4	1				20.7	1.8	5.0	37.0	
Mar 8								6	2				19.3	0.0	5.0	38.0	
Mar 9								4	2				23.6	1.7	5.0	38.0	
Mar 10								21	4				23.5	0.0	**	**	
Mar 11								42	8				26.3	0.0	**	**	
Mar 12								61	17				27.1	1.8	**	**	
Mar 13								39	5				24.7	0.0	5.0	40.0	
Mar 14								46	9				21.2	1.4	5.0	40.0	
Mar 15								25	5				22.4	0.0	**	40.0	
Mar 16								36	11				24.7	1.5	5.0	40.0	
Mar 17								74	21				22.9	0.0	**	**	
Mar 18								110	28				25.9	0.0	5.0	40.0	
Mar 19								132	47				26.0	1.7	5.0	40.0	
Mar 20								74	9				24.7	0.0	3.5	42.0	
Mar 21								90	14				31.4	1.7	3.5	42.0	
Mar 22								79	23				28.1	0.0	3.9	40.0	
Mar 23								40	2				28.5	1.7	4.3	42.0	
Mar 24								51	19				32.7	0.0	4.0	42.0	
Mar 25								95	41				30.7	0.0	4.0	42.0	
Mar 26								57	27				28.4	1.6	4.5	42.0	
Mar 27								60	24				28.1	0.0	4.0	42.5	
Mar 28								38	10				26.5	1.7	3.5	43.0	
Mar 29								48	10				33.9	0.0	4.0	43.0	
Mar 30								50	10				37.6	1.4	4.0	42.5	
Mar 31								56	21				38.1	0.0	4.0	42.0	
TOTAL								1,428	395								
AVG.								46	13								
												25.9		0.7	4.4	40.5	
**Data unavailable																	

**Data unavailable

Note: Video counting began on March 1. The counts are 16-hour counts and occurred between 0400-2000 PST.

TABLE 139

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

APRIL 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	SHAD	LAMPREY	BULL TROUT	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE				STEELHEAD	KCFS	KCFS	SECCHI
Apr 1	0			0			37	19				33.7	0.0	4.0	42.0
Apr 2	0			0			54	27				36.1	1.1	3.5	42.5
Apr 3	0			0			48	27				33.1	20.6	4.3	42.5
Apr 4	0			0			22	12				31.4	19.1	4.2	43.0
Apr 5	0			0			64	33				34.5	22.1	4.3	43.5
Apr 6	0			0			60	42				34.4	22.0	4.5	44.0
Apr 7	0			0			61	42				35.3	23.0	3.8	44.0
Apr 8	0			0			47	31				35.3	23.0	4.0	44.0
Apr 9	0			0			25	15				37.1	24.6	3.8	44.0
Apr 10	0			0			29	11				42.1	29.6	3.9	44.0
Apr 11	0			0			43	30				57.3	44.9	4.1	45.0
Apr 12	0			0			20	12				75.2	62.7	4.7	46.0
Apr 13	0			0			44	30				68.4	55.9	3.5	47.5
Apr 14	0			0			24	10				66.2	53.8	2.0	47.0
Apr 15	0			0			19	5				59.2	46.8	2.0	45.5
Apr 16	0			0			25	11				55.9	43.6	1.6	44.5
Apr 17	0			0			16	6				59.4	47.0	2.4	44.5
Apr 18	0			0			13	6				62.9	50.6	3.2	45.5
Apr 19	1			0			26	19				62.1	49.7	3.1	46.0
Apr 20	0			0			26	20				60.6	48.2	3.5	46.5
Apr 21	0			0			13	10				59.9	47.5	3.9	46.5
Apr 22	0			0			10	8				57.9	45.6	4.2	46.0
Apr 23	5			0			21	14				56.9	44.3	4.3	45.5
Apr 24	6			0			12	5				56.7	37.7	4.4	46.0
Apr 25	2			0			12	9				61.6	41.4	4.5	47.0
Apr 26	4			0			14	9				65.0	42.9	4.5	47.5
Apr 27	2			0			25	22				67.9	44.3	5.0	48.0
Apr 28	5			0			26	16				72.9	48.2	4.0	48.5
Apr 29	9			1			21	16				81.7	53.8	4.5	49.5
Apr 30	4			2			27	19				94.9	58.8	3.9	50.0
TOTAL	38			3			884	536							
AVG.	1			0			29	18				55.2	38.4	3.8	45.5
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK					STEELHEAD	unclipped STEELHEAD							
	38	3					2,312	931							

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between 0400-2000 PST.

TABLE 140

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped	SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD			TROUT	KCFS	KCFS	SECCHI	DEG F
May 1	7			2				19			0	113.6	60.5	3.5	50.5
May 2	24			2				25			0	134.2	60.6	2.5	51.5
May 3	38			1				30			0	146.6	60.2	2.2	51.0
May 4	40			3				25			0	154.2	61.5	1.9	50.5
May 5	109			6				21			0	153.8	64.1	2.0	50.0
May 6	73			1				11			0	152.0	64.2	2.1	50.0
May 7	79			3				10			0	137.3	61.2	2.3	49.5
May 8	124			9				7			0	128.8	58.8	2.5	48.5
May 9	118			6				7			0	118.0	58.8	2.5	48.5
May 10	128			13				7			0	115.3	49.7	2.7	49.0
May 11	157			4				6			0	106.0	47.7	3.1	49.5
May 12	177			16				14			0	109.8	60.0	2.8	51.0
May 13	237			9				17			0	109.1	60.1	3.3	52.0
May 14	239			11				5			0	118.6	59.6	4.0	53.0
May 15	436			6				5			0	134.3	59.9	4.0	53.5
May 16	588			26				1			0	149.5	64.3	3.5	53.5
May 17	907			48				5			0	155.0	65.7	2.8	52.5
May 18	982			66				3			0	157.6	66.7	2.6	52.0
May 19	1,372			93				1			0	158.1	68.8	2.7	52.0
May 20	739			61				1			0	162.6	72.3	2.6	52.5
May 21	634			65				5			1	169.4	76.6	2.2	53.0
May 22	865			133				2			0	176.2	78.6	2.4	54.0
May 23	816			115				0			0	180.0	77.5	2.2	54.0
May 24	719			115				1			0	157.9	72.1	1.8	53.5
May 25	803			131				0			0	137.0	59.5	1.6	53.5
May 26	1,411			163				1			0	128.3	60.0	2.1	54.0
May 27	1,636			195				0			0	121.5	60.6	2.1	55.0
May 28	996			108				0			0	120.0	60.9	2.4	55.0
May 29	1,319			157				0			0	116.0	61.2	2.6	55.0
May 30	1,821			263				0			0	114.5	63.1	3.0	55.0
May 31	3,122			488				0			0	110.0	62.4	3.5	56.0
TOTAL	20,716			2,319				229			1				
AVG.	668			75				7			0	136.9	63.1	2.6	52.2
RUN YEAR		CHINOOK	CHINOOK								BULL	**Data unavailable			
TOTALS TO DATE		ADULT	JACK					STEELHEAD	unclipped		TROUT				
SPRING		20,754	2,322					2,541	1,101		1				

TABLE 141

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD						SECCHI	DEG F
Jun 1	3,635			509			0	1	1	0	0		110.3	62.6	2.5	57.0
Jun 2	3,401			528			0	0	0	0	0		109.5	62.2	1.3	58.0
Jun 3	2,930			563			0	0	0	0	0		101.8	62.2	2.8	58.0
Jun 4	2,170			471			0	0	0	0	0		102.1	62.2	3.8	58.0
Jun 5	1,511			347			0	0	0	0	0		95.6	62.1	3.5	58.5
Jun 6	1,227			266			0	1	1	1	1		96.9	62.2	3.6	59.0
Jun 7	973			193			0	1	0	0	0		94.2	60.0	3.2	59.5
Jun 8	756			144			0	1	1	0	0		91.3	58.9	4.0	59.5
Jun 9	492			126			0	1	1	4	0		90.4	58.4	3.5	60.5
Jun 10	377			92			0	1	1	2	2		82.8	53.4	2.3	61.0
Jun 11	728			121			0	0	0	3	0		80.6	52.6	2.5	60.5
Jun 12	678			137			0	1	1	8	1		74.9	50.1	2.8	62.0
Jun 13	779			187			0	1	1	2	0		77.8	50.6	3.3	62.0
Jun 14	690			153			0	0	0	14	0		74.9	48.2	3.5	62.0
Jun 15	749			174			0	0	0	10	0		70.9	46.1	3.5	62.5
Jun 16	872			126			0	0	0	14	0		67.1	42.2	3.5	62.5
Jun 17	531			105			0	1	1	38	0		60.0	39.3	3.5	63.5
Jun 18		492		115			0	0	0	84	0		56.1	36.9	3.8	62.5
Jun 19		662		115			0	0	0	98	0		59.8	40.4	4.3	62.5
Jun 20		632		141			0	2	2	79	0		60.6	41.0	4.5	62.0
Jun 21		637		141			0	1	1	139	3		60.2	18.9	3.0	62.0
Jun 22		652		113			0	0	0	301	0		56.5	18.4	4.3	61.0
Jun 23		819		153			2	0	0	246	0		53.8	18.3	4.0	60.0
Jun 24		568		119			0	0	0	330	0		50.5	17.8	5.0	60.0
Jun 25		476		103			1	5	5	398	0		45.5	18.0	5.0	61.0
Jun 26		314		84			4	7	6	911	0		46.7	18.1	5.0	61.5
Jun 27		212		100			7	1	1	1,092	0		45.2	18.0	5.0	62.0
Jun 28		168		92			4	1	1	677	0		45.0	18.2	5.0	62.5
Jun 29		135		106			6	1	1	584	0		49.0	18.6	5.0	63.5
Jun 30		144		89			6	5	2	562	0		49.3	18.4	5.0	64.0
TOTAL	22,499	5,911		5,713			30	32	27	5,597	7					
AVG.	1,323	455		190			1	1	1	187	0		72.0	41.1	3.7	61.0

**Data unavailable

RUN YEAR		CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE			
SPRING		43,253	6,564
SUMMER		5,911	1,471
TOTAL		49,164	8,035

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
30	2,573	1,128	5,597	7	1

TABLE 142

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			TROUT	KCFS	KCFS	SECCHI	
Jul 1		327		142			15	10	5	871	1		45.7	18.1	5.0	64.0
Jul 2		256		87			17	11	7	468	1		42.2	18.3	5.0	65.0
Jul 3		119		68			13	6	5	708	2		44.2	18.4	5.0	66.0
Jul 4		224		94			10	5	1	1,638	1		46.0	18.5	5.0	67.0
Jul 5		137		37			17	12	11	3,844	5		43.5	18.4	5.0	66.5
Jul 6		104		35			15	17	11	2,337	3		45.1	18.4	5.0	66.0
Jul 7		91		49			13	3	1	1,356	-1		46.7	18.6	4.7	66.0
Jul 8		113		74			20	12	4	1,257	0		46.0	18.4	5.0	65.0
Jul 9		163		78			36	16	11	983	5		41.8	18.4	5.0	64.5
Jul 10		105		59			37	16	8	855	4		42.1	18.4	5.0	64.0
Jul 11		121		115			49	13	3	1,018	2		42.4	18.5	5.0	65.0
Jul 12		157		69			70	27	18	1,026	0		39.9	18.3	5.0	64.5
Jul 13		111		112			96	29	19	953	3		38.2	18.4	5.0	65.0
Jul 14		114		60			100	30	17	1,225	6		38.4	18.3	5.0	65.5
Jul 15		106		65			77	30	17	1,441	2		35.5	18.1	5.0	66.0
Jul 16		106		66			100	41	24	647	21		34.5	18.3	5.0	65.5
Jul 17		79		39			69	29	16	667	16		36.7	18.4	5.0	65.5
Jul 18		64		24			97	79	40	366	22		35.9	18.3	5.0	65.5
Jul 19		61		12			76	47	25	401	15		32.5	18.2	5.0	66.0
Jul 20		41		49			68	38	25	464	14		34.1	18.4	5.0	66.5
Jul 21		49		22			66	63	39	612	16		35.0	18.2	5.0	66.5
Jul 22		55		21			60	46	27	315	18		30.9	18.2	5.0	66.0
Jul 23		58		32			49	49	33	272	12		32.6	18.3	5.0	66.0
Jul 24		45		23			25	61	37	190	9		31.0	17.7	5.0	65.0
Jul 25		49		27			37	56	32	190	16		30.3	17.5	5.0	65.0
Jul 26		60		30			33	83	57	139	9		29.9	17.5	5.0	65.0
Jul 27		44		16			23	74	40	135	8		31.4	17.6	5.0	66.0
Jul 28		41		26			18	69	40	94	13		30.7	17.5	5.0	66.0
Jul 29		32		27			31	41	27	45	7		32.2	17.6	5.0	66.0
Jul 30		27		10			22	40	26	43	10		31.7	18.0	5.0	65.0
Jul 31		31		4			27	39	25	40	4		30.4	17.7	5.0	64.5
TOTAL		3,090		1,572			1,386	1,092	651	24,600	244					
AVG.		100		51			45	35	21	794	8		37.3	18.2	5.0	65.5

**Data unavailable

RUN YEAR		CHINOOK	CHINOOK
TOTALS TO DATE		ADULT	JACK
SPRING		43,253	6,564
SUMMER		9,001	3,043
TOTAL		52,254	9,607

SOCKEYE	STEELHEAD	unclipped	SHAD	LAMPREY	BULL
STEELHEAD					TROUT
1,416	3,665	1,779	30,197	251	1

TABLE 143

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped			BULL	DISCH	SPILL	TURBIDITY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	STEELHEAD	STEELHEAD	SHAD	LAMPREY	TROUT	KCFS	KCFS	SECCHI
Aug 1		25		18			8	31	17	14	3	26.8	14.2	5.0
Aug 2		33		1			10	28	18	26	6	29.3	16.9	5.0
Aug 3		34		10			7	23	13	28	10	26.3	13.7	5.0
Aug 4		40		8			16	27	15	8	6	21.9	9.3	5.0
Aug 5		35		24			14	24	18	24	7	27.9	15.5	5.0
Aug 6		23		6			9	21	14	6	17	25.6	13.1	5.0
Aug 7		40		12			19	41	26	10	7	25.9	13.2	5.0
Aug 8		28		8			7	27	11	21	9	27.4	15.1	5.0
Aug 9		50		7			11	17	8	0	14	26.2	13.6	5.0
Aug 10		98		19			1	40	28	1	12	26.9	14.5	5.0
Aug 11		114		14			7	66	34	17	2	29.0	16.6	5.0
Aug 12		222		26			4	53	31	-2	10	28.8	16.5	5.0
Aug 13		182		8			1	38	24	1	5	27.4	14.8	5.0
Aug 14		145		4			1	37	21	5	10	27.2	14.8	5.0
Aug 15		147		13			1	35	19	-2	9	26.2	7.0	5.0
Aug 16		43		4			1	16	10	1	63	28.0	6.7	4.0
Aug 17		59		7			1	35	21	0	39	27.5	6.4	2.7
Aug 18			88	2			0	33	16	8	29	26.8	6.2	3.2
Aug 19			205	13			3	62	36	5	12	26.7	6.2	3.2
Aug 20			236	24			4	78	39	-1	6	16.6	3.9	4.2
Aug 21			232	20			1	49	29	1	-1	24.3	6.2	5.0
Aug 22			240	33			2	41	29	0	9	20.2	5.5	3.9
Aug 23			221	20			1	52	34	2	4	27.6	6.9	5.0
Aug 24			438	23			3	75	48	0	6	28.5	6.8	5.0
Aug 25			403	34			0	106	54	2	3	29.5	6.4	5.0
Aug 26			405	32			0	145	75	0	4	28.0	6.4	5.0
Aug 27			444	40			0	137	69	2	1	26.4	6.1	5.0
Aug 28			390	30			1	125	62	1	7	25.7	6.2	5.0
Aug 29			176	24			0	91	41	0	1	26.2	6.4	5.0
Aug 30			364	43			0	125	54	0	3	27.2	6.5	5.0
Aug 31			706	61			2	178	79	0	5	26.5	6.2	5.0
TOTAL		1,318	4,548	588			135	1,856	993	178	318			
AVG		78	325	19			4	60	32	6	10	26.4	9.9	4.7

RUN YEAR		CHINOOK	CHINOOK
TOTALS TO DATE		ADULT	JACK
SPRING		43,253	6,564
SUMMER		10,319	3,232
FALL		4,548	399
TOTAL		58,120	10,195

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
1,551	5,521	2,772	30,375	569	1

TABLE 144

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			TROUT	KCFS	KCFS	SECCHI	DEG F
Sep 1			1,202	104	0	0	2	263	111		6		23.3	1.2	4.6	66.0
Sep 2			902	69	0	0	1	192	81		-1		21.8	0.0	5.0	65.0
Sep 3			560	36	0	0	0	201	79		1		20.3	1.4	5.0	64.5
Sep 4			1,456	91	0	0	1	334	140		2		22.4	0.0	5.0	64.0
Sep 5			988	121	0	0	0	305	108		-1		24.8	1.8	5.0	64.5
Sep 6			1,647	145	0	0	0	324	109		2		26.2	0.0	5.0	65.0
Sep 7			2,528	200	2	0	0	530	152		2		27.8	1.8	5.0	65.0
Sep 8			2,384	281	2	1	0	631	224		2		31.5	0.0	5.0	66.0
Sep 9			2,299	178	14	0	0	734	197		3		24.6	0.0	4.8	65.0
Sep 10			1,483	153	19	3	1	674	212		2		24.3	1.5	5.0	66.0
Sep 11			1,202	145	16	2	0	727	203		1		23.8	0.0	5.0	66.5
Sep 12			1,609	215	24	0	0	953	281		5		25.0	1.5	5.0	66.0
Sep 13			2,762	279	85	0	0	2,509	777		4		24.0	0.0	5.0	66.0
Sep 14			905	146	22	0	0	1,619	451		1		24.7	1.5	5.0	66.5
Sep 15			1,124	84	65	3	0	1,294	338		3		23.5	0.0	5.0	66.5
Sep 16			1,139	84	60	6	0	1,215	276		1		21.7	0.0	5.0	67.0
Sep 17			2,033	134	193	11	0	1,559	423		2		18.1	1.6	5.0	67.0
Sep 18			1,897	144	343	10	0	2,649	699		2		20.6	0.0	5.0	66.0
Sep 19			1,103	214	319	16	1	2,921	725		1		21.8	1.6	5.0	66.0
Sep 20			1,129	187	242	7	1	1,852	459		2		21.9	0.0	5.0	66.0
Sep 21			882	171	401	15	2	1,657	449		4		21.5	1.6	5.0	65.5
Sep 22			641	91	228	9	0	1,039	240		0		24.4	0.0	5.0	65.5
Sep 23			780	85	319	13	0	1,450	360		1		19.7	0.0	5.0	65.5
Sep 24			935	130	412	13	0	1,665	387		0		19.1	1.6	5.0	65.0
Sep 25			540	91	348	20	0	1,333	298		3		18.8	0.0	5.0	64.5
Sep 26			677	90	482	19	0	1,546	359		2		19.8	1.6	5.0	64.0
Sep 27			570	62	569	44	0	1,615	352		1		22.2	0.0	5.0	64.0
Sep 28			580	100	615	40	1	2,095	461		1		20.1	1.6	5.0	65.0
Sep 29			483	103	366	14	2	1,412	316		1		21.0	0.0	5.0	63.0
Sep 30			353	85	328	36	0	1,205	278		1		19.8	0.0	5.0	62.5
TOTAL			36,793	4,018	5,474	282	12	36,503	9,545		54					
AVG.			1,226	134	182	9	0	1,217	318		2		22.6	0.7	5.0	65.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	43,253	6,564
SUMMER	10,319	3,232
FALL	41,341	4,417
TOTAL	94,913	14,213

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
5,474	282	1,563	42,024	12,317	30,375	623	1

Note: 1 Pink counted on 26 Sept.

TABLE 145

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			TROUT	KCFS	KCFS	SECCHI	
Oct 1			368	94	414	38	0	2,137	477		0		18.5	1.6	5.0	62.5
Oct 2			315	88	365	35	0	1,467	314		0		18.9	0.0	5.0	62.0
Oct 3			356	74	340	31	0	1,491	341		0		21.8	1.8	5.0	62.0
Oct 4			287	49	377	21	0	1,240	262		0		23.3	0.0	5.0	62.0
Oct 5			269	35	297	25	0	1,115	248		0		21.0	1.6	5.0	62.0
Oct 6			360	40	294	16	0	899	186		0		25.4	0.0	2.0	62.0
Oct 7			294	35	551	27	0	1,252	313		0		24.3	0.0	5.0	62.0
Oct 8			222	23	517	17	0	1,352	332		0		17.6	1.5	5.0	62.0
Oct 9			253	34	555	15	1	1,154	250		1		21.6	0.0	5.0	62.0
Oct 10			181	42	537	32	0	1,215	288		0		18.0	1.5	5.0	62.0
Oct 11			111	19	313	15	0	750	159		0		17.0	0.0	5.0	61.5
Oct 12			152	22	329	23	0	1,258	284		0		17.6	1.5	5.0	61.5
Oct 13			135	12	333	11	0	1,197	301		0		15.6	0.0	5.0	61.0
Oct 14			141	25	365	16	0	1,158	271		2		18.2	0.0	5.0	61.0
Oct 15			67	18	304	14	1	920	221		0		17.7	1.6	5.0	61.5
Oct 16			80	20	268	7	0	723	184		0		17.3	0.0	5.0	61.5
Oct 17			86	9	208	21	0	663	186		0		18.2	1.4	5.0	61.0
Oct 18			84	10	156	17	0	614	178		0		16.3	0.0	5.0	61.0
Oct 19			91	10	101	10	0	562	149		1		17.4	1.4	5.0	61.0
Oct 20			87	20	121	16	0	466	150		0		17.0	0.0	5.0	60.5
Oct 21			90	20	186	9	0	388	100		0		14.2	0.0	5.0	60.5
Oct 22			86	35	259	8	0	456	117		0		16.7	1.4	5.0	60.0
Oct 23			107	30	277	10	1	492	151		0		14.5	0.0	5.0	59.5
Oct 24			101	27	209	10	0	503	162		0		15.6	1.6	5.0	59.0
Oct 25			87	20	108	24	0	258	72		0		17.6	0.0	5.0	59.0
Oct 26			59	7	95	4	0	227	68		0		16.7	1.5	5.0	58.5
Oct 27			51	4	52	5	0	155	44		0		16.2	0.0	5.0	58.5
Oct 28			66	1	56	7	0	178	67		0		15.7	0.0	5.0	58.0
Oct 29			61	8	74	1	0	150	50		0		17.5	1.6	5.0	57.5
Oct 30			56	3	79	4	0	143	47		0		16.8	0.0	5.0	57.0
Oct 31			58	28	61	5	0	149	48		0		16.5	1.6	5.0	56.5
TOTAL			4,761	862	8,201	494	3	24,732	6,020		4					
AVG.			154	28	265	16	0	798	194				18.1	0.7	4.9	60.5

RUN YEAR TOTALS TO DATE	CHINOOK	CHINOOK	COHO	COHO	unclipped		SHAD	LAMPREY	BULL
	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD			TROUT
SPRING	43,253	6,564	13,675	776	1,566	66,756	30,375	627	1
SUMMER	10,319	3,232							
FALL	46,102	5,279							
TOTAL	99,674	15,075							

Note: Visual counts ended October 31.

TABLE 146

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

NOVEMBER 2023

LOWER GRANITE PROJECT - KSH COUNTY													NOVEMBER 2020			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped		BULL			DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY			TROUT	KCFS
Nov 1			85	21	18	1		130	36				17.0	0.0	5.0	56.0
Nov 2			113	6	26	0		78	20				16.0	1.6	5.0	55.0
Nov 3			85	14	43	0		105	27				18.5	0.0	5.0	54.0
Nov 4			57	12	63	1		114	24				21.6	0.0	5.0	54.0
Nov 5			48	9	67	6		120	22				23.1	1.5	5.0	53.0
Nov 6			57	14	64	6		116	36				27.8	0.0	5.0	52.0
Nov 7			30	10	90	9		116	28				25.2	1.6	5.0	51.0
Nov 8			37	7	63	6		184	51				26.9	0.0	5.0	51.5
Nov 9			32	5	47	4		155	55				24.9	1.8	5.0	52.0
Nov 10			51	6	22	0		99	41				23.3	0.0	**	**
Nov 11			54	4	21	0		98	31				19.6	0.0	5.0	51.0
Nov 12			66	9	36	0		137	47				20.9	1.7	**	**
Nov 13			33	7	16	1		96	31				22.0	0.0	5.0	49.8
Nov 14			17	5	17	2		108	29				20.2	1.6	5.0	49.5
Nov 15			20	0	14	0		117	37				18.2	0.0	5.0	49.0
Nov 16			9	1	17	1		91	27				20.2	0.0	4.1	49.0
Nov 17			44	1	5	1		65	27				19.8	0.0	**	**
Nov 18			18	6	5	2		101	42				20.4	0.0	**	**
Nov 19			14	0	3	0		86	35				16.0	0.0	**	**
Nov 20			20	-3	5	0		102	43				23.7	0.0	4.9	48.0
Nov 21			3	1	1	0		99	47				18.0	0.0	4.8	48.0
Nov 22			4	-1	0	1		74	26				19.7	0.0	4.9	48.0
Nov 23			0	2	0	0		63	19				19.1	0.0	**	**
Nov 24			0	0	0	1		30	17				17.2	0.0	**	**
Nov 25			0	-1	1	0		24	10				20.6	0.0	**	**
Nov 26			1	1	1	0		29	8				20.4	0.0	**	**
Nov 27			1	2	1	0		37	14				20.8	0.0	4.9	46.7
Nov 28			0	0	0	0		22	10				16.3	0.0	5.0	46.0
Nov 29			-1	0	0	0		11	5				15.1	0.0	5.0	46.0
Nov 30			0	0	0	-1		7	1				14.1	1.6	5.0	45.0
TOTAL			898	138	646	41		2,614	846							
AVG.			30	5	22	1		87	28				20.2	0.4	4.9	50.2

**Data unavailable

RUN YEAR	CHINOOK		COHO		unclipped		BULL	
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	TROUT
SPRING	43,253	6,564	14,321	817	1,566	69,370	19,183	30,375
SUMMER	10,319	3,232						627
FALL	47,000	5,417						1
TOTAL	100,572	15,213						

Note: From November 1 to December 30, counts were from video. The counts are 16-hour counts and occurred between 0400-2000 PST.

TABLE 147

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

DECEMBER 2023

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER												FALL	SECCHI
Dec 1			1	-1	0	0	16	9				20.5	0.0	**	**
Dec 2			0	0	0	0	5	2				19.8	0.0	**	**
Dec 3			0	0	1	0	17	8				19.3	0.0	**	**
Dec 4			0	0	0	0	10	2				16.4	3.6	**	**
Dec 5			0	0	0	0	11	3				20.0	2.7	5.0	43.9
Dec 6			1	0	0	0	25	12				20.4	1.6	5.0	42.9
Dec 7			0	0	0	0	13	4				22.3	1.9	5.0	42.4
Dec 8			0	0	0	0	8	2				32.3	7.2	**	**
Dec 9			-1	0	0	0	14	7				27.4	1.5	**	**
Dec 10			0	1	0	0	17	5				32.3	0.0	**	**
Dec 11			0	0	0	0	11	4				22.4	2.6	5.0	42.5
Dec 12			0	0	0	0	8	3				20.7	1.7	5.0	43.0
Dec 13			0	0	0	0	11	2				20.4	1.7	5.0	43.3
Dec 14			0	0	2	0	6	3				22.6	1.6	5.0	43.3
Dec 15			0	0	0	0	6	3				23.6	1.7	**	**
Dec 16			0	0	0	0	10	2				23.5	1.7	**	**
Dec 17			0	0	0	0	7	2				21.8	0.0	**	**
Dec 18			0	0	0	0	11	5				16.5	0.0	5.0	42.2
Dec 19			0	0	0	0	12	2				22.4	0.0	5.0	42.2
Dec 20			0	0	1	0	13	1				20.7	0.0	5.0	42.1
Dec 21			0	0	0	0	16	7				21.2	0.0	5.0	42.2
Dec 22			0	0	0	0	7	6				22.3	0.0	**	**
Dec 23			0	0	0	0	11	4				21.2	0.0	**	**
Dec 24			0	0	0	0	6	3				21.2	0.0	**	**
Dec 25			0	0	1	0	23	7				20.4	0.0	**	**
Dec 26			0	0	0	0	14	7				19.3	0.0	**	**
Dec 27			0	0	0	0	18	4				20.1	0.0	**	**
Dec 28			0	0	0	0	10	5				20.3	0.0	**	**
Dec 29			0	0	0	0	26	6				19.9	0.0	**	**
Dec 30			0	1	0	0	15	4				19.5	0.0	**	**
Dec 31			**	**	**	**	**	**				20.2	0.0	**	**
TOTAL			1	1	5	0	377	134							

AVG. 0 0 0 0 13 4

21.6 1.0 5.0 42.7

**Data unavailable

RUN YEAR

TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	43,253	6,564
SUMMER	10,319	3,232
FALL	47,001	5,417
TOTAL	100,573	15,213

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
14,326	817	1,566	69,747	19,317	30,375	627	1

Note: From November 1 to December 30, counts were from video. The counts are 16-hour counts and occurred between 0400-2000 PST.
Official Fall Chinook run ended December 15.

TABLE 148

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	STEELHEAD		
Jun 1												
Jun 2												
Jun 3												
Jun 4												
Jun 5												
Jun 6												
Jun 7												
Jun 8												
Jun 9												
Jun 10												
Jun 11												
Jun 12												
Jun 13												
Jun 14												
Jun 15	57			8			0	0	0			0
Jun 16	41			5			0	0	0			0
Jun 17	35			5			0	0	0			0
Jun 18		68		7			0	0	0			0
Jun 19		47		0			0	0	0			0
Jun 20		109		9			0	1	1			0
Jun 21		31		8			0	0	0			-1
Jun 22		153		15			3	0	0			0
Jun 23		31		9			0	0	0			0
Jun 24		18		8			0	0	0			0
Jun 25		3		2			0	0	0			-2
Jun 26		9		10			0	0	0			-1
Jun 27		7		5			0	0	0			0
Jun 28		11		4			2	0	0			0
Jun 29		15		9			0	0	0			0
Jun 30		75		23			8	0	0			0
TOTAL	133	577		127			13	1	1			-4
AVG.	44	44		8			1	0	0			0

Note: Night counts are video counts from 2000-0400 PST.

TABLE 149

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL		unclipped STEELHEAD	SHAD	LAMPREY
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD			
Jul 1		27		8			0	2	0		0
Jul 2		16		4			6	1	1		0
Jul 3		37		9			2	1	0		9
Jul 4		24		9			4	2	1		7
Jul 5		23		6			6	2	2		23
Jul 6		12		8			4	0	0		23
Jul 7		19		5			5	0	0		31
Jul 8		19		11			3	1	1		46
Jul 9		5		12			2	0	0		16
Jul 10		7		6			19	2	2		11
Jul 11		26		12			23	1	0		27
Jul 12		8		6			13	2	2		31
Jul 13		17		4			8	2	2		6
Jul 14		14		0			32	5	2		48
Jul 15		13		2			28	2	1		69
Jul 16		14		1			25	4	1		54
Jul 17		11		1			33	4	2		78
Jul 18		1		3			14	3	4		65
Jul 19		1		6			6	1	1		53
Jul 20		10		4			15	1	1		99
Jul 21		10		2			23	1	1		115
Jul 22		2		2			9	1	1		105
Jul 23		2		3			12	3	2		70
Jul 24		6		2			3	-1	-1		23
Jul 25		7		0			9	1	0		73
Jul 26		1		2			6	3	3		98
Jul 27		2		3			5	0	0		80
Jul 28		2		2			1	0	0		73
Jul 29		-1		0			4	3	2		59
Jul 30		0		-1			5	1	1		59
Jul 31		0		3			3	-1	-1		41
TOTAL		335		135			328	47	31		1,492
AVG.		11		4			11	2	1		48

Note: Night counts are video counts from 2000-0400 PST.

TABLE 150

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Aug 1		1		0			2	0	0		73
Aug 2		1		0			5	0	0		56
Aug 3		-1		1			2	0	0		37
Aug 4		1		0			1	-1	-1		45
Aug 5		1		0			1	1	1		48
Aug 6		0		1			0	1	0		63
Aug 7		1		1			0	1	0		56
Aug 8		0		0			1	1	0		74
Aug 9		0		0			0	0	0		61
Aug 10		3		0			2	2	1		85
Aug 11		1		0			1	1	1		92
Aug 12		3		0			1	1	0		86
Aug 13		2		0			0	0	0		54
Aug 14		1		1			1	0	0		89
Aug 15		1		0			0	1	1		59
Aug 16		2		1			1	2	1		68
Aug 17		1		0			0	4	3		37
Aug 18			0	0			0	3	2		41
Aug 19			0	0			0	0	0		60
Aug 20			4	2			0	2	2		63
Aug 21			-1	0			0	0	0		45
Aug 22			3	1			0	0	0		24
Aug 23			0	1			0	1	1		36
Aug 24			0	1			0	3	1		30
Aug 25			1	0			0	2	0		31
Aug 26			0	0			0	2	1		20
Aug 27			1	0			0	0	-1		19
Aug 28			5	0			0	0	0		28
Aug 29			0	0			0	-1	-1		29
Aug 30			2	0			0	7	1		20
Aug 31			5	2			0	6	1		35
TOTAL		18	20	12			18	39	14		1,564
AVG		1	1	0			1	1	0		50

Note: Night counts are video counts from 2000-0400 PST.

TABLE 151

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
Sep 1			10	1	0	0		15	3		24
Sep 2			3	0	0	0		8	3		9
Sep 3			3	1	0	0		10	3		15
Sep 4			2	0	0	0		16	5		12
Sep 5			-1	0	0	0		9	4		23
Sep 6			7	0	0	0		23	6		13
Sep 7			2	2	0	0		26	10		12
Sep 8			0	0	0	0		19	6		6
Sep 9			5	-1	0	0		27	9		18
Sep 10			5	1	0	0		28	6		28
Sep 11			9	0	0	0		42	13		21
Sep 12			11	0	0	0		111	26		28
Sep 13			8	1	0	0		85	17		12
Sep 14			10	1	0	0		59	10		14
Sep 15			24	0	0	0		91	17		7
Sep 16			29	1	0	0		108	34		19
Sep 17			29	6	0	0		127	39		16
Sep 18			31	2	0	0		132	36		20
Sep 19			25	0	0	0		89	28		17
Sep 20			28	1	4	0		98	33		15
Sep 21			15	1	8	0		54	20		13
Sep 22			18	1	11	0		84	27		8
Sep 23			17	3	15	0		80	24		11
Sep 24			54	1	15	0		91	26		3
Sep 25			44	0	15	0		71	14		1
Sep 26			14	1	16	1		16	15		4
Sep 27			14	1	19	2		0	27		1
Sep 28			12	2	15	0		153	29		1
Sep 29			23	1	4	0		131	26		5
Sep 30			10	4	9	0		231	53		2
TOTAL			461	31	131	3		2,034	569		378
AVG.			15	1	4	0		68	19		13

Note: Night counts are video counts from 2000-0400 PST.

TABLE 152

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER GRANITE DAM --DAYTIME COUNTS**

1975 - 2023

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTAL SALMONID
1975	28,460	17,311	209	921	46,901
1976	31,667	23,017	531	900	56,115
1977	49,123	53,037	458	268	102,886
1978	54,246	30,068	123	152	84,589
1979	12,548	25,046	25	158	37,777
1980	10,986	40,454	96	43	51,579
1981	19,198	40,234	218	17	59,667
1982	19,476	72,840	211	59	92,586
1983	16,200	86,234	122	51	102,607
1984	16,517	98,923	49	0	115,489
1985	36,567	118,463	35	2	155,067
1986	43,023	134,519	15	1	177,558
1987	37,677	70,151	29	0	107,857
1988	37,882	87,040	23	0	124,945
1989	19,557	132,579	2	0	152,138
1990	23,345	56,859	0	0	80,204
1991	13,618	100,381	8	0	114,007
1992	26,193	121,459	15	0	147,667
1993	30,446	66,699	12	0	97,157
1994	5,077	47,550	5	0	52,632
1995	3,702	80,853	3	0	84,558
1996	11,129	86,072	3	0	97,204
1997	46,727	85,917	11	92	132,747
1998	18,557	72,017	2	12	90,588
1999	15,884	74,370	14	262	90,530
2000	62,659	113,211	299	925	177,094
2001	210,381	262,568	36	1,087	474,072
2002	119,304	218,718	55	395	338,472
2003	119,676	180,672	11	1,265	301,624
2004	109,061	154,389	113	3,904	267,467
2005	49,530	155,783	18	2,183	207,514
2006	45,992	145,991	17	1,434	193,434
2007	62,530	157,345	52	2,798	222,725
2008	115,632	175,481	909	4,770	296,792
2009	168,032	323,697	1,219	4,912	497,860
2010	189,394	206,885	2,201	1,902	400,382
2011	179,497	183,648	1,502	5,351	369,998
2012	141,449	110,675	470	2,635	255,229
2013	149,926	107,910	757	2,454	261,047
2014	195,167	164,088	2,786	18,651	380,710
2015	203,259	139,776	440	1,688	345,163
2016	128,833	100,176	816	3,170	232,995
2017	81,318	76,798	228	8,802	167,146
2018	64,129	53,536	276	2,994	120,935
2019	51,407	35,094	81	8,086	94,668
2020	70,787	58,757	640	11,337	141,521
2021	88,667	43,336	645	25,899	158,547
2022	147,235	74,275	2,087	20,641	244,238
2023	115,787	69,747	1,566	15,143	202,243
Total	3,497,457	5,134,649	19,443	155,364	8,806,931
10-Year Average	114,659	81,558	957	11,641	208,817

*Jacks included

Note: 2014 Steelhead count update to reflect after publication change.

TABLE 153

**MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1975				1	11,693	8,722	4,854	1,183	1,462	474	71		28,460
1976				149	14,358	10,438	5,074	428	605	535	80		31,667
1977				12,824	22,892	6,718	4,622	203	961	776	125	2	49,123
1978				3,329	29,983	11,464	6,976	1,234	698	519	42	1	54,246
1979				234	4,461	4,455	1,794	256	1,003	302	43		12,548
1980				328	5,227	2,558	1,916	241	345	343	28		10,986
1981				1,380	10,730	2,713	2,561	92	1,008	677	37		19,198
1982				42	9,121	4,650	3,217	329	1,399	650	62	6	19,476
1983				113	7,676	3,551	3,167	234	828	552	79		16,200
1984				134	4,915	5,602	4,274	303	719	522	48		16,517
1985				1,429	20,384	10,466	1,971	281	1,285	697	53	1	36,567
1986				3,623	26,434	7,472	2,796	137	1,250	1,136	172	3	43,023
1987			1	4,836	22,217	5,578	3,532	216	664	508	116	9	37,677
1988				4,722	20,615	8,771	2,654	212	429	371	104	4	37,882
1989				577	10,597	5,771	1,511	225	478	338	60		19,557
1990				2,808	12,925	4,902	2,094	64	248	264	40		23,345
1991				250	4,698	5,177	2,397	72	524	465	35		13,618
1992				6,205	12,170	4,783	1,998	110	576	288	63		26,193
1993				638	15,627	9,728	3,095	281	736	300	41		30,446
1994				99	2,283	1,180	436	73	422	539	45		5,077
1995				22	870	936	438	113	757	539	27		3,702
1996				38	3,415	4,260	1,557	210	1,133	471	45		11,129
1997				222	22,323	18,376	3,690	274	1,159	631	52		46,727
1998			1	942	6,330	5,398	1,877	175	1,495	2,200	138	1	18,557
1999				36	3,358	4,886	2,214	396	3,017	1,832	143	2	15,884
2000				5,984	30,609	12,074	3,032	564	5,719	4,435	240	2	62,659
2001				90,165	63,007	31,721	7,392	760	11,596	5,319	414	7	210,381
2002			1	1,050	56,456	35,129	8,223	1,102	12,774	4,336	229	4	119,304
2003			10	29,379	30,358	31,808	7,467	817	12,616	6,990	228	3	119,676
2004			1	20,189	42,777	19,382	3,991	410	17,277	4,512	522		109,061
2005				327	17,557	11,709	5,320	445	11,295	2,767	105	5	49,530
2006				4	14,325	12,477	3,927	1,053	8,630	5,332	240	4	45,992
2007			1	531	19,516	16,994	4,921	1,200	12,720	6,428	217	2	62,530
2008				1,019	36,995	40,654	9,513	1,819	20,570	4,725	335	2	115,632
2009				95	52,614	45,565	12,404	2,871	44,432	9,630	419	2	168,032
2010			1	9,432	75,785	36,788	11,810	2,078	38,806	14,025	668	1	189,394
2011				71	52,580	56,837	23,502	3,837	30,091	12,011	557	11	179,497
2012				36	53,549	24,743	5,607	2,353	45,341	9,016	793	11	141,449
2013			1	267	42,356	20,223	6,930	3,818	61,913	13,316	1,102		149,926
2014				1,149	74,107	26,374	12,194	3,017	61,195	15,640	1,486	5	195,167
2015			6	13,867	85,575	23,383	7,957	4,817	51,721	14,945	974	14	203,259
2016			3	785	54,283	19,137	5,884	5,769	35,122	7,087	763		128,833
2017				49	11,791	30,289	5,573	1,461	22,480	9,129	525	21	81,318
2018				37	16,911	22,607	2,279	1,590	16,067	3,981	650	7	64,129
2019				12	13,623	12,479	3,009	1,553	15,861	4,283	572	15	51,407
2020			2	246	15,468	14,759	3,443	4,746	27,079	4,653	392	-1	70,787
2021				335	27,963	13,957	4,422	3,154	33,530	5,228	68	10	88,667
2022				233	53,544	28,965	8,259	7,266	40,570	7,974	421	3	147,235
2023				41	23,035	34,123	4,662	6,454	40,811	5,623	1,036	2	115,787
Total	28	220,284	1,270,086	780,732	242,436	70,296	701,417	197,314	14,705	159			3,497,457

10-Year

Average

1,675	37,630	22,607	5,768	3,983	34,444	7,854	689
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114,659

*Jacks included

TABLE 154

MONTHLY COUNT OF STEELHEAD

LOWER GRANITE DAM

1975 - 2023

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1975				1,724	1,065	104	102	3,337	6,396	3,584	703	296	17,311
1976	173	21	181	1,120	575	120	527	3,816	8,720	6,837	860	67	23,017
1977		9	142	1,235	229	59	1,538	2,652	16,296	27,492	2,950	435	53,037
1978	354	716	2,276	2,009	252	9	478	2,721	10,829	9,528	788	108	30,068
1979	12	44	802	962	192	16	1,197	2,602	5,143	11,323	2,487	266	25,046
1980			1,149	3,403	1,172	36	517	3,378	13,291	15,455	2,053		40,454
1981			1,052	1,610	604	98	1,422	1,609	9,391	20,714	3,096	638	40,234
1982			1,778	2,202	1,472	66	817	9,118	20,219	32,850	3,945	373	72,840
1983			3,336	1,416	244	7	1,676	8,899	32,063	34,028	4,425	140	86,234
1984			2,647	3,914	961	40	1,886	3,458	34,709	46,445	4,841	22	98,923
1985			2,474	9,686	856	146	706	5,027	63,074	33,137	3,230	127	118,463
1986			8,179	2,358	163	62	3,031	2,323	39,780	71,426	6,671	526	134,519
1987			2,962	2,951	251	51	783	2,342	16,644	34,235	8,809	1,123	70,151
1988			2,108	4,562	623	173	768	1,806	27,071	43,066	6,307	556	87,040
1989			2,172	4,789	429	99	2,026	4,199	49,256	55,766	13,308	535	132,579
1990			2,728	3,329	174	27	444	364	8,250	26,117	13,872	1,554	56,859
1991			2,422	3,530	285	43	1,009	454	24,610	58,803	7,892	1,333	100,381
1992			1,925	2,789	194	76	725	2,009	47,058	56,284	9,709	690	121,459
1993			3,232	8,118	364	191	2,621	5,298	10,374	32,618	3,702	181	66,699
1994			1,644	3,007	132	97	888	1,693	7,089	25,913	6,772	315	47,550
1995			3,176	1,166	193	33	1,216	3,540	27,585	37,260	5,176	1,508	80,853
1996			1,720	1,017	71	52	1,068	4,218	38,109	34,267	4,607	943	86,072
1997			2,043	1,408	183	65	1,423	5,975	22,424	42,544	9,305	547	85,917
1998			2,390	1,837	107	94	1,001	731	10,295	46,326	7,071	2,165	72,017
1999			2,091	855	92	35	1,333	5,577	35,954	23,694	4,044	695	74,370
2000			1,453	932	94	275	2,907	5,081	57,412	39,501	5,217	339	113,211
2001			3,200	2,365	193	1,087	6,772	11,315	101,289	105,685	24,287	6,375	262,568
2002			4,064	7,992	415	272	4,866	14,234	83,239	93,223	9,360	1,053	218,718
2003			13,038	2,583	182	398	3,169	5,108	71,337	77,100	7,157	600	180,672
2004			4,802	2,662	154	421	2,492	3,227	78,020	55,626	6,480	505	154,389
2005			3,479	1,204	180	433	2,156	3,315	57,231	79,926	6,882	977	155,783
2006			3,467	3,924	200	87	691	2,063	50,958	68,063	14,958	1,580	145,991
2007			6,894	3,477	211	271	1,504	3,792	58,983	71,535	8,269	2,409	157,345
2008			3,812	3,412	547	107	4,301	13,596	83,413	56,851	8,322	1,120	175,481
2009			4,313	5,918	550	486	3,806	8,978	154,804	129,599	14,574	669	323,697
2010			5,934	3,986	542	490	8,939	16,337	98,690	63,325	7,620	1,022	206,885
2011			5,017	6,443	830	73	3,309	21,163	84,732	58,065	3,355	661	183,648
2012			4,451	3,863	613	108	1,202	2,374	46,049	40,984	8,927	2,104	110,675
2013			4,461	2,674	304	107	1,044	4,016	39,492	49,717	5,597	498	107,910
2014			5,419	1,665	381	325	4,511	5,448	66,495	66,635	10,137	3,072	164,106
2015			7,118	1,798	264	113	814	3,323	59,018	58,255	8,150	923	139,776
2016			3,843	1,463	167	194	2,180	3,313	34,143	47,401	6,763	709	100,176
2017			5,394	1,747	161	15	282	437	20,587	43,704	3,877	594	76,798
2018			1,777	2,642	111	86	1,009	811	19,202	23,484	3,938	476	53,536
2019			1,607	1,175	98	18	953	1,060	9,609	17,460	2,831	283	35,094
2020			1,470	610	89	45	1,187	2,510	23,518	25,847	2,842	639	58,757
2021			1,637	751	168	27	251	583	19,221	16,687	3,221	790	43,336
2022			1,242	434	101	56	2,194	3,875	23,060	38,469	4,606	238	74,275
2023			1,428	884	229	32	1,092	1,856	36,503	24,732	2,614	377	69,747
Total	539	790	153,949	135,601	17,667	7,325	90,833	224,961	1,961,635	2,181,586	316,607	43,156	5,134,667
10-Yr Average			3,094	1,317	177	91	1,447	2,322	31,136	36,267	4,898	810	81,560

PRIEST RAPIDS AND WANAPUM DAMS

FISH COUNTING SCHEDULE

Jan. 1 – Apr. 14	No adult fish counting.
Apr. 15 – Nov. 15	Daily fish counting via (24-hour) video fish-counting system.
Nov. 16 – Dec. 31	No adult fish counting.

2023 FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – PRIEST RAPIDS and WANAPUM DAMS

Fishway inspections are conducted by a project operator at least once per day (actual walk-through/site visit) to ensure that fish facilities are operating within criteria limits. A daily log of the inspections is compared with the computerized printout to confirm correct calibration of the fishway control system. At the discretion of National Marine Fisheries Service or Fish Passage Center, fishway inspections are done by a designated committee member, accompanied by an employee of the Public Utility District No. 2 of Grant County (Grant PUD) each month during the adult fish-passage season (April 15–November 15). In 2023, all monthly fishway inspections occurred in a virtual setting or on-site by an agency representative and Grant PUD staff.

Winter maintenance occurs from December 1 to March 31. The fishways may be dewatered during this time to allow annual maintenance of facility equipment, including pumps, diffuser gratings, valves, and orifice and entrance gates as necessary to assure their readiness during the adult fish-migration period. Grant PUD Fish and Wildlife personnel are present at all dewaterings to ensure proper fish handling procedures are followed.

Maintenance which requires dewatering, or that will have a significant effect on fish passage, is done during the winter maintenance period. Facility maintenance that does not affect fish passage may occur at any time of the year. Concurrent outages of both fishways are avoided whenever possible to provide an upstream fish passage route at the dams. When facilities are not being maintained during the winter maintenance period, they are operated according to the normal operating criteria, unless otherwise coordinated in advance.

2023 FISHWAY ACTIVITIES

Adult Fish Counting

Four Peaks Environmental Services (Four Peaks) was contracted for counting fish at Wanapum and Priest Rapids dams in 2023. The video fish-count system uses cameras installed in the fishways to assist with counting migrating fish; video is recorded 24 hours per day. Fish counters review video in play-back mode until a fish is observed, identified,

and counted. At the end of each day all counts are electronically tallied, and a fish-count report is generated for each dam and posted on Grant County PUD's Fish and Wildlife's website: <https://www.grantpud.org/fish-wildlife>. Daily passage reports are sent to other groups that post fish passage on their respective websites (e.g., Fish Passage Center). Quality control analyses were conducted on Four Peaks counting personnel from April through October, resulting in a project wide relative error rate (95% confidence interval) of 5% or less for Chinook, Sockeye, Steelhead, and Pacific Lamprey. Project wide relative error rate for Coho was above the 5% target; additional training is scheduled before the 2024 season starts.

Adult Passive Integrated Transponder (PIT) Tag Detection

A PIT-tag detection array receives annual maintenance prior to the adult fish count season and is in the exit section in both ladders of Priest Rapids Dam. The detection system is operated continuously whenever the adult fishways are operational; detected tags are automatically uploaded to the PIT Tag Information System website. Another PIT tag monitoring site is located within the Off-Ladder Adult Fish Trap, with data collected and recorded when in operation.

Off Ladder Adult Fish Trap (OLAFT)

The Washington Department of Fish and Wildlife sampled spring Chinook at the trap beginning on April 17, 2023, and continued sampling three days per week through June 30, 2023. The Yakama Nation began collecting Sockeye at the trap starting on June 26, 2023, and continued collection efforts through July 14, 2023. BioAnalysts staff sampled Steelhead for Chelan PUD's stock-assessment program on July 3, 2023, and typically operated the trap on Mondays, Wednesdays, and Fridays of each week through October 30, 2023. The Yakama Nation contracted with BioAnalysts to have BioAnalysts' staff sample and PIT-tag adult Coho for the mid-Columbia Coho Reintroduction Program. Tagging and sampling for Coho occurred from August 29 through October 30, 2023. The OLAFT was completely dewatered and winterized for the season on November 1, 2023.

Adult Lamprey Passage Study

During 2023, the fifteenth year of implementation of the Pacific Lamprey Management Plan, Grant PUD was unable to continue to assess Pacific Lamprey behavior and passage efficiency through fishways at Priest Rapids and Wanapum dams and their respective reservoirs to evaluate the efficacy of design enhancements that were installed during the 2009-2010 winter fish ladder maintenance outage due to lack of tagging downstream. Between 2010 and 2019, Pacific Lamprey were tagged with half-duplex passive integrated transponders (HDX-PIT) and released at Bonneville Dam by University of Idaho and the Confederated Tribes of the Warm Springs. These marked fish were used to evaluate passage efficiency and to estimate passage times through the fishways at Priest Rapids and Wanapum dams annually. However, since 2020, due to COVID-19 restrictions, no tagging has taken place at Bonneville Dam, and thus the HDX-PIT arrays at Wanapum and Priest Rapids dams have not been operated. Grant PUD will begin monitoring as soon as tagging at downstream locations resumes. For the 2010 through 2019 migrations, Grant PUD monitored a total of 844 and 753 HDX-PIT tagged lamprey at Priest Rapids and Wanapum dams, respectively. Fishway passage efficiency for

lamprey over the entire 2010-2019 comprehensive dataset was previously reported as 84.0% and 87.1% at Priest Rapids and Wanapum dams, respectively. However, in 2022, the data were reanalyzed using a Bayesian state-space implementation of a Cormack-Jolly-Seber model, which produced revised FPE estimates of 79.7% (95% CL: 76.3 – 83.1%) at Priest Rapids Dam and 73.3% (95% CL: 68.4 – 78.1%) at Wanapum Dam (excluding 2014, when the dam fracture occurred). Low passage efficiency estimates were associated with small sample sizes in some ladders in certain years.

Bull Trout

In 2023, two bull trout were observed passing Wanapum dam, and no bull trout were observed at Priest Rapids dam fish ladder count stations between April 15 and November 15. No PIT-tagged bull trout were detected in 2023 at full duplex PIT-tag detectors located in Priest Rapids Dam fish ladders. No other bull trout were observed during any other phase of juvenile bypass activities, Northern Pikeminnow predator control programs, turbine maintenance activities, fishway maintenance activities, White Sturgeon Program activities, Hanford Reach Fall Chinook Protection Program, hatchery activities, or any other activities in the project area.

TABLE 155

**MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER PRIEST RAPIDS DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				89	14,410	23,905	28,799	5,086	30,243	11,302	1,126		114,960
STEELHEAD				12	37	63	1,143	1,623	4,171	535	33		7,617
SOCKEYE					7	60,940	173,109	939	264	9	2		235,270
COHO*								254	10,622	5,244	531		16,651
PINK													0
TOTAL				101	14,454	84,908	203,051	7,902	45,300	17,090	1,692		374,498
LAMPREY					268	488	3,732	6,716	1,725	214	4		13,147
BULL TROUT													0

*Jacks included

TABLE 156

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS											APRIL 2023		
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH	SPILL
	SPRING	SUMMER	FALL	JACK	ADULT	JACK						KCFS	KCFS
Apr 1												62.3	1.7
Apr 2												61.6	0.0
Apr 3												61.7	0.0
Apr 4												51.4	0.0
Apr 5												61.6	0.0
Apr 6												61.2	0.0
Apr 7												61.0	0.0
Apr 8												60.9	0.0
Apr 9												60.8	0.0
Apr 10												60.8	0.0
Apr 11												60.9	0.0
Apr 12												63.2	0.0
Apr 13												62.1	0.0
Apr 14												62.1	0.0
Apr 15	2			0				2				62.1	0.0
Apr 16	2			0				0				62.2	0.0
Apr 17	2			0				0				62.2	0.0
Apr 18	1			0				2				65.0	0.0
Apr 19	1			0				1				66.7	0.0
Apr 20	2			0				2				72.1	23.6
Apr 21	0			0				0				68.2	29.4
Apr 22	5			0				1				63.3	27.3
Apr 23	0			0				1				62.1	20.6
Apr 24	2			0				0				61.6	17.8
Apr 25	2			0				0				61.5	19.3
Apr 26	15			0				0				60.5	25.3
Apr 27	12			1				0				62.1	20.8
Apr 28	10			0				1				62.2	18.0
Apr 29	11			0				1				65.8	22.2
Apr 30	21			0				1				63.6	19.8
TOTAL	88			1				12					
AVG.	6			0				1				62.4	8.2

*Data unavailable

TABLE 157

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS											MAY 2023			
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
May 1	39			0			0	2		0		87.9	20.5	48.9
May 2	33			0			0	2		0		104.0	24.8	49.6
May 3	45			0			0	2		0		126.4	25.9	48.7
May 4	74			1			0	0		0		157.4	26.4	49.6
May 5	43			1			0	0		0		174.8	38.3	49.6
May 6	73			1			0	0		0		190.5	94.0	49.3
May 7	71			0			0	0		0		166.8	72.9	49.3
May 8	60			1			0	1		0		192.7	61.5	49.6
May 9	115			1			0	0		0		199.5	80.6	48.9
May 10	25			2			0	0		0		237.6	110.4	48.9
May 11	217			7			7	7		0		200.0	64.8	48.7
May 12	154			0			0	0		0		200.3	76.4	*
May 13	152			1			0	0		0		217.1	115.4	*
May 14	384			2			0	0		0		216.2	106.4	50.5
May 15	2,233			21			0	7		21		261.4	150.9	51.3
May 16	219			5			0	0		5		253.7	158.9	52.0
May 17	428			6			0	1		1		257.8	141.0	51.8
May 18	279			12			0	1		11		260.6	129.9	52.2
May 19	417			10			0	1		24		245.3	127.9	52.9
May 20	657			22			0	1		39		248.4	126.0	53.8
May 21	1,060			18			0	0		22		250.6	147.4	54.5
May 22	846			33			0	1		11		220.8	99.2	54.7
May 23	566			32			0	0		8		210.1	78.0	54.5
May 24	656			55			0	0		1		207.9	84.5	54.9
May 25	482			68			0	7		4		212.6	100.2	55.2
May 26	618			55			0	0		12		190.5	79.5	55.6
May 27	1,242			115			0	1		16		170.8	46.6	55.8
May 28	991			46			0	2		13		160.3	26.0	55.9
May 29	684			50			0	0		18		155.8	27.1	56.3
May 30	429			42			0	0		37		148.7	24.3	56.7
May 31	484			27			0	1		25		156.1	34.1	56.8
TOTAL	13,776			634			7	37		268				
AVG.	444			20			0	1		9		196.2	80.6	52.3
*Data unavailable														
RUN YEAR		CHINOOK	CHINOOK											
TOTALS TO DATE		ADULT	JACK											
SPRING		13,864	635	SOCKEYE		STEELHEAD		LAMPREY						
				7		49		268						

TABLE 158

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Jun 1	308			28			9	3		30		108.5	24.9	57.2
Jun 2	192			33			0	0		25		127.9	24.1	56.8
Jun 3	366			59			0	0		-1		107.1	21.8	58.1
Jun 4	301			14			0	0		29		103.2	21.2	59.4
Jun 5	249			13			0	0		21		124.1	24.7	58.3
Jun 6	187			16			1	0		-3		118.4	20.6	59.2
Jun 7	219			12			3	0		10		121.1	23.1	59.7
Jun 8	238			13			4	0		3		116.0	22.7	60.1
Jun 9	177			21			7	0		29		97.1	22.5	61.0
Jun 10	311			18			20	0		6		81.2	23.6	60.3
Jun 11	449			39			29	0		22		81.9	22.1	60.8
Jun 12	513			7			72	6		11		100.4	21.8	60.4
Jun 13	606			0			111	0		17		102.3	21.2	61.0
Jun 14		649		9			173	1		11		113.9	20.8	61.0
Jun 15		495		9			114	0		13		118.3	22.1	59.7
Jun 16		667		4			206	1		6		109.7	25.1	60.4
Jun 17		1,055		36			299	0		10		101.6	19.5	*
Jun 18		1,379		34			506	4		13		98.2	26.0	*
Jun 19		921		15			447	0		3		102.0	20.0	59.5
Jun 20		763		10			895	0		-1		111.9	23.9	59.4
Jun 21		1,063		18			1,511	3		8		84.8	19.1	59.2
Jun 22		1,023		35			2,042	2		16		98.2	21.5	59.7
Jun 23		1,458		57			2,725	2		23		102.7	23.9	61.2
Jun 24		1,480		60			3,911	5		19		85.9	22.5	60.6
Jun 25		1,184		99			5,380	4		34		89.1	23.8	61.9
Jun 26		1,253		51			5,986	-4		18		115.6	24.1	62.6
Jun 27		1,416		26			6,909	4		25		116.4	23.0	61.9
Jun 28		1,114		30			9,904	10		23		107.2	23.4	62.1
Jun 29		1,429		2			9,645	6		21		107.6	21.2	62.4
Jun 30		1,635		37			10,031	16		47		98.3	23.3	63.9

TOTAL	4,116	18,984		805			60,940	63		488				
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AVG.		1,117		27			2,031	2		16				
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105.0	22.6	60.3
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*Data unavailable

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	17,980	908
SUMMER	18,984	532
TOTAL	36,964	1,440

SOCKEYE	STEELHEAD
60,947	112

LAMPREY
756

TABLE 159

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Jul 1		1,740		28			9,121	10		49		98.0	27.6	57.2
Jul 2		1,624		25			9,625	11		29		82.2	24.8	56.8
Jul 3		2,606		39			11,641	12		62		90.0	26.9	58.1
Jul 4		1,286		19			12,644	12		70		86.3	25.5	59.4
Jul 5		1,519		9			13,957	14		49		113.2	24.3	58.3
Jul 6		2,095		23			14,121	21		45		90.2	23.2	59.2
Jul 7		1,868		24			14,683	18		55		88.6	21.5	59.7
Jul 8		1,279		12			13,958	24		55		70.7	19.7	60.1
Jul 9		1,311		48			13,131	42		66		80.8	23.7	61.0
Jul 10		971		70			10,637	50		57		71.6	23.0	60.3
Jul 11		844		33			8,923	42		37		117.8	25.7	60.8
Jul 12		1,235		44			8,677	34		39		117.5	26.4	60.4
Jul 13		1,028		27			6,274	50		71		117.3	27.1	61.0
Jul 14		990		32			5,940	54		89		124.8	24.4	61.0
Jul 15		803		36			4,747	50		93		114.7	24.1	59.7
Jul 16		782		27			3,910	40		111		123.5	26.1	60.4
Jul 17		406		16			2,287	39		119		102.5	25.0	*
Jul 18		572		20			1,818	41		95		98.5	22.6	*
Jul 19		455		23			1,569	43		80		91.2	22.9	59.5
Jul 20		616		25			1,581	65		136		95.1	23.0	59.4
Jul 21		512		25			1,178	83		279		107.5	23.8	59.2
Jul 22		768		24			646	56		210		106.7	22.7	59.7
Jul 23		492		9			579	71		250		127.1	25.6	61.2
Jul 24		363		13			365	42		289		106.1	22.6	60.6
Jul 25		328		18			281	35		126		106.4	24.3	61.9
Jul 26		457		29			328	47		129		134.4	23.5	62.6
Jul 27		259		17			146	35		163		122.9	23.5	61.9
Jul 28		264		14			173	36		255		116.7	25.2	62.1
Jul 29		157		16			65	18		156		93.7	23.8	62.4
Jul 30		185		9			57	28		211		95.1	23.8	63.9
Jul 31		219		11			47	20		257		99.4	23.1	*
TOTAL		28,034		765			173,109	1,143		3,732				
AVG.		904		25			5,584	37		120		102.9	24.2	60.3

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,980	908
SUMMER	47,018	1,297
TOTAL	64,998	2,205

SOCKEYE	STEELHEAD
234,056	1,255

LAMPREY
4,488

TABLE 160

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Aug 1		224		11	0	0	75	29		245		117.9	23.8	66.7
Aug 2		179		28	0	0	43	20		169		90.3	22.8	67.5
Aug 3		218		14	0	0	60	32		362		97.4	24.8	67.3
Aug 4		188		9	0	0	66	26		238		86.3	22.9	67.6
Aug 5		195		11	0	0	75	27		314		95.6	25.9	67.3
Aug 6		260		19	0	0	36	33		242		80.1	25.8	67.5
Aug 7		182		13	0	0	25	26		345		113.5	24.9	67.5
Aug 8		299		28	0	0	24	47		170		102.8	24.5	67.8
Aug 9		185		24	0	0	29	42		176		88.9	25.0	68.4
Aug 10		236		27	0	0	40	46		263		130.4	38.4	68.0
Aug 11		169		27	1	0	26	56		302		127.8	26.9	67.8
Aug 12		112		7	0	0	40	55		234		114.3	23.9	68.2
Aug 13		115		7	0	0	41	51		283		94.4	25.8	68.5
Aug 14			145	7	3	0	43	64		310		106.1	11.1	*
Aug 15			156	8	0	0	29	61		243		121.2	8.2	*
Aug 16			95	7	3	2	30	76		255		128.3	8.1	*
Aug 17			100	4	9	0	33	55		271		115.4	2.8	*
Aug 18			135	27	10	0	31	78		292		129.5	6.9	*
Aug 19			108	22	5	2	29	103		161		108.9	3.0	*
Aug 20			102	26	9	0	12	72		155		126.2	11.2	69.1
Aug 21			51	4	0	0	38	67		191		99.1	2.5	69.1
Aug 22			62	9	22	0	19	40		120		64.3	2.4	68.7
Aug 23			91	7	37	10	10	21		121		86.9	2.5	68.4
Aug 24			68	3	35	8	4	43		166		88.2	2.6	68.2
Aug 25			55	6	35	2	6	27		220		88.0	2.5	68.2
Aug 26			43	1	36	0	3	29		206		93.7	2.5	68.2
Aug 27			53	2	25	0	6	40		167		104.8	2.4	68.2
Aug 28			105	8	0	0	19	77		143		78.2	2.2	68.5
Aug 29			243	7	0	0	17	87		166		90.9	2.3	68.5
Aug 30			305	10	0	0	14	96		105		94.4	2.7	68.0
Aug 31			215	9	0	0	16	97		81		120.8	2.7	67.5

TOTAL		2,562	2,132	392	230	24	939	1,623		6,716				
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AVG.		197	118	13	7	1	30	52		217		102.7	13.3	68.0
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*Data unavailable

RUN YEAR		CHINOOK ADULT	CHINOOK JACK		COHO ADULT	COHO JACK		SOCKEYE	STEELHEAD		LAMPREY			
TOTALS TO DATE														
SPRING		17,980	908		230	24		234,995	2,878		11,204			
SUMMER		49,580	1,522											
FALL		2,132	167											
TOTAL		69,692	2,597											

TABLE 161

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS											SEPTEMBER 2023			
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Sep 1			159	23	2	0	6	77		101		84.0	2.5	67.3
Sep 2			241	10	0	0	22	75		135		69.8	1.9	68.0
Sep 3			418	18	54	0	8	48		90		45.6	2.4	67.8
Sep 4			694	12	55	2	16	133		45		76.2	2.0	68.4
Sep 5			602	8	17	2	6	167		79		74.7	2.2	67.5
Sep 6			937	28	46	2	5	181		79		45.0	6.3	68.0
Sep 7			957	56	677	88	16	229		115		64.9	2.4	67.5
Sep 8			1,617	102	69	3	12	383		107		67.8	2.4	67.8
Sep 9			1,236	52	205	1	1	142		91		56.7	2.1	67.5
Sep 10			1,564	24	317	26	46	347		87		49.7	2.2	68.0
Sep 11			864	14	516	21	9	238		105		49.3	1.1	68.0
Sep 12			713	23	724	18	0	269		86		57.5	1.2	68.2
Sep 13			889	22	133	0	44	219		71		61.9	1.2	68.2
Sep 14			859	166	162	16	0	230		73		56.6	1.1	67.6
Sep 15			1,596	111	406	17	0	88		51		50.4	2.2	67.8
Sep 16			1,785	17	552	12	13	166		38		39.9	2.2	68.0
Sep 17			1,691	31	834	25	4	140		67		40.0	1.5	68.0
Sep 18			1,323	33	1,272	60	0	129		57		47.8	1.7	68.4
Sep 19			1,745	53	294	14	17	132		58		54.1	2.0	67.6
Sep 20			1,308	90	186	13	8	105		36		44.8	2.0	66.9
Sep 21			1,520	48	214	13	3	76		13		55.9	2.3	66.0
Sep 22			1,349	15	405	25	9	110		21		65.0	2.5	65.3
Sep 23			721	33	596	25	3	87		28		42.2	2.3	65.7
Sep 24			436	19	942	67	2	84		23		41.3	1.7	65.7
Sep 25			777	40	167	24	1	65		19		53.6	2.5	65.3
Sep 26			672	25	65	7	1	47		21		54.6	2.3	65.1
Sep 27			573	46	41	5	0	19		5		45.8	2.4	64.8
Sep 28			665	49	280	25	10	60		3		46.5	2.3	64.4
Sep 29			843	20	353	10	1	68		9		53.5	2.4	64.2
Sep 30			281	20	469	48	1	57		12		47.0	2.3	63.9
TOTAL			29,035	1,208	10,053	569	264	4,171			1,725			
AVG.			968	40	335	19	9	139			58	54.7	2.2	66.9
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK	COHO ADULT		COHO JACK	SOCKEYE	STEELHEAD	LAMPREY					
SPRING		17,980	908	10,283		593	235,259	7,049	12,929					
SUMMER		49,580	1,522											
FALL		31,167	1,375											
TOTAL		98,727	3,805											

TABLE 162

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
Oct 1			537	13	261	50	4	54		6		61.1	2.5	63.5
Oct 2			534	22	234	15	4	42		13		70.7	2.3	63.5
Oct 3			329	7	223	18	0	26		7		55.5	1.9	63.7
Oct 4			372	13	382	12	0	39		8		58.7	2.0	63.5
Oct 5			606	5	734	22	0	41		4		62.1	2.4	63.5
Oct 6			535	11	660	16	0	65		7		61.1	2.2	63.3
Oct 7			404	12	429	11	0	33		14		61.3	2.2	63.5
Oct 8			633	17	150	6	0	22		17		57.2	2.3	63.7
Oct 9			554	6	116	4	0	22		4		63.1	2.1	63.9
Oct 10			304	1	97	3	0	11		0		68.1	2.1	63.7
Oct 11			428	6	98	2	0	9		7		54.9	2.1	63.1
Oct 12			336	25	142	11	0	16		5		58.3	2.0	63.0
Oct 13			175	6	150	18	0	16		14		62.1	2.0	63.1
Oct 14			225	5	167	4	0	19		7		62.5	2.0	63.0
Oct 15			211	8	96	4	0	6		10		52.9	1.7	63.0
Oct 16			230	11	54	2	0	8		3		47.9	3.5	*
Oct 17			262	11	46	0	0	6		9		61.0	5.4	62.4
Oct 18			185	7	47	1	0	0		6		65.8	4.1	62.2
Oct 19			454	32	68	4	0	21		6		56.9	1.5	62.4
Oct 20			354	9	80	3	0	5		6		54.8	1.7	62.4
Oct 21			281	8	60	1	0	7		3		44.9	1.5	62.8
Oct 22			1,533	49	301	7	0	21		49		47.4	1.8	62.6
Oct 23			208	6	62	1	0	8		1		48.6	1.5	62.4
Oct 24			128	5	79	1	0	3		3		63.8	1.9	61.7
Oct 25			221	5	33	4	1	5		2		67.9	4.6	60.6
Oct 26			188	7	31	1	0	7		0		63.8	1.9	59.9
Oct 27			192	4	44	5	0	4		0		59.1	1.8	59.7
Oct 28			173	2	35	6	0	3		-1		49.2	1.6	59.4
Oct 29			132	4	23	4	0	3		3		43.1	1.5	58.6
Oct 30			109	2	37	1	0	7		0		68.0	1.6	58.3
Oct 31			148	2	66	2	0	6		1		73.2	1.4	57.6
TOTALS			10,981	321	5,005	239	9	535		214				

AVG.	354	10	161	8	0	17	7	58.9	2.2	62.1
** Data unavailable										

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	LAMPREY
TOTALS TO DATE							
SPRING	17,980	908	15,288	832	235,268	7,584	13,143
SUMMER	49,580	1,522					
FALL	42,148	1,696					
TOTAL	109,708	4,126					

TABLE 163

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT			CHINOOK		COHO		SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	ADULT								
Nov 1			103	2	46	1	0	0	2		2		77.2	3.6	57.5
Nov 2			177	10	73	2	0	0	2		0		69.2	1.5	57.2
Nov 3			116	4	67	4	0	0	2		0		76.1	1.5	56.8
Nov 4			126	1	76	8	0	0	3		0		71.5	1.5	56.5
Nov 5			71	1	33	0	2	2	5		0		63.6	1.3	56.5
Nov 6			78	0	52	0	0	0	4		0		65.0	1.5	56.3
Nov 7			70	0	30	1	0	0	5		0		65.8	3.8	55.9
Nov 8			90	0	18	0	0	0	0		0		76.1	4.7	55.5
Nov 9			62	3	34	1	0	0	5		0		93.3	17.1	55.1
Nov 10			38	0	29	1	0	0	1		0		85.2	1.3	55.2
Nov 11			82	2	32	0	0	0	0		1		76.3	7.5	54.9
Nov 12			27	0	10	0	0	0	3		0		81.5	1.3	54.9
Nov 13			25	2	8	0	0	0	1		0		76.9	1.6	55.0
Nov 14			17	0	1	0	0	0	0		1		100.4	20.5	55.1
Nov 15			18	1	4	0	0	0	0		0		90.5	7.8	55.2
Nov 16													95.1	12.3	55.0
Nov 17													91.7	9.1	54.8
Nov 18													89.7	5.6	54.6
Nov 19													71.1	0.0	54.3
Nov 20													92.7	13.7	54.0
Nov 21													87.0	0.1	53.8
Nov 22													89.2	0.0	53.7
Nov 23													87.8	0.0	53.6
Nov 24													93.0	4.9	53.0
Nov 25													103.1	7.3	52.6
Nov 26													90.2	4.0	52.2
Nov 27													137.3	32.2	52.1
Nov 28													126.6	11.7	51.9
Nov 29													100.3	0.0	51.4
Nov 30													90.2	0.0	51.2
TOTALS			1,100	26	513	18	2	2	33		4				
AVG.			73	2	34	1	0	0	2		0		87.1	5.9	54.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
	ADULT	JACK
SPRING	17,980	908
SUMMER	49,580	1,522
FALL	43,248	1,722
TOTAL	110,808	4,152

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD
15,801	850	235,270	7,617

LAMPREY	BULL TROUT
13,147	0

TABLE 164

**YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
1982 - 2023**

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1982	32,051	11,160	40,461	1,810	85,482
1983	31,008	31,809	90,008	502	153,327
1984	41,425	26,213	114,761	173	182,572
1985	62,164	34,589	118,542	219	215,514
1986	68,703	22,401	43,084	83	134,271
1987	73,214	14,011	76,578	108	163,911
1988	53,963	10,208	51,135	68	115,374
1989	49,246	10,730	45,301	32	105,309
1990	36,257	7,830	46,331	31	90,449
1991	31,482	13,939	71,245	22	116,688
1992	37,752	13,733	80,857	1	132,343
1993	54,552	5,460	82,963	0	142,975
1994	32,892	6,706	12,385	0	51,983
1995	30,548	4,358	9,186	3	44,095
1996	27,325	8,324	29,422	5	65,076
1997	33,036	8,948	45,412	26	87,422
1998	29,415	5,837	10,769	18	46,039
1999	57,054	8,277	16,432	55	81,818
2000	91,223	11,331	89,547	378	192,479
2001	139,929	30,090	111,326	11,189	292,534
2002	161,510	15,895	47,883	1,555	226,843
2003	160,433	17,652	36,551	5,216	219,852
2004	134,620	18,727	124,943	5,624	283,914
2005	109,429	12,472	74,563	1,260	197,724
2006	87,086	10,408	26,710	3,813	128,017
2007	65,962	15,183	24,645	12,310	118,100
2008	104,001	16,725	196,835	6,022	323,583
2009	114,137	40,093	153,466	11,293	318,989
2010	123,576	26,476	357,058	2,655	509,765
2011	116,914	20,757	145,070	23,392	306,133
2012	138,487	17,230	408,257	9,957	573,931
2013	371,726	15,011	163,078	4,020	553,835
2014	242,755	19,843	608,142	36,685	907,425
2015	206,103	14,316	301,272	5,036	526,727
2016	147,777	6,498	311,072	1,987	467,334
2017	96,655	5,804	66,670	8,719	177,848
2018	70,814	4,918	189,884	5,186	270,802
2019	78,798	15,253	33,901	8,672	136,624
2020	130,034	6,506	291,106	16,671	444,317
2021	120,079	2,808	76,855	49,630	249,372
2022	122,761	4,887	654,407	26,908	808,963
2023	114,960	7,617	235,270	16,651	374,498
Totals	4,031,856	601,033	5,713,383	277,985	10,624,257
10-Year Average	133,074	8,845	276,858	17,615	436,391

*Jacks included

TABLE 165

**MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2022**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1960				159	651	25	318	2,255	3,190	1,229			7,827
1961				52	208	43	381	1,480	4,650	1,753			8,567
1962				133	530	74	329	2,027	4,925	1,306			9,324
1963				183	564	109	336	2,922	3,344	1,816			9,274
1964				85	196	44	261	1,986	2,649	770			5,991
1965				129	298	91	649	2,498	3,868	1,508			9,041
1966				189	252	296	1,194	2,775	5,549	2,751			13,006
1967				213	381	62	411	1,686	2,109	2,492			7,354
1968				530	1,112	24	185	1,954	4,950	1,769			10,524
1969				120	670	105	566	1,598	2,544	1,047			6,650
1970				85	195	27	197	1,129	3,053	872			5,558
1971				46	440	61	185	2,043	6,241	2,086			11,102
1972				163	552	42	318	1,992	2,190	1,172			6,429
1973				132	160	56	788	1,738	3,254	871			6,999
1974				45	129	229	504	845	945	392			3,089
1975				3	37	99	214	670	1,187	252			2,462
1976				3	133	246	531	1,873	5,462	1,000			9,248
1977				178	200	209	1,029	1,963	4,519	1,706			9,804
1978				72	134	214	532	1,143	1,869	581			4,545
1979				13	127	30	585	3,082	3,174	1,398			8,409
1980				232	203	17	179	1,815	4,721	1,263	94		8,524
1981				75	144	105	445	2,414	4,127	1,545	133	24	9,012
1982	5	32	70	136	86	46	331	3,126	5,345	1,805	163	15	11,160
1983	5	9	52	40	11	12	599	8,660	18,272	3,534	602	13	31,809
1984	28	4	92	142	145	224	2,534	8,840	11,907	2,030	256	11	26,213
1985	2	11	74	351	326	856	5,319	11,063	14,693	1,659	235		34,589
1986				82	100	262	3,637	10,584	5,647	1,856	233		22,401
1987				42	71	124	1,954	5,741	4,311	1,495	273		14,011
1988				48	108	239	1,234	3,119	4,016	1,176	268		10,208
1989				36	50	133	1,361	3,499	4,581	872	198		10,730
1990				24	52	130	1,282	2,616	3,060	551	115		7,830
1991				31	73	66	1,406	4,041	6,301	1,768	253		13,939
1992				60	152	313	2,328	3,261	6,265	1,227	127		13,733
1993				34	41	125	993	1,733	2,013	471	40		5,450
1994				7	13	78	902	1,286	3,087	1,269	64		6,706
1995				4	20	30	540	1,316	2,062	363	23		4,358
1996				9	14	35	546	3,234	3,810	627	49		8,324
1997				5	17	39	574	2,822	4,176	1,224	91		8,948
1998				7	9	40	806	935	2,976	1,005	59		5,837
1999				6	19	72	588	3,361	3,543	633	55		8,277
2000				2	13	155	1,895	3,786	4,825	598	57		11,331
2001				14	11	326	4,426	10,368	12,136	2,607	202		30,090
2002				22	15	134	3,225	7,442	4,101	874	82		15,895
2003				7	2	95	2,924	5,198	8,009	1,362	55		17,652
2004				7	79	516	3,438	2,687	10,905	1,042	53		18,727
2005				7	7	150	1,691	2,986	5,715	1,805	111		12,472
2006				18	26	87	983	2,934	5,583	723	54		10,408
2007				10	41	51	1,217	5,201	6,581	1,960	122		15,183
2008				25	100	452	3,572	5,409	6,004	1,038	125		16,725
2009				24	34	78	2,330	13,537	19,965	4,034	91		40,093
2010				63	23	229	6,634	9,933	8,150	1,333	111		26,476
2011				14	27	29	1,089	10,012	7,780	1,740	66		20,757
2012				64	26	149	1,879	6,586	7,024	1,364	138		17,230
2013				24	28	124	1,219	4,678	6,834	1,993	111		15,011
2014				63	50	160	2,623	5,112	9,741	1,917	177		19,843
2015				24	12	305	1,564	4,735	6,206	1,376	94		14,316
2016				11	12	354	1,334	1,212	2,905	630	40		6,498
2017				14	18	103	310	794	3,462	1,067	36		5,804
2018				17	15	78	791	671	2,750	517	79		4,918
2019				10	13	11,352	618	800	1,775	650	35		15,253
2020				7	4	81	763	1,268	3,527	816	40		6,506
2021				8	6	4	370	414	1,766	227	13		2,808
2022					16	24	907	1,020	2,134	700	86		4,887
2023				12	37	63	1,143	1,623	4,171	535	33		7,617
TOTAL	40	56	288	4,371	9,238	20,131	84,016	229,531	336,634	84,052	5,342	63	773,762
10-Year Average				18	18	1,252	1,042	1,765	3,844	844	63		8,845

ROCK ISLAND DAM

2023 Fish Counting Schedule

Jan 1 – Apr 13	Video recording 24 hours per day/7 days a week to monitor bull trout passage, while the fish ladders were in service.
Apr 14 – Nov 15	Video recording 24 hours per day/7 days a week. Video counting daily from 0700 to 1530 hours Pacific Standard Time.
Nov 16 – Dec 31	Video recording 24 hours per day/7 days a week to monitor bull trout passage, while the fish ladders were in service.

2023 Fish Ladder Operating Schedule

Left Bank Ladder

Jan 1 – Feb 6	Fishway in service.
Feb 7 – Feb 27	Fishway out of service for 2022/2023 annual maintenance period.
Feb 28 – Dec 31	Fishway in service.

Middle Ladder

Jan 1 – Feb 22	Fishway out of service for 2022/2023 annual maintenance period.
Feb 23 – Dec 10	Fishway in service.
Dec 11 – Dec 31	Fishway out of service for 2023/2024 annual maintenance period.

Right Bank Ladder

Jan 1 – Feb 5	Fishway out of service for 2022/2023 annual maintenance period.
Feb 6 – Dec 3	Fishway in service.
Dec 4 – Dec 31	Fishway out of service for 2023/2024 annual maintenance period.

2023 Fish Facility Activities

The bypass trap at the 2nd powerhouse was operated by Chelan County PUD Natural Resource Department employees from 1 April through 31 August 2023. Juvenile fish were sampled daily during that period. The annual bypass (biological) evaluation included the collection of species composition, fish condition, and gas bubble trauma data.

The PIT tag systems in all three fish ladders were operational throughout the 2023 adult fish migration. PIT tag detections were uploaded daily to PTAGIS.

TABLE 166

**MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*	2			14	11,065	22,673	31,782	4,654	8,329	6,332	1,970		86,821
STEELHEAD	5	3	30	66	29	32	935	1,511	4,717	942	56		8,326
SOCKEYE						33,915	211,945	1,728	166	18	0		247,772
COHO*	2							4	8,670	8,414	600		17,690
PINK													0
TOTAL	9	3	30	80	11,094	56,620	244,662	7,897	21,882	15,706	2,626		360,609
LAMPREY						99	1,086	4,000	2,128	318			7,631
BULL TROUT				1	3	6	3						13

TABLE 167

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JANUARY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	Unclipped		BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					
Jan 1	2				0			0	0			69.3	0.0	40.6
Jan 2	0				0			0	0			101.6	0.0	40.5
Jan 3	0				2			0	0			81.4	0.0	40.5
Jan 4	0				0			0	0			116.0	1.4	40.5
Jan 5	0				0			1	1			104.1	0.6	40.3
Jan 6	0				0			0	0			96.4	0.0	39.8
Jan 7	0				0			0	0			64.0	0.0	39.9
Jan 8	0				0			0	0			71.6	0.0	39.9
Jan 9	0				0			0	0			100.4	0.0	39.7
Jan 10	0				0			0	0			96.1	0.6	39.6
Jan 11	0				0			0	0			76.9	0.0	39.5
Jan 12	0				0			1	0			95.5	0.1	39.3
Jan 13	0				0			0	0			101.5	0.0	39.2
Jan 14	0				0			0	0			86.2	0.0	38.9
Jan 15	0				0			0	0			56.4	0.0	38.7
Jan 16	0				0			0	0			84.8	0.0	38.6
Jan 17	0				0			0	0			98.4	0.0	38.5
Jan 18	0				0			1	0			88.9	0.1	38.5
Jan 19	0				0			1	1			116.3	0.0	38.2
Jan 20	0				0			0	0			100.5	0.0	37.8
Jan 21	0				0			0	0			95.9	0.0	37.4
Jan 22	0				0			0	0			88.9	0.0	37.2
Jan 23	0				0			0	0			88.6	0.0	37.1
Jan 24	0				0			0	0			110.0	2.6	36.9
Jan 25	0				0			0	0			107.2	1.3	36.7
Jan 26	0				0			1	1			76.4	0.1	36.6
Jan 27	0				0			0	0			91.9	0.0	36.8
Jan 28	0				0			0	0			92.6	0.0	36.8
Jan 29	0				0			0	0			109.5	0.0	36.5
Jan 30	0				0			0	0			140.5	0.0	36.2
Jan 31	0				0			0	0			118.5	0.0	35.8
TOTAL	2				2			5	3					
AVG.					0			0	0			94.4	0.2	38.5

TABLE 168

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS											FEBRUARY 2023			
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	Unclipped		BULL TROUT	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD			KCFS	KCFS	
Feb 1								0	0			127.7	0.0	35.5
Feb 2								0	0			130.0	0.0	35.5
Feb 3								0	0			105.1	0.0	35.6
Feb 4								0	0			92.8	0.0	35.6
Feb 5								0	0			75.3	0.0	35.7
Feb 6								0	0			88.0	0.0	35.9
Feb 7								0	0			104.6	0.0	36.2
Feb 8								1	0			93.7	0.0	36.4
Feb 9								1	0			106.6	0.0	36.4
Feb 10								0	0			70.2	0.0	36.5
Feb 11								0	0			80.2	0.0	36.6
Feb 12								0	0			85.7	0.0	36.6
Feb 13								0	0			82.7	0.0	36.7
Feb 14								0	0			112.1	0.0	36.8
Feb 15								0	0			101.2	0.0	36.6
Feb 16								0	0			102.9	0.0	36.6
Feb 17								0	0			94.8	0.0	36.7
Feb 18								0	0			96.1	0.0	36.9
Feb 19								0	0			99.0	7.6	37.1
Feb 20								1	0			105.8	0.0	37.3
Feb 21								0	0			93.4	0.0	37.7
Feb 22								0	0			110.6	0.0	37.5
Feb 23								0	0			116.3	0.0	37.1
Feb 24								0	0			93.0	0.0	36.8
Feb 25								0	0			101.2	0.0	36.5
Feb 26								0	0			63.9	0.0	36.3
Feb 27								0	0			114.8	0.0	36.2
Feb 28								0	0			95.9	0.0	36.3
TOTAL								3	0					
AVG.								0	0			98.0	0.3	36.5

TABLE 169

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS											MARCH 2023			
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	Unclipped		BULL TROUT	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD			KCFS	KCFS	
Mar 1								1	0			89.4	0.0	36.4
Mar 2								0	0			68.5	0.0	36.7
Mar 3								0	0			75.1	0.0	36.8
Mar 4								0	0			90.7	0.0	37.0
Mar 5								0	0			67.5	0.0	37.1
Mar 6								2	0			82.5	0.0	37.3
Mar 7								0	0			82.1	0.0	37.3
Mar 8								1	1			90.5	0.0	37.6
Mar 9								0	0			97.1	0.0	37.6
Mar 10								2	0			66.3	0.0	37.6
Mar 11								1	1			73.0	0.0	37.9
Mar 12								0	0			85.6	0.0	38.0
Mar 13								1	0			58.2	0.0	38.2
Mar 14								1	0			95.8	2.5	38.2
Mar 15								1	1			50.1	0.0	38.5
Mar 16								1	1			69.7	0.0	38.7
Mar 17								2	0			78.7	0.0	38.9
Mar 18								2	0			75.2	0.0	39.1
Mar 19								1	0			77.4	0.0	39.3
Mar 20								0	0			60.6	0.0	39.4
Mar 21								0	0			77.7	0.0	39.7
Mar 22								2	1			65.8	0.0	40.1
Mar 23								0	0			63.7	0.0	40.1
Mar 24								0	0			63.4	0.0	40.2
Mar 25								4	3			51.6	0.0	40.1
Mar 26								0	0			39.9	0.1	40.3
Mar 27								0	0			86.3	0.0	40.4
Mar 28								2	0			61.5	0.0	40.7
Mar 29								2	1			90.5	0.0	40.6
Mar 30								4	1			47.9	0.0	40.7
Mar 31								0	0			72.1	0.0	40.8
TOTAL								30	10					
AVG.								1	0			72.7	0.1	38.8

TABLE 170

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

APRIL 2023

DATE	CHINOOK ADULT			CHINOOK		COHO		Unclipped		BULL		DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT	LAMPREY	KCFS	KCFS	
Apr 1	0							1	1	0		50.4	0.0	41.1
Apr 2	0							1	0	0		63.2	0.0	41.1
Apr 3	0							5	0	0		64.6	0.0	41.2
Apr 4	0							3	3	0		69.8	0.0	41.3
Apr 5	0							6	2	0		66.5	0.0	41.5
Apr 6	0							3	0	0		66.1	0.0	41.6
Apr 7	0							2	0	0		70.3	0.0	41.5
Apr 8	0							3	2	0		72.8	0.0	41.7
Apr 9	0							3	2	0		44.1	0.0	41.7
Apr 10	0							1	1	0		96.3	0.0	42.1
Apr 11	0							3	1	0		69.7	0.0	42.2
Apr 12	0							5	1	0		68.8	0.0	42.2
Apr 13	0							0	0	0		58.7	0.0	42.3
Apr 14	0							4	2	0		69.9	0.0	42.5
Apr 15	0							5	1	0		59.2	0.0	42.7
Apr 16	0							0	0	0		37.4	0.0	42.8
Apr 17	0							1	1	0		104.9	6.6	42.9
Apr 18	0							1	1	0		51.1	6.5	42.9
Apr 19	0							1	0	0		80.4	6.7	43.1
Apr 20	0							4	3	0		73.3	6.4	43.2
Apr 21	0							0	0	0		53.4	6.7	43.2
Apr 22	0							2	1	0		59.5	6.6	43.5
Apr 23	3							2	0	0		41.9	6.6	44.0
Apr 24	0							0	0	0		85.1	10.2	44.3
Apr 25	1							2	1	0		72.9	7.0	44.2
Apr 26	1							0	0	0		61.0	6.6	45.1
Apr 27	2							1	0	0		68.9	6.7	45.7
Apr 28	1							2	1	0		74.3	6.6	46.2
Apr 29	3							3	3	0		67.3	6.6	46.4
Apr 30	3							2	2	1		48.5	6.6	46.9
TOTAL	14							66	29	1				

AVG.

1

2

1

0

65.7

3.2

43.0

Chinook Run Year starts April 14. Counts are 24 hour video.

TABLE 171

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
May 1	5			0				4	4	0		119.3	9.2	47.0
May 2	6			0				1	1	0		127.4	17.2	47.1
May 3	18			0				2	2	0		142.4	24.6	47.8
May 4	9			0				0	0	0		159.8	28.7	48.2
May 5	21			0				2	2	0		150.8	33.8	48.1
May 6	9			0				0	0	0		154.6	84.6	47.3
May 7	9			0				0	0	0		160.5	89.8	47.3
May 8	11			0				1	0	0		180.5	72.2	47.3
May 9	23			0				1	1	0		193.0	82.4	47.8
May 10	18			0				1	0	0		212.5	100.4	47.8
May 11	55			0				0	0	0		180.3	79.0	48.3
May 12	45			0				4	3	0		187.2	54.9	49.0
May 13	61			1				1	1	0		194.5	87.6	49.7
May 14	181			0				2	1	0		194.5	89.4	50.3
May 15	181			0				0	0	0		237.3	110.8	51.0
May 16	198			0				2	1	0		231.7	107.4	51.1
May 17	210			2				1	1	0		228.5	105.3	51.8
May 18	262			2				0	0	0		232.8	116.1	52.3
May 19	221			10				0	0	1		233.4	101.5	52.6
May 20	361			22				0	0	0		227.4	94.7	53.1
May 21	322			5				0	0	0		217.4	91.5	53.5
May 22	453			10				0	0	0		211.8	113.4	53.7
May 23	919			34				0	0	1		196.4	62.2	54.0
May 24	641			38				1	1	0		201.5	62.1	54.3
May 25	730			48				3	3	0		194.0	57.5	54.4
May 26	856			79				1	1	0		180.4	41.7	54.3
May 27	806			117				1	0	0		148.3	32.7	54.6
May 28	694			48				1	1	0		146.4	19.1	55.3
May 29	1,157			137				0	0	1		143.6	16.6	55.8
May 30	1,265			112				0	0	0		164.7	45.6	56.0
May 31	568			85				0	0	0		100.8	21.0	56.2
TOTAL	10,315			750				29	23	3				
AVG.	333			24				1	1	0		182.4	66.2	51.2
RUN YEAR														
TOTALS TO DATE														
SPRING				CHINOOK ADULT	CHINOOK JACK			STEELHEAD	Unclipped STEELHEAD	BULL TROUT				
				10,329	750			59	39	4				

Chinook Run Year starts April 14. Counts from Jan 1- April 13 are not included in Run Year totals.

TABLE 172

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Jun 1	503			70			0	0	0	1	0	133.9	26.8	56.4
Jun 2	248			56			0	0	0	0	0	102.9	22.9	56.7
Jun 3	391			71			0	0	0	0	0	111.6	19.4	57.5
Jun 4	507			50			0	0	0	0	0	118.8	24.1	58.0
Jun 5	627			92			0	0	0	0	0	129.2	28.7	58.5
Jun 6	488			47			0	0	0	0	3	122.5	29.9	58.9
Jun 7	161			29			0	1	0	0	2	118.3	24.5	58.6
Jun 8	309			46			0	0	0	0	1	115.7	21.6	58.4
Jun 9	131			23			2	0	0	0	0	76.2	19.7	58.3
Jun 10	105			18			0	0	0	0	0	95.0	25.0	58.0
Jun 11	226			25			5	0	0	0	0	82.8	19.3	58.0
Jun 12	82			10			5	0	0	0	0	103.1	23.6	58.5
Jun 13	382			20			15	0	0	0	0	120.9	23.6	59.1
Jun 14	416			29			24	0	0	0	3	102.2	20.2	59.0
Jun 15	338			22			47	0	0	0	3	121.3	19.4	59.3
Jun 16	469			40			54	1	1	0	0	102.9	19.6	59.0
Jun 17	479			28			112	0	0	1	1	93.2	16.1	58.9
Jun 18	472			12			104	1	1	0	2	81.2	17.7	58.6
Jun 19	361			18			112	1	1	0	1	86.2	13.9	58.7
Jun 20	1,161			21			307	1	1	0	0	89.3	17.2	58.5
Jun 21	653			26			478	2	2	0	0	98.8	20.1	58.2
Jun 22	961			17			490	2	1	1	0	82.5	16.6	58.5
Jun 23	1,093			57			1,069	4	4	0	0	92.4	15.7	58.7
Jun 24		982		79			1,539	0	0	0	0	86.8	14.2	59.2
Jun 25		1,342		19			1,608	0	0	0	0	86.2	14.6	59.9
Jun 26		1,127		22			1,792	3	3	1	0	102.6	21.5	59.9
Jun 27		2,420		39			4,486	2	2	0	6	95.7	20.2	60.4
Jun 28		1,506		42			5,683	7	4	1	9	96.9	19.0	60.8
Jun 29		1,411		84			6,499	1	1	1	32	98.2	21.8	61.3
Jun 30		2,058		152			9,484	6	5	0	36	116.3	24.9	61.6
TOTAL	10,563	10,846		1,264			33,915	32	26	6	99			
AVG.	459	1,549		42			1,131	1	1	0	3	102.1	20.7	58.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	20,892	1,577
SUMMER	10,846	437
TOTALS	31,738	2,014

SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY
33,915	91	65	10	99

TABLE 173

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jul 1		1,540		63			8,666	6	4	0	14	95.7	15.2	61.9
Jul 2		1,226		9			8,746	5	3	0	34	99.9	16.9	62.1
Jul 3		1,380		27			8,660	9	8	0	30	72.0	15.0	62.4
Jul 4		2,426		59			11,659	8	5	0	22	95.7	14.8	62.9
Jul 5		1,796		131			13,523	16	11	0	32	74.4	15.8	63.0
Jul 6		1,686		96			14,050	17	10	2	31	82.1	16.4	63.1
Jul 7		1,412		28			11,367	24	10	0	29	86.0	14.8	63.7
Jul 8		1,648		44			17,055	21	12	0	21	83.5	14.5	64.1
Jul 9		1,901		124			14,823	16	10	0	25	70.8	13.8	64.3
Jul 10		1,342		95			12,642	11	8	0	34	110.6	20.0	64.0
Jul 11		1,380		54			13,318	23	9	0	36	108.5	25.4	63.4
Jul 12		1,494		15			15,115	24	13	1	27	109.9	20.0	63.1
Jul 13		749		60			11,027	40	20	0	23	119.7	27.6	62.7
Jul 14		839		85			8,340	32	15	0	14	123.1	21.1	63.0
Jul 15		874		10			7,720	33	20	0	40	106.9	19.4	63.6
Jul 16		738		30			6,261	29	13	0	42	110.0	14.5	64.0
Jul 17		892		18			5,988	41	26	0	37	95.0	16.7	64.2
Jul 18		646		14			4,939	45	28	0	46	95.7	20.9	64.5
Jul 19		607		15			3,335	42	23	0	52	101.5	19.8	64.8
Jul 20		582		35			3,093	24	14	0	40	101.5	20.3	65.0
Jul 21		709		53			2,545	29	16	0	28	109.3	17.6	65.2
Jul 22		696		43			2,689	53	31	0	43	118.8	17.1	65.9
Jul 23		371		11			1,213	48	20	0	56	126.7	15.4	66.0
Jul 24		854		31			1,518	55	33	0	54	100.3	20.9	65.6
Jul 25		419		8			915	57	20	0	27	122.2	22.6	65.1
Jul 26		531		10			682	32	10	0	22	115.9	20.6	65.0
Jul 27		488		49			651	38	12	0	36	127.3	19.3	65.3
Jul 28		370		52			519	47	18	0	43	117.7	22.1	65.5
Jul 29		269		46			392	43	18	0	34	106.7	20.2	65.9
Jul 30		252		12			284	42	25	0	57	88.3	14.2	66.1
Jul 31		321		17			210	25	14	0	57	125.7	21.6	66.1
TOTAL		30,438		1,344			211,945	935	479	3	1,086			
AVG.		982		43			6,837	30	15	0	35	103.3	18.5	64.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	20,892	1,577
SUMMER	41,284	1,781
TOTALS	62,176	3,358

SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY
245,860	1,026	544	13	1,185

TABLE 174

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	Unclipped			BULL	DISCH	SPILL	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT				LAMPREY
Aug 1		303		16	0		126	39	14		50	110.4	20.9	66.1
Aug 2		209		20	0		112	15	7		49	100.8	18.8	66.3
Aug 3		223		8	0		121	19	4		104	94.4	21.3	66.5
Aug 4		264		7	0		153	20	7		74	105.9	19.3	67.0
Aug 5		153		5	0		98	26	8		80	93.8	19.2	67.0
Aug 6		160		14	0		60	18	13		52	100.2	15.6	67.0
Aug 7		155		13	0		104	18	10		103	97.5	20.3	66.9
Aug 8		361		21	0		71	22	5		130	110.1	18.9	67.3
Aug 9		221		28	0		117	32	17		98	103.6	23.0	67.4
Aug 10		273		17	0		88	35	13		91	157.0	20.2	67.7
Aug 11		238		17	0		77	45	28		110	122.3	23.5	67.0
Aug 12		173		12	0		69	55	27		83	113.2	0.5	67.0
Aug 13		99		4	0		54	33	10		153	115.5	0.0	67.2
Aug 14		171		3	0		65	31	21		193	128.5	0.0	68.1
Aug 15		159		17	0		48	54	25		232	112.7	0.4	68.6
Aug 16		118		17	0		47	50	18		202	120.5	0.0	68.8
Aug 17		145		13	1		45	55	22		273	126.6	0.0	68.9
Aug 18		112		9	0		39	53	14		265	127.4	3.2	68.7
Aug 19		120		17	1		30	62	16		144	121.1	0.0	68.2
Aug 20		106		3	0		42	62	24		182	91.3	0.0	67.8
Aug 21		92		2	0		37	89	25		175	83.9	0.0	67.6
Aug 22		59		0	0		20	78	32		66	90.8	0.0	67.7
Aug 23		75		2	0		20	64	17		87	76.7	0.0	67.5
Aug 24		44		5	0		18	46	18		128	111.5	0.0	67.4
Aug 25		56		14	0		11	90	21		157	96.7	0.0	67.2
Aug 26		64		6	0		14	76	41		78	94.2	0.0	67.1
Aug 27		33		9	0		8	66	20		90	74.5	0.0	67.5
Aug 28		28		6	0		4	37	16		170	99.7	0.0	67.5
Aug 29		45		6	1		8	61	17		142	98.0	0.0	67.6
Aug 30		23		2	1		11	48	21		80	108.0	0.0	67.6
Aug 31		50		9	0		11	112	31		159	94.7	0.0	67.6
TOTAL		4,332		322	4		1,728	1,511	562		4,000			
AVG.		140		10	0		56	49	18		129	105.9	7.3	67.5

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	20,892	1,577
SUMMER	45,616	2,103
TOTALS	66,508	3,680

COHO	Unclipped			BULL
ADULT	SOCKEYE	STEELHEAD	STEELHEAD	TROUT
4	247,588	2,537	1,106	13
				LAMPREY
				5,185

TABLE 175

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Sep 1		68		4	2	0	9	110	32		141	78.2	0.0	67.4
Sep 2			61	4	2	0	8	89	33		70	68.4	0.0	67.6
Sep 3			57	5	3	0	5	76	27		101	58.3	0.0	67.6
Sep 4			85	10	5	0	11	88	29		119	59.2	0.0	67.4
Sep 5			101	8	2	0	9	130	32		178	73.4	1.5	67.5
Sep 6			115	3	14	1	7	93	30		163	56.8	0.0	67.7
Sep 7			117	2	15	1	11	149	42		140	62.9	0.2	67.4
Sep 8			163	13	29	5	6	171	53		134	61.3	0.0	67.7
Sep 9			197	13	67	5	5	182	63		118	50.9	0.0	67.9
Sep 10			316	8	75	1	13	232	72		169	60.7	0.0	68.0
Sep 11			304	7	99	10	5	250	82		111	54.5	0.3	68.0
Sep 12			351	7	215	3	8	357	109		105	54.9	0.0	67.9
Sep 13			399	10	355	13	9	292	77		65	55.9	0.0	67.9
Sep 14			388	11	476	40	13	291	85		47	52.4	0.0	68.0
Sep 15			322	13	328	28	5	193	58		47	43.9	0.1	68.0
Sep 16			210	7	344	11	2	195	38		82	51.8	0.0	67.9
Sep 17			392	14	431	7	1	198	59		45	55.2	0.0	67.6
Sep 18			440	11	423	13	4	160	35		33	59.1	0.0	67.2
Sep 19			539	17	517	5	3	319	83		15	54.7	0.0	66.8
Sep 20			375	10	609	17	8	196	50		32	54.4	0.6	66.5
Sep 21			482	15	497	32	3	177	35		38	64.9	0.0	66.0
Sep 22			235	20	347	30	2	113	10		50	52.3	0.7	65.9
Sep 23			314	19	461	4	3	67	10		34	49.6	0.0	65.5
Sep 24			288	11	460	25	1	77	21		19	47.1	0.0	65.4
Sep 25			361	27	539	13	4	137	29		18	48.0	0.0	65.2
Sep 26			305	8	686	31	1	124	27		16	50.4	0.0	65.0
Sep 27			386	17	466	35	2	95	23		21	50.4	0.0	64.9
Sep 28			196	10	305	21	5	56	9		4	54.4	0.0	64.5
Sep 29			160	6	264	26	0	52	5		7	58.4	1.8	64.0
Sep 30			279	13	235	22	3	48	13		6	60.6	0.1	63.8
TOTAL		68	7,938	323	8,271	399	166	4,717	1,271		2,128			
AVG.			274	11	276	13	6	157	42		71	56.8	0.2	66.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	20,892	1,577
SUMMER	45,684	2,107
FALL	7,938	319
TOTALS	74,514	4,003

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY
8,275	399	247,754	7,254	2,377	13	7,313

TABLE 176

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	Unclipped	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT			STEELHEAD	TROUT				
Oct 1			290	11	235	11	1	44	12	7	60.2	4.0	63.7
Oct 2			248	32	315	18	3	71	13	14	53.0	0.0	63.3
Oct 3			334	11	324	10	2	75	10	11	58.4	4.0	63.6
Oct 4			201	10	356	29	2	36	11	16	58.7	7.4	63.4
Oct 5			148	15	456	42	0	44	16	30	56.7	3.4	63.8
Oct 6			135	22	280	20	0	39	10	22	52.0	0.0	63.9
Oct 7			319	7	487	14	1	60	18	12	66.9	0.0	63.8
Oct 8			273	17	574	22	3	60	14	26	50.7	0.0	64.0
Oct 9			179	4	499	9	1	37	7	42	67.4	1.6	63.9
Oct 10			270	11	844	8	2	59	12	22	53.0	0.3	63.8
Oct 11			177	14	393	15	1	55	16	10	55.4	0.0	63.6
Oct 12			174	11	217	22	1	29	7	21	57.7	0.0	63.8
Oct 13			131	9	151	15	0	20	3	28	59.5	0.0	63.9
Oct 14			234	6	379	10	0	30	8	10	62.8	0.0	63.6
Oct 15			285	12	362	11	0	22	6	8	61.2	0.0	63.4
Oct 16			188	16	308	11	0	28	3	5	68.8	0.0	63.3
Oct 17			210	11	184	4	0	48	7	5	70.2	1.8	62.9
Oct 18			112	3	141	6	0	23	8	7	66.9	0.0	62.9
Oct 19			212	10	119	16	0	9	1	3	60.4	0.0	63.0
Oct 20			127	6	98	11	0	11	3	3	56.1	0.0	63.0
Oct 21			125	5	162	17	0	19	4	2	66.4	0.0	62.8
Oct 22			226	2	249	3	0	24	9	6	47.1	0.0	62.7
Oct 23			122	4	201	15	0	19	8	2	60.3	4.9	62.3
Oct 24			193	7	191	4	0	25	6	3	76.8	0.2	61.9
Oct 25			169	8	116	2	0	10	3	1	81.7	0.0	61.5
Oct 26			168	6	80	3	0	14	2	2	54.3	0.0	60.9
Oct 27			158	11	54	6	1	8	6	0	51.9	0.0	60.3
Oct 28			131	3	68	5	0	10	6	0	50.3	0.0	59.6
Oct 29			152	2	68	6	0	6	2	0	62.5	0.0	59.1
Oct 30			120	8	76	3	0	5	3	0	85.5	0.0	58.7
Oct 31			215	12	58	1	0	2	2	0	84.5	0.0	58.1
TOTAL			6,026	306	8,045	369	18	942	236	318			
AVG.			194	10	260	12	1	30	8	10	61.8	0.9	62.5

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	20,892	1,577
SUMMER	45,684	2,107
FALL	13,964	625
TOTALS	80,540	4,309

COHO	COHO	Unclipped		BULL	LAMPREY
ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	
16,320	768	247,772	8,196	2,613	13

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	Unclipped	BULL	LAMPREY	DISCH	SPILL	
	SPRING	SUMMER	FALL	JACK	ADULT			STEELHEAD	TROUT		KCFS	KCFS	
Nov 1			260	11	67	4		6	2		96.3	0.0	57.6
Nov 2			268	9	41	2		6	2		85.9	0.2	57.3
Nov 3			188	8	49	5		3	1		83.3	0.0	56.9
Nov 4			258	4	55	2		1	0		53.8	0.0	57.0
Nov 5			208	2	51	1		2	1		72.4	0.0	56.8
Nov 6			172	2	64	1		4	3		80.5	0.0	56.9
Nov 7			166	2	48	1		3	1		68.9	0.0	56.9
Nov 8			111	4	33	2		7	4		91.2	2.1	56.9
Nov 9			62	5	31	1		8	3		105.9	0.0	57.0
Nov 10			84	1	25	0		3	1		102.7	0.0	57.0
Nov 11			37	0	35	1		1	0		54.9	0.0	57.3
Nov 12			47	0	27	1		2	0		101.8	0.0	56.8
Nov 13			19	0	18	1		4	1		111.8	0.0	56.8
Nov 14			30	1	19	0		1	0		119.8	0.0	56.6
Nov 15			11	0	14	1		5	1		111.8	0.0	56.4
Nov 16											108.2	0.0	56.2
Nov 17											116.2	0.0	55.9
Nov 18											87.7	0.0	55.5
Nov 19											83.1	0.0	55.4
Nov 20											119.9	0.0	55.1
Nov 21											104.9	0.1	54.8
Nov 22											82.4	0.0	54.5
Nov 23											100.3	0.0	54.5
Nov 24											110.7	0.0	54.1
Nov 25											115.3	0.0	53.6
Nov 26											114.8	0.0	53.2
Nov 27											137.1	1.1	53.0
Nov 28											110.1	3.6	52.7
Nov 29											104.3	0.0	52.3
Nov 30											105.6	0.1	52.1
TOTAL			1,921	49	577	23		56	20				
AVG.			128	3	38	2		4	1		98.1	0.2	55.6

RUN YEAR	CHINOOK		COHO		Unclipped		BULL	LAMPREY
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	STEELHEAD	TROUT	
SPRING		20,892	1,577	16,897	791	247,772	8,252	2,633
SUMMER		45,684	2,107					13
FALL		15,885	674					7,631
TOTALS		82,461	4,358					

Note: Chinook Run Year ends Nov 15. Counts from 16-30 Nov not included in Run Year totals.

TABLE 178

**MONTHLY COUNT OF STEELHEAD
ROCK ISLAND DAM 1981 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981						30	282	1,886	2,338	2,493	347		7,376
1982				118	113	8	157	2,246	4,260	2,785	192		9,879
1983				53	36	18	579	5,811	16,942	5,619	608		29,666
1984				88	220	180	1,962	7,925	10,507	3,687	527		25,096
1985				106	393	729	4,886	6,588	16,089	2,889	319		31,999
1986				145	168	192	3,383	10,036	5,883	2,731	347		22,885
1987				100	94	112	1,242	4,900	4,095	1,842	347		12,732
1988				193	156	173	737	2,813	3,446	1,523	200		9,241
1989				135	73	66	847	2,685	3,999	1,355	191		9,351
1990				55	46	99	953	2,385	2,577	736	93		6,944
1991				30	51	45	916	3,322	4,194	2,165	204		10,927
1992				86	193	315	1,603	2,821	5,714	1,599	145		12,476
1993				97	88	87	1,427	546	1,930	597	57		4,829
1994				29	16	50	631	1,151	2,181	1,437	125		5,620
1995				23	35	44	421	951	2,153	510	38		4,175
1996				17	34	27	303	2,224	3,701	920	79		7,305
1997				19	22	7	300	2,343	3,461	1,466	108		7,726
1998				20	13	29	449	726	2,486	1,141	98		4,962
1999				17	22	37	377	2,429	2,900	540	40		6,362
2000				18	5	74	1,356	3,299	4,974	727	63		10,516
2001				49	23	185	3,094	9,380	12,129	3,461	292		28,613
2002				53	20	85	2,327	6,374	5,144	1,200	79		15,282
2003				17	17	51	1,664	4,233	9,339	2,061	127		17,509
2004				50	108	363	2,518	2,983	11,794	1,658	73		19,547
2005				30	29	135	1,423	3,362	5,925	1,422	83		12,409
2006				44	19	23	693	2,332	5,175	1,032	64		9,382
2007				27	25	33	830	4,378	5,943	1,888	172		13,296
2008				163	109	292	2,749	5,868	5,819	1,206	82		16,288
2009				62	41	47	1,502	10,229	22,154	3,565	200		37,800
2010				103	21	100	3,994	8,946	7,472	1,441	102		22,179
2011				42	32	11	849	8,146	8,153	1,711	80		19,024
2012				98	75	108	1,410	6,186	5,959	1,464	154		15,454
2013				49	57	79	703	3,764	4,817	1,891	141		11,501
2014				195	81	98	1,193	3,777	7,092	2,389	212		15,037
2015				76	56	79	1,004	4,443	6,539	1,663	191		14,051
2016				24	19	114	981	1,458	3,376	1,120	74		7,166
2017				34	25	33	236	803	2,845	1,212	77		5,265
2018				48	15	60	586	881	2,659	841	139		5,229
2019				50	28	24	507	967	1,877	788	65		4,306
2020				34	11	36	692	2,052	3,101	645	46		6,617
2021	3	4	49	69	15	19	372	546	2,799	619	82		4,577
2022	1	1	17	40	16	15	984	2,264	2,716	1,300	175		7,529
2023	5	3	30	66	29	32	935	1,511	4,717	942	56		8,326
Total	9	8	96	2,772	2,649	4,344	54,057	161,970	251,374	72,281	6,894		556,454
10-Year Average				64	30	51	749	1,870	3,772	1,152	112		7,810

ROCKY REACH DAM

2023 Fish Counting Schedule

Jan 1 - Apr 13	Video recording 24 hours per day/7 days a week to monitor bull trout passage, while the fish ladder was in service.
Apr 14 - Nov 15	Video recording 24 hours per day/7 days a week. Video counting daily from 0700 to 1530 hours Pacific Standard Time.
Nov 16 - Dec 31	Video recording 24 hours per day/7 days a week to monitor bull trout passage, while the fish ladder was in service.

2023 Fish Ladder Operating Schedule

Jan 1 – Mar 1	Fishway out of service for 2022/2023 annual maintenance period.
Mar 2 – Dec 31	Fishway in service.

2023 Fish Facility Activities

The PIT tag systems in the fish ladder and juvenile fish bypass system were operational throughout the 2023 adult and juvenile fish migrations. PIT tag detections were uploaded daily to PTAGIS.

The juvenile fish bypass system was operated for fish passage from 1 April through 31 August 2023. Juvenile fish were sampled daily by Chelan County PUD Natural Resource Department employees during the same time frame. The annual bypass (biological) evaluation included the collection of species composition, fish condition, and gas bubble trauma data.

TABLE 179

**MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				2	3,719	15,508	30,358	4,975	5,972	5,161	1,988		67,683
STEELHEAD			40	108	38	10	507	1,082	4,023	972	111		6,891
SOCKEYE						16,878	130,932	1,583	113	19			149,525
COHO								1	3,551	5,237	454		9,243
PINK													0
TOTAL			40	110	3,757	32,396	161,797	7,641	13,659	11,389	2,553		233,342
LAMPREY						3	948	3,791	2,580	321	1		7,644
BULL TROUT					22	15	14	2	3	0	1		57

TABLE 180

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

MARCH 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Mar 1								0	0			89.3	0.0	36.4
Mar 2								0	0			69.0	0.0	36.5
Mar 3								3	0			74.3	0.0	36.7
Mar 4								0	0			87.2	0.0	36.9
Mar 5								0	0			70.6	0.0	37.1
Mar 6								0	0			81.7	0.0	37.1
Mar 7								0	0			79.2	0.0	37.3
Mar 8								1	0			90.7	0.0	37.5
Mar 9								0	0			97.0	0.0	37.5
Mar 10								1	0			65.2	0.0	37.6
Mar 11								0	0			78.5	0.0	37.8
Mar 12								0	0			83.5	0.0	37.9
Mar 13								1	0			58.2	0.0	38.0
Mar 14								1	0			91.5	0.0	38.1
Mar 15								1	0			53.6	0.0	38.3
Mar 16								3	0			72.2	0.0	38.5
Mar 17								1	0			81.9	0.0	38.7
Mar 18								1	0			73.6	0.0	38.9
Mar 19								0	0			80.6	0.0	39.1
Mar 20								0	0			59.5	0.0	39.3
Mar 21								2	0			76.4	0.0	39.5
Mar 22								0	0			65.1	0.0	39.6
Mar 23								3	2			63.5	0.0	39.7
Mar 24								7	3			64.0	0.0	39.8
Mar 25								4	0			56.5	0.0	39.8
Mar 26								2	0			42.8	0.0	40.0
Mar 27								1	0			78.9	0.0	40.2
Mar 28								1	0			60.5	0.0	40.3
Mar 29								0	0			89.9	0.0	40.4
Mar 30								3	1			45.4	0.0	40.5
Mar 31								4	1			69.1	0.0	40.6
TOTAL								40	7					
AVG.								1	0			72.6	0.0	38.6

TABLE 181

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

APRIL 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	Unclipped		BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT	KCFS	KCFS	
Apr 1	0							6	1		50.6	0.0	40.7
Apr 2	0							3	0		62.4	0.0	40.9
Apr 3	0							1	0		63.8	0.0	40.9
Apr 4	0							5	2		68.6	0.0	41.1
Apr 5	0							2	2		69.4	0.0	41.1
Apr 6	0							1	0		62.0	0.0	41.1
Apr 7	0							5	2		66.4	0.0	41.1
Apr 8	0							6	1		68.9	0.0	41.2
Apr 9	0							5	2		44.9	0.0	41.4
Apr 10	0							1	1		91.9	0.0	41.8
Apr 11	0							3	0		68.6	0.0	41.7
Apr 12	0							6	1		65.6	0.0	41.9
Apr 13	0							5	1		57.7	0.0	41.9
Apr 14	0							5	3		68.2	0.0	42.0
Apr 15	0							4	2		54.9	0.0	42.2
Apr 16	0							2	1		34.1	0.0	42.4
Apr 17	0							2	1		103.4	0.0	42.5
Apr 18	0							3	3		52.1	0.0	42.6
Apr 19	0							5	3		76.3	0.0	42.8
Apr 20	0							2	1		72.6	0.0	42.8
Apr 21	0							3	1		53.6	0.0	42.6
Apr 22	0							2	1		60.7	0.0	43.1
Apr 23	0							1	1		43.7	0.0	43.6
Apr 24	1							4	1		78.0	0.4	43.9
Apr 25	0							2	2		72.5	0.0	44.0
Apr 26	0							1	0		61.8	0.0	44.7
Apr 27	1							2	1		65.2	0.0	45.4
Apr 28	0							4	1		70.9	0.0	45.5
Apr 29	0							10	5		66.3	0.0	45.9
Apr 30	0							7	3		38.4	0.0	46.6
TOTAL	2							108	43				
AVG.	0							4	1		63.8	0.0	42.6

Chinook Run Year starts April 14. Counts are 24-hour video counts.

TABLE 182

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

MAY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
May 1	1			0				5	3	0		103.9	0.0	46.5
May 2	3			0				4	3	0		121.1	0.0	47.0
May 3	2			0				2	0	0		130.3	0.0	47.6
May 4	7			0				0	0	0		140.6	0.0	48.0
May 5	4			0				2	1	0		131.9	0.0	47.9
May 6	4			0				4	1	0		141.9	0.0	47.3
May 7	3			0				2	0	0		156.1	2.5	47.1
May 8	2			0				1	0	0		173.1	3.2	47.2
May 9	2			0				3	0	0		185.0	9.0	47.4
May 10	0			0				0	0	0		205.0	27.6	47.7
May 11	10			0				0	0	0		173.7	1.9	48.1
May 12	5			0				1	0	1		180.0	7.0	48.8
May 13	11			0				2	2	0		188.6	18.7	49.5
May 14	12			0				0	0	0		184.7	12.3	50.3
May 15	29			0				2	1	1		234.3	60.7	50.9
May 16	58			1				2	1	0		223.4	50.1	51.2
May 17	39			0				2	0	0		218.8	44.2	51.9
May 18	65			0				1	0	0		218.8	47.2	52.2
May 19	69			6				2	1	1		221.0	50.3	52.5
May 20	61			5				0	0	1		212.7	41.2	53.0
May 21	64			8				0	0	1		197.4	44.7	53.4
May 22	90			3				1	0	0		198.5	33.5	53.9
May 23	163			14				0	0	3		184.2	16.4	54.1
May 24	312			19				0	0	1		192.7	20.5	54.2
May 25	160			27				1	1	4		180.8	9.7	54.3
May 26	262			39				0	0	1		165.0	0.0	54.2
May 27	289			54				0	0	1		136.7	0.2	54.7
May 28	333			22				1	1	0		137.7	9.8	55.1
May 29	237			41				0	0	1		129.1	0.0	55.5
May 30	585			39				0	0	3		150.2	0.0	55.8
May 31	485			74				0	0	3		84.9	0.0	56.3
TOTAL	3,367			352				38	15	22				

AVG.	109			11				1	0	1		171.0	16.5	51.1
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	3,369	352

SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT
0	97	45	22

Chinook Run Year starts April 14

TABLE 183

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jun 1	267			58			0	0	0	2	0	118.6	0.0	56.2
Jun 2	227			44			0	2	0	0	0	104.5	9.8	57.0
Jun 3	127			33			0	0	0	0	0	105.1	8.8	57.5
Jun 4	158			31			0	1	0	1	0	108.6	7.9	58.0
Jun 5	169			27			0	0	0	3	0	120.9	10.3	58.5
Jun 6	187			32			0	0	0	0	0	122.8	10.7	58.4
Jun 7	88			35			0	0	0	0	0	114.6	10.0	58.1
Jun 8	106			17			0	0	0	1	0	113.7	9.4	57.9
Jun 9	132			27			0	0	0	0	0	69.2	8.1	57.9
Jun 10	148			23			0	0	0	0	0	89.7	12.4	57.7
Jun 11	49			9			2	0	0	0	0	83.9	6.8	57.9
Jun 12	83			11			5	0	0	2	0	101.3	9.9	58.5
Jun 13	122			5			5	1	0	1	0	115.1	8.3	58.8
Jun 14	161			25			9	0	0	1	0	106.3	9.0	59.0
Jun 15	201			15			23	0	0	0	0	123.4	7.3	58.9
Jun 16	176			9			25	0	0	0	0	103.4	7.2	58.6
Jun 17	304			23			41	0	0	0	0	92.1	6.8	58.6
Jun 18	350			11			96	0	0	1	0	80.8	6.9	58.7
Jun 19	445			22			126	0	0	1	0	85.1	6.2	58.5
Jun 20	233			8			92	0	0	0	0	91.7	7.8	58.1
Jun 21	762			24			211	0	0	0	0	98.8	7.5	57.7
Jun 22	454			7			298	0	0	0	0	87.5	6.7	58.3
Jun 23	788			43			398	0	0	0	0	94.9	9.0	58.6
Jun 24		805		37			643	1	0	0	0	87.3	6.2	59.1
Jun 25		870		13			1,216	2	1	0	0	88.7	5.5	59.5
Jun 26		1,228		27			1,148	0	0	0	0	104.2	7.7	59.7
Jun 27		914		4			1,222	1	0	0	0	98.9	7.6	59.9
Jun 28		2,511		44			3,748	0	0	0	0	97.6	7.4	60.4
Jun 29		1,470		43			3,814	1	0	2	0	102.2	9.1	60.8
Jun 30		1,193		73			3,756	1	1	0	3	116.5	14.9	61.3
TOTAL	5,737	8,991		780			16,878	10	2	15	3			
AVG.	249	1284		26			563	0	0	1		100.9	8.2	58.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	9,106	891
SUMMER	8,991	241
TOTALS	18,097	1,132

SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY
16,878	107	47	37	3

TABLE 184

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Jul 1		2,007		58			5,601	1	1	0	2	92.1	12.6	61.4
Jul 2		1,408		22			6,604	2	0	0	7	102.0	10.6	61.6
Jul 3		1,052		4			5,208	4	2	0	7	73.5	7.1	62.3
Jul 4		1,246		27			5,751	5	3	3	22	98.6	10.7	62.5
Jul 5		1,915		88			6,535	5	1	1	9	79.4	6.9	62.5
Jul 6		1,401		77			6,728	3	2	0	21	79.2	7.2	63.1
Jul 7		1,752		17			7,516	5	2	0	21	84.0	5.6	63.6
Jul 8		1,067		14			5,423	2	0	0	37	81.7	6.2	63.7
Jul 9		1,103		43			7,569	13	3	0	39	69.8	5.6	63.7
Jul 10		1,823		123			9,368	7	2	1	33	112.8	8.0	63.2
Jul 11		1,457		53			7,725	8	3	1	22	115.8	18.9	62.7
Jul 12		1,218		13			7,799	9	4	1	25	107.5	8.3	62.4
Jul 13		1,329		41			8,465	12	2	0	16	116.4	9.7	62.2
Jul 14		794		74			6,290	11	5	2	29	123.2	8.8	62.7
Jul 15		791		54			5,235	28	14	1	34	109.6	8.8	63.5
Jul 16		794		18			4,565	19	6	0	25	107.6	6.3	63.5
Jul 17		794		34			4,546	18	2	0	44	92.2	7.5	64.3
Jul 18		838		10			4,331	26	9	0	41	97.1	9.7	64.5
Jul 19		549		13			2,934	22	7	1	40	102.4	8.3	64.5
Jul 20		688		7			2,162	35	16	0	28	100.3	19.8	64.6
Jul 21		426		45			2,241	18	5	1	40	108.7	7.2	65.3
Jul 22		779		35			1,910	16	12	1	33	118.1	9.9	65.6
Jul 23		736		30			1,911	23	13	0	48	123.9	6.9	65.4
Jul 24		238		17			927	27	12	1	33	102.2	8.3	65.0
Jul 25		720		16			971	27	16	0	43	119.7	8.7	64.7
Jul 26		402		4			657	25	12	0	36	114.4	8.7	64.9
Jul 27		472		32			469	16	8	0	34	127.4	8.4	65.0
Jul 28		365		38			442	21	7	0	41	115.6	8.8	65.4
Jul 29		486		53			410	31	9	0	36	104.2	8.3	65.8
Jul 30		202		17			285	23	5	0	53	86.6	6.2	66.0
Jul 31		408		21			354	45	17	0	49	122.5	9.4	65.7
TOTALS		29,260		1,098			130,932	507	200	14	948			

AVG.	944	35	4,224	16	6	0	31	102.8	8.9	63.9
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	9,106	891
SUMMER	38,251	1,339
TOTAL	47,357	2,230

SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY
147,810	614	247	51	951

TABLE 185

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	Unclipped			BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT		KCFS	KCFS	
Aug 1		322		13	0		162	26	3	0	62	106.4	0.0	65.8
Aug 2		346		28	0		126	24	3	0	47	102.4	0.2	66.2
Aug 3		353		15	0		169	19	6	0	49	90.1	1.6	66.5
Aug 4		205		5	0		102	20	2	0	70	108.6	0.0	67.0
Aug 5		223		4	0		113	13	3	0	81	88.9	0.0	66.7
Aug 6		183		10	0		79	29	8	0	72	95.2	0.6	66.7
Aug 7		162		8	0		54	11	5	0	62	98.9	0.0	66.8
Aug 8		124		9	0		46	17	6	0	87	110.2	0.0	67.0
Aug 9		265		12	0		68	19	6	0	79	108.9	10.1	67.3
Aug 10		205		18	0		66	22	8	0	76	144.1	0.0	66.9
Aug 11		274		16	0		54	36	13	0	133	118.3	0.7	66.6
Aug 12		221		11	0		54	25	8	0	118	108.9	0.0	66.6
Aug 13		292		20	0		48	22	10	0	126	114.6	0.0	67.3
Aug 14		110		2	0		46	20	9	0	85	128.9	0.0	68.0
Aug 15		148		4	0		54	24	9	0	129	111.5	0.5	68.3
Aug 16		170		8	0		45	35	10	0	147	118.5	0.0	68.4
Aug 17		119		11	0		44	50	12	0	180	126.9	0.0	68.5
Aug 18		142		8	0		29	51	15	1	146	124.3	0.0	68.3
Aug 19		140		15	0		24	44	13	0	255	116.7	1.8	67.9
Aug 20		111		5	0		21	33	8	0	188	87.4	0.0	67.7
Aug 21		113		11	0		16	49	14	0	158	84.2	0.0	67.7
Aug 22		52		6	0		28	44	18	0	107	89.5	0.0	67.4
Aug 23		58		4	0		27	57	14	1	133	82.0	0.0	67.4
Aug 24		52		4	0		16	47	11	0	102	109.4	0.2	67.2
Aug 25		54		13	0		12	37	6	0	107	96.3	0.0	66.7
Aug 26		53		6	0		14	36	8	0	167	94.7	0.0	67.0
Aug 27		58		5	0		18	49	5	0	226	75.6	0.0	67.1
Aug 28		32		6	0		12	81	26	0	188	99.5	0.0	67.5
Aug 29		34		4	0		10	38	6	0	96	96.5	0.0	67.5
Aug 30		33		2	0		15	48	13	0	149	104.3	0.0	67.8
Aug 31		37		1	1		11	56	22	0	166	95.5	0.0	67.3
TOTAL		4,691		284	1		1,583	1,082	300	2	3,791			

AVG.	151	9	0	51	35	10	0	122	104.4	0.5	67.3
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RUN YEAR		CHINOOK	CHINOOK	COHO	Unclipped		BULL	LAMPREY
TOTALS TO DATE		ADULT	JACK	ADULT	SOCKEYE	STEELHEAD	TROUT	
SPRING		9,106	891	1	149,393	1,696	547	53
SUMMER		42,942	1,623					4,742
TOTALS		52,048	2,514					

TABLE 186

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	Unclipped		BULL	LAMPREY	DISCH	SPILL		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					TROUT
Sep 1		50		2	0	0	6	77	21	0	191	76.1	1.3	67.2
Sep 2			47	4	1	0	9	83	21	0	150	71.2	0.0	67.2
Sep 3			76	2	1	0	8	54	11	0	140	61.5	0.1	67.4
Sep 4			52	3	0	0	6	75	13	0	142	63.1	0.0	67.5
Sep 5			70	5	0	0	8	75	17	0	118	71.7	0.4	67.4
Sep 6			37	0	0	0	6	63	18	1	104	57.4	0.0	67.4
Sep 7			76	5	0	0	5	83	17	0	66	59.6	0.0	67.7
Sep 8			67	2	3	0	3	93	13	0	154	61.5	0.0	67.8
Sep 9			163	6	6	0	5	127	33	0	149	55.7	0.0	67.9
Sep 10			63	5	6	0	3	123	21	0	177	61.2	0.0	68.0
Sep 11			61	5	9	0	4	131	22	0	148	52.3	0.0	68.0
Sep 12			376	14	13	2	2	223	49	0	111	57.8	0.0	67.9
Sep 13			203	4	22	1	2	214	41	0	112	56.2	0.0	67.8
Sep 14			364	6	70	15	2	272	70	0	77	52.6	0.0	67.9
Sep 15			337	7	112	8	3	251	65	2	78	43.5	0.0	67.6
Sep 16			235	9	119	15	6	198	46	0	84	51.4	0.0	67.5
Sep 17			186	10	119	3	2	175	47	0	100	53.2	0.0	67.4
Sep 18			241	10	135	6	7	220	50	0	86	58.3	0.0	67.3
Sep 19			144	6	125	2	2	137	28	0	61	55.0	0.0	67.0
Sep 20			259	8	144	10	0	168	34	0	27	51.3	1.1	66.5
Sep 21			472	11	259	21	4	225	34	0	64	66.8	0.0	65.8
Sep 22			337	8	238	25	1	211	39	0	48	52.6	0.0	65.6
Sep 23			244	13	225	9	4	95	17	0	35	48.7	0.0	65.6
Sep 24			260	10	307	3	3	96	23	0	32	49.4	0.0	65.5
Sep 25			262	16	232	7	4	91	10	0	18	46.4	0.0	65.2
Sep 26			305	21	324	6	3	145	20	0	20	50.9	0.0	65.0
Sep 27			153	4	182	10	1	76	16	0	22	50.1	0.0	64.8
Sep 28			236	10	311	17	3	96	18	0	34	50.9	0.0	64.5
Sep 29			184	4	217	26	1	84	12	0	22	56.7	1.5	64.3
Sep 30			192	10	171	14	0	62	7	0	10	61.8	0.2	63.8
TOTAL		50	5,702	220	3,351	200	113	4,023	833	3	2,580			
AVG.			197	7	112	7	4	134	28	0	86	56.8	0.2	66.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	9,106	891
SUMMER	42,992	1,625
FALL	5,702	218
TOTALS	57,800	2,734

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY
3,352	200	149,506	5,719	1,380	56	7,322

TABLE 187

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	Unclipped	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD	TROUT		KCFS	KCFS	
Oct 1			184	7	143	11	0	47	8		12	60.5	0.0	63.5
Oct 2			157	7	105	14	1	43	10		12	49.6	0.0	63.3
Oct 3			114	19	131	8	0	51	8		12	56.3	0.4	63.5
Oct 4			151	4	232	31	5	69	14		12	62.9	0.0	63.7
Oct 5			147	8	226	25	1	67	9		6	54.6	0.0	63.7
Oct 6			141	8	222	19	0	43	10		11	51.4	0.0	63.9
Oct 7			147	11	228	11	0	42	7		20	66.5	0.0	63.8
Oct 8			222	9	308	28	0	72	23		20	53.2	1.3	64.0
Oct 9			193	12	186	10	1	41	12		18	62.5	0.3	64.0
Oct 10			191	8	344	18	3	44	16		38	52.6	0.0	63.9
Oct 11			180	14	333	13	0	45	10		17	56.3	0.0	64.0
Oct 12			221	7	259	28	0	60	14		27	54.8	1.5	64.0
Oct 13			98	6	194	8	3	31	6		28	56.9	0.0	63.7
Oct 14			140	8	97	10	0	25	11		17	66.2	0.0	63.7
Oct 15			168	8	142	6	0	26	5		14	62.6	0.0	63.6
Oct 16			150	6	128	7	0	16	2		4	66.5	0.0	63.2
Oct 17			215	10	187	7	3	42	16		2	72.3	1.0	63.1
Oct 18			101	4	192	19	1	33	5		9	63.5	0.0	63.1
Oct 19			172	2	101	9	0	21	5		3	58.5	0.0	63.1
Oct 20			122	5	117	13	0	20	3		13	54.7	0.0	63.0
Oct 21			115	7	75	17	0	10	4		3	65.6	0.0	62.8
Oct 22			126	3	98	7	0	15	2		5	45.8	0.0	62.7
Oct 23			141	5	175	10	0	16	4		9	61.6	5.3	62.6
Oct 24			214	2	148	5	0	22	1		3	77.5	0.0	62.3
Oct 25			170	12	157	2	0	17	6		3	81.0	0.0	61.7
Oct 26			160	7	112	3	0	17	6		2	53.2	0.0	61.1
Oct 27			171	6	43	6	0	9	4		0	50.5	0.0	60.5
Oct 28			171	8	51	8	1	13	1		0	50.3	0.0	60.0
Oct 29			119	2	48	3	0	8	3		1	62.6	0.0	59.5
Oct 30			200	6	61	3	0	4	0		0	81.4	0.0	58.9
Oct 31			137	2	34	1	0	3	1		0	86.1	0.0	58.1
TOTAL			4,938	223	4,877	360	19	972	226		321			
AVG.			159	7	157	12	1	31	7		10	61.2	0.3	62.6

RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	9,106	891
SUMMER	42,992	1,625
FALL	10,640	441
TOTALS	62,738	2,957

COHO	COHO			Unclipped	BULL		
ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT	LAMPREY	
8,229	560	149,525	6,691	1,606	56	7,643	

TABLE 188

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Nov 1			229	5	57	2		1	0	0	0	93.7	0.0	57.6
Nov 2			272	9	41	4		8	2	0	1	86.0	0.0	57.4
Nov 3			232	10	63	1		10	2	0	0	85.3	0.0	57.4
Nov 4			134	5	49	8		22	11	0	0	50.0	0.0	57.5
Nov 5			292	7	21	2		8	4	0	0	68.7	0.0	57.5
Nov 6			157	1	35	2		12	7	0	0	76.0	0.0	57.6
Nov 7			139	0	26	0		6	2	0	0	65.9	0.0	57.6
Nov 8			83	2	31	1		7	3	0	0	88.1	0.0	57.6
Nov 9			97	2	17	3		6	2	0	0	104.6	0.0	57.6
Nov 10			59	1	21	0		6	3	0	0	103.0	0.0	57.7
Nov 11			53	2	17	3		6	2	1	0	54.8	0.0	57.5
Nov 12			85	0	16	2		4	1	0	0	99.6	0.0	57.2
Nov 13			33	1	18	0		5	3	0	0	108.4	0.0	57.2
Nov 14			23	0	7	1		4	0	0	0	114.7	0.0	57.0
Nov 15			55	0	6	0		6	1	0	0	107.0	0.1	56.8
Nov 16												107.0	0.0	56.7
Nov 17												111.6	0.0	56.2
Nov 18												91.6	0.0	55.9
Nov 19												86.0	0.0	55.6
Nov 20												114.4	0.0	55.3
Nov 21												103.2	0.0	54.9
Nov 22												82.4	0.0	55.0
Nov 23												95.2	0.0	54.7
Nov 24												109.5	0.0	54.3
Nov 25												113.3	0.0	53.8
Nov 26												111.3	0.0	53.4
Nov 27												129.7	0.0	53.2
Nov 28												108.6	0.0	53.0
Nov 29												102.0	0.0	52.7
Nov 30												103.5	0.0	52.4
TOTAL			1,943	45	425	29		111	43	1	1			
AVG.			130	3	28	2		7	3	0	0	95.8	0.0	55.9
RUN YEAR														
TOTALS TO DATE														
SPRING	CHINOOK ADULT	CHINOOK JACK			COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	Unclipped STEELHEAD	BULL TROUT	LAMPREY			
	9,106	891			8,654	589	149,525	6,802	1,649	57	7,644			
SUMMER	42,992	1,625												
FALL	12,583	486												
TOTALS	64,681	3,002												

Chinook Run Year ends Nov 15.

TABLE 189

**MONTHLY COUNT OF STEELHEAD
ROCKY REACH DAM: 1981 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981						14	173	1,309	1,827	1,691	300		5,314
1982				137	116	5	73	1,192	2,863	1,735	120		6,241
1983				31	18	2	334	3,525	11,329	4,048	411		19,698
1984				41	174	127	1,032	5,564	7,263	2,589	438		17,228
1985				63	273	523	3,547	4,152	11,133	2,646	381		22,718
1986				61	178	160	2,003	6,072	4,225	2,222	236		15,157
1987				67	75	80	567	2,574	2,361	1,210	244		7,178
1988				99	108	108	493	1,498	2,439	820	112		5,677
1989				62	41	30	458	1,442	2,721	1,134	151		6,039
1990				24	31	33	534	1,809	1,889	646	67		5,033
1991				19	26	63	584	2,346	2,996	1,473	138		7,645
1992				50	138	203	1,026	1,861	3,051	1,093	94		7,516
1993				49	52	24	346	869	1,066	379	31		2,816
1994				12	11	30	301	578	1,002	821	63		2,818
1995				18	12	9	147	398	827	315	32		1,758
1996				23	26	12	179	1,585	2,868	969	112		5,774
1997				40	15	1	192	1,789	2,901	1,576	208		6,722
1998				71	18	23	281	671	2,025	1,127	226		4,442
1999				35	16	46	198	1,518	2,361	557	84		4,815
2000				62	22	34	679	2,276	4,289	835	78		8,275
2001				83	33	83	1,861	6,843	9,827	3,025	290		22,045
2002				152	33	49	1,441	4,631	4,103	1,332	112		11,853
2003				46	4	40	1,154	3,393	6,649	2,211	153		13,650
2004				177	142	244	1,847	2,571	7,748	1,650	201		14,580
2005				278	85	60	762	2,430	4,589	1,423	83		9,710
2006				117	34	14	401	1,774	4,557	1,028	199		8,124
2007				93	75	46	507	2,777	4,247	2,227	174		10,146
2008				308	201	303	1,882	4,429	4,776	1,406	566		13,871
2009				302	134	49	967	7,355	17,011	3,509	220		29,547
2010				285	85	49	2,318	7,265	6,024	1,511	334		17,871
2011				327	263	25	516	5,368	6,566	2,105	110		15,280
2012				525	203	104	908	4,731	4,846	1,554	229		13,100
2013				94	63	32	448	2,758	3,719	1,932	158		9,204
2014				174	75	39	532	2,263	5,427	1,943	134		10,587
2015				74	38	29	550	3,314	5,172	1,541	176		10,894
2016				61	28	48	614	1,153	2,666	1,079	79		5,728
2017				90	33	23	85	478	2,069	1,152	58		3,988
2018				64	22	24	341	725	2,106	803	153		4,238
2019				73	58	7	248	703	1,306	785	75		3,255
2020				48	25	18	364	1,488	2,559	716	63		5,281
2021		10	44	91	20	8	246	388	2,484	646	93		4,030
2022			38	69	17	10	665	1,725	2,293	1,375	246		6,438
2023			40	108	38	10	507	1,082	4,023	972	111		6,891
Total				4,603	3,059	2,841	32,311	112,672	186,203	63,811	7,543		413,175
10-Year Average				85	35	22	415	1,332	3,011	1,101	119		6,133

Note: extended counting has been included for 2021-23.

WELLS DAM

FISH COUNTING SCHEDULE

The adult counting schedule at Wells Dam is from May 1 through November 15, though passage data is recorded each day of the year, and that data is available from Douglas PUD upon request. Fish are counted by reviewing digital-video files from previous days. From 1967 through 1997, counts were reported for a 16-hour period (0500-2100 PST). Since 1998, 24-hour counts (0000-2400) have been reported. Chinook Salmon are arbitrarily separated into three populations based upon date of passage through the ladders: Spring Chinook Salmon – May 1 through June 28, summer Chinook Salmon – June 29 through August 28, and fall Chinook Salmon – August 29 through November 15. Substantial overlap in spring and summer Chinook Salmon passage occurs in June and early July, such that reported dam-passage counts over-represent actual spring Chinook Salmon numbers and under-represent actual summer Chinook Salmon numbers.

FISH LADDER OPERATING SCHEDULE

Other than during routine wintertime inspection and maintenance (performed on only one fishway at a time), the two fishways at Wells Dam operated continuously during 2023.

East Ladder Maintenance

January 4, 2023 to February 2, 2023, outage for routine inspection and major maintenance; and November 27, 2023 to December 12, 2023, outage for routine inspection and annual maintenance.

West Ladder Maintenance

December 13, 2023 to January 9, 2024, outage for routine inspection and annual maintenance.

JUVENILE PASSAGE FACILITIES

The juvenile bypass system at Wells Dam capitalizes on the hydrocombine design of the dam by using flow to the turbines to attract fish to bypass spillways located between turbine silos and directly over turbine intakes (located beneath the spillway floor 75 feet below the water surface at full pool). During the juvenile salmonid outmigration, Douglas PUD installs bypass barriers in spillway intake slots to constrict the intake dimensions of the five even-numbered spillways, providing in the forebay a strong flow-net attracting fish to the constricted intakes. This configuration provides for high bypass efficiency (92% to 96%) with no more than 10,200 cfs of total bypass flow, and any involuntary spill through the six unmodified, odd-numbered spillways provides additional non-turbine passage opportunity.

During periods when plant discharge exceeds the combined turbine and bypass capacity, excess water is passed through non-bypass spillways and bypass spillways as necessary for complying with Federal Energy Regulatory Commission (FERC) requirements for maintaining minimum automatic-gate-opening capacity under the *Wells Project Emergency Action Plan* (EAP) and Washington Department of Ecology requirements for compliance with total dissolved gas (TDG) standards as directed by the FERC-approved *Total Dissolved Gas Abatement Plan* for the Wells Project. When necessary, gates on non-bypass spillways are opened and bypass barriers on bypass spillways are removed sequentially with increasing discharge in a prescribed order that concentrates involuntary spill in the center of the project over the discharge from active turbine

units to minimize TDG. As discharge declines, bypass barriers are reinstalled and non-bypass spill gates closed in the reverse order in which they were removed and opened.

Douglas PUD operated the Wells bypass system in 2023 as guided by the Wells Habitat Conservation Plan (HCP) Coordinating Committee-approved *2023 Bypass Operating Plan*. In 2023, river flow and involuntary spill volumes met the criteria in the *2023 Bypass Operating Plan* and the EAP for bypass barrier removal at Wells Dam. As such, to maintain compliance with the EAP and to set up spill configurations to best manage TDG, Douglas PUD removed barriers from Spillway 6 on May 10 and reinstalled them on May 31, and removed barriers from Spillway 4 on May 15 and reinstalled them on May 25.

The intent of the *2023 Bypass Operating Plan* was to provide non-turbine passage during no less than 95 percent of the juvenile HCP Plan Species migrations passing Wells Dam. Douglas PUD initiated bypass operations on April 9 at 00:00 hours, and continued those operations until termination at 24:00 hours on July 24, for a total of 107 days of continuous bypass operations. The 2023 Wells bypass operations provided bypass passage during 100 percent of the Coho Salmon migration; and 99.99 percent, 99.98 percent, 99.95 percent, and 98.93 percent of the yearling Chinook Salmon, Sockeye Salmon, steelhead, and subyearling Chinook Salmon migrations, respectively, passing Wells Dam in 2023.

TABLE 190

**MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER WELLS DAM
2023**

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					2,166	6,902	19,557	4,047	1,766	1,610	794		36,842
STEELHEAD					72	12	260	849	2,896	913	169		5,171
SOCKEYE						8,319	126,118	2,355	138	26			136,956
COHO									2,356	4,698	444		7,498
TOTAL					2,238	15,233	145,935	7,251	7,156	7,247	1,407		186,467
LAMPREY					88	17	128	327	107	23	6		696
BULL TROUT					4	18	1						23

*Jacks included

TABLE 191

MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS**MAY 2023**

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD	TROUT				
May 1	0			0				5	2	0	0	89.2	6.5	46.3
May 2	0			0				5	4	0	0	113.2	9.2	46.7
May 3	0			0				5	5	0	0	139.4	13.6	47.0
May 4	1			0				5	4	0	0	143.5	11.0	46.6
May 5	0			0				5	1	0	0	143.0	22.3	46.6
May 6	0			0				1	1	0	0	140.2	22.2	46.0
May 7	2			0				1	1	0	0	148.2	19.7	46.7
May 8	1			0				1	0	0	0	182.2	40.2	46.6
May 9	1			0				5	3	0	0	189.4	45.9	46.9
May 10	2			0				5	1	0	0	201.3	66.7	47.4
May 11	2			1				3	1	0	0	171.3	44.6	48.0
May 12	3			0				3	3	0	0	189.4	51.8	48.5
May 13	5			0				2	1	0	0	187.1	50.3	49.2
May 14	1			0				2	1	1	0	188.7	44.8	49.9
May 15	2			0				1	0	0	0	233.3	76.1	50.3
May 16	4			0				3	1	0	7	226.9	74.7	51.0
May 17	4			1				5	2	0	16	216.1	66.5	51.3
May 18	11			1				4	1	0	16	214.8	68.0	51.5
May 19	32			0				3	0	0	5	218.8	74.8	51.9
May 20	34			1				1	1	0	22	209.8	65.3	52.3
May 21	39			5				4	2	0	7	198.6	63.3	52.9
May 22	56			2				0	0	1	11	199.3	60.5	53.2
May 23	61			4				1	1	0	0	184.6	49.7	53.2
May 24	82			5				0	0	1	0	201.5	55.9	53.4
May 25	123			13				1	0	0	0	183.5	35.7	53.2
May 26	191			18				0	0	1	1	169.7	38.8	53.7
May 27	207			29				1	1	0	1	132.6	27.9	54.1
May 28	263			43				0	0	0	1	137.3	30.0	54.4
May 29	254			50				0	0	0	0	134.3	18.2	54.8
May 30	175			49				0	0	0	0	153.1	22.3	55.1
May 31	330			58				0	0	0	1	90.1	10.3	55.5
TOTAL	1,886			280				72	37	4	88			
AVG.	61			9				2	1	0	3	171.9	41.5	50.5
RUN YEAR														
TOTALS TO DATE														
SPRING	1,886			280				72	37	4	88			

TABLE 192

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JUNE 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Jun 1	389			75			0	3	3	0	1	108.3	9.3	56.0
Jun 2	283			89			0	1	1	1	0	100.7	11.4	56.5
Jun 3	195			47			0	1	1	1	0	98.6	9.8	57.0
Jun 4	161			35			0	0	0	1	0	95.6	8.3	57.1
Jun 5	65			34			0	0	0	3	0	105.9	9.8	56.7
Jun 6	183			51			0	0	0	2	0	113.6	14.8	56.7
Jun 7	144			61			0	1	0	1	0	109.9	10.7	56.8
Jun 8	74			36			0	-1	0	2	2	100.5	8.6	56.8
Jun 9	120			17			0	0	0	0	0	60.0	6.3	56.9
Jun 10	94			14			0	0	0	0	1	70.7	8.3	56.9
Jun 11	119			19			0	1	1	0	0	82.9	8.8	57.4
Jun 12	50			16			1	0	0	1	0	104.3	11.5	57.5
Jun 13	88			27			0	0	0	0	0	108.2	9.0	57.7
Jun 14	58			20			9	1	1	1	1	105.3	8.7	57.4
Jun 15	80			17			4	0	0	1	0	116.9	9.2	57.1
Jun 16	57			11			8	0	0	0	0	106.3	7.5	57.4
Jun 17	199			29			23	0	0	0	0	99.9	6.7	57.4
Jun 18	101			14			21	0	0	1	0	80.2	10.2	57.1
Jun 19	26			3			27	1	0	0	0	91.0	12.4	56.8
Jun 20	72			18			50	0	0	0	2	84.1	10.8	57.4
Jun 21	60			9			71	0	0	1	0	92.1	7.8	57.3
Jun 22	70			13			112	0	0	0	1	90.6	6.7	57.8
Jun 23	166			4			177	1	1	0	0	97.3	6.9	57.8
Jun 24	295			13			333	0	0	1	0	88.3	6.8	58.3
Jun 25	522			13			393	0	0	0	0	96.0	10.0	58.6
Jun 26	330			18			647	0	0	0	1	112.7	7.8	58.8
Jun 27	188			10			645	0	0	1	5	102.4	11.4	59.2
Jun 28	480			33			1,194	1	1	0	0	91.7	7.1	59.6
Jun 29		550		20			1,566	1	1	0	0	115.6	8.5	59.6
Jun 30		898		19			3,038	1	0	0	3	117.8	10.5	60.1
TOTAL	4,669	1,448		785			8,319	12	10	18	17			
AVG.	167	724		26			277	0	0	1	1	98.2	9.2	57.6

RUN YEAR		CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE			
SPRING		6,555	1,026
SUMMER		1,448	39
TOTAL		8,003	1,065

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
8,319	84	47	22	105

TABLE 193

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JULY 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Jul 1		275		13			2,937	0	0	0	2	80.0	6.2	60.5
Jul 2		577		30			4,553	2	1	0	1	104.5	11.2	60.8
Jul 3		1,643		41			4,444	2	2	0	5	77.7	5.8	61.0
Jul 4		1,003		30			5,826	1	1	0	1	89.3	6.4	61.8
Jul 5		525		11			4,388	1	0	0	1	84.0	6.0	61.5
Jul 6		908		35			5,640	1	1	0	0	78.2	5.8	61.6
Jul 7		879		31			6,793	2	0	0	1	85.3	6.2	61.4
Jul 8		893		28			6,573	3	1	0	1	82.5	10.0	61.3
Jul 9		1,101		14			6,439	2	2	0	3	69.0	5.2	61.3
Jul 10		489		9			5,699	1	0	0	0	116.5	8.7	61.3
Jul 11		617		40			6,561	2	1	0	1	131.9	16.1	60.7
Jul 12		1,172		47			7,683	9	3	0	1	109.1	10.3	61.5
Jul 13		1,120		55			8,184	7	4	0	3	113.9	9.0	62.1
Jul 14		636		35			6,007	1	1	0	4	122.9	8.3	62.0
Jul 15		806		47			6,506	14	10	0	2	118.8	8.7	62.9
Jul 16		961		27			5,847	10	4	0	3	114.2	11.6	63.2
Jul 17		392		4			4,951	4	3	0	6	86.0	6.3	63.2
Jul 18		759		15			4,765	6	3	0	11	96.5	9.5	62.0
Jul 19		392		24			3,645	15	7	0	5	97.5	7.4	63.9
Jul 20		531		18			3,877	13	5	0	4	106.8	8.2	64.2
Jul 21		348		20			2,652	8	0	0	7	105.6	11.3	64.2
Jul 22		285		15			2,165	17	7	0	6	124.8	15.5	63.9
Jul 23		133		7			1,823	6	2	0	3	130.1	11.1	63.8
Jul 24		533		16			1,865	17	9	0	8	108.5	9.0	64.4
Jul 25		236		27			1,309	23	12	0	7	119.5	3.3	64.3
Jul 26		174		5			1,294	7	6	0	12	116.4	7.6	64.4
Jul 27		498		23			1,208	23	13	0	10	125.2	0.0	65.0
Jul 28		153		10			860	13	3	0	8	110.2	0.0	64.8
Jul 29		158		13			656	14	7	0	4	102.3	0.0	65.0
Jul 30		194		17			460	14	7	0	4	88.0	0.0	65.1
Jul 31		431		28			508	22	11	1	4	119.1	0.0	65.2
TOTAL		18,822		735			126,118	260	126	1	128			
AVG.		607		24			4068	8	4	0	4	103.7	7.2	62.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
	6,555	1,026
	20,270	774
	26,825	1,800

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
134,437	344	173	23	233

TABLE 194

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

AUGUST 2023

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	WILD			BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT		KCFS	KCFS	
Aug 1		156		13			293	12	7		6	97.3	0.0	65.6
Aug 2		304		23			322	25	7		1	100.3	0.0	66.0
Aug 3		367		25			179	21	8		11	86.9	0.0	66.1
Aug 4		107		9			165	13	3		2	113.1	0.0	66.2
Aug 5		69		8			102	15	3		2	81.8	1.6	66.2
Aug 6		145		16			113	25	11		0	87.8	0.0	66.5
Aug 7		45		9			90	14	8		2	93.7	0.0	66.5
Aug 8		146		17			81	13	2		4	112.1	0.0	66.6
Aug 9		62		5			74	12	7		16	114.7	0.0	66.2
Aug 10		75		11			50	10	6		4	143.5	0.0	65.9
Aug 11		184		7			89	20	6		7	107.5	0.0	66.6
Aug 12		165		7			60	19	8		10	101.4	0.0	67.2
Aug 13		376		15			45	15	5		9	111.6	0.0	67.4
Aug 14		131		16			41	20	11		6	125.6	0.0	67.4
Aug 15		154		13			35	19	12		9	120.9	12.4	67.8
Aug 16		155		22			64	37	19		27	116.5	0.1	67.7
Aug 17		25		6			36	22	11		18	122.1	0.0	67.7
Aug 18		81		16			60	29	11		23	119.0	0.0	67.7
Aug 19		116		12			33	31	13		26	119.7	6.8	67.7
Aug 20		97		9			51	42	19		19	82.6	0.0	67.3
Aug 21		65		7			51	32	12		10	85.3	0.1	67.0
Aug 22		113		6			65	48	15		8	89.7	0.0	66.6
Aug 23		151		5			32	28	7		10	85.6	2.3	66.4
Aug 24		47		4			60	31	7		7	102.7	0.0	66.6
Aug 25		43		5			35	52	23		4	98.3	0.5	66.3
Aug 26		76		11			33	37	11		4	96.5	0.0	66.6
Aug 27		115		6			28	31	7		15	77.5	0.0	67.3
Aug 28		70		7			31	39	16		14	98.6	0.0	67.6
Aug 29			36	3			16	44	12		27	93.8	0.0	67.4
Aug 30			16	4			9	48	10		11	104.7	0.0	66.9
Aug 31			35	3			12	45	16		15	91.2	0.0	66.7
TOTAL		3,640	87	320			2,355	849	313		327			
AVG.		130	29	10			76	27	10		11	102.6	0.8	66.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
	SPRING	FALL
SUMMER	6,555	1,026
FALL	23,910	1,084
TOTAL	87	10
TOTAL	30,552	2,120

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
136,792	1,193	486	23	560

TABLE 195

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

SEPTEMBER 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Sep 1			16	5	0	0	10	34	8		16	69.6	0.0	67.0
Sep 2			50	2	0	0	9	41	15		5	72.3	0.0	67.1
Sep 3			19	0	0	0	9	47	15		11	65.8	0.0	67.2
Sep 4			55	3	0	0	8	62	18		22	63.9	0.0	67.4
Sep 5			38	3	0	0	7	53	13		9	63.4	0.0	66.5
Sep 6			38	4	0	1	7	63	19		1	56.6	0.0	67.4
Sep 7			37	4	0	0	10	56	20		3	60.1	0.0	67.6
Sep 8			39	1	0	0	8	71	16		1	60.9	0.0	67.5
Sep 9			25	5	0	0	2	57	16		0	52.3	0.0	67.5
Sep 10			33	3	1	0	6	80	18		0	58.5	0.0	67.3
Sep 11			19	2	1	1	5	88	26		1	53.9	0.0	67.0
Sep 12			16	0	7	0	2	74	19		5	51.6	0.0	66.7
Sep 13			80	2	2	0	6	108	29		7	52.2	0.0	66.9
Sep 14			93	3	9	0	2	143	52		7	48.3	0.0	66.9
Sep 15			84	3	18	0	4	140	44		6	40.4	0.0	67.0
Sep 16			123	6	32	8	3	164	48		1	48.7	0.0	67.1
Sep 17			91	4	72	4	2	149	50		0	50.9	0.6	66.7
Sep 18			52	4	67	5	3	131	31		2	49.6	0.0	66.4
Sep 19			45	1	108	1	2	136	40		0	52.4	0.0	66.2
Sep 20			53	1	85	1	11	165	38		3	52.8	0.0	65.8
Sep 21			85	1	86	1	3	143	26		3	60.7	0.0	65.4
Sep 22			32	1	80	4	1	142	34		0	53.6	0.0	65.4
Sep 23			117	4	157	8	7	151	27		1	41.8	0.0	65.3
Sep 24			53	4	180	9	4	109	18		1	51.2	0.0	65.3
Sep 25			30	6	77	7	0	64	16		0	42.2	0.0	64.9
Sep 26			109	1	198	12	1	86	18		1	48.2	0.0	64.4
Sep 27			79	5	203	16	1	81	13		0	51.3	0.0	64.2
Sep 28			70	3	354	21	0	112	31		0	44.3	0.0	63.9
Sep 29			62	1	244	18	3	72	18		1	59.5	0.0	63.7
Sep 30			41	0	238	20	2	74	19		0	60.9	0.5	63.7
TOTAL			1,684	82	2,219	137	138	2,896	755		107			

AVG.			56	3	74	5	5	97	25		4	54.6	0.0	66.2
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RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,555	1,026
SUMMER	23,910	1,084
FALL	1,771	92
TOTAL	32,236	2,202

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2,219	137	136,930	4,089	1,241	23	667

TABLE 196

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

OCTOBER 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	STEELHEAD	WILD TROUT	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL												
Oct 1			29	0	241	14	3	88	11			0	57.9	0.0	63.8
Oct 2			31	2	137	12	1	40	4			0	47.5	0.0	63.6
Oct 3			40	1	143	11	0	56	11			1	50.1	0.0	63.8
Oct 4			16	0	121	17	1	43	10			2	52.8	0.0	63.9
Oct 5			21	2	127	19	2	35	16			1	58.9	1.4	64.1
Oct 6			47	5	165	24	3	46	15			2	45.8	3.8	64.3
Oct 7			41	3	193	28	0	53	15			8	61.3	0.0	64.5
Oct 8			45	2	181	22	1	50	8			1	55.0	0.0	64.8
Oct 9			38	2	116	16	1	28	9			2	53.9	0.0	64.5
Oct 10			24	2	125	16	2	18	11			0	58.4	0.0	64.4
Oct 11			36	1	234	25	4	52	12			2	59.0	0.0	64.2
Oct 12			36	3	244	20	0	48	13			0	55.6	0.0	63.9
Oct 13			32	0	231	17	1	38	13			0	54.8	0.0	63.9
Oct 14			36	1	184	10	1	29	4			0	53.0	0.0	64.0
Oct 15			19	0	151	10	2	32	8			0	61.8	0.0	63.8
Oct 16			40	0	79	8	1	13	3			1	61.4	0.0	63.7
Oct 17			58	1	169	16	0	27	15			0	69.1	0.0	63.3
Oct 18			42	1	133	8	1	18	7			0	61.9	0.0	63.2
Oct 19			38	0	178	19	0	10	2			0	55.6	0.0	61.6
Oct 20			42	0	142	15	0	28	7			1	50.4	0.0	63.2
Oct 21			44	1	96	12	0	23	4			0	54.9	0.0	63.3
Oct 22			65	0	89	9	1	19	2			0	43.3	0.0	63.2
Oct 23			56	2	71	4	0	18	1			1	62.5	0.0	62.9
Oct 24			135	4	106	4	1	9	2			1	70.8	0.0	62.3
Oct 25			55	2	78	9	0	8	2			0	76.6	0.0	61.5
Oct 26			76	1	184	5	0	24	8			0	48.6	0.0	61.2
Oct 27			150	4	138	8	0	14	6			0	41.9	0.0	60.4
Oct 28			122	0	77	5	0	16	5			0	45.2	0.0	59.8
Oct 29			38	1	81	9	0	14	4			0	68.0	0.3	59.1
Oct 30			21	0	36	1	0	8	3			0	75.2	0.7	58.6
Oct 31			96	0	52	3	0	8	3			0	93.8	6.3	58.4
TOTAL			1,569	41	4,302	396	26	913	234			23			
AVG.			51	1	139	13	1	29	8			1	58.2	0.4	62.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,555	1,026
SUMMER	23,910	1,084
FALL	3,340	133
TOTAL	33,805	2,243

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
6,521	533	136,956	5,002	1,475	23	690

TABLE 197

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

NOVEMBER 2023

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL											
Nov 1			102	2	42	3		8	3		0	88.9	0.0	58.4
Nov 2			119	2	45	0		14	7		0	75.3	0.0	58.5
Nov 3			110	1	39	4		12	6		0	88.2	0.0	58.5
Nov 4			87	0	40	5		14	6		0	44.5	0.0	58.7
Nov 5			108	0	61	6		16	3		2	68.6	0.0	58.8
Nov 6			73	0	26	3		16	5		0	72.2	0.0	58.9
Nov 7			45	3	30	1		7	2		1	58.2	0.0	59.0
Nov 8			21	0	31	0		9	1		0	83.6	0.0	57.2
Nov 9			24	0	20	0		13	8		1	99.3	0.0	58.5
Nov 10			40	0	24	0		7	2		1	104.5	0.0	58.6
Nov 11			22	0	17	0		11	3		0	58.8	0.0	58.4
Nov 12			8	0	16	0		10	2		1	95.5	0.0	58.0
Nov 13			15	1	9	0		13	2		0	102.6	0.0	58.0
Nov 14			6	0	8	0		8	3		0	105.9	0.0	57.8
Nov 15			5	0	13	1		11	2		0	102.7	0.0	57.3
Nov 16												101.6	0.0	56.9
Nov 17												105.2	0.0	56.7
Nov 18												87.5	0.0	56.2
Nov 19												87.6	0.0	56.0
Nov 20												110.3	0.0	56.0
Nov 21												103.2	0.0	55.6
Nov 22												88.2	0.0	55.3
Nov 23												96.9	0.0	55.0
Nov 24												106.8	0.0	54.4
Nov 25												109.9	0.0	54.2
Nov 26												115.8	0.0	53.9
Nov 27												124.6	0.0	53.7
Nov 28												97.5	0.0	53.5
Nov 29												92.5	0.0	53.2
Nov 30												87.4	0.0	52.8

TOTALS		785	9	421	23		169	55		6				
AVG.		52	1	28	2		11	4		0		92.1	0.0	56.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE									
SPRING	6,555	1,026	6,942	556	136,956	5,171	1,530	23	696
SUMMER	23,910	1,084							
FALL	4,125	142							
TOTAL	34,590	2,252							

TABLE 198

**MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2023**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1976					44	37	56	530	1964	1856	156		4,643
1977					37	22	38	1,034	818	2,849	526		5,324
1978					177	32	12	399	432	528			1,580
1979					72	2	22	1,212	938	1,040	355		3,641
1980					202	24	15	382	1,032	1,358	413		3,426
1981					139	23	107	212	1,702	1,401	513		4,097
1982					149	7	67	814	2,428	3,733	730		7,928
1983					26	2	145	1,891	10,728	5,294	1,327		19,413
1984					153	32	766	5,024	6,545	3,298	778		16,596
1985					220	401	2,675	3,387	9,822	2,821	541		19,867
1986					65	102	1,515	4,994	3,833	2,391	403		13,303
1987					13	29	413	1,897	1,668	1,236	237		5,493
1988					85	103	357	1,273	1,797	785			4,400
1989					43	11	351	1,168	2,223	804			4,600
1990					20	16	283	1,093	1,630	702	104		3,848
1991					14	8	361	2,054	3,078	1,923	313		7,751
1992					86	168	892	1,448	2,946	1,346	181		7,067
1993					48	10	240	706	883	490	23		2,400
1994					7	8	240	442	670	695	121		2,183
1995					5	6	77	160	509	188	**		945
1996					11	7	79	764	2,099	921	246		4,127
1997					38	6	82	868	1,758	1,199	156		4,107
1998					5	3	161	363	1,031	995	110		2,668
1999					13	33	106	903	1,941	446	62		3,504
2000					23	6	309	1,338	3,661	857	86		6,280
2001					30	34	947	5,404	8,326	3,339	403		18,483
2002					66	33	957	3,630	3,388	1,244	157		9,475
2003					21	10	456	2,346	4,618	2,320	192		9,963
2004					74	56	916	1,709	5,039	1,401	122		9,317
2005					63	14	366	1,590	3,287	1,738	145		7,203
2006					28	16	138	922	4,017	1,248	305		6,674
2007					45	18	250	1,605	3,332	2,033	217		7,500
2008					145	167	861	2,792	3,740	1,580	523		9,808
2009					70	37	502	4,777	15,992	3,813	252		25,443
2010					95	34	1,085	4,524	5,235	1,581	375		12,929
2011					123	4	242	3,274	5,873	2,377	176		12,069
2012					101	56	557	3,294	4,001	1,554	215		9,778
2013					64	28	247	2,180	2,767	1,792	144		7,222
2014					122	35	337	1,776	3,390	1,890	185		7,735
2015					37	37	333	2,596	4,243	1,662	235		9,143
2016					59	46	427	883	2,034	1,227	168		4,844
2017					35	30	87	456	1,587	1,445	115		3,755
2018					115	35	228	615	1,830	868	223		3,914
2019					113	11	146	591	988	883	96		2,828
2020					48	9	188	1,152	2,067	787	136		4,387
2021					49	18	133	366	1,783	665	118		3,132
2022					33	9	271	1,107	1,613	1,060	316		4,409
2023					72	12	260	849	2,896	913	169		5,171
TOTAL					3,303	1,847	19,303	82,794	158,182	76,576	12,368		354,373
10-Year Average					68	24	241	1,039	2,243	1,140	176		4,932

**Wells Dam did not count in November of 1995.