



US Army Corps
of Engineers®
Portland District
Walla Walla District

Annual Fish Passage Report 2017



Columbia and Snake River Projects

2017

**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**

TABLE OF CONTENTS

General

Plate 1. Columbia and Snake River Projects	1
Table 1. Fish Escapement at Main Stem Dams Columbia and Snake Rivers: 2011 – 2017....	2
Table 2. Fish Escapement at Mid-Columbia River Dams: 2011– 2017	3
Table 3. Steelhead over Columbia and Snake River Dams 1953 – 2017: by Run-Year	4-5
Table 4. Steelhead over Mid-Columbia River Dams 1959 – 2017: by Run-Year	6

Columbia River **Corps of Engineers Projects**

BONNEVILLE DAM

Plate 2. Bonneville Dam General Site Map, Fish Passage Facilities.....	7
Fish Counting Schedule	8
Fish Facilities Operation Schedule	8
Fishway Activities.....	8-10
Table 5. Monthly Totals of Salmonids, Shad, and Lamprey: 2017	11
Table 6-17. Monthly Discharge, Water Quality Data, and Fish Count January through December: 2017	12-23
Table 18-22. Monthly Night Counts (May-September) for Salmonids, Shad, and Lamprey: 2017.....	24-28
Table 23a. Yearly Totals of Salmonids: 1938 – 2017	29-30
Table 23b. Yearly Totals of Salmonids (Daytime Counts): 1938 – 2017	31-32
Table 24. Monthly Count of Chinook Salmon: 1938 – 2017	33-34
Table 25. Monthly Count of Sockeye Salmon: 1938 – 2017	35-36
Table 26. Monthly Count of Coho Salmon: 1938 – 2017	37-38
Table 27. Monthly Count of Steelhead: 1938 – 2017	39-40
Table 28. Monthly Count of Shad: 1938 – 2017	41-42
Table 29a. Monthly Count of Lamprey 1939 –2017	43
Table 29b. Monthly Count of Lamprey 2009 – 2017 (24 hour passage).....	44

THE DALLES DAM

Plate 3. The Dalles Dam General Site Map, Fish Passage Facilities.....	45
Fish Counting Schedule	46
Fishway Operating Schedule	46

TABLE OF CONTENTS
(Continued)

Fishway Activities 46-48

Table 30. Monthly Totals of Salmonids, Shad, and Lamprey: 201749

Table 31-41. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2017 50-60

Table 42-45. Monthly Night Counts (June-September) for Salmonids, Shad, and
Lamprey: 2017..... 61-64

Table 46. Yearly totals of Salmonids: 1957 – 201765

Table 47. Monthly Count of Chinook Salmon: 1957 – 201766

Table 48. Monthly Count of Sockeye Salmon: 1957 – 201767

Table 49. Monthly Count of Coho Salmon: 1957 – 201768

Table 50. Monthly Count of Steelhead: 1957 – 201769

JOHN DAY DAM

Plate 4. John Day Dam General Site Map, Fish Passage Facilities70

Fish Counting Schedule71

Fishway Operating Schedule71

Fishway Activities 72-73

Table 51. Monthly Totals of Salmonids, Shad, and Lamprey: 201774

Table 52-60. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2017 75-83

Table 61-64. Monthly Night Counts (June-September) for Salmonids, Shad, and
Lamprey: 2017..... 84-87

Table 65. Yearly totals of Salmonids: 1968 – 201788

Table 66. Monthly Count of Chinook Salmon: 1968 – 201789

Table 67. Monthly Count of Sockeye Salmon: 1968 – 201790

Table 68. Monthly Count of Coho Salmon: 1968 – 201791

Table 69. Monthly Count of Steelhead: 1968 – 201792

McNARY DAM

Plate 5. McNary Dam General Site Map, Fish Passage Facilities93

Fish Counting Schedule94

Fish Ladder Operating Schedule.....94

Fishway Activities 94-95

Table 70. Monthly Totals of Salmonids, Shad, and Lamprey: 201796

Table 71-81. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2017 97-107

TABLE OF CONTENTS
(Continued)

Table 82-85. Monthly Night Counts (June-September) for Salmonids, Shad, and Lamprey: 2017.....108-111

Table 86. Yearly totals of Salmonids: 1954 – 2017112

Table 87. Monthly Count of Chinook Salmon: 1954 – 2017 113-114

Table 88. Monthly Count of Sockeye Salmon: 1954 – 2017 115-116

Table 89. Monthly Count of Coho Salmon: 1954 – 2017 117-118

Table 90. Monthly Count of Steelhead: 1954 – 2017 119-120

Snake River
Corps of Engineers Projects

ICE HARBOR DAM

Plate 6. Ice Harbor Dam General Site Map, Fish Passage Facilities121

Fish Counting Schedule122

Fish Ladder Operating Schedule.....122

Fishway Activities122

Table 91. Monthly Totals of Salmonids, Shad, and Lamprey: 2017123

Table 92-100. Monthly Discharge, Water Quality, and Fish Counts January through December: 2017 124-132

Table 101. Yearly totals of Salmonids: 1962 – 2017133

Table 102. Monthly Count of Chinook Salmon: 1962 – 2017134

Table 103. Monthly Count of Steelhead: 1962 – 2017135

LOWER MONUMENTAL DAM

Plate 7. Lower Monumental Dam General Site Map, Fish Passage Facilities136

Fish Counting Schedule137

Fish Ladder Operating Schedule.....137

Fishway Activities137

Table 104. Monthly Totals of Salmonids, Lamprey, Sturgeon, and Bull Trout: 2017.....138

Table 105-113. Monthly Discharge, Water Quality, and Fish Counts January through December: 2017 139-147

Table 114. Yearly totals of Salmonids: 1969 – 2017148

Table 115. Monthly Count of Chinook Salmon: 1969 – 2017149

TABLE OF CONTENTS
(Continued)

Table 116. Monthly Count of Steelhead: 1969 – 2017150

LITTLE GOOSE DAM

Plate 8. Little Goose Dam General Site Map, Fish Passage Facilities151

Fish Counting Schedule152

Fish Ladder Operating Schedule.....152

Fishway Activities152

Table 117. Monthly Totals of Salmonids, Shad, and Lamprey: 2017153

Table 118-126. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2017 154-162

Table 127. Yearly totals of Salmonids: 1970 – 1981, 1991 – 2017163

Table 128. Monthly Count of Chinook Salmon: 1970 – 1981, 1991 – 2017164

Table 129. Monthly Count of Steelhead: 1970 – 1981, 1991 – 2017165

LOWER GRANITE DAM

Plate 9. Lower Granite Dam General Site Map, Fish Passage Facilities166

Fish Counting Schedule167

Fish Ladder Operating Schedule.....167

Fishway Activities167

Table 130. Monthly Totals of Salmonids, Shad, and Lamprey: 2017168

Table 131-141. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2017 169-179

Table 142-145. Monthly Night Counts (June-September) for Salmonids, Shad, and
Lamprey: 2017..... 180-183

Table 146. Yearly totals of Salmonids: 1975 – 2017184

Table 147. Monthly Count of Chinook Salmon: 1975 – 2017185

Table 148. Monthly Count of Steelhead: 1975 – 2017186

TABLE OF CONTENTS
(Continued)

Mid - Columbia River
Public Utility District Projects

PRIEST RAPIDS AND WANAPUM DAMS

Fishway Counting Schedule187
Fish Ladder Operating and Maintenance Schedule187
Fishway Activities 187-188

Table 149. Monthly Totals of Salmonids, Shad, and Lamprey: 2017189
Table 150-157. Monthly Discharge, Water Quality, and Fish Counts April through
November: 2017..... 190-197
Table 158. Yearly totals of Salmonids: 1982 – 2017198
Table 159. Monthly Count of Steelhead: 1960 – 2017199

ROCK ISLAND DAM

Fish Counting Schedule200
Fish Ladder Operating Schedule.....200
Fishway Activities200

Table 160. Monthly Totals of Salmonids and Lamprey: 2017201
Table 161-168. Monthly Discharge, Water Quality, and Fish Counts April through
November: 2017..... 202-209
Table 169. Monthly Count of Steelhead: 1981 – 2017210

ROCKY REACH DAM

Fish Counting Schedule211
Fish Ladder Operating Schedule.....211
Fishway Activities211

Table 170. Monthly Totals of Salmonids and Lamprey: 2017212
Table 171-178. Monthly Discharge, Water Quality, and Fish Counts April through
November: 2017..... 213-220
Table 179. Monthly Count of Steelhead: 1981 – 2017221

TABLE OF CONTENTS
(Continued)

WELLS DAM

Fish Counting Schedule222
Fish Ladder Operating Schedule.....222
Juvenile Passage Facilities..... 222-223

Table 180. Monthly Totals of Salmonids and Lamprey: 2017224
Table 181-187. Monthly Discharge, Water Quality, and Fish Counts May through
November: 2017..... 225-231
Table 188. Monthly Count of Steelhead: 1976 – 2017232

Plate 1 Columbia and Snake River Projects

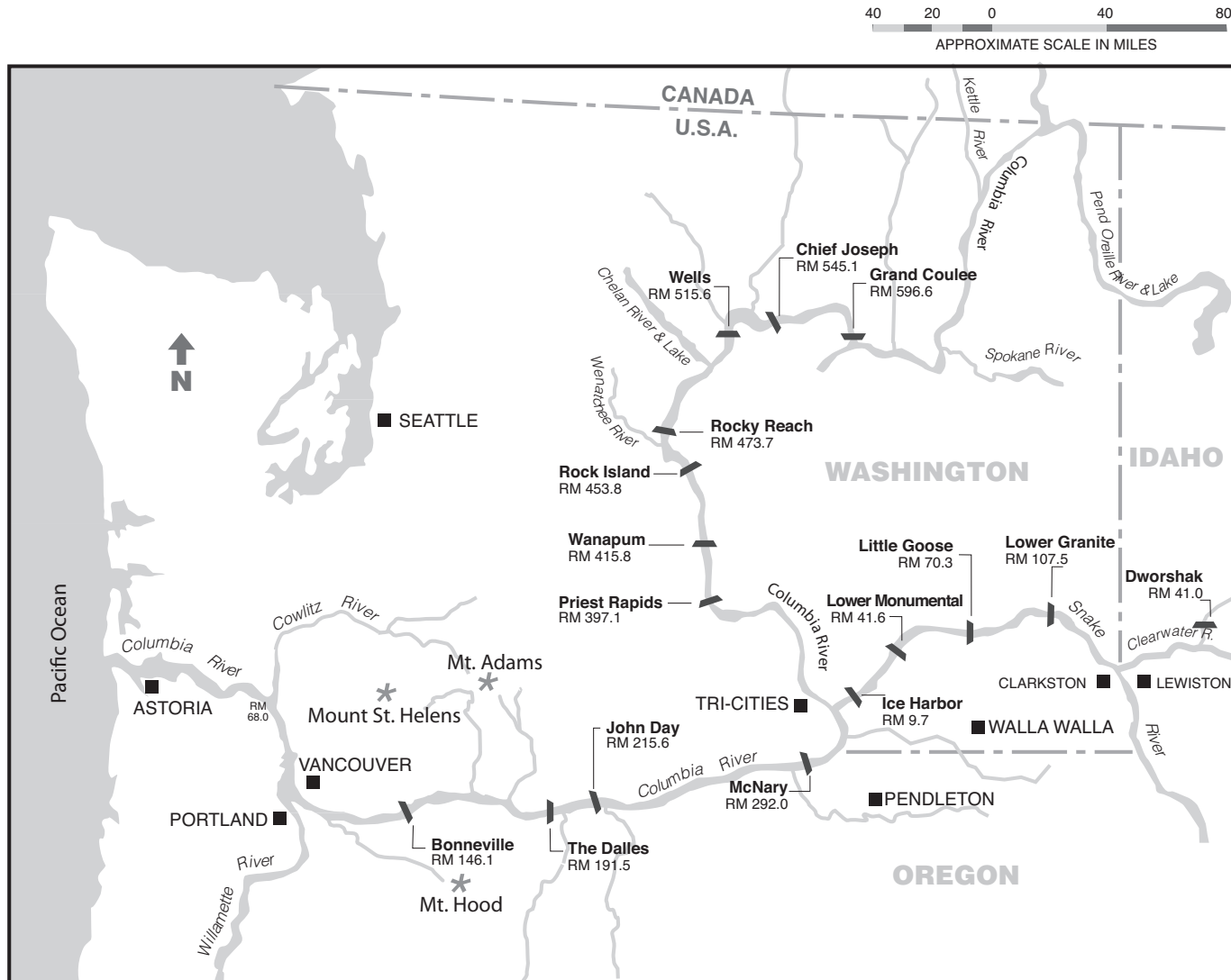


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS ON THE COLUMBIA AND SNAKE RIVERS: 2013-2017

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
2013								
CHINOOK*	1,300,360	898,418	707,545	674,356	151,836	151,421	149,442	149,926
Spring*	117,118	101,507	85,948	74,449	56,620	55,523	54,515	54,971
Summer*	119,283	106,389	94,962	90,549	18,233	19,493	17,752	15,995
Fall*	1,063,959	690,522	526,635	509,358	76,983	76,405	77,175	78,960
Jacks	171,020	141,021	137,790	91,454	44,065	49,787	49,060	49,531
STEELHEAD	232,660	190,671	150,955	144,130	109,293	106,649	95,871	107,805
SOCKEYE	185,505	161,896	155,498	134,202	895	1,014	996	757
COHO*	66,336	26,682	17,528	13,880	2,405	2,325	2,136	2,454
Adults	59,239	24,110	16,163	12,127	2,026	2,005	1,727	2,096
Jacks	7,097	2,572	1,365	1,753	379	320	409	358
SHAD	3,751,375	**	**	1,246,494	193,525	**	**	1,892
LAMPREY	23,968	8,737	6,673	1,570	328	108	33	19
2014								
CHINOOK*	1,339,262	905,449	766,191	715,072	192,966	193,042	185,367	195,166
Spring*	214,171	164,222	142,300	123,180	91,726	93,962	91,615	92,899
Summer*	135,076	115,659	103,688	104,996	21,907	24,200	24,535	21,774
Fall*	990,015	625,568	520,203	486,896	79,333	74,880	69,217	80,493
Jacks	186,947	133,342	116,443	109,165	34,846	45,828	37,789	40,645
STEELHEAD	323,169	255,691	200,838	209,772	151,468	155,613	144,980	162,256
SOCKEYE	614,177	586,188	557,531	546,012	2,392	2,804	2,811	2,786
COHO*	291,849	157,646	115,840	112,587	16,077	19,411	21,468	18,648
Adults	277,078	146,803	107,853	98,553	15,330	16,599	17,917	18,095
Jacks	14,771	10,843	7,987	14,034	747	2,812	3,551	553
SHAD	2,603,269	**	**	937,826	90,790	**	**	1,206
LAMPREY	31,952	11,662	8,577	1,783	721	221	115	82
2015								
CHINOOK*	1,449,612	1,068,378	891,578	822,516	219,408	213,045	202,671	203,258
Spring*	233,562	206,423	177,529	164,918	122,207	120,208	113,677	113,252
Summer*	179,465	139,373	119,756	105,010	24,215	22,599	19,958	19,180
Fall*	1,036,585	722,582	594,293	552,588	72,986	70,238	69,036	70,826
Jacks	113,487	115,226	82,816	71,109	18,560	29,376	23,579	24,126
STEELHEAD	264,696	217,018	179,506	177,137	128,521	129,813	126,271	139,383
SOCKEYE	510,705	429,797	366,364	279,744	1,052	888	587	440
COHO*	41,297	26,959	21,828	19,901	1,492	1,353	1,986	1,688
Adults	36,455	23,777	18,762	16,523	1,307	1,014	1,671	1,449
Jacks	4,842	3,182	3,066	3,378	185	339	315	239
SHAD	1,815,001	**	**	999,552	220,757	**	**	84,833
LAMPREY	38,636	12,400	8,370	1,748	764	264	58	50
2016								
CHINOOK*	773,874	585,090	507,088	448,571	137,810	135,313	128,488	128,833
Spring*	148,319	115,503	101,921	93,515	72,513	72,381	68,959	67,530
Summer*	130,425	104,564	97,974	90,395	15,518	14,804	14,399	14,223
Fall*	495,130	365,023	307,193	264,661	49,779	48,128	45,130	47,080
Jacks	76,162	69,544	55,724	38,722	19,633	23,648	19,606	19,959
STEELHEAD	185,520	145,027	130,626	118,763	94,473	94,189	87,338	100,086
SOCKEYE	342,497	288,401	289,976	261,696	898	1,024	962	816
COHO*	47,358	22,909	19,635	12,013	2,141	3,293	2,392	3,170
Adults	41,882	21,007	17,019	10,899	1,997	2,804	1,827	2,841
Jacks	5,476	1,902	2,616	1,114	144	489	565	329
SHAD	1,770,303	**	**	1,003,755	264,827	**	**	42,486
LAMPREY	52,323	11,557	9,769	1,612	875	240	192	106
2017								
CHINOOK*	554,899	389,976	313,886	277,496	78,076	80,253	77,071	81,318
Spring*	101,726	70,795	59,150	51,313	35,255	36,815	34,933	35,613
Summer*	98,692	78,523	67,779	61,984	11,371	11,604	12,840	12,579
Fall*	354,481	240,658	186,957	164,199	31,450	31,834	29,298	33,126
Jacks	66,406	49,602	41,269	23,741	14,093	18,122	16,282	18,579
STEELHEAD	116,429	95,233	83,253	79,006	61,961	66,499	59,259	76,684
SOCKEYE	87,693	64,058	66,041	58,022	392	346	288	228
COHO*	79,099	36,591	34,246	23,201	5,737	7,587	7,891	8,801
Adults	74,347	33,457	29,080	21,637	5,328	6,536	6,810	8,177
Jacks	4,752	3,134	5,166	1,564	409	1,051	1,081	624
SHAD	3,135,401	**	**	1,610,611	368,693	**	**	28,771
LAMPREY	82,572	30,696	23,404	2,549	1,438	409	472	346

ASSUMED DATES FOR CHINOOK RUN (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.

TABLE 2

FISH ESCAPEMENT AT MID COLUMBIA RIVER DAMS: 2013 - 2017

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
2013				
CHINOOK*	371,726	158,253	129,190	82,762
Spring*	15,023	22,010	10,717	10,113
Summer*	74,257	75,613	67,639	53,715
Fall*	282,446	60,630	50,834	18,934
Jacks	22,994	19,138	14,254	8,824
STEELHEAD	15,011	11,501	9,204	7,222
SOCKEYE	163,078	159,219	131,660	129,993
COHO*	4,021	2,613	534	577
Adults	3,543	2,361	486	568
Jacks	478	252	48	9
SHAD	21,586	**	**	**
LAMPREY	5,968	2,157	1,626	21
2014				
CHINOOK*	242,755	145,104	103,168	83,506
Spring*	26,391	33,493	17,343	17,921
Summer*	83,323	82,283	65,140	55,244
Fall*	133,041	29,328	20,685	10,341
Jacks	19,897	16,681	12,865	11,054
STEELHEAD	19,843	15,037	10,587	7,735
SOCKEYE	608,142	581,121	492,892	490,804
COHO*	36,685	47,587	13,170	9,149
Adults	34,532	47,345	13,101	9,073
Jacks	2,153	242	69	76
SHAD	8,179	**	**	**
LAMPREY	7,586	2,451	3,799	7
2015				
CHINOOK*	206,103	168,005	131,102	103,358
Spring*	29,286	42,263	19,896	21,491
Summer*	81,689	88,426	79,053	65,440
Fall*	95,128	37,316	32,153	16,427
Jacks	10,947	6,551	4,685	5,732
STEELHEAD	14,316	14,051	10,894	9,143
SOCKEYE	301,272	264,678	216,389	187,055
COHO*	5,036	4,499	2,140	1,173
Adults	4,411	4,360	2,016	1,125
Jacks	625	139	124	48
SHAD	17,043	**	**	**
LAMPREY	6,749	2,165	2,134	0
2016				
CHINOOK*	147,777	122,277	86,252	65,822
Spring*	17,846	27,449	13,080	12,622
Summer*	85,414	77,927	60,496	47,138
Fall*	44,517	16,901	12,676	6,062
Jacks	9,337	6,207	4,645	4,029
STEELHEAD	6,498	7,166	5,728	4,844
SOCKEYE	311,072	310,341	235,925	216,036
COHO*	1,987	2,489	418	423
Adults	1,781	2,359	391	392
Jacks	206	130	27	31
SHAD	11,361	**	**	**
LAMPREY	8,139	3,939	3,553	7
2017				
CHINOOK*	96,655	82,070	62,842	43,458
Spring*	8,051	12,055	7,372	7,409
Summer*	54,741	56,504	44,122	31,203
Fall*	33,863	13,511	11,348	4,846
Jacks	4,858	3,321	2,685	2,471
STEELHEAD	5,804	5,265	3,988	3,755
SOCKEYE	66,670	73,218	46,701	42,299
COHO*	8,719	13,200	5,432	3,847
Adults	8,120	13,090	5,373	3,790
Jacks	599	110	59	57
SHAD	8,090	**	**	**
LAMPREY	26,012	21,137	23,986	287

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 1953-2017

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 - 2017

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	145,949	130,770	120,815	94,173	94,198	93,482	102,005
Total	10,955,044	8,616,682	8,538,277	5,752,313	4,996,511	3,850,614	4,730,426
10-Year Average	267,973	246,299	216,107	165,511	166,176	153,818	166,642

*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, 2012-17.

TABLE 4

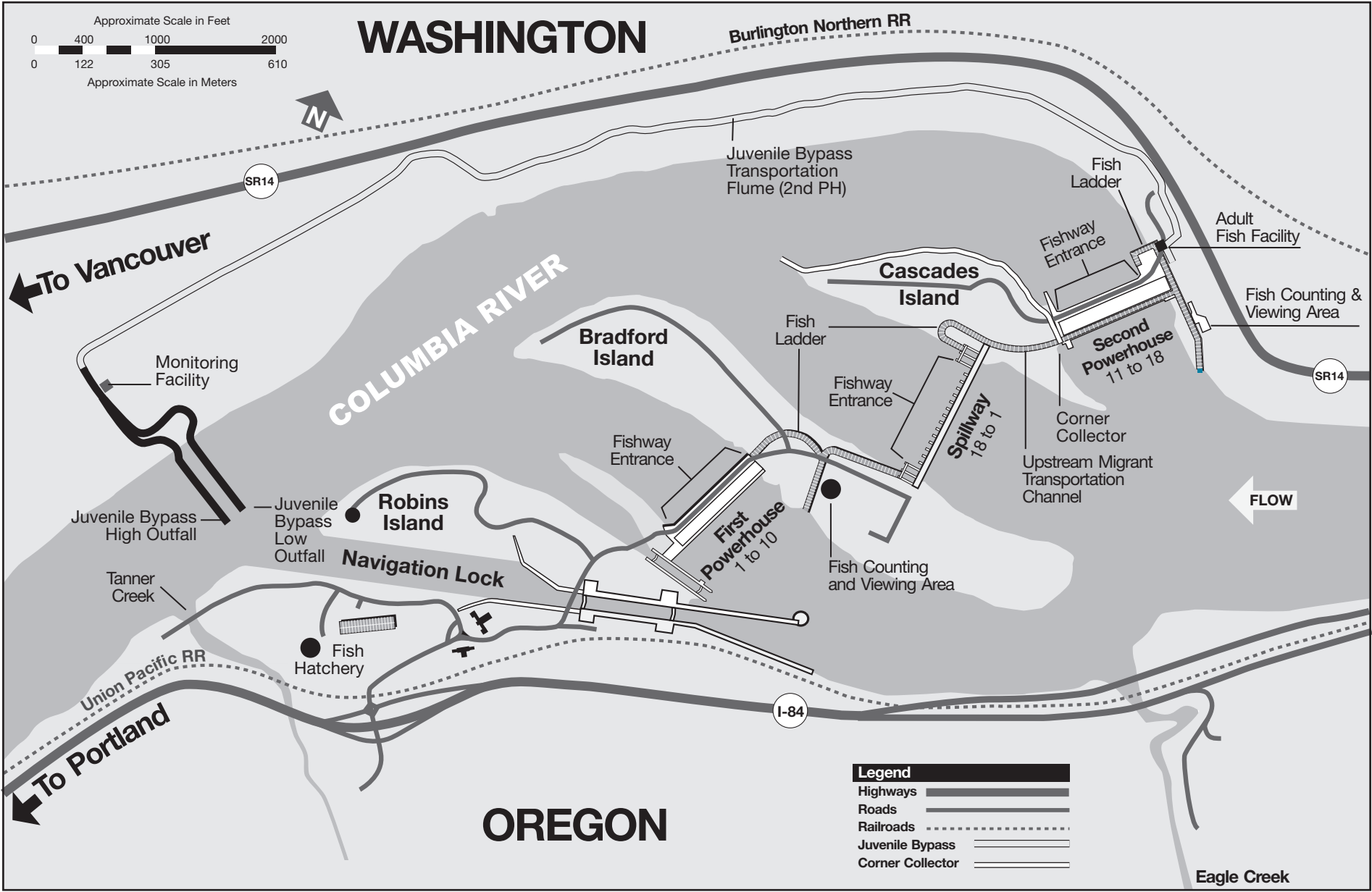
STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2017

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
Total	726,011	514,666	379,177	326,812
10-Year Average	19,211	17,180	13,618	10,646

*Partial year

Plate 2 Bonneville Lock and Dam



BONNEVILLE DAM

FISH COUNTING SCHEDULE

Mar 01 – Mar 31 Video 0400–2000 hours (PST)
 Apr 01 – Nov 30 Visual 0500–2100 hours (DST)
 May 15 – Sep 30 Night Video 2100–0500 hours (DST)
 Dec 01 – Feb 28 Video 0400–2000 hours (PST)

*In 2017, Daylight Saving Time (DST) is in effect March 12 – November 5 and hours are adjusted forward 1 hour from Pacific Standard Time (PST). DST = PST+1.

FISH FACILITIES OPERATION SCHEDULE

Fish Facility	OOS Date 2016	In Service Date 2017	OOS Date 2017	Reason for Outage
BI Ladder	N/A	N/A	24-Nov	Winter maintenance
A-branch	N/A	N/A	24-Nov	Winter maintenance
B-branch	N/A	N/A	24-Nov	Winter maintenance
CI Ladder	NA	NA	*	
WA Shore Ladder	28-Nov	27-Feb	NA	Winter maintenance
UMT	28-Nov	09-Mar	NA	Winter maintenance
BI LPS	27-Oct	31-Mar	31-Oct	Winter maintenance
CI LPS	27-Oct	31-Mar	31-Oct	Winter maintenance
WA AWS LPS	27-Oct	28-Feb	31-Oct	Winter maintenance
NDE LFS/LPS	N/A	21-Jun	24-Aug	Low number of fish collected
B2CC	1-Sep	22-Mar	1-Sep	Opens with kelt trigger / closes with spill
DSM	11-Dec	21-Feb	27-Dec	Winter maintenance
AFF	01-Nov	5-Mar	15-Nov	Winter maintenance
SMF	31-Oct	3-Mar	31-Oct	Winter maintenance

*CI ladder was dewatered from 06-09 March for emergency repairs.

FISHWAY ACTIVITIES

The following are fishway modifications for the 2016/2017 passage year:

- Removal of Collection Channel velocity meter at PH2.
- Permanent SLIBs (Sea Lion Incurion Devices) were fabricated and installed on top of FOGs to prevent Sea Lions from entering the fishway.
- An opening in the wall separating the crowder area of the main ladder from the AWS was covered with screen to prevent possible Sockeye incurion into the AWS at PH2.

- Installed ID plates at bases of “C” diffusers in the collection channel for ROV inspections.
- The base of the AWS picket leads was modified to reduce possible Sockeye incursion into the AWS at PH2.
- Flow control plates were installed in ‘A’ and ‘B’ gatewells of all PH2 units. Plating was installed on upper sections of all VBSs.
- Blackout blinds were installed over visitor center viewing windows in order to reduce in-ladder nighttime light pollution at PH2.
- The count station crowder was modified with perf plating and a rubber “skirt” to reduce incidences of lamprey being run over. Grating was installed on the downstream side of the crowder to reduce fish incursion into the area behind the crowder at PH2.
- FLS velocity barrier plate installed to reduce areas of high velocity.
- Removed lamprey plating in north entrance area, replaced with orifice plates. AWS LPS extensions and new pump system were installed. Orifice slots were drilled in the lower serpentine weir walls; trial rest boxes installed at PH2.

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 launch. 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.

Date	Location	Fish Found	Release Site
01-Dec	WA Shore Ladder	1 Pacific Lamprey (PL), >20 Peamouth & N. Pikeminnow	Forebay
06-Dec	PH2 S Monolith	3 sculpin & 1 Smallmouth Bass	Tailrace
07-Dec	PH2 N Monolith	1 Steelhead, 2 PL, & a variety of ~ 200 cyprinids and catostomids	Tailrace
13-Dec	Nav Lock Still Basin	1 Steelhead mortality (see 16BON121) & 1 Peamouth	Forebay
14-Dec	DSM	None	N/A
15-Dec	Nav Lock	8 juvenile salmonids, 15 juvenile lamprey, dozens of Smallmouth Bass, shad, sculpin, & 2 crappie	Tailrace
06-Mar	CI Upper Ladder	23 Steelhead	Forebay
07-Mar	CI Entrance Pool	3 Steelhead	Forebay
22-Mar	MU16 Tail Logs	3 sculpin & 1 catfish	Tailrace
28-Mar	MU16 Draft Tube	None	N/A
25-Apr	MU3 Tail Logs	11 juvenile salmonids & 1 sculpin	Tailrace
26-Apr	MU3 Scroll Case	~700 juvenile salmonids	Tailrace

27-Apr	MU3 Scroll Case	5 juvenile salmonids, 738 juvenile salmonid mortalities	Tailrace
08-Jun	MU3 Tail Logs	~50 juvenile salmonids, 1 adult Chinook, 1 adult PL, 1 lamprey macrophthalmia, & ~10 sculpin	Forebay
13-Jun	Nav Lock Tainer Valve	3 juvenile salmonids	Tailrace
20-Jun	MU16 Tail Logs	13 adult PL, 1 lamprey macrophthalmia, & 3 Sculpin	Forebay
18-Sept	MU8 Tail Logs	8 sculpin, 2 catfish, 3 sunfish, & 2 lamprey ammocetes	Tailrace
21-Sept	MU2 Tail Logs	1 adult PL	Forebay
11-Oct	MU17 Draft Tube	24 Sturgeon	Forebay
07-Nov	MU18 Draft Tube	~120 sturgeon (6' to ~8')	Forebay
15-Nov	AFF	2 juvenile salmonids, 2 adult PL, 1 lamprey ammocoete, 77 buckets of shad, Peamouth, N. Pikeminnow, suckers, & carp	WA shore ladder (adjacent to AFF)
27-Nov	BI (Junction Pool to Exit)	~125 salmonids, 1 PL, & ~50 Peamouth & N. Pikeminnow	Forebay
29-Nov	A-Branch	~12 salmonids, ~30 Peamouth & N. Pikeminnow	Forebay
30-Nov	B-Branch	~8 salmonids, ~20 Peamouth & N. Pikeminnow	Tailrace

TABLE 5

MONTHLY TOTALS OF SALMONID, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER BONNEVILLE DAM.
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*		1	15	3,357	98,361	66,919	31,773	58,495	260,765	32,105	3,578	71	555,440
STEELHEAD	42	297	1,327	783	792	1,916	17,643	53,829	35,198	5,296	374	381	117,878
SOCKEYE					68	62,372	24,971	274	8	0	0	0	87,693
COHO*								3,088	47,178	25,314	4,923	253	80,756
CHUM										4	17		21
PINK								3	33	6			42
TOTAL	42	298	1,342	4,140	99,221	131,207	74,387	115,689	343,182	62,725	8,892	705	841,830
SHAD					16,950	2,641,858	468,807	7,786					3,135,401
LAMPREY			0	0	4,219	31,381	35,958	9,623	1,348	42	1	-8	82,564
STURGEON							4	1	5	1			11
BULL TROUT													0

note: Counts were taken from 0400-2000 PST Jan 1 - Dec 31. Visual counting occurred Apr 1 - Nov 30.
Video counting occurred Jan 1 - Mar 31 and Dec 1-31.

*Jacks included

TABLE 6
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS														JANUARY 2017				
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
Jan 1					5			3						163.1	1.1	7.0	40.0	
Jan 2					4			1						175.1	1.0	7.0	40.0	
Jan 3					3			2						167.9	1.0	7.0	39.0	
Jan 4					7			2						177.2	1.0	7.0	39.0	
Jan 5					3			3						202.3	1.0	7.0	39.0	
Jan 6					0			0						188.5	1.0	7.0	38.0	
Jan 7					1			0						191.9	1.0	4.0	37.0	
Jan 8					1			1						181.2	1.0	6.0	37.0	
Jan 9					6			3						168.4	1.0	7.0	36.0	
Jan 10					1			1						170.8	1.0	7.0	36.0	
Jan 11					1			0						183.8	1.0	7.0	36.0	
Jan 12					0			0						199.8	1.0	7.0	36.0	
Jan 13					-1			0						185.2	0.8	7.0	35.0	
Jan 14					1			0						174.8	1.0	7.0	34.0	
Jan 15					0			0						178.0	0.5	7.0	33.0	
Jan 16					0			-1						192.4	0.6	7.0	33.0	
Jan 17					2			2						180.9	0.5	7.0	33.0	
Jan 18					0			0						181.7	0.8	7.0	33.0	
Jan 19					1			0						177.2	0.8	7.0	33.0	
Jan 20					0			0						176.8	4.6	6.0	33.0	
Jan 21					2			0						157.3	0.5	0.0	33.0	
Jan 22					-1			1						154.0	0.5	7.0	33.0	
Jan 23					-1			0						157.1	0.9	7.0	33.0	
Jan 24					-1			0						180.6	1.2	7.0	33.0	
Jan 25					2			0						177.4	1.1	7.0	34.0	
Jan 26					1			1						162.3	1.0	7.0	34.0	
Jan 27					4			1						157.1	0.5	7.0	34.0	
Jan 28					1			1						153.8	0.5	7.0	34.0	
Jan 29					0			0						137.1	0.5	7.0	34.0	
Jan 30					0			0						138.3	0.6	7.0	35.0	
Jan 31					0			0						162.5	0.7	7.0	35.0	
TOTAL					42			21										
AVG					1			1						172.7	1.0	6.6	35.2	

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 2017				
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							3	0					163.3	0.7	7.0	35.0	
Feb 2	0							-1	0					162.5	0.7	6.5	34.0	
Feb 3	0							0	0					160.9	0.5	7.0	34.0	
Feb 4	0							0	0					168.4	0.5	7.0	34.0	
Feb 5	0							4	1					180.6	0.5	7.0	34.0	
Feb 6	0							5	0					172.4	0.6	7.0	34.0	
Feb 7	0							4	4					171.7	0.6	0.0	35.0	
Feb 8	0							4	3					185.9	0.6	7.0	35.0	
Feb 9	0							3	0					182.7	1.0	7.0	35.0	
Feb 10	0							13	5					220.0	1.4	6.0	35.0	
Feb 11	1							8	5					235.4	44.4	6.0	36.0	
Feb 12	0							13	6					267.6	62.7	5.0	36.0	
Feb 13	0							15	9					234.4	31.3	3.0	36.0	
Feb 14	0							9	4					229.1	22.2	3.0	36.0	
Feb 15	0							5	1					214.7	0.8	3.0	35.0	
Feb 16	0							9	3					217.0	1.1	4.0	35.0	
Feb 17	0							21	6					228.5	1.1	5.0	35.0	
Feb 18	0							6	4					235.8	1.1	5.0	36.0	
Feb 19	0							6	2					270.0	26.3	4.0	35.0	
Feb 20	0							10	4					253.3	16.5	3.0	36.0	
Feb 21	0							23	10					288.0	47.6	3.0	36.0	
Feb 22	0							22	6					263.5	31.5	3.0	36.0	
Feb 23	0							17	4					275.8	37.8	3.0	37.0	
Feb 24	0							15	8					284.3	38.6	3.0	38.0	
Feb 25	0							11	5					266.9	23.1	3.0	37.0	
Feb 26	0							27	17					271.1	19.7	3.0	37.0	
Feb 27	0							15	6					244.8	8.1	3.0	37.0	
Feb 28	0							30	10					225.8	1.0	3.0	38.0	
TOTAL	1							297	123									
AVG	0							11	4					224.1	15.1	4.5	35.6	

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 2017				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped					SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM							
Mar 1	0			0				22	7						237.3	0.8	3.5	38.0
Mar 2	0			0				20	6						230.0	0.9	3.5	38.0
Mar 3	0			0				29	13						235.1	3.1	3.0	38.0
Mar 4	0			0				39	17						267.0	15.8	3.0	38.0
Mar 5	0			0				27	11						267.3	15.6	3.0	38.0
Mar 6	0			0				26	11						229.4	2.7	3.5	38.0
Mar 7	0			0				18	11						247.2	22.7	3.0	38.0
Mar 8	1			0				27	9						252.9	22.4	4.0	38.0
Mar 9	0			0				43	20						278.3	46.8	3.0	39.0
Mar 10	2			0				133	52						299.9	67.5	3.0	39.0
Mar 11	1			0				69	28						306.8	79.1	3.5	40.0
Mar 12	2			0				59	18						336.4	103.9	4.0	40.0
Mar 13	1			0				37	20						320.6	87.7	3.0	40.0
Mar 14	0			0				57	18						351.2	122.9	4.0	40.0
Mar 15	2			0				55	24						370.8	137.5	3.0	41.0
Mar 16	0			0				36	17						371.2	143.3	2.0	41.0
Mar 17	0			0				36	13						389.4	162.2	2.5	41.0
Mar 18	2			0				67	16						411.8	186.8	2.0	42.0
Mar 19	0			0				47	10						409.6	190.1	2.0	42.0
Mar 20	0			0				24	5						417.6	202.5	2.0	42.0
Mar 21	0			0				18	-2						443.2	228.0	1.0	42.0
Mar 22	0			0				28	0						450.5	240.2	1.5	43.0
Mar 23	0			0				54	4						458.6	239.9	1.0	43.0
Mar 24	0			0				40	6						459.3	237.2	1.0	45.0
Mar 25	0			0				48	3						459.6	223.6	1.0	45.0
Mar 26	0			0				32	13						453.6	225.5	1.0	45.0
Mar 27	2			0				53	10						449.1	226.3	1.0	44.0
Mar 28	0			0				25	2						446.8	242.8	1.0	44.0
Mar 29	0			0				56	14						443.0	235.5	1.0	44.0
Mar 30	0			0				35	5						440.5	235.3	1.0	44.0
Mar 31	2			0				67	19						439.7	221.1	0.0	44.0
TOTAL	15			0				1,327	400									
AVG	0			0				43	13						360.4	134.5	2.3	41.1

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 2017				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped					DISCH	SPILL	TURBIDITY	DEG F		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM					SHAD	LAMPREY
Apr 1	1			0				52	16					442.0	247.7	0.0	45.0
Apr 2	3			0				38	13					448.8	252.9	0.0	44.0
Apr 3	2			0				46	25					445.3	255.5	2.0	45.0
Apr 4	2			0				56	26					439.7	248.8	2.0	45.0
Apr 5	14			0				31	18					435.3	244.6	2.0	45.0
Apr 6	12			0				43	22					420.5	223.7	3.0	45.0
Apr 7	32			0				40	10					393.5	189.4	2.5	46.0
Apr 8	57			0				38	20					384.5	176.9	2.5	46.0
Apr 9	62			0				22	14					423.0	204.9	2.5	47.0
Apr 10	16			0				29	11					399.8	180.7	2.0	47.0
Apr 11	38			0				28	4					385.0	172.7	2.0	47.0
Apr 12	50			0				27	17					386.8	179.3	3.0	47.0
Apr 13	47			0				24	14					411.9	198.4	3.0	47.0
Apr 14	42			0				22	7					403.7	188.2	3.0	47.0
Apr 15	38			0				34	14					399.1	182.8	3.0	47.0
Apr 16	71			0				11	9					386.7	173.7	2.5	48.0
Apr 17	78			0				26	12					365.1	171.0	2.5	48.0
Apr 18	112			0				20	6					379.3	182.0	2.5	48.0
Apr 19	103			0				20	5					359.7	162.8	3.0	48.0
Apr 20	131			0				14	6					345.7	151.1	3.0	48.0
Apr 21	170			0				25	10					375.3	173.9	3.0	48.0
Apr 22	175			1				22	2					380.4	171.7	3.0	49.0
Apr 23	245			2				20	8					376.4	164.1	3.0	49.0
Apr 24	215			1				18	6					361.1	156.9	3.0	49.0
Apr 25	341			0				15	2					365.2	161.4	3.0	50.0
Apr 26	271			3				22	11					377.3	165.6	3.0	50.0
Apr 27	196			4				13	2					380.2	166.0	3.0	50.0
Apr 28	215			4				8	2					384.3	168.9	2.5	50.0
Apr 29	230			4				14	7					381.6	169.7	2.5	51.0
Apr 30	362			7				5	1					361.8	153.1	3.0	51.0
TOTAL	3,331			26				783	320					393.3	187.9	2.5	47.6
AVG	111			1				26	11								
RUN YEAR		CHINOOK	CHINOOK						unclipped								
TOTALS TO DATE		ADULT	JACK					STEELHEAD	STEELHEAD			LAMPREY					
SPRING		3,339	26					1,504	479			0					

TABLE 10

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

BONNEVILLE PROJECT - FISH COUNTS

MAY 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped					SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM						SECCHI	DEG F
May 1	469			12			0	8	4			0	0		352.4	141.4	3.0	51.0
May 2	540			6			0	11	2			0	0		350.6	148.2	3.0	51.0
May 3	836			30			0	7	2			0	0		345.8	146.6	4.0	51.0
May 4	4,057			145			0	22	3			0	2		340.8	134.0	3.5	52.0
May 5	6,177			237			0	21	7			0	1		350.6	139.0	3.0	53.0
May 6	4,342			219			0	25	6			0	1		388.4	180.5	3.5	53.0
May 7	2,544			141			0	29	5			0	0		436.8	236.0	3.0	53.0
May 8	1,651			132			0	24	5			0	12		454.5	253.6	3.0	53.0
May 9	1,234			76			0	21	8			0	17		451.8	259.1	3.0	54.0
May 10	1,008			97			0	17	1			4	14		443.5	251.4	3.5	54.0
May 11	1,284			168			1	19	3			11	7		438.7	245.2	3.5	54.0
May 12	1,634			210			0	12	3			5	10		450.4	253.0	2.5	54.0
May 13	965			141			0	18	2			0	6		441.5	246.3	3.0	54.0
May 14	1,506			200			0	30	9			1	7		438.6	239.1	3.0	54.0
May 15	2,204			477			0	28	6			0	13		438.4	235.0	3.0	54.0
May 16	2,201			408			0	34	8			5	10		435.7	234.4	3.0	54.0
May 17	1,900			383			0	24	6			1	16		429.5	229.4	3.0	53.0
May 18	1,242			298			0	19	4			4	13		434.2	231.5	2.0	53.0
May 19	1,627			535			0	19	5			5	19		423.2	223.4	3.0	53.0
May 20	4,087			1,280			0	32	6			2	42		410.0	209.6	2.0	53.0
May 21	5,838			2,061			0	23	6			2	13		402.4	205.3	2.0	53.0
May 22	6,539			2,458			0	37	8			5	30		391.7	200.3	3.0	55.0
May 23	5,358			2,115			0	36	12			4	68		395.3	201.9	3.0	55.0
May 24	3,868			1,272			1	50	7			13	764		405.7	213.1	3.0	56.0
May 25	2,588			995			1	34	4			8	331		435.7	242.0	3.0	56.0
May 26	2,221			926			2	31	7			362	199		440.3	247.1	3.0	56.0
May 27	3,311			1,022			11	31	7			2,183	204		432.1	239.9	3.5	56.0
May 28	3,034			796			5	35	14			1,829	734		420.9	230.5	3.0	57.0
May 29	2,785			544			18	33	10			2,333	526		414.5	224.1	3.0	57.0
May 30	1,916			379			5	24	3			5,101	702		426.4	238.4	3.0	57.0
May 31	1,311			321			24	38	9			5,072	458		446.9	265.4	3.0	58.0
TOTAL	80,277			18,084			68	792	182			16,950	4,219					
AVG	2,590			583			2	26	6			547	136		415.1	217.6	3.0	54.1
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK					SOCKEYE	STEELHEAD	STEELHEAD			SHAD	LAMPREY					
SPRING	83,616	18,110					68	2,296	661			16,950	4,219					

TABLE 11

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

BONNEVILLE PROJECT - FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped					SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM							
Jun 1		1,702		298			41	24	3			10,037	885		452.7	269.7	3.0	58.0
Jun 2		1,581		268			36	47	7			17,193	760		449.7	275.6	2.0	59.0
Jun 3		1,522		239			54	37	6			21,821	951		454.4	279.3	3.0	59.0
Jun 4		1,747		205			61	45	11			4,205	464		442.3	257.7	2.0	59.0
Jun 5		1,335		200			103	52	5			2,638	257		448.2	261.5	3.0	58.0
Jun 6		1,484		180			161	38	11			7,548	304		434.6	250.2	2.5	58.0
Jun 7		1,550		204			169	34	6			38,253	881		428.5	238.7	2.5	59.0
Jun 8		1,597		245			236	47	17			42,917	1,591		430.5	237.2	2.5	59.0
Jun 9		1,791		266			411	38	10			88,217	1,099		432.6	229.3	3.0	60.0
Jun 10		1,401		248			647	46	10			69,270	85		442.6	239.8	3.0	60.0
Jun 11		1,674		240			901	63	17			124,436	483		419.4	219.6	2.5	59.0
Jun 12		1,300		207			732	34	10			28,306	342		389.6	218.2	2.5	59.0
Jun 13		1,685		244			1,103	59	17			3,609	203		361.8	179.6	2.0	58.0
Jun 14		1,811		276			1,223	44	13			15,223	262		391.9	217.3	3.0	58.0
Jun 15		1,720		262			1,502	57	15			25,141	162		400.1	211.2	3.0	58.0
Jun 16		2,173		289			2,118	55	21			13,342	312		365.2	177.1	3.0	58.0
Jun 17		2,291		267			2,896	46	16			43,743	417		333.9	142.3	3.0	58.0
Jun 18		2,321		259			2,966	74	27			94,411	906		334.1	141.6	3.0	60.0
Jun 19		2,081		216			3,278	77	37			280,213	1,681		347.3	152.2	3.0	60.0
Jun 20		2,404		242			4,673	95	41			246,596	2,602		315.8	124.4	3.0	61.0
Jun 21		2,264		265			4,218	93	46			148,872	1,152		322.3	123.4	3.0	61.0
Jun 22		2,791		289			4,156	81	33			264,213	1,069		323.1	117.8	3.0	61.0
Jun 23		2,586		272			3,420	76	26			251,351	1,818		307.6	96.8	4.0	62.0
Jun 24		2,702		300			3,264	84	42			166,533	1,930		308.6	100.7	3.0	62.0
Jun 25		2,892		282			4,120	73	24			195,127	2,689		313.0	96.2	4.0	63.0
Jun 26		2,699		221			3,624	86	40			179,643	2,632		279.0	92.2	4.0	64.0
Jun 27		2,438		246			4,148	94	49			77,473	1,691		265.6	96.8	3.0	64.0
Jun 28		1,776		157			4,172	119	71			40,629	1,272		265.8	101.2	3.0	64.0
Jun 29		2,136		180			4,467	102	54			20,930	936		264.9	96.2	3.0	64.0
Jun 30		2,182		216			3,472	96	49			119,968	1,545		269.5	90.8	3.0	64.0
TOTAL		59,636		7,283			62,372	1,916	734			2,641,858	31,381					
AVG		1,988		243			2,079	64	24			88,062	1,046		366.5	177.8	2.9	60.2
RUN YEAR		CHINOOK ADULT		CHINOOK JACK			SOCKEYE	STEELHEAD	unclipped STEELHEAD			SHAD	LAMPREY					
TOTALS TO DATE																		
SPRING		83,616		18,110			62,440	4,212	1,395			2,658,808	35,600					
SUMMER		59,636		7,283														
TOTAL		143,252		25,393														

TABLE 12

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

BONNEVILLE PROJECT - FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped			PINK CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD								
Jul 1		1,742		185			2,666	89	40		44,051	2,236	0	235.5	95.6	3.0	65.0
Jul 2		1,875		184			2,515	143	67		26,095	1,683	0	238.9	100.0	3.0	66.0
Jul 3		1,786		198			2,474	160	88		36,341	1,736	0	222.2	95.5	4.0	66.0
Jul 4		2,021		182			2,384	150	71		44,525	1,846	0	218.6	89.6	4.0	66.0
Jul 5		1,617		200			2,458	148	78		45,233	1,295	0	231.4	94.9	4.0	66.0
Jul 6		1,240		177			1,601	153	89		20,859	1,737	0	200.6	100.0	5.5	67.0
Jul 7		1,661		163			1,713	249	143		18,971	1,628	0	219.7	95.0	4.0	67.0
Jul 8		1,356		149			1,354	227	119		23,520	996	0	203.6	89.9	5.0	67.0
Jul 9		1,126		141			1,211	229	135		37,699	1,780	0	200.2	95.2	6.0	68.0
Jul 10		876		91			1,218	206	128		30,868	1,379	0	193.2	100.4	5.0	68.0
Jul 11		979		128			1,095	309	173		15,829	1,182	0	186.8	95.2	5.0	68.0
Jul 12		1,093		130			695	299	171		23,453	1,024	1	181.9	90.3	5.0	68.0
Jul 13		727		92			571	311	173		18,194	1,728	0	187.1	95.3	5.0	68.0
Jul 14		597		88			460	397	246		15,732	1,132	0	205.3	100.2	6.0	68.0
Jul 15		698		94			396	388	231		12,737	1,130	0	188.5	95.7	6.0	69.0
Jul 16		740		80			412	617	381		7,025	1,205	0	185.0	90.6	5.0	69.0
Jul 17		714		112			291	476	285		5,441	1,284	0	180.2	95.0	6.0	69.0
Jul 18		659		76			239	577	353		5,772	1,249	1	190.3	100.5	6.0	69.0
Jul 19		616		79			158	636	402		5,355	978	0	196.5	96.2	6.0	70.0
Jul 20		1,025		99			173	769	450		6,947	748	0	181.5	90.0	6.0	69.0
Jul 21		594		100			138	727	387		4,181	725	0	175.2	94.8	7.0	69.0
Jul 22		592		73			128	763	421		3,704	686	0	158.3	100.4	7.0	69.0
Jul 23		548		67			108	590	333		3,308	836	0	146.1	96.2	7.0	70.0
Jul 24		456		66			86	932	540		1,432	1,081	0	154.1	90.9	7.0	70.0
Jul 25		570		80			85	873	521		2,185	748	1	157.4	95.1	7.0	70.0
Jul 26		417		76			75	1,365	699		3,101	495	0	159.8	100.0	6.0	70.0
Jul 27		484		55			65	1,425	765		1,349	676	0	145.4	95.2	7.0	71.0
Jul 28		378		57			54	1,130	534		1,735	758	0	151.9	89.9	7.0	71.0
Jul 29		329		55			40	1,221	556		1,511	864	0	178.4	95.1	7.0	71.0
Jul 30		474		42			49	1,032	475		766	618	0	149.6	99.6	7.0	71.0
Jul 31		418		46			59	1,052	473		888	495	1	160.6	93.8	7.0	71.0
TOTAL		28,408		3,365			24,971	17,643	9,527		468,807	35,958	4				
AVG		916		109			806	569	307		15,123	1,160	0	186.6	95.4	5.7	68.6
RUN YEAR		CHINOOK ADULT		CHINOOK JACK													
TOTALS TO DATE		83,616		18,110													
SPRING		88,044		10,648													
SUMMER																	
TOTAL		171,660		28,758													
							SOCKEYE	STEELHEAD	STEELHEAD		SHAD	LAMPREY	STURGEON				
							87,411	21,855	10,922		3,127,615	71,558	4				

TABLE 13

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

BONNEVILLE PROJECT - FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK								CHUM
Aug 1			354	38	0	0	44	914	429	0		846	566	0	159.6	89.9	7.0	71.0
Aug 2			493	51	0	0	39	1,617	732	0		1,432	936	0	165.5	95.2	7.0	71.0
Aug 3			396	59	0	0	25	1,950	817	0		651	863	0	145.6	100.4	7.0	72.0
Aug 4			263	48	0	0	19	1,721	677	0		565	543	0	140.4	96.3	7.0	73.0
Aug 5			216	45	0	0	20	2,102	826	0		388	592	0	137.4	90.8	7.0	73.0
Aug 6			154	30	0	0	14	1,336	460	0		241	496	0	140.2	95.0	7.0	73.0
Aug 7			133	17	0	0	12	577	211	0		317	321	0	134.9	91.1	7.0	73.0
Aug 8			201	19	0	0	5	469	224	0		246	407	0	137.4	94.2	7.0	73.0
Aug 9			245	48	0	0	11	508	204	0		255	249	0	142.2	90.9	7.0	73.0
Aug 10			331	61	0	0	2	768	366	0		146	362	0	147.1	96.0	7.0	73.0
Aug 11			430	35	0	0	0	1,119	462	0		113	342	0	148.1	100.5	7.0	74.0
Aug 12			489	42	0	0	8	840	373	0		89	287	0	140.0	95.2	7.0	74.0
Aug 13			429	28	1	0	4	773	263	0		80	622	0	134.5	89.8	7.0	73.0
Aug 14			631	56	0	0	2	533	223	0		136	283	0	136.1	91.5	7.0	73.0
Aug 15			487	60	0	0	8	547	223	0		107	229	0	141.8	97.4	7.0	72.0
Aug 16			847	117	7	0	4	621	259	0		130	234	0	139.3	95.4	7.0	72.0
Aug 17			1,290	149	26	0	5	1,064	448	1		217	248	0	128.1	84.0	7.0	72.0
Aug 18			1,711	210	31	7	3	2,155	801	0		320	240	1	116.6	73.1	7.0	72.0
Aug 19			996	166	21	2	2	2,378	747	0		215	214	0	117.2	74.0	7.0	72.0
Aug 20			1,230	169	30	11	8	4,395	1,137	0		117	255	0	125.1	81.5	7.0	72.0
Aug 21			582	132	50	7	9	1,847	503	0		191	137	0	123.1	79.7	7.0	72.0
Aug 22			1,843	240	63	16	12	3,031	716	0		123	308	0	132.8	88.8	7.0	72.0
Aug 23			2,787	451	111	24	2	3,234	789	0		83	148	0	131.4	87.1	7.0	72.0
Aug 24			2,332	414	212	23	0	3,724	803	0		96	166	0	128.0	85.6	7.0	72.0
Aug 25			1,831	302	118	18	5	2,650	553	0		101	75	0	121.3	77.0	7.0	72.0
Aug 26			3,527	573	268	40	2	3,847	697	0		74	82	0	115.5	70.9	7.0	72.0
Aug 27			7,926	1,157	380	35	1	2,656	422	0		111	110	0	106.5	62.3	7.0	72.0
Aug 28			7,990	1,021	486	78	1	1,914	215	0		199	74	0	115.4	71.5	7.0	72.0
Aug 29			4,052	839	476	59	1	2,097	330	2		73	85	0	143.2	90.9	7.0	71.0
Aug 30			3,977	726	265	42	5	1,357	226	0		56	45	0	137.7	92.3	7.0	72.0
Aug 31			2,517	502	153	28	1	1,085	214	0		68	104	0	144.4	91.6	7.0	72.0
TOTAL			50,690	7,805	2,698	390	274	53,829	15,350	3		7,786	9,623	1				
AVG			1,635	252	87	13	9	1,736	495			251	310	0	134.7	87.7	7.0	72.3
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK			COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK		SHAD	LAMPREY	STURGEON				
SPRING	83,616	18,110			2,698	390	87,685	75,684	26,272	3		3,135,401	81,181	5				
SUMMER	88,044	10,648																
FALL	50,690	7,805																
TOTAL	222,350	36,563																

TABLE 14

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

BONNEVILLE PROJECT - FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK							
Sep 1			1,766	402	72	25	1	811	174	0		110	0	152.3	2.0	7.0	72.0
Sep 2			2,148	462	67	10	0	670	144	0		124	0	124.4	1.3	7.0	72.0
Sep 3			7,602	533	282	57	0	935	150	0		47	0	107.3	1.3	7.0	72.0
Sep 4			8,327	612	320	44	0	1,342	242	1		58	0	108.8	1.3	5.0	72.0
Sep 5														116.8	1.3	7.0	72.0
Sep 6			4,197	612	315	49	1	771	180	0		14	0	118.1	0.0	7.0	72.0
Sep 7			3,219	464	239	60	0	712	158	0		168	0	133.2	1.3	7.0	72.0
Sep 8			3,217	493	171	15	1	682	130	1		180	0	121.9	1.3	7.0	72.0
Sep 9			9,400	735	383	40	1	817	188	0		162	1	102.4	1.3	7.0	72.0
Sep 10			21,427	1,593	1,475	79	1	1,500	307	2		65	0	102.8	1.3	6.0	71.0
Sep 11			27,333	2,174	3,048	146	0	1,954	328	0		72	1	122.4	1.3	7.0	71.0
Sep 12			21,541	2,081	4,019	180	0	2,372	350	1		12	0	122.2	1.3	7.0	71.0
Sep 13			16,319	1,641	2,957	110	0	1,941	295	0		45	0	113.7	1.3	7.0	71.0
Sep 14			16,064	1,676	2,782	149	0	1,646	285	2		32	0	113.6	1.3	6.0	70.0
Sep 15			8,921	1,054	1,931	115	0	1,357	192	0		42	0	118.1	1.3	7.0	70.0
Sep 16			8,513	1,020	1,968	99	0	1,234	201	1		18	1	129.5	1.3	7.0	69.0
Sep 17			8,410	851	1,669	85	0	1,095	162	2		29	0	108.6	1.3	7.0	68.0
Sep 18			9,784	1,294	1,683	122	0	1,293	187	2		22	1	96.0	1.2	7.0	69.0
Sep 19			9,374	1,251	2,064	75	0	1,544	300	1		14	0	95.6	1.3	6.0	68.0
Sep 20			7,428	932	2,232	117	0	1,560	273	1		19	0	96.1	1.2	7.0	67.0
Sep 21			7,807	952	3,490	152	0	2,284	345	3		15	0	108.7	1.2	6.0	67.0
Sep 22			2,982	474	1,578	108	0	1,439	283	1		10	0	105.7	1.2	6.0	67.0
Sep 23			4,976	679	2,615	131	1	1,825	344	2		12	0	86.1	1.2	6.0	65.0
Sep 24			4,551	611	2,005	120	0	1,331	237	1		0	0	80.1	1.2	6.0	66.0
Sep 25			5,137	629	2,009	134	0	1,171	226	2		12	1	83.6	1.2	7.0	66.0
Sep 26			3,613	520	1,605	114	0	766	136	4		9	-1	121.8	0.8	7.0	66.0
Sep 27			3,727	626	1,190	107	0	762	139	1		24	0	120.3	1.2	7.0	66.0
Sep 28			3,568	453	1,000	79	1	589	128	4		12	0	122.5	1.2	7.0	66.0
Sep 29			2,330	391	816	39	1	475	80	1		18	1	121.0	1.2	7.0	66.0
Sep 30			1,604	265	600	32	0	320	49	0		3	0	87.2	1.2	7.0	66.0
TOTAL			235,285	25,480	44,585	2,593	8	35,198	6,213	33		1,348	5				
AVG			8,113	879	1,537	89	0	1,214	214	1		46	0	111.4	1.2	6.7	69.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON
TOTALS TO DATE											
SPRING	83,616	18,110	47,283	2,983	87,693	110,882	32,485	36	3,135,401	82,529	10
SUMMER	88,044	10,648									
FALL	285,975	33,285									
TOTAL	457,635	62,043									

Note: no fish counting Sept 5, five hours missing from both ladders on Sept 6 due to mandatory evacuation caused by local forest fire

TABLE 15

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

BONNEVILLE PROJECT - FISH COUNTS														OCTOBER 2017				
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
Oct 1			2,133	357	581	50		403	60	1	0		6	0	84.3	1.2	7.0	65.0
Oct 2			6,209	798	1,763	115		733	145	1	0		5	0	109.4	1.2	7.0	65.0
Oct 3			1,605	363	969	82		402	67	0	0		3	0	113.7	1.2	7.0	64.0
Oct 4			1,227	286	743	60		322	67	0	0		0	0	115.5	1.2	7.0	64.0
Oct 5			1,373	226	750	60		351	59	0	0		4	0	123.6	1.1	7.0	63.0
Oct 6			650	107	458	31		205	26	0	0		5	0	100.3	1.1	7.0	62.0
Oct 7			801	138	527	62		211	39	0	0		1	0	84.5	1.1	7.0	63.0
Oct 8			1,817	206	796	67		207	44	0	0		0	0	85.6	1.1	7.0	63.0
Oct 9			2,130	224	1,196	98		266	63	1	0		1	1	117.2	1.1	7.0	62.0
Oct 10			1,064	189	569	48		144	29	1	0		1	0	103.5	1.2	7.0	62.0
Oct 11			1,547	129	451	25		141	30	0	0		2	0	96.1	1.2	7.0	62.0
Oct 12			1,504	160	1,581	97		197	27	1	0		0	0	113.1	1.2	7.0	61.0
Oct 13			547	95	532	24		111	41	0	0		0	0	99.4	1.2	7.0	61.0
Oct 14			368	42	264	27		81	17	0	0		0	0	95.5	1.2	7.0	60.0
Oct 15			222	68	227	23		136	51	0	0		2	0	85.3	1.1	7.0	60.0
Oct 16			658	72	406	15		124	39	0	0		0	0	93.1	1.2	7.0	59.0
Oct 17			392	63	355	19		129	37	0	0		0	0	84.9	1.1	7.0	58.0
Oct 18			548	82	348	37		155	37	0	0		0	0	96.3	1.1	6.0	59.0
Oct 19			634	69	506	33		86	20	0	0		0	0	91.3	1.1	6.0	59.0
Oct 20			518	89	430	17		88	36	0	0		0	0	79.8	1.1	6.5	59.0
Oct 21			559	69	913	41		130	51	0	0		1	0	90.0	1.1	7.0	59.0
Oct 22			377	48	3,405	142		206	77	0	0		5	0	117.6	1.1	1.0	59.0
Oct 23			137	45	2,715	193		135	69	0	0		5	0	104.6	1.0	3.0	57.0
Oct 24			27	4	498	25		44	9	0	0		1	0	114.7	1.1	1.0	56.0
Oct 25			99	31	1,393	68		86	39	0	1		-1	0	91.8	1.1	2.0	56.0
Oct 26			124	35	605	54		63	28	1	1		0	0	92.2	1.1	0.5	56.0
Oct 27			74	26	204	14		22	15	0	0		2	0	89.8	1.1	4.0	56.0
Oct 28			92	29	171	10		26	8	0	0		-1	0	93.1	1.1	4.0	56.0
Oct 29			156	30	106	12		21	10	0	2		-1	0	85.0	1.0	6.0	56.0
Oct 30			288	38	190	14		46	10	0	0		0	0	95.5	1.0	6.0	56.0
Oct 31			97	10	93	6		25	6	0	0		1	0	98.7	1.1	7.0	55.0
TOTAL			27,977	4,128	23,745	1,569		5,296	1,256	6	4		42	1				
AVG			902	133	766	51		171	41	0	0		1	0	98.2	1.1	5.8	59.8
RUN YEAR																		
TOTALS TO DATE																		
SPRING	83,616	18,110					71,028	4,552	87,693	116,178	33,741	42	4	3,135,401	82,571	11		
SUMMER	88,044	10,648																
FALL	313,952	37,413																
TOTAL	485,612	66,171																

TABLE 16

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

BONNEVILLE PROJECT - FISH COUNTS														NOVEMBER 2017				
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			260	20	157	20		29	10		1		0		81.2	1.0	5.0	55.0
Nov 2			209	26	97	7		19	7		0		1		91.5	1.0	5.0	55.0
Nov 3			422	10	268	19		13	3		0		-1		99.7	1.0	7.0	54.0
Nov 4			304	25	286	12		32	8		0		0		115.9	1.0	6.0	54.0
Nov 5			326	23	341	11		20	7		0		0		113.8	0.9	6.0	54.0
Nov 6			173	24	307	28		23	11		0		0		119.3	1.0	6.0	54.0
Nov 7			178	10	265	16		20	11		2		0		126.2	1.1	6.0	54.0
Nov 8			84	5	217	14		10	5		3		0		130.0	0.3	7.0	53.0
Nov 9			97	9	124	9		14	4		2		0		125.6	1.0	6.0	51.0
Nov 10			134	22	339	16		11	5		2		0		123.7	1.0	7.0	52.0
Nov 11			168	16	317	17		14	7		1		0		125.1	1.0	7.0	52.0
Nov 12			181	14	145	8		13	5		0		0		125.8	1.0	7.0	52.0
Nov 13			153	10	269	10		13	6		2		1		120.7	1.0	7.0	51.0
Nov 14			138	10	134	6		9	1		0		0		119.2	1.0	7.0	51.0
Nov 15			54	11	53	7		11	2		0		0		123.2	1.0	4.0	51.0
Nov 16			24	2	49	5		6	1		1		-1		120.2	1.0	7.0	51.0
Nov 17			18	0	33	1		4	2		0		0		127.3	1.0	7.0	51.0
Nov 18			51	2	111	4		11	4		0		0		130.9	1.0	7.0	51.0
Nov 19			36	1	56	6		3	2		0		0		132.4	1.0	7.0	50.0
Nov 20			95	11	132	3		-2	2		1		0		130.0	1.0	7.0	49.0
Nov 21			31	8	187	8		3	2		0		0		151.3	1.0	7.0	49.0
Nov 22			29	11	224	11		22	6		0		0		144.7	1.0	5.0	49.0
Nov 23			17	0	79	1		8	6		0		0		140.4	1.1	5.0	49.0
Nov 24			24	5	216	12		4	2		0		1		140.8	0.7	7.0	49.0
Nov 25			28	7	136	5		17	4		0		0		149.5	0.5	1.0	49.0
Nov 26			11	1	37	1		2	0		0		0		148.9	0.5	2.0	48.0
Nov 27			12	0	40	0		11	7		0		0		146.0	0.5	7.0	48.0
Nov 28			8	0	30	1		6	1		1		0		152.5	0.5	6.0	48.0
Nov 29			8	0	2	0		7	2		1		0		144.4	0.5	7.0	48.0
Nov 30			22	0	14	0		21	2		0		0		141.6	0.5	7.0	48.0
TOTAL			3,295	283	4,665	258		374	135		17		1					
AVG			110	9	156	9		12	5		1		0		128.1	0.9	6.1	51.0

RUN YEAR	CHINOOK		COHO	COHO	unclipped									
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	
SPRING	83,616	18,110		74,347	4,752	87,693	116,429	33,833	42	21	3,135,401	82,572	11	
SUMMER	88,044	10,648												
FALL	316,833	37,648												
TOTAL	488,493	66,406												

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 2017			
DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT			JACK								STEELHEAD	KCFS	KCFS
Dec 1			12	0	9	0		11	4					141.1	0.5	7.0	48.0	
Dec 2			10	0	2	0		7	2					146.4	0.5	7.0	48.0	
Dec 3			3	0	0	0		5	1					142.3	0.5	7.0	48.0	
Dec 4			5	0	3	0		16	6					141.8	0.5	7.0	48.0	
Dec 5			6	1	4	0		2	0					142.9	0.5	7.0	48.0	
Dec 6			1	1	7	0		4	0					142.1	0.5	6.0	48.0	
Dec 7			3	0	9	0		14	5					158.4	0.5	7.0	46.0	
Dec 8			1	0	30	1		11	2					163.1	0.5	6.0	46.0	
Dec 9			4	0	30	0		12	4					164.7	0.5	6.0	46.0	
Dec 10			1	0	8	0		17	3					151.0	0.5	6.0	45.0	
Dec 11			0	1	16	2		23	9					157.5	0.5	7.0	44.0	
Dec 12			3	0	2	0		17	8					162.7	0.5	6.0	44.0	
Dec 13			4	0	4	0		18	8					160.2	0.5	6.0	44.0	
Dec 14			2	0	0	0		15	2					156.9	0.5	6.0	44.0	
Dec 15			1	0	3	0		14	6					145.3	0.5	7.0	43.0	
Dec 16			1	0	4	0		13	6					136.3	0.5	7.0	43.0	
Dec 17			2	0	0	0		3	0					130.6	0.5	7.0	43.0	
Dec 18			1	1	0	0		14	7					126.8	1.1	7.0	43.0	
Dec 19			2	-1	1	0		7	2					138.6	0.5	7.0	43.0	
Dec 20			2	1	14	0		18	7					153.0	0.5	7.0	43.0	
Dec 21			1	0	3	0		9	4					140.6	0.5	7.0	43.0	
Dec 22			0	0	2	0		4	0					148.6	0.5	7.0	43.0	
Dec 23			0	1	3	1		2	2					149.8	0.5	7.0	42.0	
Dec 24			1	0	6	-1		4	0					151.7	0.5	5.0	42.0	
Dec 25			0	0	0	0		0	0					157.2	0.5	5.0	40.0	
Dec 26			0	0	3	0		7	5					181.8	0.5	7.0	40.0	
Dec 27			0	0	6	0		6	2					162.9	0.5	7.0	40.0	
Dec 28			0	0	-1	0		0	0					165.5	0.5	7.0	40.0	
Dec 29			0	0	7	1		22	7					174.3	0.5	7.0	40.0	
Dec 30			0	0	58	5		67	35					159.9	0.5	4.0	41.0	
Dec 31			0	0	10	1		19	7					179.4	0.5	5.0	41.0	
TOTAL			66	5	243	10		381	144									
AVG			2	0	8	0		12	5					152.7	0.5	6.5	43.8	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
TOTALS TO DATE												
SPRING	83,616	18,110	74,347	4,752	87,693	116,429	33,833	42	21	3,135,401	82,572	11
SUMMER	88,044	10,648										
FALL	316,833	37,648										
TOTAL	488,493	66,406										

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-17

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL									
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	107			41				0	1			20
May 16	163			43				0	3			3
May 17	94			19				0	2			18
May 18	148			52				0	-1			12
May 19	265			52				0	0			27
May 20	822			227				0	5			2
May 21	620			100				0	3			20
May 22	469			159				0	3			16
May 23	418			84				0	9			143
May 24	207			32				0	6			-24
May 25	75			95				0	6			101
May 26	70			15				0	3			202
May 27	106			57				0	1			298
May 28	39			20				0	2			30
May 29	57			11				0	2			403
May 30	24			2				2	1			-69
May 31	36			2				1	4			497
TOTAL	3,720			1,011				3	50			1,699
AVG	219			59				0	3			100

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-17

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK						
Jun 1		18		8	0		1	6	2			295
Jun 2		28		0	0		2	2	0			715
Jun 3		25		2	0		0	2	1			68
Jun 4		28		7	0		0	2	0			-90
Jun 5		35		5	0		4	2	1			446
Jun 6		56		0	0		5	8	0			-10
Jun 7		35		3	0		4	2	1			473
Jun 8		52		12	0		12	1	0			-536
Jun 9		23		3	0		12	1	0			367
Jun 10		47		5	0		20	3	0			619
Jun 11		47		3	1		14	2	1			142
Jun 12		32		-3	0		34	0	1			-172
Jun 13		31		6	0		19	3	0			-35
Jun 14		59		9	0		29	5	1			-286
Jun 15		53		6	0		25	2	0			-173
Jun 16		20		-1	0		41	0	-1			-354
Jun 17		46		2	0		38	3	0			-308
Jun 18		77		8	0		67	1	0			346
Jun 19		71		9	0		77	4	2			-604
Jun 20		94		2	0		108	5	3			-382
Jun 21		74		3	0		85	1	0			1,201
Jun 22		103		-2	0		81	6	2			-729
Jun 23		103		10	0		35	1	-1			155
Jun 24		75		4	0		100	-2	4			1,744
Jun 25		25		1	0		54	1	1			363
Jun 26		86		5	0		84	0	1			2,634
Jun 27		68		0	0		112	3	1			590
Jun 28		38		2	0		123	3	1			1,152
Jun 29		68		3	0		96	0	-1			962
Jun 30		41		1	0		66	0	0			4,409
TOTAL		1,558		113	1		1,348	67	20			13,002
AVG		52		4	0		45	2	1			433

Note: night counts are video counts from 2000 to 0400 PST.
4 hours night count video @ BONW missing on June 18

TABLE 20

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Jul-17

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL									
Jul 1		23		1			35	2	0			2,048
Jul 2		40		0			71	38	34			2,036
Jul 3		55		3			31	7	2			2,009
Jul 4		36		2			113	10	6			1,189
Jul 5		25		3			46	8	6			1,998
Jul 6		36		6			91	12	3			1,399
Jul 7		60		12			100	13	4			1,331
Jul 8		33		18			58	2	0			1,337
Jul 9		25		4			44	5	1			2,007
Jul 10		18		6			55	12	6			1,863
Jul 11		32		10			54	11	8			1,385
Jul 12		31		2			64	13	9			1,258
Jul 13		54		1			26	7	5			1,947
Jul 14		40		3			28	3	3			-231
Jul 15		27		3			14	4	5			1,177
Jul 16		60		4			26	7	3			1,440
Jul 17		32		27			25	11	9			1,310
Jul 18		10		1			16	11	13			804
Jul 19		20		0			4	20	15			487
Jul 20		15		9			12	6	6			1,670
Jul 21		34		1			14	5	4			1,638
Jul 22		25		12			9	10	6			1,585
Jul 23		7		3			13	7	5			1,194
Jul 24		21		1			5	5	6			1,475
Jul 25		18		1			2	24	14			1,270
Jul 26		20		11			5	42	20			1,328
Jul 27		16		0			2	27	18			1,814
Jul 28		20		17			2	31	14			3,017
Jul 29		14		2			0	8	11			2,449
Jul 30		8		0			3	-1	6			1,450
Jul 31		14		6			4	54	42			1,672
TOTAL		869		169			972	414	284			47,356
AVG		28		5			31	13	9			1,528

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-17

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT						
Aug 1			14	0	0	0	2	54	32		1,409
Aug 2			23	0	0	0	0	40	27		1,357
Aug 3			32	10	0	0	3	47	36		1,462
Aug 4			18	2	0	0	3	78	45		1,371
Aug 5			9	5	0	0	1	35	24		1,719
Aug 6			0	1	0	0	1	11	6		934
Aug 7			15	1	0	0	2	14	10		620
Aug 8			11	0	0	0	1	28	19		1,009
Aug 9			22	2	0	0	-1	14	7		972
Aug 10			27	2	0	0	2	31	13		1,148
Aug 11			12	1	0	0	0	22	16		627
Aug 12			66	7	0	0	0	23	9		950
Aug 13			28	0	0	0	-1	5	4		1,094
Aug 14			41	2	0	0	0	28	16		1,233
Aug 15			27	3	0	0	3	13	11		715
Aug 16			34	3	1	0	2	40	22		210
Aug 17			58	3	3	2	0	33	9		375
Aug 18			69	0	0	0	2	70	31		417
Aug 19			47	11	2	0	1	65	31		571
Aug 20			61	3	0	0	0	74	20		346
Aug 21			28	3	0	0	0	54	13		547
Aug 22			98	2	2	0	1	34	9		570
Aug 23			53	9	0	0	1	82	45		126
Aug 24			23	10	18	2	1	79	29		551
Aug 25			114	17	35	6	0	149	50		76
Aug 26			51	24	0	0	0	51	15		276
Aug 27			140	43	35	6	0	143	31		108
Aug 28			466	153	30	6	0	200	42		-172
Aug 29			244	125	17	1	2	135	23		48
Aug 30			70	33	5	0	0	25	0		-245
Aug 31			50	35	7	1	0	28	10		329
TOTAL			1,951	510	155	24	26	1,705	655		20,753
AVG			63	16	5	1	1	55	21		669

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

TABLE 22

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Sep-17

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT			JACK			
Sep 1			56	11	1	3		21	6		481
Sep 2			74	50	1	1		8	12		264
Sep 3			338	44	6	6		44	13		222
Sep 4			496	26	34	3		52	15		323
Sep 5			400	141	38	8		55	28		42
Sep 6			195	38	21	2		24	3		133
Sep 7			102	31	9	0		33	14		314
Sep 8			248	41	21	3		32	14		303
Sep 9			571	45	47	5		64	11		103
Sep 10			1,158	74	132	23		165	50		46
Sep 11			888	62	139	5		108	20		-24
Sep 12			502	41	93	13		72	8		-15
Sep 13			395	48	96	7		80	8		75
Sep 14			197	52	42	13		33	14		40
Sep 15			288	58	46	37		109	15		81
Sep 16			64	52	28	3		36	9		214
Sep 17			181	25	48	13		92	16		121
Sep 18			137	33	24	7		77	26		79
Sep 19			57	18	51	9		61	22		98
Sep 20			138	55	21	3		71	13		86
Sep 21			91	61	13	8		67	7		95
Sep 22			165	11	63	2		123	32		7
Sep 23			178	60	27	16		94	14		37
Sep 24			69	13	38	2		49	6		11
Sep 25			31	27	13	6		28	4		71
Sep 26			157	57	32	6		38	7		21
Sep 27			205	10	42	1		31	9		15
Sep 28			207	64	40	11		36	10		86
Sep 29			26	4	1	0		19	3		42
Sep 30			26	11	3	5		7	0		54
TOTAL			7,640	1,263	1,170	221		1,729	409		3,425
AVG			255	42	39	7		58	14		114

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

TABLE 23a

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1938 - 2017

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

TABLE 23a
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM
1981 - 2017

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
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
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	574,244	121,843	90,042	82,327	21	42	868,519
Total	37,262,415	17,021,344	8,975,555	4,228,658	40,994	7,565	67,536,531
10-Year Average	934,823	315,536	332,645	126,319	96	461	1,709,879

*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 2013-17 include nighttime video counts.

TABLE 23b

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM -- DAYTIME COUNTS
1938 - 2017

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

TABLE 23b
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM -- DAYTIME COUNTS
1938 - 2017

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
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
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
Total	36,969,118	16,853,807	8,851,057	4,193,645	40,994	7,553	66,916,174
10-Year Average	920,678	311,889	322,000	125,010	96	460	1,680,133

*Jacks included

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

TABLE 24

YEAR	MONTHLY COUNT OF CHINOOK SALMON BONNEVILLE DAM - 1938 - 2017												TOTAL*	SPRING	SUMMER	FALL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		Jan 1- May 31	Jun 1- Jul 31	Aug 1- Dec 31
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

TABLE 24

(Continued)

MONTHLY COUNT OF CHINOOK SALMON													SPRING	SUMMER	FALL	
BONNEVILLE DAM - 1938-2017													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*			
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
1986			2,292	82,356	38,395	18,365	12,676	38,737	337,721	39,511	828		570,881	123,043	31,041	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	37,707	407,980
1988			2,663	69,689	22,394	18,191	18,333	111,905	236,662	13,656	532		494,025	94,746	36,524	362,755
1989			36	56,583	30,640	15,659	17,316	102,573	181,691	11,218	401		416,117	87,259	32,975	295,883
1990			677	67,536	28,039	16,990	11,031	59,066	149,404	8,015	232		340,990	96,252	28,021	216,717
1991			601	41,431	19,196	12,755	9,198	21,959	159,068	10,116	298		274,622	61,228	21,953	191,441
1992			2,188	68,073	20,321	11,871	7,374	28,537	107,620	10,043	272		256,299	90,582	19,245	146,472
1993			226	77,174	34,772	15,968	7,648	37,893	97,693	6,036	247		277,657	112,172	23,616	141,869
1994			505	13,499	6,562	9,743	10,458	47,787	145,801	9,669	296		244,320	20,566	20,201	203,553
1995			206	7,144	5,511	8,565	9,226	47,145	150,990	15,614	835	14	245,250	12,861	17,791	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	18,904	224,450
1997			466	67,577	49,921	20,162	10,943	82,123	158,589	9,488	516	-1	399,784	117,964	31,105	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	24,896	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	30,951	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	45,073	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	99,685	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	138,231	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	128,166	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	105,032	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	83,703	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	101,874	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	61,568	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	89,892	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	119,352	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	113,207	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	159,730	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	93,898	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	119,283	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	135,076	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	179,465	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	130,425	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	98,692	355,014
TOTAL	136	436	104,005	4,584,564	4,169,912	3,068,765	2,034,555	4,403,970	17,553,034	1,134,592	64,937	2,068	37,120,974	8,859,053	5,103,320	23,158,601
10-Year Average			376	54,474	123,180	83,758	40,144	120,242	451,632	44,714	2,102		920,678	178,035	123,902	618,741

*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.

2015-2017 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 - 2017

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

TABLE 25

(Continued)

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM 1938 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
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
TOTAL	3	1	76	545	9,626	4,697,182	4,108,841	49,853	2,799	142	37	1	8,869,106
10-Year Average					131	223,225	98,089	542	14				322,000

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.

2015-2017 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 - 2017

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

TABLE 26

(Continued)

MONTHLY COUNT OF COHO SALMON
BONNEVILLE DAM 1938 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
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
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	68,486
2009	-4						7	37,438	104,294	89,979	2,936	19	234,669	9,776
2010	-11	0					1	7,365	53,947	62,961	3,255	126	127,644	6,933
2011		0					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							0	5,871	31,618	25,345	3,758	166	66,758	7,097
2014	3						0	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
TOTAL	22	31	6	1	0	179	5,544	356,710	2,843,099	915,103	93,334	1,539	4,215,568	723,131

10 Year

Average

3	9,305	71,080	40,617	3,900
---	-------	--------	--------	-------

125,010	13,188
---------	--------

*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 January 1 through March 31

and November 1 through December 31.

Correction to 2014 total Jacks.

2015-2017 visual counting through November 30. Video counts between 0400-2000 PST January 1 - March 31 and December 1-31.

TABLE 27

**MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 -2017**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	A-Run	B-Run
														Jan 1- Aug 25	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

TABLE 27

(Continued)

MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Jan 1- Aug 25	Aug 26- Dec 31
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
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
TOTAL	11,770	12,493	87,350	204,153	188,875	581,974	4,800,375	6,224,122	4,326,149	457,461	70,473	19,679	16,984,874	11,012,391	5,975,535
10-Year Average			1,522	1,312	1,697	9,273	83,790	130,610	70,880	10,009	1,369		311,889	209,009	102,880

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.

2015-2017 visual fish counting extended to November 30. Video counts between 0400-2000 PST January 1 through March 31.

TABLE 28

MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2017

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

TABLE 28
(Continued)
MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
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				0	16,950	2,641,858	468,807	7,786					3,135,401
TOTAL				14	457	8,690,445	70,031,399	9,225,176	170,466	4,136	593	36	88,122,722
10 Year - Average					157,830	1,794,266	146,482	3,100					2,101,678

TABLE 29a

**MONTHLY COUNT OF LAMPREY at
BONNEVILLE DAM –DAYTIME
1939¹ - 1969, 1997 – 2017**

The counts in the following table represent an approximation of trends, only. 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. In addition, lamprey do not always use the fish ladder and may pass over a dam through several routes including the navigation lock, 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	³ #####	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				0	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				0	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				0	297	2,397	12,948	2,884	818	-26	-9		19,309
2008				0	444	3,942	6,276	3,159	680	59	2		14,562
2009				0	818	2,740	3,819	1,057	203	-14	2	-3	8,622
2010				0	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				0	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	0	52,324
2017					4,219	31,381	35,958	9,623	1,348	42	1	-8	82,564
TOTAL	3	4,117	180,099	847,976	1,902,542	926,408	154,393	12,696	1,423				4,029,678
10-Year Average	5	1,517	8,319	13,821	5,803	1,097	71						30,649

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 - 2017

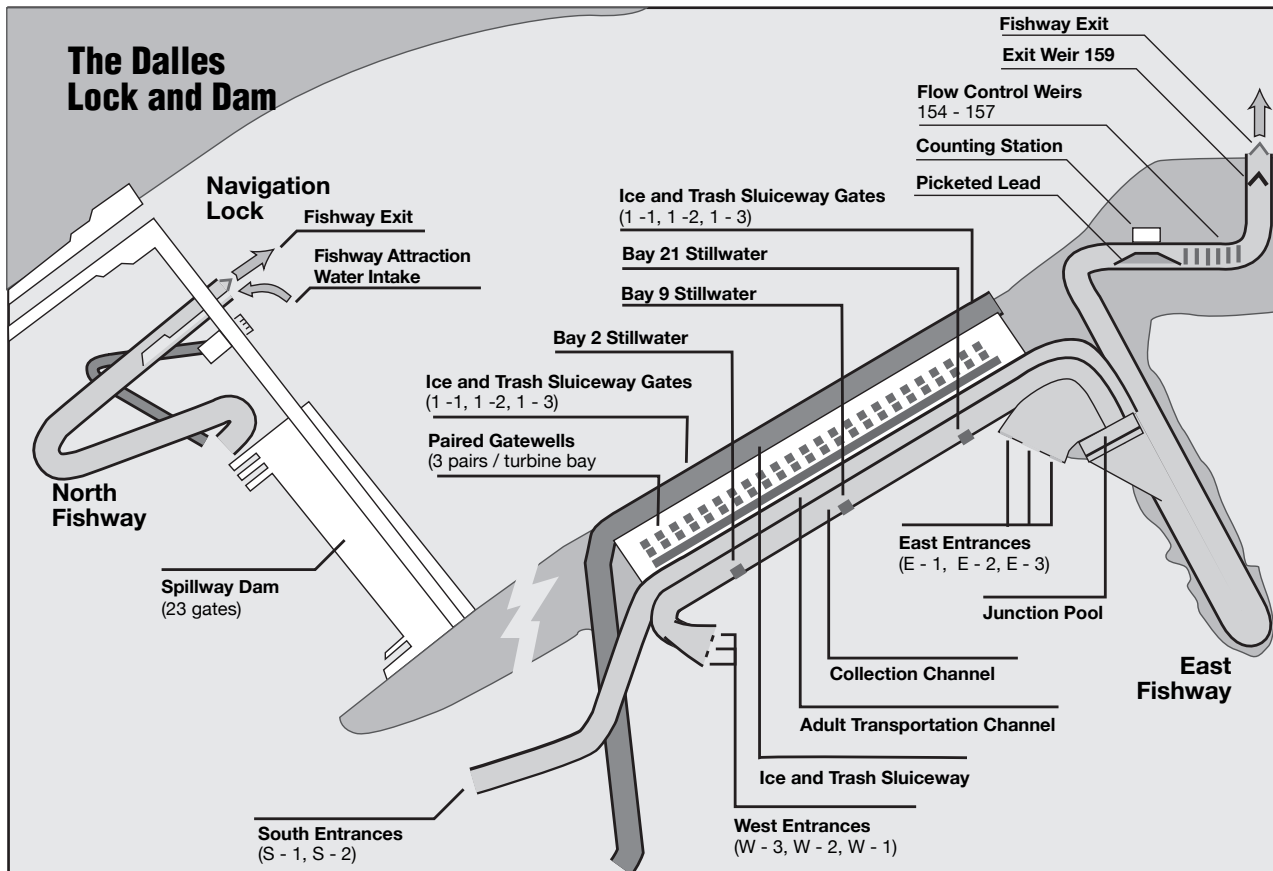
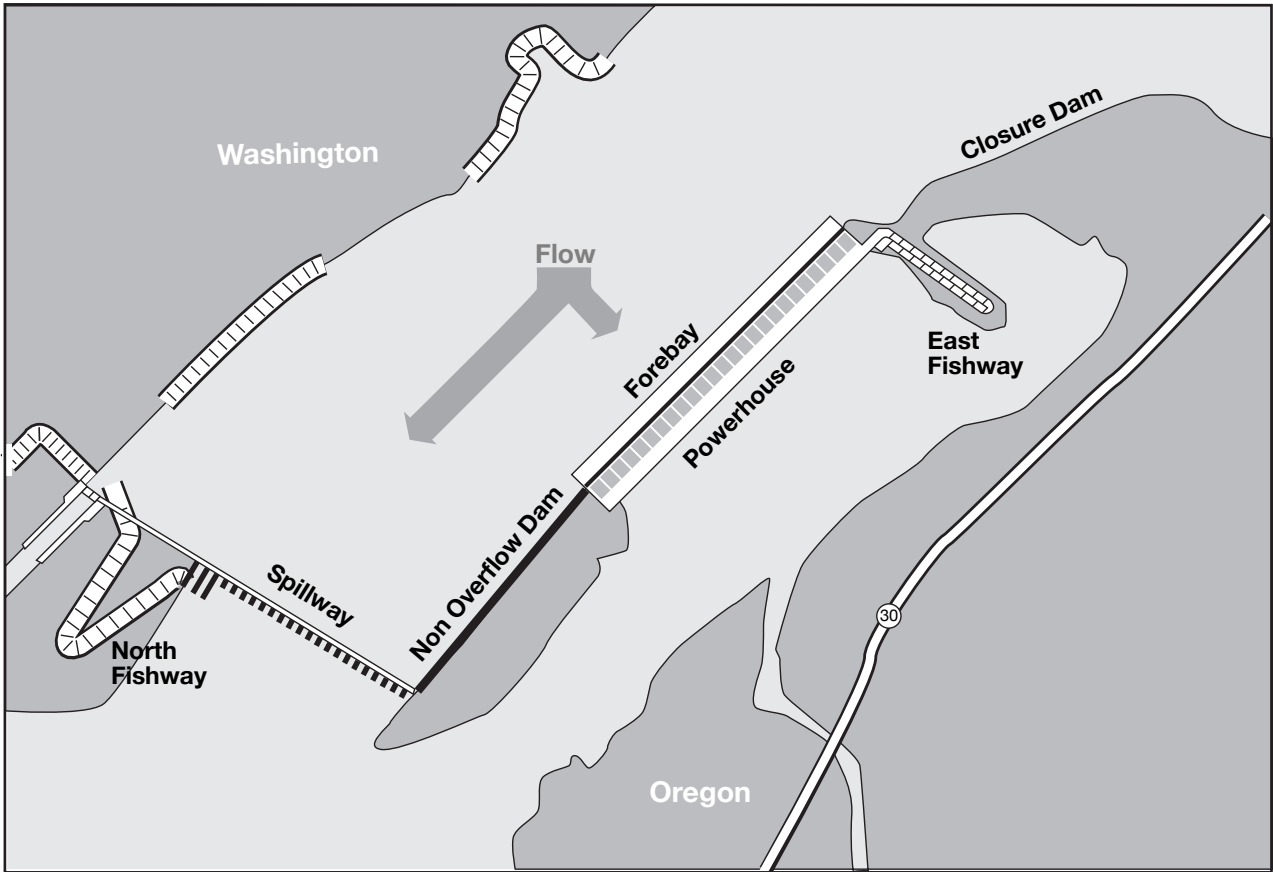
Total live counts (day plus night).

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2009				0	818	3,735	8,749	1,281	-297	-14	2	-3	14,271
2010				0	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	37,177
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				0	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	0	63,967
2017					5,918	44,383	83,314	30,376	4,773	42	1	-8	168,799
TOTAL	0	0	0	32	17,378	64,008	186,264	119,690	26,279	651	159	2	414,463

2017													
Live					5,918	44,383	83,314	30,376	4,773	42	1	-8	168,799
†LPSs & Flume	oos	oos	oos	oos	1,749	42,985	55,955	15,667	4,075	31	oos	oos	120,462
TOTAL					7,667	87,368	139,269	46,043	8,848	73	1	-8	289,261

† Lamprey passage systems (LPSs) operational between May 1st and October 31st, 2017.
LPSs are 24 hour mechanical counts, corrected. An additional 1,371 were collected and release upstream.

Plate 3 The Dalles Lock and Dam



THE DALLES DAM

FISH COUNTING SCHEDULE

Apr 1 – Oct 31 Visual counting daily 0400-2000 hours Pacific Standard Time.
July 15 – Sept 30 Nighttime video counts 2000-0400 hours Pacific Standard Time.

FISHWAY OPERATING SCHEDULE

The following information includes fishway operation for calendar year 2015. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports.

East Adult Fishway

Jan 1 – Mar 6 Dewatered for winter maintenance
Mar 7 – Nov 31 In full operation with attraction water
Aug 8 Attraction water off half day for required ROV grating inspection
Dec 1 – Dec 31 Dewatered for winter maintenance

North Adult Fishway

Jan 1 – Jan 2 In full operation with attraction water
Jan 3 – Jan 17 Dewatered for annual maintenance
Jan 18 – Dec 31 In full operation with attraction water
Aug 8 Attraction water off half day for required ROV grating inspection

Ice/Trash Sluiceway (Juvenile)

Jan 1- Feb 28 End gate closed
Mar 1 – Mar 31 In service with 4 sluice gates open
Apr 1 – Dec 2 In service with 6 sluice gates open
Dec 3 – Dec 14 In service with 4 sluice gates open
Dec 15 – Dec 17 Sluiceways closed, endgates failed open
Dec 18 – Dec 31 End gate closed

Spillway

Jan 1 – April 9 Closed, all gates on seal
April 10 – Aug 31 Spill 40%, 24/7 for juvenile passage
Sept 1 – Dec 31 Closed, all gates on seal

FISHWAY ACTIVITIES

DEWATERING FISH SALVAGE

FISHWAY DEWATERING PROCEDURES

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, time limitation, 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 need visual inspection and cannot be dewatered are inspected by ROV underwater camera.

FISHWAY DEWATERING RESULTS

Key: adult=a, juvenile=j, carp=cp, catfish=ca, sculpin=sp, shad=sh, small mouth bass=smb, crappie=cr, pikeminnow=pm, whitefish=wf, reidside=rs, large scale sucker=lss

Date	Event	Chinook	Steelhead	Sockeye	Coho	Lamprey	Shad	Sturgeon	Other	Comments	Morts
1/4/17	N ladder	0	2a	0	0	22	0	0	0	Skip lower	0
12/1/17	E ladder	1a	3a, 42j	0	0	5	~300	0	0	none	0
12/4/17	E below tailwater	1a	0	0	0	85	~20	14	3cp	none	10 lamprey

NAVLOCK DEWATERING PROCEDURES – NO FISH

The navigation lock is occasionally dewatered for maintenance. As water levels recede, fish are removed from pools remaining on navlock floor and fill conduits if there is potential of stranding. Many of the pools are too large to effectively remove fish. The area is monitored throughout the dewatering process.

Water Velocity

Fishway channel water velocities were measured four times weekly during Adult Fish Passage Season (Mar1 – Dec 1). Wood floats were timed through all fishway channels that are supplemented by auxiliary water and results were provided in the project weekly fishway status report. Criteria velocities of 1.5 to 4 fps were maintained throughout the fish passage season. Velocities were not always taken at unit 22 due to turbulence preventing float tracking. Velocity is generally slower from junction pool to unit 21. Past University of Idaho analysis did not reveal passage problems in this area. All velocities were within 1.5 - 4 fps, with the exception of one occurrence of exceeding 4 fps in the east fishway south rock channel.

Water Quality

Water clarity was read by secchi dish at the count stations. Water clarity data is not included in this report due to its questionable accuracy. This data was collected per regional request to maintain historical data base. Temperature monitoring with data loggers in each fishway is provided biweekly in the fishway status reports.

Pikeminnow Abatement

Washington Dept Fish and Wildlife gained access to The Dalles Dam and the Boat Restricted Zone (BRZ) for the purpose of hook and line dam-angling in support of the on-going BPA funded Columbia River Predator Control Program Dam angling occurred from May through October, in conjunction with ODFW and PSMFC. Anglers caught a total of 1,776 northern pikeminnow.

Zebra/Quagga Mussel Monitoring

No samples taken in 2017, program will resume 2018

Research

The following are a list of fish related research and contract personnel that were on site during the 2016 passage season.

Confederated Tribes of the Umatilla Indian Reservation – Captured adult Pacific lamprey as part of the on-going project to restore lamprey to various tributaries. CTUIR worked with the Nez Perce and Yakama Nation to help with lamprey collection efforts.

Normandeau Environmental Consultants – Continued to perform fish counting at the north and east fishways via count stations.

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 mid Aug via pyrotechnics during juvenile passage season. Season was delayed 2 weeks due to approval delays.

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

TABLE 30

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

2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			11	660	65,479	54,335	28,049	20,970	182,869	37,614	4,622	81	394,690
STEELHEAD			1,078	136	64	306	4,984	12,098	64,951	12,694	422	70	96,803
SOCKEYE					14	40,575	23,139	250	76	4			64,058
COHO*								255	28,602	7,734	305	15	36,911
CHUM													0
PINK								1	3	1	2		7
TOTAL			1,089	796	65,557	95,216	56,172	33,574	276,501	58,047	5,351	166	592,469
LAMPREY					1	4,548	19,742	4,418	1,972	15			30,696
STURGEON						5	16	13	13	-2			45
BULL TROUT													0

*Jacks included

Shad no longer counted at The Dalles Dam.

TABLE 31

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2017

JANUARY					FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F				SECCH	*DEG F
Jan 1	156.2	0.0	5.0	40.0	Feb 1	146.9	0.0	5.0	35.5
Jan 2	159.0	0.0	5.0	40.0	Feb 2	147.8	0.0	5.0	35.4
Jan 3	168.4	0.0	5.0	39.9	Feb 3	160.1	0.0	5.0	35.4
Jan 4	165.3	0.0	5.0	39.8	Feb 4	162.2	0.0	5.0	35.5
Jan 5	192.2	0.0	5.0	39.3	Feb 5	164.5	0.0	5.0	35.8
Jan 6	187.4	0.0	5.0	38.9	Feb 6	145.3	0.0	5.0	35.9
Jan 7	186.3	0.0	5.0	38.3	Feb 7	156.1	0.0	5.0	36.0
Jan 8	176.2	0.0	5.0	37.7	Feb 8	161.4	0.0	5.0	35.7
Jan 9	162.6	0.0	5.0	37.2	Feb 9	173.6	17.5	5.0	35.7
Jan 10	166.4	0.0	5.0	36.9	Feb 10	191.7	26.1	5.0	35.8
Jan 11	178.8	0.0	5.0	35.1	Feb 11	222.4	38.0	5.0	35.8
Jan 12	183.1	0.0	5.0	34.5	Feb 12	228.6	26.8	4.0	35.8
Jan 13	174.7	0.0	5.0	34.4	Feb 13	230.4	38.5	4.0	35.8
Jan 14	168.8	0.0	5.0	34.4	Feb 14	197.6	0.6	4.0	35.6
Jan 15	177.5	0.0	5.0	34.4	Feb 15	189.5	28.1	3.0	35.7
Jan 16	170.6	0.0	5.0	34.4	Feb 16	188.9	55.1	3.0	35.7
Jan 17	179.8	0.0	5.0	34.2	Feb 17	190.2	34.1	3.0	35.8
Jan 18	173.2	0.0	5.0	33.9	Feb 18	220.8	21.3	3.0	36.0
Jan 19	166.3	0.0	5.0	34.1	Feb 19	242.1	53.4	3.0	36.4
Jan 20	163.9	0.0	5.0	34.3	Feb 20	235.9	50.3	3.0	36.9
Jan 21	154.5	0.0	5.0	34.3	Feb 21	237.5	57.6	3.0	37.3
Jan 22	145.9	0.0	5.0	34.3	Feb 22	238.8	68.6	3.0	37.4
Jan 23	160.7	0.0	5.0	34.3	Feb 23	257.5	85.8	3.0	37.5
Jan 24	170.7	0.0	5.0	34.3	Feb 24	253.0	39.9	4.0	37.6
Jan 25	156.2	0.0	4.0	34.5	Feb 25	245.9	38.2	4.0	38.0
Jan 26	146.7	0.0	5.0	34.8	Feb 26	241.4	20.1	4.0	38.2
Jan 27	154.4	0.0	5.0	35.0	Feb 27	212.3	25.6	4.0	38.2
Jan 28	134.7	0.0	5.0	35.1	Feb 28	210.4	46.1	4.0	38.4
Jan 29	133.2	0.0	5.0	35.2					
Jan 30	139.0	0.0	5.0	35.4					
Jan 31	146.4	0.0	5.0	35.5					
AVG.	164.5	0.0	5.0	35.9	AVG.	201.9	27.6	4.1	36.4

TABLE 32

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

THE DALLES PROJECT - FISH COUNTS

MARCH 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL unclipped				DISCH KCFS	SPILL KCFS	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK			CHUM	LAMPREY	SECCHI	DEG F
Mar 1	0							24	4				212.6	43.9	3.0	38.7
Mar 2	0							17	4				209.7	51.0	2.5	38.9
Mar 3	0							21	5				231.2	57.5	2.5	39.2
Mar 4	0							24	7				248.8	58.6	3.0	39.4
Mar 5	0							24	8				225.1	21.4	3.5	39.3
Mar 6	0							25	10				209.4	14.5	3.5	39.5
Mar 7	3							60	13				224.5	22.5	3.0	39.5
Mar 8	1							41	18				228.5	12.3	3.0	39.8
Mar 9	0							28	8				245.8	25.9	3.0	40.1
Mar 10	0							59	25				260.2	35.0	4.0	40.4
Mar 11	1							74	30				280.1	37.2	4.0	40.6
Mar 12	0							62	26				289.1	40.9	4.0	40.9
Mar 13	0							60	21				277.6	49.7	3.0	41.1
Mar 14	0							36	14				315.9	83.4	3.0	41.3
Mar 15	0							32	10				327.1	103.7	3.0	41.3
Mar 16	1							40	17				319.0	105.4	3.0	41.6
Mar 17	0							39	11				358.3	150.5	3.0	42.2
Mar 18	0							31	7				383.8	161.5	2.5	42.8
Mar 19	1							47	15				357.3	149.5	2.5	42.9
Mar 20	0							27	6				384.3	179.8	2.5	43.3
Mar 21	0							24	7				427.1	229.0	1.0	43.7
Mar 22	0							55	17				422.9	249.2	2.5	44.0
Mar 23	0							38	13				437.3	269.0	1.0	44.1
Mar 24	0							24	5				427.1	269.0	1.0	44.1
Mar 25	0							32	8				425.5	269.0	2.5	43.8
Mar 26	2							28	9				419.8	260.7	2.0	43.8
Mar 27	0							23	9				410.6	254.5	1.0	44.0
Mar 28	1							22	7				426.2	266.6	1.5	44.0
Mar 29	1							17	10				422.0	261.5	2.0	44.2
Mar 30	0							26	6				410.9	254.3	1.5	44.7
Mar 31	0							18	8				409.8	254.3	2.5	44.8
TOTAL	11							1,078	358							
AVG.	0							35	12				329.9	136.8	2.6	41.9

Video discontinued for the month of March no fish count data provided.
Official Spring Chinook run started April 1. February Chinook counts were not added to spring totals.

TABLE 33

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

THE DALLES PROJECT - FISH COUNTS

APRIL 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped					DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Apr 1	2			0				12	2					415.0	251.5	3.5	45.0
Apr 2	2			0				10	5					435.3	272.9	3.5	45.2
Apr 3	1			0				14	6					420.6	286.8	3.5	45.4
Apr 4	0			0				6	1					417.3	289.6	3.5	45.9
Apr 5	1			0				4	4					413.0	240.7	3.5	46.2
Apr 6	1			0				11	1					379.3	201.0	3.5	46.6
Apr 7	5			0				8	4					352.5	178.4	3.5	46.9
Apr 8	1			0				11	6					371.2	191.7	3.5	46.8
Apr 9	6			0				9	2					393.0	211.2	3.0	46.8
Apr 10	11			0				5	4					372.0	191.4	3.0	47.1
Apr 11	10			0				7	1					364.4	192.8	3.0	47.0
Apr 12	8			0				1	0					369.3	194.1	3.5	47.0
Apr 13	10			0				5	1					382.5	191.7	4.0	47.0
Apr 14	14			0				3	2					375.8	182.0	3.5	47.1
Apr 15	12			0				6	4					372.4	181.1	3.0	47.3
Apr 16	6			0				1	0					359.9	165.7	3.0	46.8
Apr 17	10			1				0	0					343.2	155.7	3.0	47.1
Apr 18	10			2				1	0					359.3	173.5	3.0	47.0
Apr 19	23			1				1	0					327.6	142.1	3.0	47.0
Apr 20	21			1				3	1					315.2	130.6	3.0	47.0
Apr 21	17			1				1	1					363.6	200.6	3.0	47.1
Apr 22	29			0				1	1					355.4	204.6	4.0	47.3
Apr 23	36			0				5	5					347.9	198.9	4.0	49.7
Apr 24	32			0				2	2					335.4	188.2	2.5	50.0
Apr 25	29			0				1	0					335.2	180.3	3.0	50.0
Apr 26	60			0				2	0					358.1	176.3	3.0	50.3
Apr 27	40			2				1	1					354.9	172.4	3.0	50.4
Apr 28	79			0				1	1					360.4	174.6	3.0	50.5
Apr 29	67			5				3	1					359.2	190.8	3.0	50.6
Apr 30	102			2				1	1					330.5	149.3	3.0	50.9
TOTAL	645			15				136	57					368.0	195.4	3.3	47.6
AVG.	22			1				5	2								

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 34

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

THE DALLES PROJECT - FISH COUNTS

MAY 2017

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
May 1	84			2			0	2	1			0	322.9	142.9	3.0	50.8
May 2	85			4			0	0	0			0	335.7	164.1	3.0	51.1
May 3	245			4			0	3	1			0	318.2	139.3	3.0	51.9
May 4	351			7			0	0	0			0	312.5	129.1	3.0	52.6
May 5	319			10			0	2	0			0	326.1	141.6	3.0	53.1
May 6	1,002			61			0	2	1			0	375.0	192.4	3.0	53.0
May 7	1,949			115			0	1	1			0	426.3	292.0	3.0	53.4
May 8	1,573			121			0	2	1			0	436.2	308.6	2.0	53.7
May 9	2,191			89			0	1	1			0	433.4	308.9	3.0	53.6
May 10	2,090			161			0	6	2			0	427.1	305.1	3.0	53.8
May 11	1,883			118			0	0	0			0	423.9	252.5	3.0	54.2
May 12	1,138			66			0	1	1			0	425.7	220.4	3.0	54.2
May 13	755			85			0	2	1			0	423.5	235.7	3.0	54.4
May 14	1,165			146			0	2	1			0	419.4	250.5	3.0	54.4
May 15	1,110			134			0	1	1			0	421.1	270.7	3.0	54.1
May 16	1,247			187			0	1	0			0	408.7	270.5	3.0	53.5
May 17	1,145			298			0	4	0			0	409.8	273.1	3.0	53.2
May 18	907			186			0	1	0			0	426.5	280.7	3.0	53.5
May 19	1,083			275			0	1	0			0	403.1	240.7	3.0	53.9
May 20	1,573			247			0	1	0			0	389.7	229.4	3.0	54.4
May 21	1,428			539			0	11	5			0	371.1	216.1	3.0	54.7
May 22	3,422			1,033			0	0	0			0	371.1	220.9	3.0	55.1
May 23	4,945			967			0	0	0			0	378.2	219.3	3.0	55.5
May 24	4,894			1,763			0	1	0			0	392.3	222.5	3.0	55.6
May 25	4,032			934			0	-10	0			0	419.0	212.3	3.0	56.1
May 26	2,738			1,199			0	15	7			0	422.9	207.2	3.0	56.6
May 27	2,368			496			0	4	2			0	412.5	218.5	3.0	57.0
May 28	1,734			851			1	6	4			0	390.0	219.7	3.0	57.3
May 29	2,116			584			5	0	0			0	400.0	217.7	3.0	57.5
May 30	2,137			739			2	3	1			0	410.8	227.9	3.0	58.0
May 31	1,982			367			6	1	1			1	426.9	228.7	3.0	58.4
TOTAL	53,691			11,788			14	64	32			1				
AVG.	1,732			380			0	2	1			0	395.5	227.7	3.0	54.5
RUN YEAR		CHINOOK	CHINOOK					TOTAL	unclipped							
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD			LAMPREY	STURGEON			
SPRING		54,336	11,803				14	200	89			1	0			

TABLE 35

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

THE DALLES PROJECT - FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL unclipped					DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Jun 1	1,093			283			12	1	0			2	0	431.2	230.0	3.0	58.9
Jun 2	1,386			182			7	0	0			0	0	438.5	238.3	3.0	58.9
Jun 3	1,483			229			18	0	0			2	0	440.2	250.5	3.0	58.7
Jun 4		1,186		215			65	1	0			2	1	420.9	196.7	3.0	58.2
Jun 5		989		174			41	5	1			0	0	431.8	234.3	3.0	58.1
Jun 6		1,079		204			35	9	2			1	0	411.9	224.9	1.0	58.6
Jun 7		1,154		162			97	2	0			17	0	405.4	226.0	3.0	59.0
Jun 8		1,318		236			109	11	4			7	1	412.2	233.4	3.0	59.0
Jun 9		1,871		226			107	1	0			6	0	418.6	226.4	2.0	58.8
Jun 10		1,179		252			170	4	0			10	0	426.6	219.0	2.0	58.7
Jun 11		1,449		175			198	13	1			6	0	387.4	163.5	2.0	58.7
Jun 12		1,518		302			695	6	4			5	0	371.6	147.4	2.0	58.7
Jun 13		1,530		200			447	5	1			4	0	344.6	127.6	2.0	58.6
Jun 14		1,152		106			475	3	2			2	0	379.6	148.4	3.0	58.9
Jun 15		1,294		220			922	0	0			17	0	378.5	151.5	4.0	59.1
Jun 16		1,788		251			1,024	6	5			16	1	334.1	135.2	4.0	59.2
Jun 17		1,579		283			1,214	6	2			21	0	309.4	123.5	4.0	59.5
Jun 18		1,744		157			1,588	3	2			26	0	317.7	128.2	4.0	60.0
Jun 19		1,761		241			2,481	19	9			40	0	325.9	125.0	2.0	60.4
Jun 20		1,869		161			2,406	8	2			72	0	291.4	116.3	3.0	60.9
Jun 21		1,337		270			3,214	21	12			74	0	302.4	116.2	3.0	61.3
Jun 22		1,720		201			3,001	4	1			160	0	303.4	119.4	4.0	61.8
Jun 23		2,032		195			3,219	19	12			299	0	290.3	114.7	3.5	62.6
Jun 24		2,595		186			2,430	16	6			330	0	281.8	109.9	4.0	63.2
Jun 25		2,563		249			2,667	20	10			368	0	283.9	111.5	4.0	60.0
Jun 26		2,950		274			3,226	16	12			549	0	253.4	101.6	3.5	60.4
Jun 27		2,025		204			2,545	22	11			490	1	253.5	101.0	4.0	60.9
Jun 28		1,416		210			2,461	35	9			647	0	243.6	97.1	4.0	61.3
Jun 29		1,458		214			2,485	29	17			715	0	250.2	99.4	4.0	61.8
Jun 30		1,353		202			3,216	21	8			660	1	244.4	97.5	4.0	62.6
TOTAL	3,962	43,909		6,464			40,575	306	133			4,548	5				
AVG.	1,321	1626		215			1,353	10	4			152	0	346.1	157.1	3.1	59.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	58,298	12,497
SUMMER	43,909	5,770
TOTAL	102,207	18,267

	TOTAL	unclipped
SOCKEYE	40,589	506
STEELHEAD	506	222

LAMPREY	STURGEON
4,549	5

TABLE 36

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL unclipped					DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Jul 1		2,641		366			3,956	28	12			621	0	220.8	88.3	4.0	63.2
Jul 2		1,743		234			2,379	41	19			592	0	219.1	88.0	4.0	65.5
Jul 3		1,547		161			1,844	20	8			1,169	1	204.2	81.8	4.0	66.0
Jul 4		1,170		106			1,374	30	19			932	0	204.3	81.9	4.5	66.3
Jul 5		1,331		134			1,919	51	37			831	0	205.5	82.3	4.0	66.9
Jul 6		1,476		121			1,890	40	26			1,126	0	194.4	78.1	4.0	67.5
Jul 7		1,332		172			1,380	60	45			611	0	203.5	81.1	4.0	67.8
Jul 8		1,147		154			1,189	68	40			855	0	183.8	74.3	3.5	67.9
Jul 9		1,326		163			1,279	82	37			759	1	185.7	73.8	3.5	68.3
Jul 10		1,119		150			966	108	66			702	0	174.9	70.3	4.0	68.5
Jul 11		863		146			685	116	63			1,540	0	175.2	69.8	5.0	68.3
Jul 12		767		115			906	107	64			771	0	162.8	65.4	5.0	68.8
Jul 13		492		98			487	105	57			690	0	173.7	69.5	4.5	69.0
Jul 14		592		115			607	113	69			761	1	196.5	78.4	5.0	69.2
Jul 15		429		90			398	136	82			941	0	168.6	67.7	5.0	69.5
Jul 16		698		99			345	142	84			550	2	169.9	68.0	5.0	69.3
Jul 17		684		72			275	160	103			728	0	162.1	64.7	5.0	69.3
Jul 18		569		66			258	226	142			626	1	181.2	72.7	4.0	69.8
Jul 19		536		87			168	179	99			541	0	184.6	73.8	4.0	70.0
Jul 20		377		56			128	236	154			956	4	167.4	66.6	4.0	69.9
Jul 21		432		89			126	178	114			320	0	159.9	63.5	4.0	69.9
Jul 22		447		96			104	239	162			321	0	144.7	58.0	4.0	70.0
Jul 23		493		91			106	282	166			337	0	131.0	52.4	5.0	70.5
Jul 24		367		63			79	316	199			370	0	145.3	58.1	4.5	70.8
Jul 25		298		60			57	171	91			308	1	141.2	56.4	4.0	71.0
Jul 26		271		58			65	227	138			170	0	139.9	55.5	4.0	71.5
Jul 27		305		59			43	190	91			298	0	129.8	51.8	4.0	71.3
Jul 28		243		44			46	236	158			281	1	143.2	57.0	4.0	70.8
Jul 29		380		61			25	369	225			301	4	164.6	65.7	5.0	71.0
Jul 30		298		47			29	356	213			367	0	124.7	50.0	5.0	71.3
Jul 31		272		31			26	372	194			367	0	149.2	59.9	5.0	71.5

TOTAL	24,645	3,404		23,139	4,984	2,977		19,742	16					171.3	68.5	4.3	69.1
AVG	795	110		746	161	96		637	1								

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	58,298	12,497
SUMMER	68,554	9,174
TOTAL	126,852	21,671

TOTAL SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
63,728	5,490	3,199

LAMPREY	STURGEON
24,291	21

TABLE 37

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

THE DALLES PROJECT - FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL				PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD								
Aug 1		268		41	0	0	35	284	152	0		213	0	139.2	55.7	5.0	72.1
Aug 2		226		25	0	0	25	288	133	0		255	0	148.6	59.4	5.0	72.5
Aug 3		198		37	0	0	33	224	113	0		141	1	136.2	54.4	5.0	72.8
Aug 4			156	38	0	0	14	195	101	0		133	0	132.2	52.9	5.0	73.0
Aug 5			130	28	0	0	18	180	78	0		135	1	125.9	50.3	5.0	72.8
Aug 6			126	18	0	0	6	125	62	0		118	0	116.9	46.8	5.0	72.5
Aug 7			108	32	0	0	11	149	73	0		147	1	112.5	45.3	5.0	72.9
Aug 8			77	17	0	0	8	123	54	0		204	2	130.8	52.3	5.0	73.3
Aug 9			126	29	0	0	7	120	61	0		204	0	134.1	53.3	5.0	73.5
Aug 10			91	15	0	0	6	105	44	0		271	0	136.8	55.1	5.0	73.6
Aug 11			96	18	0	0	5	60	31	0		247	2	125.8	50.2	5.0	73.8
Aug 12			127	45	0	0	4	64	34	0		474	0	118.7	47.5	5.0	73.6
Aug 13			234	34	0	0	4	115	54	0		205	0	116.9	46.8	5.0	72.9
Aug 14			311	47	0	0	6	111	54	0		108	0	128.5	51.3	5.0	72.5
Aug 15			382	35	0	0	4	71	36	0		63	1	127.1	51.1	5.0	72.4
Aug 16			583	53	0	0	9	116	58	0		70	2	116.9	46.7	5.0	72.4
Aug 17			528	58	0	0	11	191	98	0		122	0	108.3	43.5	5.0	72.2
Aug 18			695	63	0	0	5	340	172	0		98	1	102.0	40.9	5.0	72.0
Aug 19			816	100	0	0	6	519	257	0		43	0	113.5	45.4	5.0	71.7
Aug 20			1,021	99	1	0	4	554	221	0		60	1	105.4	42.2	5.0	71.7
Aug 21			664	64	5	0	14	495	215	0		88	0	114.6	45.9	5.0	71.8
Aug 22			538	58	1	1	0	688	232	0		106	0	114.9	45.9	5.0	71.9
Aug 23			351	70	5	2	2	699	183	0		124	0	116.0	46.2	5.0	72.0
Aug 24			649	72	4	1	2	723	217	0		88	0	107.2	43.0	5.0	71.7
Aug 25			915	157	11	2	5	577	180	0		66	0	105.7	42.1	5.0	71.3
Aug 26			1,276	166	15	4	2	896	290	0		77	0	96.7	38.8	5.0	71.4
Aug 27			1,228	168	23	5	1	984	277	0		67	1	86.7	37.4	5.0	71.8
Aug 28			1,312	137	18	10	0	661	201	0		116	0	92.7	37.2	5.0	71.9
Aug 29			2,334	284	34	8	1	711	186	1		90	0	133.1	53.0	5.0	72.0
Aug 30			1,512	263	27	8	2	634	189	0		116	0	121.0	48.4	5.0	71.6
Aug 31			1,376	245	52	18	0	1,096	306	0		169	0	132.3	52.7	5.0	71.1
TOTAL		692	17,762	2,516	196	59	250	12,098	4,362	1		4,418	13				
AVG.		231	634	81	6	2	8	390	141	0		143	0	119.3	47.8	5.0	72.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	58,298	12,497
SUMMER	69,246	9,277
FALL	17,762	2,413
TOTAL	145,306	24,187

COHO ADULTS	COHO JACKS	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK
196	59	63,978	17,588	7,561	1

LAMPREY	STURGEON
28,709	34

TABLE 38

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL					unclipped			DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Sep 1			1,290	252	114	58	5	1,001	286	0		331	0	142.5	0.1	5.0	71.2
Sep 2			2,351	336	91	17	2	1,185	313	0		193	1	123.6	0.0	5.0	71.4
Sep 3			2,017	285	131	87	21	1,446	436	0		217	1	94.5	0.0	5.0	71.6
Sep 4			951	124	37	8	0	691	198	0		163	0	106.3	0.0	5.0	71.7
Sep 5			2,882	418	49	30	0	399	88	0		65	4	107.6	0.0	5.0	71.7
Sep 6			2,718	346	45	11	1	559	153	0		45	0	118.4	0.0	5.0	71.7
Sep 7			3,238	454	118	47	1	890	173	0		45	0	127.9	0.0	5.0	71.8
Sep 8			2,427	461	138	24	0	1,348	352	0		92	2	117.7	0.0	5.0	71.6
Sep 9			2,584	294	141	24	0	1,518	401	0		99	0	94.2	0.0	5.0	71.3
Sep 10			3,090	441	165	18	2	1,438	342	0		60	0	106.6	0.0	5.0	71.2
Sep 11			9,613	680	295	43	1	2,055	484	0		63	1	115.9	0.0	5.0	71.2
Sep 12			14,121	1,260	615	112	6	1,335	311	0		59	0	114.8	0.0	5.0	71.4
Sep 13			12,180	1,517	904	140	0	2,491	502	1		66	0	108.5	0.0	5.0	70.8
Sep 14			8,741	1,362	951	143	3	2,861	582	0		54	0	108.5	0.0	5.0	70.1
Sep 15			8,971	1,203	1,411	133	2	3,376	683	0		110	0	113.7	0.0	5.0	70.0
Sep 16			11,715	1,046	1,280	117	0	3,411	771	0		90	2	133.0	0.0	5.0	69.7
Sep 17			8,680	981	1,074	67	1	3,166	638	0		34	0	103.3	0.0	5.0	69.1
Sep 18			8,041	870	1,335	114	3	3,026	607	0		12	0	90.2	0.0	5.0	68.7
Sep 19			5,506	763	929	36	5	3,176	856	0		17	0	88.8	0.0	5.0	68.2
Sep 20			6,302	815	1,322	135	0	4,564	1,170	0		12	1	90.7	0.0	5.0	67.6
Sep 21			6,231	776	2,237	208	6	4,352	1,085	1		21	1	101.1	0.0	5.0	67.1
Sep 22			6,108	1,047	2,514	248	1	4,500	784	0		23	2	100.1	0.0	5.0	66.8
Sep 23			7,022	909	1,793	142	7	3,213	530	0		13	-4	78.5	0.0	5.0	67.0
Sep 24			4,188	632	1,992	150	1	2,840	443	1		21	0	77.4	0.0	5.0	66.8
Sep 25			5,093	876	1,434	84	0	2,450	531	0		16	1	86.0	0.0	5.0	66.7
Sep 26			3,418	614	1,136	50	0	1,838	373	0		7	0	112.9	0.0	5.0	66.4
Sep 27			3,322	464	832	59	5	1,451	266	0		4	0	115.0	0.0	5.0	66.5
Sep 28			2,727	397	977	56	2	1,392	270	0		14	0	108.8	0.0	5.0	66.5
Sep 29			3,009	650	882	90	1	1,217	215	0		19	0	111.9	0.0	5.0	66.0
Sep 30			3,541	519	1,151	58	0	1,762	418	0		7	1	77.3	0.0	5.0	65.3

TOTAL	162,077	20,792	26,093	2,509	76	64,951	14,261	3		1,972	13						
AVG.	5,403	693	870	84	3	2,165	475	0		66	0		105.9	0.0	5.0	69.2	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	58,298	12,497
SUMMER	69,246	9,277
FALL	179,839	23,205
TOTAL	307,383	44,979

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK
26,289	2,568	64,054	82,539	21,822	4

LAMPREY	STURGEON
30,681	47

TABLE 39

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

THE DALLES PROJECT - FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL				CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK							
Oct 1			2,514	340	727	61	0	1,247	256	0		6	-1	81.4	0.0	5.0	64.4
Oct 2			1,842	270	469	36	0	876	216	0		2	0	102.2	0.0	5.0	63.6
Oct 3			1,308	241	347	21	0	711	179	0		2	0	105.4	0.0	5.0	63.7
Oct 4			4,100	607	577	41	0	788	173	0		0	0	109.2	0.0	5.0	63.7
Oct 5			2,746	529	565	49	0	975	182	0		1	0	113.4	0.0	5.0	63.5
Oct 6			2,243	319	456	26	0	729	187	0		1	0	92.8	0.0	5.0	63.3
Oct 7			1,680	179	533	28	4	753	234	0		4	0	77.1	0.0	5.0	62.9
Oct 8			1,188	163	374	10	1	726	230	0		0	0	79.4	0.0	5.0	62.3
Oct 9			1,628	147	333	17	0	612	171	0		0	0	102.5	0.0	5.0	61.7
Oct 10			1,675	252	299	26	0	508	130	0		0	0	98.4	0.0	5.0	61.7
Oct 11			2,271	182	251	31	0	384	105	0		-1	1	92.7	0.0	5.0	61.2
Oct 12			897	152	147	10	0	336	88	0		0	1	107.8	0.0	5.0	60.5
Oct 13			1,068	109	156	6	0	302	100	0		0	1	90.3	0.0	5.0	60.3
Oct 14			1,596	186	430	54	0	662	198	0		0	-1	86.3	0.0	5.0	60.1
Oct 15			695	98	186	9	0	289	99	0		0	0	83.2	0.0	5.0	59.9
Oct 16			391	70	82	7	0	190	58	0		0	-2	84.8	0.0	5.0	59.9
Oct 17			357	91	70	4	0	152	56	0		0	1	75.8	0.0	5.0	59.7
Oct 18			466	67	85	2	0	175	73	0		1	0	91.7	0.0	5.0	59.4
Oct 19			382	62	48	3	0	161	45	0		0	0	81.8	7.5	5.0	59.0
Oct 20			663	92	136	7	0	276	89	0		0	0	64.7	0.0	5.0	58.7
Oct 21			517	83	296	43	-1	471	180	1		-1	0	82.8	7.5	5.0	58.2
Oct 22			587	50	181	10	0	296	119	0		0	0	72.5	7.5	4.0	57.7
Oct 23			364	80	135	17	0	236	113	0		0	0	84.5	0.0	4.0	57.5
Oct 24			204	37	61	7	0	185	77	0		0	0	105.6	0.0	5.0	57.5
Oct 25			217	64	88	18	0	223	96	0		0	0	69.2	2.9	4.0	57.3
Oct 26			108	20	36	4	0	126	48	0		0	0	87.3	0.0	4.5	57.2
Oct 27			80	8	35	11	0	125	59	0		0	-1	83.6	0.0	5.0	57.0
Oct 28			119	21	18	2	0	71	29	0		0	0	78.4	0.0	5.0	57.0
Oct 29			322	24	28	4	0	38	7	0		0	-1	71.5	0.0	4.0	56.9
Oct 30			415	43	9	1	0	34	10	0		0	0	94.1	0.0	5.0	56.6
Oct 31			348	37	10	1	0	37	16	0		0	0	95.1	0.0	5.0	56.1
TOTAL			32,991	4,623	7,168	566	4	12,694	3,623	1		15	-2				
AVG.			1,064	149	231	18	0	409	117			0	0	88.6	0.8	4.9	60.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	58,298	12,497
SUMMER	69,246	9,277
FALL	212,830	27,828
TOTAL	340,374	49,602

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON
33,457	3,134	64,058	95,233	25,445	5	0	30,696	45

Note: Visual counts ended October 31.

TABLE 40

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

THE DALLES PROJECT - FISH COUNTS

NOVEMBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM			LAMPREY	STURGEON	KCFS
Nov 1			291	57	5	0		43	14	0		0	74.2	0.0	5.0	55.7
Nov 2			191	38	9	0		35	10	0		0	87.0	0.0	4.5	55.2
Nov 3			237	40	0	0		21	4	0		0	92.6	0.0	4.0	55.0
Nov 4			396	51	0	0		23	5	0		0	87.1	0.0	4.0	54.8
Nov 5			441	47	2	0		21	4	0		0	94.1	0.0	4.0	54.6
Nov 6			342	36	5	0		26	4	0		0	104.6	0.0	4.0	54.3
Nov 7			258	22	47	0		27	4	0		0	121.8	0.0	4.5	53.9
Nov 8			142	17	38	1		21	9	1		0	129.6	0.0	5.0	53.4
Nov 9			191	25	8	0		16	3	0		0	108.9	0.0	5.0	53.1
Nov 10			148	17	14	0		12	2	0		0	117.7	0.0	5.0	52.7
Nov 11			148	8	11	0		5	1	0		0	116.2	0.0	5.0	52.6
Nov 12			172	15	12	0		11	2	0		0	123.8	0.0	5.0	52.6
Nov 13			192	23	16	0		12	2	0		0	109.3	0.0	5.0	52.4
Nov 14			169	29	10	0		11	3	1		1	105.3	0.0	5.0	52.1
Nov 15			202	15	35	0		11	3	0		0	115.9	0.0	5.0	51.7
Nov 16			103	7	10	0		5	1	0		0	108.3	0.0	5.0	51.3
Nov 17			57	4	4	1		3	0	0		0	114.2	0.0	5.0	50.8
Nov 18			25	3	5	0		4	1	0		0	111.1	0.0	5.0	50.3
Nov 19			30	6	5	0		6	2	0		0	121.8	0.0	5.0	49.2
Nov 20			63	4	6	0		3	0	0		0	118.6	0.0	5.0	49.0
Nov 21			42	8	1	0		4	0	0		0	122.2	0.0	5.0	48.8
Nov 22			77	4	19	0		9	3	0		0	133.4	0.0	5.0	48.7
Nov 23			27	5	7	2		2	2	0		0	102.6	0.0	5.0	48.6
Nov 24			16	(1)	6	0		7	1	0		0	104.9	0.0	5.0	48.5
Nov 25			42	4	6	0		9	3	0		0	130.1	0.0	5.0	48.4
Nov 26			29	4	7	0		9	6	0		-1	136.7	0.0	5.0	49.2
Nov 27			45	6	2	1		15	10	0		0	122.3	0.0	5.0	49.0
Nov 28			22	6	6	0		24	16	0		0	140.5	0.0	5.0	48.8
Nov 29			17	2	4	0		26	17	0		0	129.3	0.0	5.0	48.7
Nov 30			5	0	0	0		1	0	0		0	133.6	0.0	5.0	48.6
TOTAL			4,120	502	300	5		422	132	2		0				
AVG.			137	17	10	0		14	4	0		0	113.9	0.0	4.8	51.4

RUN YEAR	CHINOOK		COHO			TOTAL					
	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON
TOTALS TO DATE	58,298	12,497	33,457	3,134	64,058	95,233	25,445	7	0	30,696	45
SPRING	58,298	12,497									
SUMMER	69,246	9,277									
FALL	212,830	27,828									
TOTAL	340,374	49,602									

Note: Video counts occurred from November 1 through December 7. 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 totals were not added to fall totals except Pink, chum, and sturgeon counts are totals for entire calendar year

TABLE 41

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

THE DALLES PROJECT - FISH COUNTS

DECEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped				DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM			LAMPREY	STURGEON	SECCHI
Dec 1			1	0	3			0	0				130.0	0.0	5.0	48.5
Dec 2			1	1	0			1	0				137.0	0.0	5.0	48.4
Dec 3			11	1	0			3	1				119.7	0.0	5.0	48.3
Dec 4			14	3	2			5	2				128.2	0.0	5.0	48.0
Dec 5			3	0	1			3	1				122.2	0.0	5.0	47.8
Dec 6			7	0	0			8	2				140.4	0.0	5.0	47.6
Dec 7			1	2	1			1	0				154.0	0.0	5.0	47.2
Dec 8			2	0	1			5	1				155.9	0.0	5.0	46.8
Dec 9			8	0	0			2	0				149.1	0.0	5.0	46.5
Dec 10			6	0	1			0	0				140.7	0.0	5.0	46.1
Dec 11			6	0	3			3	0				159.6	0.0	5.0	45.5
Dec 12			2	0	0			3	0				156.8	0.0	5.0	45.2
Dec 13			1	0	1			6	0				154.4	0.0	5.0	44.8
Dec 14			2	1	1			1	0				150.2	0.0	5.0	44.4
Dec 15			3	0	0			4	0				136.9	0.0	5.0	44.2
Dec 16			0	1	0			4	0				124.5	0.0	5.0	44.0
Dec 17			0	0	1			3	1				125.0	0.0	5.0	43.9
Dec 18			0	0	-1			1	1				124.5	0.0	5.0	43.9
Dec 19			1	1	1			4	0				134.9	0.0	5.0	43.9
Dec 20			0	0	0			2	0				135.6	0.0	5.0	43.7
Dec 21			0	0	0			0	0				134.6	0.0	5.0	43.4
Dec 22			0	0	0			2	0				136.3	0.0	5.0	43.1
Dec 23			1	0	0			3	0				137.6	0.0	5.0	42.9
Dec 24			0	0	0			2	1				148.9	0.0	5.0	42.5
Dec 25			1	0	0			1	1				142.2	0.0	5.0	42.2
Dec 26			0	0	0			0	0				173.5	0.0	5.0	42.2
Dec 27			0	0	0			0	0				157.7	0.0	5.0	42.2
Dec 28			0	0	-1			0	0				153.7	0.0	5.0	42.0
Dec 29			0	0	0			1	0				144.5	0.0	5.0	41.8
Dec 30			0	0	1			0	0				150.2	0.0	5.0	41.7
Dec 31			0	0	0			2	0				149.4	0.0	5.0	41.6
TOTAL			71	10	15			70	11							
AVG.			5	1	1			3	1				142.2	0.0	5.0	44.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	58,298	12,497
SUMMER	69,246	9,277
FALL	212,830	27,828
TOTAL	340,374	49,602

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON
33,457	3,134	64,058	95,233	25,445	7	0	30,696	45

Note: Video counts occurred from November 1 through December 7. 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 totals were not added to fall totals except Pink, chum, and sturgeon counts are totals for entire calendar year

TABLE 42

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

June 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL					STEELHEAD	unclipped 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		45		7			0	0	0				117
Jun 16		52		3			1	0	0				128
Jun 17		66		13			1	1	0				149
Jun 18		56		5			6	2	0				244
Jun 19		33		1			7	0	0				304
Jun 20		69		1			39	4	2				208
Jun 21		75		0			11	3	0				381
Jun 22		49		4			0	1	0				1,235
Jun 23		127		4			10	2	0				695
Jun 24		91		1			5	9	1				857
Jun 25		95		4			5	3	1				1,259
Jun 26		64		1			9	1	1				1,177
Jun 27		54		1			6	3	3				690
Jun 28		93		1			34	1	1				1,228
Jun 29		75		2			13	1	0				1,424
Jun 30		59		2			25	1	1				1,104
TOTAL		1,103		50			172	32	10				11,200
AVG.		69		3			11	2	1				700

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 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Jul 1		75		5			12	8	3			618
Jul 2		74		3			21	4	2			870
Jul 3		45		1			16	3	3			1,460
Jul 4		53		1			22	3	0			915
Jul 5		99		9			77	10	2			797
Jul 6		44		6			39	6	2			897
Jul 7		30		0			2	0	0			690
Jul 8		40		3			25	3	0			804
Jul 9		28		5			77	5	3			432
Jul 10		21		4			100	2	0			592
Jul 11		26		0			28	3	1			675
Jul 12		29		2			51	7	3			394
Jul 13		23		0			23	5	3			590
Jul 14		20		0			5	3	2			835
Jul 15		18		0			52	9	6			658
Jul 16		29		6			38	8	6			688
Jul 17		15		1			21	4	2			861
Jul 18		38		0			7	6	0			498
Jul 19		34		0			11	0	0			438
Jul 20		8		0			7	8	5			594
Jul 21		17		8			17	10	4			868
Jul 22		32		1			1	20	8			832
Jul 23		26		3			9	4	3			537
Jul 24		17		0			4	11	3			833
Jul 25		14		1			1	13	8			911
Jul 26		8		3			4	7	3			676
Jul 27		8		2			4	8	2			702
Jul 28		8		1			1	13	1			567
Jul 29		21		0			1	10	8			944
Jul 30		19		2			2	28	14			660
Jul 31		8		2			0	9	4			470
TOTAL		927		69			678	230	101			22,306
AVG		30		2			22	7	3			720

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 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT		JACK	SOCKEYE			
Aug 1		14		0	0		0	13	8		579
Aug 2		10		0	0		0	17	5		477
Aug 3		10		0	0		0	10	4		466
Aug 4			9	1	0		0	11	8		438
Aug 5			9	1	0		0	4	0		387
Aug 6			7	0	0		2	5	4		325
Aug 7			10	1	0		1	6	5		454
Aug 8			20	1	0		1	8	3		437
Aug 9			12	0	0		0	8	6		651
Aug 10			4	0	0		0	6	1		614
Aug 11			13	0	0		0	3	1		463
Aug 12			11	1	0		1	5	3		544
Aug 13			8	0	0		0	5	1		302
Aug 14			19	1	0		0	7	5		427
Aug 15			21	1	0		0	2	2		389
Aug 16			23	1	0		0	6	6		334
Aug 17			36	1	0		0	24	6		249
Aug 18			42	1	0		3	14	5		263
Aug 19			20	0	0		0	22	14		170
Aug 20			25	1	0		0	33	14		282
Aug 21			27	1	1		0	26	4		170
Aug 22			10	0	0		0	44	13		217
Aug 23			15	0	0		0	34	8		148
Aug 24			29	1	0		0	24	9		221
Aug 25			34	2	0		0	37	8		198
Aug 26			51	4	1		0	49	17		193
Aug 27			43	1	1		0	54	15		249
Aug 28			91	4	1		0	60	25		221
Aug 29			45	1	1		0	37	8		180
Aug 30			27	1	0		0	47	10		199
Aug 31			35	0	0		0	71	16		255
TOTAL		34	696	26	5		8	692	234		10,502
AVG.		11	25	1	0		0	22	8		339

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 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Sep 1			42	1	4	0	0	72	23			351
Sep 2			46	2	1	0	0	67	16			241
Sep 3			57	4	4	1	1	95	39			251
Sep 4			67	5	2	0	0	32	13			155
Sep 5			61	1	3	0	0	38	12			129
Sep 6			128	3	0	0	0	77	10			109
Sep 7			149	17	7	1	0	125	34			140
Sep 8			101	27	9	5	1	124	28			154
Sep 9			128	4	0	0	0	86	26			108
Sep 10			196	6	0	0	0	98	33			81
Sep 11			493	22	12	0	0	158	35			129
Sep 12			261	18	23	1	0	181	38			119
Sep 13			203	0	17	2	0	204	49			56
Sep 14			172	23	43	3	0	311	75			72
Sep 15			121	14	37	3	1	206	48			83
Sep 16			112	14	36	1	0	150	26			70
Sep 17			240	9	21	2	0	147	33			25
Sep 18			102	39	54	21	3	201	49			31
Sep 19			60	13	111	8	2	410	136			11
Sep 20			42	13	107	6	6	390	85			17
Sep 21			99	9	123	3	0	383	73			16
Sep 22			89	50	69	20	2	183	43			30
Sep 23			86	34	59	4	0	190	51			16
Sep 24			119	0	6	1	0	120	21			20
Sep 25			27	11	56	4	0	83	17			16
Sep 26			45	17	36	1	0	87	19			19
Sep 27			53	0	9	0	0	49	11			16
Sep 28			54	0	6	0	0	56	7			1
Sep 29			44	6	14	0	0	58	15			4
Sep 30			28	0	17	0	0	51	12			5
TOTAL			3,425	362	886	87	16	4,432	1,077			2,475
AVG.			114	12	30	3	1	148	36			83

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

TABLE 46

YEARLY TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2017

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
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
Totals	20,014,246	11,050,566	5,658,899	1,294,315	265	1,791	38,020,082
10-Year Average	652,613	253,172	273,744	53,343			1,233,018

*Jacks included

TABLE 48

**MONTHLY COUNT OF SOCKEYE SALMON
THE DALLES DAM
1957 - 2017**

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
Total				3	1,943	3,035,263	2,590,848	29,208	1,565	64	1	4	5,658,899
10-Year Average					37	173,307	99,717	627	52				273,744

TABLE 49
MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2017

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								255	28,602	7,734	305	15	36,911	3,139
Total							1,584	48,362	926,672	311,268	6,374	56	1,294,315	242,991
10-Year Average							1,887	37,936	13,474				53,343	4,467

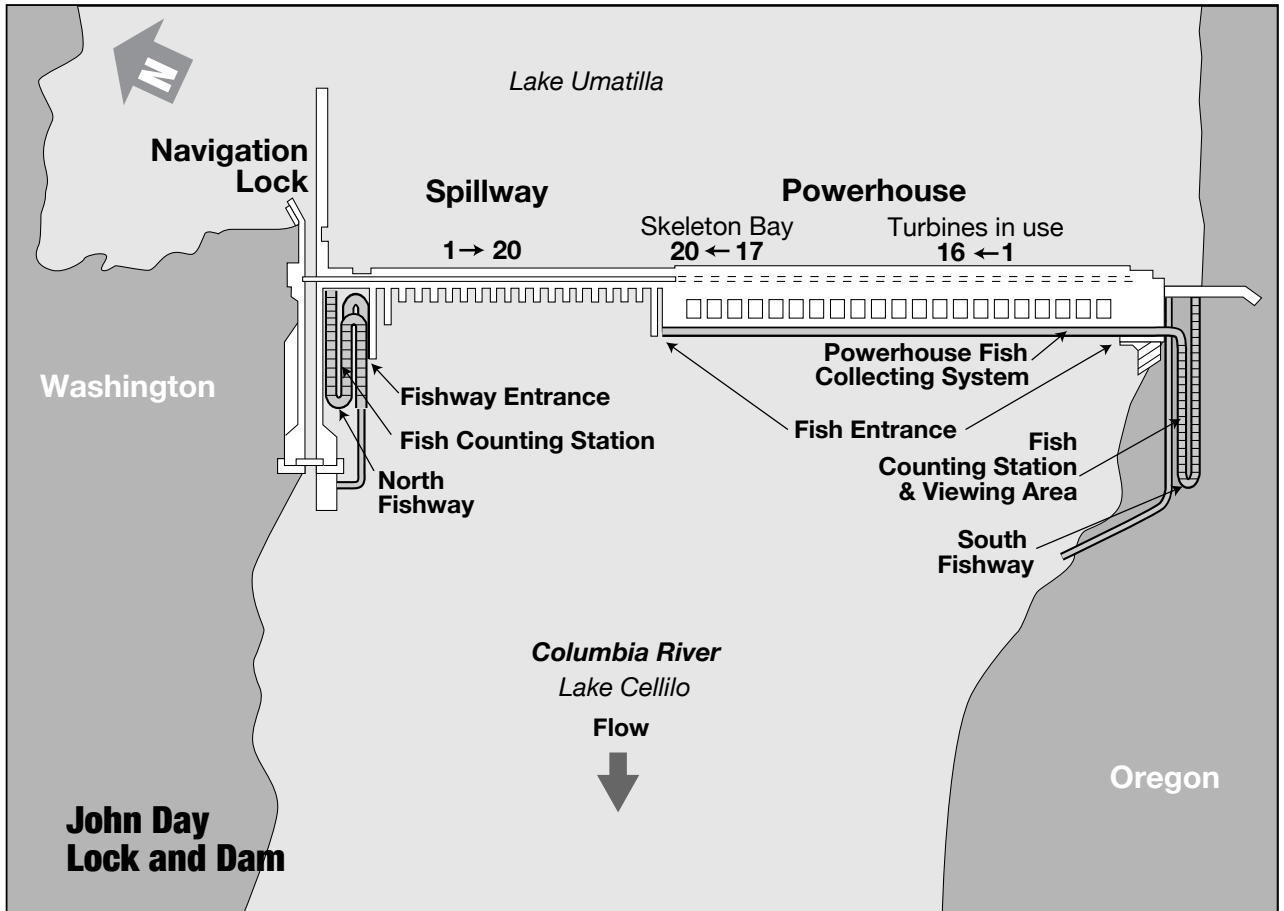
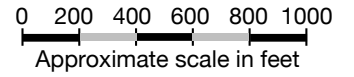
*Includes Jacks

TABLE 50

MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2017

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	2,580	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
Total			14,177	54,803	36,620	191,717	2,110,446	2,522,725	4,993,581	1,088,510	35,780			11,050,566
10-Year Average			733	307	3,593	45,703	60,728	114,764	26,799					253,172

Plate 4 John Day Lock and Dam



JOHN DAY DAM

FISH COUNTING SCHEDULE

Apr 1 – Oct 31 Visual counting daily 0400-2000 hours Pacific Standard Time.
July 15 – Sept 30 Nighttime video counts 2000-0400 hours Pacific Standard Time.

FISHWAY OPERATING SCHEDULE

The following information includes fishway operation for calendar year 2015. Total length of time for annual fishway outages can be determined by referring to the 2014 annual report.

North Adult Fishway

Jan 1 – Jan 18 Dewatered for maintenance
Jan 19 – Dec 3 In service with attraction water
Aug 2 Attraction water off half day for required ROV grating inspection
Dec 4 – Dec 31 Dewatered for maintenance

South Adult Fishway

Jan 1 – Jan 23 In service with attraction flow
Jan 24 – Mar 2 Dewatered for maintenance
Mar 3 – Dec 31 In service with attraction water
Aug 2 Attraction water off half day for required ROV grating inspection

Smolt Monitoring Facility

Jan 1- March 27 Dewatered
Mar 31 – Jul 26 In full operation with juvenile sampling (every other day)
Jul 23 – Sep 15 Water temperature 70° F. Condition sampling of 100 fish on Monday and Thursday. System in bypass at switch gate on other days.
Sep 16 – Nov 29 System in bypass for full flow PIT tag detection.
Nov 30 – Dec 31 System dewatered for winter maintenance.

Juvenile Bypass System

Jan 1- Mar 27 1/3 gatewell orifice open, rotated twice weekly
Apr 1-Dec 15 Full operation (for kelts in December)

Spillway

Jan 1 – Mar 14 Closed
Apr 10 – Aug 31 Spill (30% & 40% per FPP schedule)
Sept 1 – Nov 30 Bay 2 only, 1.5 KCFS daylight hours only (attraction water for north fishway)
Dec 1 – Dec 31 closed

FISHWAY ACTIVITIES

FISHWAY DEWATERING PROCEDURES

During a fishway dewatering, bulkheads were installed and drain valves were opened. After the areas were dewatered, fisheries personnel entered and salvaged any stranded fish (see table 3). Salvaged fish were transported to either the forebay or tailwater (depending on circumstances such as fish species, dewatering location, age class, or stress levels). Follow up inspections were performed to account for any overlooked fish. Efforts were made to provide continual water supplies throughout the operation, to minimize fish stress. Minimal fish handling practices were utilized throughout the process. Fishway areas not listed were inspected by a Remote Operated Vehicle (ROV). There were no mortalities encountered during any of the 2017 JD Fishway dewaterings

TURBINE DEWATERING PROCEDURES

When following operational guidelines, turbine dewatering requires minimal fish handling. If a turbine unit fails, operational guidelines cannot always be followed, which may result in stranded fish. Fish removed from these areas face higher health risks, due to increased handling. Procedures are continually evaluated to determine the best methods to reduce fish stress and mortality. Currently, fish are removed from scroll cases and draft tubes with fish bags. Prior to fish salvage, transport tanks are prepped for fish transport. If fish numbers are high than the two bags can safely handle, the transport tanks are used to remove fish from the draft tube gallery. The transport tanks are then lifted by a crane.

Key; adult=a, juvenile=j, carp=cp, catfish=ct, sculpin=sp, small mouth bass=smb, crappie=cr, whitefish=wf, perch=pr, bluegill=bg, walleye=we, Sturgeon=st, Chinook=Ch, steelhead-STH, coho-co, shad-sh Released In Good Condition=RIGC											
Fishway Dewaterings											
Date	Event	Chinook	Steelhead	Sockeye	Coho	Lamprey	Shad	Other	Comments	Morts	Cause
1/24	SFL-Upper Dewater	0	6J, 1A	0	0	101A	0	0	RIGC into adjacent tailrace	0	N/A
1/26	SFL-Adult Coll Chan	2A	11A, 12J	0	0	0	0	2ct	CH=-28", ST(A)=-18-26", ST(J)=10-13", CT=-13"	0	N/A
2/9	SFL-Adult Coll Chan	0	2A	0	0	0	0	0	ST = -26"	0	N/A
2/10	SE-1 Pool	0	9A	0	0	0	0	2ct,3cp	ST = (x1) ~13" (x8) 23-30"; ct=9-14"; cp=16-20"	0	N/A
11/30	SMF Dewater	35A	30A	0	35A	100A	10A	20st,12cp, 24ct, 1 smb	ch(24"-37"), st(~24"-34"), co(26"), la(18"-24"), st(22"-54"), cp(18"-36"), ct(12"-24"), sh(18"), smb(14")	0	N/A
12/4	NFL Upper Dewater	0	3 J	0	0	1A	0	0	NA	0	N/A
Turbine Dewatering											
Date	Event	Chinook	Steelhead	Sockeye	Coho	Lamprey	Shad	Other	Comments	Morts	Cause
1/27	mu 5 scroll case	0	0	0	0	0	0	0	NA	0	N/A
1/27	mu 5 draft tube	0	0	0	0	0	0	0	NA	0	N/A
2/28	mu 16 scroll case	0	0	0	0	0	0	0	NA	0	N/A
2/28	mu 16 draft tube	0	0	0	0	0	0	0	NA	0	N/A
4/10	mu 07 scroll case	0	0	0	0	0	0	0	unknown	1 sth yrlin.	see comment
4/11	mu 07 draft tube	0	0	0	0	0	0	0	NA	0	N/A
5/2	MU 12 scroll case	0	9 J	0	0	0	0	0		7 STH J	dewatering
5/3	MU 12 gatewell	232-J	3183-J	1-J	1-J	0	0	0	See MOC 17JDA005	3417	stranded
5/3	MU 12 draft tube	0	100 J	0	0	0	0	0	6 midsize (2 to 5 feet) sturgeon		
7/31	MU 02 scroll case	0	0	0	0	0	2	1 ct	adult, 15 inch	1 shad-A	N/A
8/1	MU 02 draft tube	0	0	0	0	0	0	2st, 35ct	ct ("8-18") st (13" and 40")	0	N/A
8/9	MU 6 scroll case	0	0	0	0	0	0	1 ct	ct (21")	0	N/A
8/10	MU 6 draft tube	0	0	0	0	0	0	8ct, 1st	ct (8-16") st (28")	0	N/A
12/26	mu 1 scroll case	0	0	0	0	0	0	0	NA	0	N/A
12/27	mu 1 draft tube	0	0	0	0	0	0	0	NA	0	N/A

Water Quality

JDA river temperatures were obtained from the United States Geological Survey's (USGS) sensor, located in the Forebay at the tip of the upstream navigation lock's guide wall. Additionally, water temperatures were collected by JDA Fisheries at the entrances and exits of both fish ladders using HOBO data loggers (April 1st – Nov. 30th). Water clarities were measured by Secchi disc at the North Fish Ladder counting station daily, throughout the 2017 passage season.

Pikeminnow Abatement

Northern Pikeminnow (NPM) angling at the John Day powerhouse tailrace was performed by the Washington Department of Fish and Wildlife crew under contract from Pacific States Marine Fisheries Commission. The 2017 total catch was 3,472. This was the highest catch total since 2014. Previous catch totals were as follows; 2016 (3,002), 2015 (3,127), 2014 (4,250), 2013 (2,370), 2012 (2,217). This year's angling effort began May 15th, and ended on October 8th.

Avian Abatement

Bypassing smolts through spill has become a critical part of JDA fish passage operations since 2006. As a result, the piscivorous bird predation in the spillway Boat Restricted Zone (BRZ) has increased significantly and become a serious factor in total dam mortality on passing smolts. In response, a comprehensive grid of 125 avian lines was designed and installed at the JDA tailrace BRZ in 2010. In addition to the avian lines, a supplemental boat hazing by U.S. Department of Agriculture (USDA-APHIS) have occurred annually since 2010. In 2017, the hazing season was delayed and occurred May 15th – July 30th 2017.

Prior to the 2017 juvenile passage season, 21 avian lines were replaced, and 8 broken lines were not. Additionally, 12 older lines broke during the passage season. Despite missing lines, the remaining Avian Lines combined with the USDA boat hazing were effective in deterring gull predation on smolts at JD (Figure 5.) It appears that the high river flows in 2017 naturally protected smolts from the avian predators. It needs to be emphasized that only gulls are a significant and proven avian predator impacting the JD smolt passage.

RESEARCH

Oregon Dept. of Fish and Wildlife – Ongoing BPA funded research associated with the Northern Pikeminnow Management Program. The fish stomachs' sampler collected the diet and other biological data from NPMs caught by the PSMFC dam anglers.

Oregon Department of Fish and Wildlife/ Fish Passage Center- Continued to perform the monthly, FPOM-directed inspections of all JD adult and juvenile fishways (see the FPC's annual report.)

CRITFC- Collected adult Pacific lamprey for the tribal restocking projects. The Umatilla, Nez Perce, Warm Springs, and Yakama tribes were all involved in 2017.

Pacific States Marine Fish Commission – sampled juvenile salmonids at JD SMF 1 April through 15 September. Please see the FPC report for results and details.

TABLE 51

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER JOHN DAY DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				413	52,174	47,364	25,966	11,340	138,707	37,922			313,886
STEELHEAD				482	47	181	3,072	3,724	57,876	17,871			83,253
SOCKEYE					21	39,962	25,744	186	109	19			66,041
COHO*								90	25,508	8,648			34,246
CHUM													0
PINK									1				1
TOTAL				895	52,242	87,507	54,782	15,340	222,201	64,460			497,427
LAMPREY				0	263	1,248	15,512	3,784	2,516	81			23,404
STURGEON								2	2	0			4
BULL TROUT													0

*Jacks Included

TABLE 52

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2017

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	153.2	0.0	40.0	6.0
Jan 2	160.8	0.0	40.0	6.0
Jan 3	167.4	0.0	40.0	6.0
Jan 4	165.3	0.0	40.0	6.0
Jan 5	193.6	0.0	39.0	6.0
Jan 6	184.0	0.0	39.0	6.0
Jan 7	189.1	0.0	39.0	6.0
Jan 8	177.0	0.0	38.0	6.0
Jan 9	161.1	0.0	37.0	6.0
Jan 10	163.3	0.0	37.0	6.0
Jan 11	177.6	0.0	37.0	6.0
Jan 12	187.5	0.0	36.0	6.0
Jan 13	170.5	0.0	35.0	6.0
Jan 14	171.7	0.0	35.0	6.0
Jan 15	176.5	0.0	34.0	6.0
Jan 16	168.6	0.0	34.0	6.0
Jan 17	180.0	0.0	34.0	6.0
Jan 18	177.0	0.0	34.0	6.0
Jan 19	164.4	0.0	34.0	6.0
Jan 20	160.3	0.0	34.0	6.0
Jan 21	131.8	0.0	34.0	6.0
Jan 22	144.3	0.0	33.0	6.0
Jan 23	158.0	0.0	34.0	6.0
Jan 24	168.9	0.0	34.0	6.0
Jan 25	155.3	0.0	35.0	6.0
Jan 26	147.5	0.0	35.0	6.0
Jan 27	149.5	0.0	35.0	6.0
Jan 28	136.6	0.0	35.0	6.0
Jan 29	133.7	0.0	36.0	6.0
Jan 30	137.3	0.0	36.0	6.0
Jan 31	146.9	0.0	36.0	6.0

AVG. 163.2 0.0 36.1 6.0

FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	146.1	0.0	35.0	6.0
Feb 2	149.7	0.0	35.0	6.0
Feb 3	161.4	0.0	35.0	6.0
Feb 4	163.3	0.0	35.0	6.0
Feb 5	164.8	0.0	36.0	6.0
Feb 6	155.0	0.0	36.0	6.0
Feb 7	155.9	0.0	36.0	6.0
Feb 8	158.6	0.0	35.0	6.0
Feb 9	176.8	11.4	35.0	6.0
Feb 10	196.9	26.8	35.0	6.0
Feb 11	224.6	53.9	35.0	6.0
Feb 12	239.3	68.0	35.0	6.0
Feb 13	236.0	64.2	35.0	6.0
Feb 14	196.8	26.7	35.0	6.0
Feb 15	191.0	20.6	35.0	6.0
Feb 16	191.5	20.6	35.0	6.0
Feb 17	191.4	20.6	35.0	6.0
Feb 18	225.1	48.0	35.0	6.0
Feb 19	247.0	19.9	36.0	6.0
Feb 20	237.9	35.1	36.0	6.0
Feb 21	245.2	52.3	36.0	6.0
Feb 22	240.1	40.8	37.0	6.0
Feb 23	265.2	50.5	37.0	4.0
Feb 24	255.2	37.2	37.0	4.0
Feb 25	250.9	19.8	38.0	4.0
Feb 26	243.3	0.7	37.0	4.0
Feb 27	214.7	13.3	37.0	4.0
Feb 28	218.2	27.1	37.0	4.0

AVG. 205.1 23.5 35.8 5.6

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	217.0	29.6	38.0	4.0
Mar 2	217.4	26.3	38.0	4.0
Mar 3	236.6	36.2	38.0	4.0
Mar 4	256.7	23.1	38.0	4.5
Mar 5	228.5	20.1	39.0	4.5
Mar 6	214.3	40.5	39.0	4.5
Mar 7	237.5	80.5	39.0	4.5
Mar 8	247.2	89.7	39.0	4.0
Mar 9	251.9	81.6	40.0	4.0
Mar 10	265.5	32.3	40.0	4.0
Mar 11	292.8	59.4	40.0	4.0
Mar 12	303.7	68.0	40.0	4.0
Mar 13	286.8	49.0	40.0	4.0
Mar 14	319.0	78.3	41.0	4.5
Mar 15	338.1	96.2	41.0	4.0
Mar 16	340.2	90.6	41.0	4.5
Mar 17	368.8	105.1	42.0	4.5
Mar 18	400.0	132.6	42.0	4.5
Mar 19	369.3	104.2	43.0	4.0
Mar 20	404.7	143.3	43.0	3.0
Mar 21	428.6	170.0	43.0	2.0
Mar 22	435.6	174.0	43.0	2.0
Mar 23	447.5	187.7	44.0	1.5
Mar 24	435.8	178.9	44.0	1.5
Mar 25	433.5	172.5	43.0	1.5
Mar 26	427.2	166.4	44.0	1.5
Mar 27	421.0	181.1	44.0	1.5
Mar 28	427.8	191.9	44.0	1.5
Mar 29	424.8	188.9	44.0	1.5
Mar 30	418.2	180.6	44.0	2.0
Mar 31	420.5	148.5	44.0	2.0

AVG. 339.2 107.3 41.4 3.3

TABLE 53

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

APRIL 2017

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
Apr 1	0			0				32	20					425.0	146.4	44.0	2.0
Apr 2	0			0				25	12					445.8	170.2	45.0	2.0
Apr 3	1			1				13	2					428.8	156.5	45.0	2.0
Apr 4	0			0				34	25					427.3	155.0	45.0	3.0
Apr 5	1			1				23	13					424.4	176.3	46.0	2.0
Apr 6	0			0				13	8					403.8	154.5	46.0	2.0
Apr 7	1			0				31	22					375.4	145.4	46.0	2.5
Apr 8	1			0				25	22					392.2	159.6	46.0	2.5
Apr 9	2			0				12	6					407.9	173.3	45.0	3.5
Apr 10	1			1				15	12					381.1	170.9	46.0	3.5
Apr 11	1			0				5	4					380.2	174.6	48.0	3.0
Apr 12	1			1				2	1					385.7	164.1	48.0	3.5
Apr 13	2			1				6	4					391.7	173.9	48.0	3.5
Apr 14	2			0				17	8					386.9	176.0	48.0	3.5
Apr 15	8			0				13	12					392.3	170.4	49.0	3.5
Apr 16	7			0				18	13					368.8	150.7	47.0	2.5
Apr 17	10			0				20	11					358.5	148.5	47.0	2.5
Apr 18	10			0				17	12					370.7	145.2	47.0	2.5
Apr 19	9			1				21	13					338.6	129.5	47.0	2.5
Apr 20	18			0				22	16					331.2	130.7	45.0	3.0
Apr 21	13			0				32	21					380.6	147.7	45.0	3.0
Apr 22	15			0				13	12					366.9	119.8	45.0	3.0
Apr 23	20			0				11	9					354.7	106.8	45.0	3.5
Apr 24	31			0				9	4					352.4	106.6	46.0	3.5
Apr 25	25			1				26	8					344.8	113.5	48.0	3.0
Apr 26	23			0				10	8					369.1	130.9	48.0	3.5
Apr 27	44			1				8	3					368.7	120.2	48.0	3.5
Apr 28	47			3				3	2					373.0	117.5	48.0	3.5
Apr 29	52			1				2	1					369.0	123.1	49.0	3.5
Apr 30	54			2				4	4					344.5	110.6	49.0	3.5
TOTAL	399			14				482	308								
AVG.	13			0				16	10					381.3	145.6	46.6	3.0

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 54

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

MAY 2017

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	unclipped			CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER				FALL	SOCKEYE	STEELHEAD						STEELHEAD	PINK
May 1	62		2			0	2	1			0	336.3	110.8	50.0	3.5
May 2	99		2			0	2	1			0	345.0	116.0	50.0	3.5
May 3	84		2			0	6	5			0	330.3	116.8	49.0	3.5
May 4	156		6			0	4	3			0	320.6	115.2	50.0	3.5
May 5	224		11			0	6	6			0	343.8	120.1	50.0	4.0
May 6	211		12			0	2	2			0	391.0	138.9	50.0	4.0
May 7	670		21			0	1	1			0	437.1	178.9	51.0	4.0
May 8	1,149		96			0	3	3			0	450.8	199.0	51.0	4.0
May 9	1,297		122			0	1	1			1	438.9	194.9	51.0	4.0
May 10	1,314		74			0	2	1			0	435.5	200.0	52.0	3.0
May 11	1,877		131			0	0	0			2	433.5	189.2	52.0	3.0
May 12	1,549		126			0	3	1			1	439.1	176.1	53.0	3.0
May 13	752		76			0	0	0			0	444.8	180.4	53.0	3.0
May 14	707		67			0	0	0			0	434.1	169.2	53.1	3.0
May 15	741		116			0	1	0			0	433.9	169.0	53.0	3.0
May 16	674		116			0	0	0			0	423.4	159.3	53.0	3.0
May 17	646		118			0	0	0			1	424.6	164.0	53.0	4.0
May 18	829		206			0	1	0			2	434.6	190.1	54.0	4.0
May 19	1,011		215			0	1	0			25	415.1	168.3	53.0	4.0
May 20	1,108		230			0	2	1			2	406.0	150.2	53.0	4.0
May 21	1,295		264			1	1	0			22	388.7	145.8	54.0	4.0
May 22	1,610		478			0	2	1			4	389.1	162.7	54.0	4.0
May 23	2,895		970			0	0	0			29	400.6	166.0	53.0	4.0
May 24	4,204		1,548			0	0	0			7	402.5	167.8	53.0	3.5
May 25	3,620		1,397			0	1	1			44	437.1	196.4	53.0	3.5
May 26	2,485		1,181			2	0	0			32	443.1	178.8	53.0	3.5
May 27	2,303		969			2	1	0			8	426.7	163.3	53.0	3.5
May 28	2,018		727			2	1	0			26	413.3	158.0	54.0	3.5
May 29	1,563		663			1	3	1			19	418.9	160.8	55.0	3.5
May 30	1,928		670			4	1	1			7	428.7	169.2	55.0	3.5
May 31	1,812		665			9	0	0			31	439.9	184.1	55.0	3.5
TOTAL	40,893		11,281			21	47	30			263				
AVG.	1319		364			1	2	1			8	409.9	163.2	52.5	3.6
RUN YEAR		CHINOOK ADULT	CHINOOK JACK			SOCKEYE	STEELHEAD	unclipped STEELHEAD			LAMPREY				
TOTALS TO DATE															
SPRING		41,292	11,295			21	529	338			263				

TABLE 55

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

JOHN DAY PROJECT - FISH COUNTS

JUNE 2017

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	1,503			387			12	0	0			30		449.3	189.9	56.0	3.5
Jun 2	1,017			238			12	2	2			11		460.6	201.9	56.0	3.5
Jun 3	1,073			206			11	1	0			2		457.2	191.4	57.0	3.5
Jun 4	843			175			25	1	1			6		438.3	176.8	57.0	3.5
Jun 5	947			174			43	0	0			41		453.4	209.6	57.0	3.5
Jun 6		988		165			41	3	1			-2		429.5	189.9	58.0	3.5
Jun 7		1,018		122			57	0	0			18		425.5	189.3	58.0	3.0
Jun 8		1,121		158			83	2	2			-1		427.2	172.9	58.0	3.0
Jun 9		1,192		185			117	7	5			12		437.8	175.7	58.0	3.0
Jun 10		978		149			162	0	0			-3		451.3	187.3	58.0	3.0
Jun 11		887		146			259	2	0			17		404.9	142.1	58.0	3.0
Jun 12		971		190			362	1	1			5		390.2	139.6	58.0	3.0
Jun 13		1,305		180			558	0	0			6		368.7	141.1	58.0	3.0
Jun 14		1,499		153			691	0	0			13		399.9	159.1	58.0	4.0
Jun 15		1,275		123			651	7	5			7		391.8	153.2	58.0	3.5
Jun 16		1,295		165			979	1	1			1		354.1	141.0	59.0	4.0
Jun 17		1,514		183			978	1	1			0		326.5	132.2	59.0	4.0
Jun 18		1,668		179			1,205	5	4			12		337.0	136.2	59.0	4.0
Jun 19		1,523		155			1,746	0	0			2		345.9	129.1	58.4	3.0
Jun 20		1,670		183			2,592	8	6			18		312.8	112.7	58.0	3.0
Jun 21		1,493		174			2,767	6	5			17		319.9	128.5	58.0	3.0
Jun 22		1,467		185			3,290	8	7			29		320.8	122.6	59.0	3.0
Jun 23		1,596		155			3,454	4	2			49		307.3	92.3	59.0	3.0
Jun 24		1,682		147			3,310	19	18			38		295.2	93.8	59.0	3.0
Jun 25		2,492		182			2,813	12	10			51		300.2	119.7	59.0	3.0
Jun 26		2,215		138			2,583	11	8			64		268.9	103.1	59.0	3.0
Jun 27		1,969		223			3,414	22	17			153		269.7	80.2	60.0	3.0
Jun 28		1,830		192			2,483	18	12			93		258.1	77.6	60.0	3.5
Jun 29		1,491		134			2,384	21	15			193		266.0	79.3	61.0	4.0
Jun 30		1,487		209			2,880	19	16			366		256.7	81.5	62.0	4.0
TOTAL	5,383	36,626		5,355			39,962	181	139			1,248					
AVG.	1077	1,465		179			1,332	6	5			42		364.2	141.7	58.4	3.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	46,675	12,475
SUMMER	36,626	4,175
TOTAL	83,301	16,650

SOCKEYE	STEELHEAD	unclipped STEELHEAD
39,983	710	477

LAMPREY
1,511

TABLE 56

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JULY 2017

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
Jul 1		1,733		208			3,636	9	6			590	0	237.2	94.6	62.0	5.0
Jul 2		2,211		231			4,142	42	30			516	0	234.1	93.2	63.2	4.0
Jul 3		1,971		200			2,458	40	30			563	0	225.0	89.7	63.8	4.0
Jul 4		1,136		136			1,622	35	23			586	0	222.3	84.1	63.4	4.0
Jul 5		959		84			1,484	21	12			1,027	0	219.5	65.8	63.6	3.5
Jul 6		1,081		121			1,604	54	36			746	0	205.4	66.1	63.8	3.5
Jul 7		1,169		195			1,734	47	34			898	1	213.2	85.2	64.8	3.5
Jul 8		1,391		124			1,322	187	120			798	0	199.0	76.1	64.9	4.0
Jul 9		1,064		80			957	106	70			828	0	193.1	57.6	65.0	4.5
Jul 10		1,333		179			1,214	59	44			531	0	191.0	60.6	65.0	4.5
Jul 11		1,205		137			993	84	53			520	0	189.4	75.6	66.0	4.5
Jul 12		793		110			881	72	50			674	0	181.6	69.9	66.0	4.5
Jul 13		711		116			1,001	76	49			704	0	187.9	56.3	67.0	5.0
Jul 14		432		40			469	55	42			543	0	209.8	66.4	67.0	5.0
Jul 15		437		73			421	89	50			408	0	180.6	72.2	67.0	5.0
Jul 16		427		48			270	86	65			333	0	183.2	70.7	67.9	4.0
Jul 17		509		73			255	99	60			410	0	176.7	52.7	68.0	4.0
Jul 18		498		56			195	81	58			479	0	193.4	61.4	68.0	5.0
Jul 19		466		55			193	83	60			434	0	195.9	78.2	68.0	5.0
Jul 20		415		65			142	125	71			539	0	181.3	69.2	68.0	5.0
Jul 21		308		51			129	129	88			468	0	173.3	52.0	69.0	5.0
Jul 22		341		83			112	126	96			464	0	154.1	46.4	69.0	5.0
Jul 23		367		87			100	148	107			403	0	137.8	41.4	68.5	5.0
Jul 24		383		120			114	230	172			398	0	156.8	47.1	69.0	5.0
Jul 25		171		61			46	164	101			270	0	154.3	46.0	70.0	5.5
Jul 26		389		59			58	166	105			228	0	149.0	44.8	70.0	5.5
Jul 27		265		51			56	146	96			224	0	143.0	43.0	70.0	5.5
Jul 28		222		70			41	137	105			274	0	154.2	46.1	69.0	6.0
Jul 29		196		47			26	129	81			250	0	175.1	52.6	69.0	6.0
Jul 30		211		32			35	101	71			210	0	138.0	41.2	70.0	7.0
Jul 31		148		32			34	146	90			196	0	158.1	47.1	70.0	6.0
TOTAL		22,942		3,024			25,744	3,072	2,075			15,512	1				
AVG		740		98			830	99	67			500	0	184.3	63.0	67.0	4.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	46,675	12,475
SUMMER	59,568	7,199
TOTAL	106,243	19,674

SOCKEYE	STEELHEAD	unclipped STEELHEAD
65,727	3,782	2,552

LAMPREY	STURGEON
17,023	1

TABLE 57

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

JOHN DAY PROJECT - FISH COUNTS

AUGUST 2017

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
Aug 1		156		30	0	0	19	145	101			213	0	150.9	45.4	71.0	6.0
Aug 2		315		55	0	0	37	179	102			246	0	161.5	48.4	72.0	6.0
Aug 3		156		29	0	0	19	79	41			154	0	145.9	43.9	71.0	6.0
Aug 4		114		20	0	0	7	59	34			124	0	144.1	43.1	71.0	6.0
Aug 5		107		30	0	0	16	46	25			115	0	133.7	40.1	71.0	6.0
Aug 6			89	26	0	0	11	68	31			123	0	130.4	38.9	71.0	6.0
Aug 7			108	24	0	0	3	39	19			130	0	119.4	35.7	71.0	6.0
Aug 8			49	16	0	0	4	28	12			127	0	140.6	42.3	72.0	6.0
Aug 9			56	12	0	0	9	30	14			126	0	143.6	43.1	72.0	5.0
Aug 10			53	19	0	0	2	32	18			84	0	146.5	43.7	72.0	5.5
Aug 11			36	13	0	0	4	18	11			211	0	137.6	41.3	73.0	6.0
Aug 12			67	28	0	0	1	22	15			266	0	128.6	38.4	73.0	6.0
Aug 13			137	24	0	0	1	41	24			216	0	126.2	37.8	73.0	6.0
Aug 14			128	24	0	0	2	41	28			221	0	138.1	41.6	73.0	6.0
Aug 15			112	23	0	0	1	37	20			93	0	138.8	41.8	73.0	6.0
Aug 16			137	25	0	0	2	27	17			84	1	128.1	38.2	74.0	6.0
Aug 17			239	38	1	0	2	41	25			74	0	117.9	35.7	74.0	6.0
Aug 18			390	41	0	0	5	86	43			125	1	109.5	32.8	74.0	6.0
Aug 19			352	51	1	0	2	120	66			115	0	120.8	36.2	73.0	6.0
Aug 20			604	62	0	0	1	159	87			99	0	115.5	34.5	73.0	6.0
Aug 21			496	72	3	0	5	170	97			81	0	121.1	36.3	73.0	6.0
Aug 22			314	29	1	-1	1	163	69			84	0	125.1	37.3	73.0	6.0
Aug 23			331	60	0	0	4	163	66			94	0	126.8	38.0	72.0	6.0
Aug 24			221	39	0	0	3	188	60			99	0	117.3	35.0	72.0	6.0
Aug 25			292	31	2	2	1	227	88			72	0	114.0	34.1	72.0	6.0
Aug 26			436	77	5	1	4	153	60			42	0	103.2	30.9	72.0	6.0
Aug 27			563	46	5	2	0	208	72			51	0	102.9	30.9	72.0	6.0
Aug 28			627	84	7	6	10	282	69			63	0	103.4	31.0	72.0	6.0
Aug 29			548	70	5	2	1	171	66			57	0	142.5	42.8	72.0	6.0
Aug 30			1,486	204	20	6	6	293	108			87	0	130.8	39.3	72.0	6.0
Aug 31			1,124	195	17	5	3	409	135			108	0	140.8	42.5	72.0	6.0
TOTAL		848	8,995	1,497	67	23	186	3,724	1,623			3,784	2				
AVG.		170	346	48	2	1	6	120	52			122	0	129.2	38.7	72.3	6.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	LAMPREY	STURGEON
TOTALS TO DATE	46,675	12,475	67	23	65,913	7,506	4,175	20,807	3
SPRING	46,675	12,475							
SUMMER	60,416	7,363							
FALL	8,995	1,333							
TOTAL	116,086	21,171							

TABLE 58

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

JOHN DAY PROJECT - FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT			CHINOOK COHO		COHO		unclipped				DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM					LAMPREY	STURGEON
Sep 1		1,063		207	22	2	6	395	137	0		197	1	140.6	1.6	72.0	6.0
Sep 2		1,289		196	23	7	10	563	204	0		294	0	127.5	0.9	72.0	6.0
Sep 3		1,683		211	55	40	1	860	300	0		196	-1	92.8	1.0	72.0	6.0
Sep 4		976		113	51	16	1	625	205	0		182	0	104.2	1.0	72.0	6.0
Sep 5		1,068		128	26	9	0	404	120	0		135	0	107.9	1.0	72.0	6.0
Sep 6		1,222		144	18	1	0	157	42	0		114	0	119.3	1.0	72.0	6.0
Sep 7		1,119		135	13	6	0	150	38	0		157	2	128.4	1.0	72.0	6.0
Sep 8		1,797		319	86	81	5	520	167	0		121	0	116.2	1.0	71.0	6.0
Sep 9		1,762		301	82	8	3	689	172	0		134	0	93.9	1.0	71.0	6.0
Sep 10		1,850		423	90	19	10	938	268	0		74	0	105.4	1.0	72.0	6.0
Sep 11		2,329		208	77	16	9	682	211	0		149	0	113.3	0.9	72.0	6.0
Sep 12		6,675		648	133	64	8	961	312	0		120	0	113.7	0.9	72.0	6.0
Sep 13		9,869		1,016	211	43	4	1,297	408	0		148	0	110.3	1.0	72.0	6.0
Sep 14		9,458		1,293	552	246	8	2,379	660	0		97	0	105.7	1.0	72.0	6.0
Sep 15		6,913		1,024	627	101	2	2,025	534	0		49	0	114.3	1.0	72.0	6.0
Sep 16		7,937		730	912	102	0	2,531	575	0		45	0	132.7	1.0	72.0	6.0
Sep 17		8,358		1,054	904	129	0	2,894	681	1		28	0	101.7	0.9	72.0	6.0
Sep 18		7,005		584	1,024	72	3	3,341	870	0		46	0	87.0	0.9	72.0	6.0
Sep 19		5,963		844	1,119	270	11	3,979	1,096	0		36	0	87.1	0.9	72.0	6.0
Sep 20		4,553		502	878	85	2	2,620	632	0		40	0	90.9	0.9	71.0	6.0
Sep 21		5,354		860	1,409	357	1	4,976	1,434	0		38	0	97.8	0.9	71.0	6.0
Sep 22		4,508		686	1,501	249	5	4,282	1,135	0		21	0	95.8	0.9	70.0	6.0
Sep 23		5,768		715	2,451	498	7	4,866	1,269	0		12	0	73.0	0.8	70.0	6.0
Sep 24		5,655		789	2,058	242	2	3,601	790	0		14	0	72.0	0.9	70.0	6.0
Sep 25		4,123		542	2,241	334	5	3,044	633	0		21	0	85.4	0.9	70.0	6.0
Sep 26		3,020		390	1,069	205	0	2,114	453	0		10	0	114.5	0.9	69.1	6.0
Sep 27		2,952		280	891	141	1	1,611	358	0		5	0	115.8	0.9	69.0	6.0
Sep 28		2,587		387	1,153	239	0	1,791	379	0		15	0	110.4	0.9	68.0	6.0
Sep 29		2,759		425	657	107	-1	1,736	376	0		5	0	112.2	0.9	68.0	6.0
Sep 30		3,384		554	1,189	297	6	1,845	446	0		13	0	78.1	0.9	68.0	6.0
TOTAL		122,999		15,708	21,522	3,986	109	57,876	14,905	1		2,516	2				
AVG.		4,100		524	717	133	4	1,929	497			84	0	104.9	1.0	71.0	6.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	46,675	12,475
SUMMER	60,416	7,363
FALL	131,994	17,041
TOTAL	239,085	36,879

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
21,589	4,009	66,022	65,382	19,080	1	23,323	5

TABLE 59

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

JOHN DAY PROJECT - FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT			CHINOOK COHO		COHO		unclipped				DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM					LAMPREY	STURGEON
Oct 1			3,626	479	906	94	-1	2,007	485			2	0	79.4	0.9	65.0	6.0
Oct 2			2,471	308	714	125	2	1,400	336			6	0	103.6	0.9	65.0	6.0
Oct 3			1,656	201	409	45	2	935	208			18	1	103.2	0.9	65.0	6.0
Oct 4			1,343	177	477	90	5	758	218			7	0	111.9	0.9	64.0	6.0
Oct 5			2,781	454	380	56	3	836	261			5	0	111.3	0.8	64.0	6.0
Oct 6			3,242	308	407	35	0	996	261			2	0	92.4	0.8	64.0	6.0
Oct 7			2,174	297	517	45	0	1,130	317			2	0	76.5	0.8	63.0	6.0
Oct 8			1,448	150	387	11	0	837	237			2	0	81.9	0.8	65.0	6.0
Oct 9			1,188	132	358	40	0	807	232			7	0	102.6	0.8	65.0	6.0
Oct 10			1,307	129	250	22	0	557	168			8	0	98.1	0.8	65.0	6.0
Oct 11			1,499	232	253	59	0	565	176			0	0	92.9	0.7	64.0	6.0
Oct 12			1,542	204	216	19	0	381	122			10	0	108.5	0.8	64.0	6.0
Oct 13			1,375	171	177	43	2	458	140			-2	0	89.5	0.8	64.0	6.0
Oct 14			915	120	190	36	1	426	150			2	-1	85.6	0.8	63.0	6.0
Oct 15			1,345	184	269	98	4	605	211			-7	0	82.5	0.8	63.0	6.0
Oct 16			963	103	271	59	1	529	204			0	1	83.5	0.8	62.0	6.0
Oct 17			444	60	151	16	0	398	166			6	0	73.4	0.8	62.0	6.0
Oct 18			262	64	108	11	0	315	119			1	0	91.9	0.8	62.0	6.0
Oct 19			423	43	91	6	0	222	93			5	0	79.1	0.8	62.0	6.0
Oct 20			345	86	82	35	0	308	141			-2	0	66.1	0.8	61.0	6.0
Oct 21			437	64	69	19	0	269	101			2	0	80.5	0.8	61.0	6.0
Oct 22			432	103	233	50	0	590	269			4	0	72.3	0.8	61.0	6.0
Oct 23			490	52	191	14	0	769	410			-1	-1	80.1	0.8	60.0	6.0
Oct 24			330	76	132	55	0	664	325			2	0	102.9	0.8	60.0	6.0
Oct 25			295	58	62	30	0	484	222			1	0	63.4	0.8	59.0	6.0
Oct 26			255	40	94	15	0	259	132			0	0	84.6	0.8	59.0	6.0
Oct 27			133	15	29	2	0	144	56			-1	0	78.9	0.8	59.0	6.0
Oct 28			63	22	19	2	0	84	30			1	0	76.8	0.8	58.0	6.0
Oct 29			123	21	21	5	0	68	20			0	0	67.0	0.8	58.0	6.0
Oct 30			280	11	13	7	0	40	18			0	0	93.5	0.7	58.0	6.0
Oct 31			345	26	15	13	0	30	10			1	0	93.6	0.8	58.0	6.0
TOTAL			33,532	4,390	7,491	1,157	19	17,871	5,838			81	0				
AVG.			1,082	142	242	37	1	576	188			3	0	87.3	0.8	62.0	6.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	46,675	12,475
SUMMER	60,416	7,363
FALL	165,526	21,431
TOTAL	272,617	41,269

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
29,080	5,166	66,041	83,253	24,918	1

LAMPREY	STURGEON
23,404	5

Note: Visual counts ended October 31.

TABLE 60
DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2017

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1	75.5	0.8	57.0	6.0	Dec 1	129.5	0.0	50.0	6.0
Nov 2	85.9	0.7	57.0	6.0	Dec 2	135.6	0.0	50.0	6.0
Nov 3	93.8	0.7	57.0	6.0	Dec 3	136.3	0.0	50.0	6.0
Nov 4	87.4	0.7	57.0	6.0	Dec 4	128.4	0.0	49.0	6.0
Nov 5	94.1	0.0	57.0	6.0	Dec 5	121.1	0.0	49.0	6.0
Nov 6	104.0	0.7	57.0	6.0	Dec 6	140.3	0.0	49.0	6.0
Nov 7	120.2	0.7	56.0	6.0	Dec 7	154.6	0.0	49.0	6.0
Nov 8	130.5	0.7	56.0	6.0	Dec 8	155.6	0.0	49.0	6.0
Nov 9	107.7	0.7	56.0	6.0	Dec 9	150.9	0.0	49.0	6.0
Nov 10	112.3	0.7	55.0	6.0	Dec 10	137.5	0.0	49.0	6.0
Nov 11	115.7	0.7	55.0	6.0	Dec 11	159.6	0.0	49.0	6.0
Nov 12	120.7	0.7	55.0	6.0	Dec 12	157.4	0.0	48.0	6.0
Nov 13	107.1	0.7	55.0	6.0	Dec 13	156.8	0.0	48.0	6.0
Nov 14	104.6	0.7	54.0	6.0	Dec 14	151.6	0.0	48.0	6.0
Nov 15	115.4	0.7	54.0	6.0	Dec 15	136.9	0.0	48.0	6.0
Nov 16	108.9	0.8	54.0	6.0	Dec 16	126.2	0.0	47.0	6.0
Nov 17	112.2	0.7	53.0	6.0	Dec 17	125.6	0.0	46.0	6.0
Nov 18	109.9	0.7	53.0	6.0	Dec 18	122.0	0.0	46.0	6.0
Nov 19	120.4	0.7	53.0	6.0	Dec 19	135.8	0.0	45.0	6.0
Nov 20	120.0	0.7	52.0	6.0	Dec 20	132.1	0.0	45.0	6.0
Nov 21	119.4	0.7	52.0	6.0	Dec 21	135.2	0.0	45.0	6.0
Nov 22	131.5	0.7	52.0	6.0	Dec 22	133.8	0.0	44.0	6.0
Nov 23	103.9	0.7	51.0	6.0	Dec 23	137.7	0.0	43.9	6.0
Nov 24	100.3	0.7	51.0	6.0	Dec 24	149.5	0.0	43.0	6.0
Nov 25	127.5	0.7	50.0	6.0	Dec 25	141.8	0.0	43.0	6.0
Nov 26	135.2	0.7	50.0	6.0	Dec 26	172.8	0.0	43.0	6.0
Nov 27	121.4	0.7	50.0	6.0	Dec 27	156.1	0.0	42.0	6.0
Nov 28	137.4	0.7	50.0	6.0	Dec 28	155.5	0.0	42.0	6.0
Nov 29	128.6	0.7	50.0	6.0	Dec 29	137.5	0.0	42.0	6.0
Nov 30	134.1	0.7	50.0	6.0	Dec 30	148.3	0.0	42.0	6.0
					Dec 31	148.6	0.0	42.0	6.0
AVG.	112.9	0.7	53.6	6.0	AVG.	142.3	0.0	46.3	6.0

TABLE 61

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped			LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	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		30		5		62	1	1	50
Jun 16		46		0		31	0	0	65
Jun 17		24		0		42	0	0	82
Jun 18		24		0		33	1	0	57
Jun 19		35		0		150	0	0	56
Jun 20		28		0		87	0	0	92
Jun 21		22		0		139	0	0	123
Jun 22		26		1		434	1	0	225
Jun 23		47		5		287	0	0	141
Jun 24		30		7		204	1	0	130
Jun 25		43		0		202	0	0	512
Jun 26		48		2		326	0	0	367
Jun 27		31		8		213	0	0	241
Jun 28		24		0		159	0	0	423
Jun 29		36		0		230	0	0	983
Jun 30		38		0		154	1	1	1,284
TOTAL		532		28		2,753	5	2	4,831
AVG.		33		2		172	0	0	302

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

TABLE 62

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT -NIGHT FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			LAMPREY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		PINK
Jul 1		35		2			223	0	0		1,568
Jul 2		31		11			226	0	0		1,200
Jul 3		32		10			143	0	0		742
Jul 4		24		0			220	0	0		1,062
Jul 5		13		0			224	0	0		1,754
Jul 6		38		3			201	1	1		1,412
Jul 7		26		2			169	3	1		1,245
Jul 8		31		2			186	1	0		1,442
Jul 9		11		1			234	6	0		734
Jul 10		21		0			175	0	0		1,219
Jul 11		15		0			145	0	0		724
Jul 12		6		0			112	0	0		438
Jul 13		14		0			94	1	1		1,071
Jul 14		9		0			126	0	0		1,246
Jul 15		9		1			92	0	0		1,074
Jul 16		11		0			71	0	0		975
Jul 17		9		0			67	0	0		1,040
Jul 18		28		9			11	9	4		832
Jul 19		7		2			35	2	0		1,107
Jul 20		8		1			33	6	2		790
Jul 21		8		0			28	4	4		1,025
Jul 22		8		0			21	1	1		872
Jul 23		7		0			55	5	2		589
Jul 24		18		1			23	6	5		784
Jul 25		13		2			25	2	1		487
Jul 26		9		0			46	2	2		517
Jul 27		1		0			40	4	4		483
Jul 28		9		0			18	2	2		814
Jul 29		5		0			23	7	3		561
Jul 30		8		0			10	5	4		860
Jul 31		4		0			14	1	1		427
TOTAL		468		47			3,090	68	38		29,094

AVG

15

2

100

2

1

939

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

TABLE 63

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK					
Aug 1		2		0	0	0	4	4	3		356
Aug 2		2		2	0	0	2	0	0		449
Aug 3		10		0	0	0	5	1	1		457
Aug 4		6		0	0	0	4	3	3		516
Aug 5		2		0	0	0	6	0	0		438
Aug 6			0	0	0	0	11	0	0		268
Aug 7			2	0	0	0	6	0	0		299
Aug 8			6	0	0	0	2	1	1		316
Aug 9			13	3	0	0	5	2	2		311
Aug 10			1	0	0	0	-2	0	0		401
Aug 11			1	0	0	0	1	0	0		136
Aug 12			9	1	0	0	1	6	5		514
Aug 13			25	2	0	0	1	3	2		447
Aug 14			12	1	0	0	1	0	0		370
Aug 15			11	1	0	0	0	0	0		250
Aug 16			14	0	0	0	3	4	3		232
Aug 17			5	0	0	0	3	1	1		217
Aug 18			22	0	0	0	4	6	5		170
Aug 19			15	1	0	0	2	16	11		200
Aug 20			6	3	0	0	2	7	5		208
Aug 21			9	2	0	0	0	8	4		167
Aug 22			15	1	0	0	1	8	4		208
Aug 23			10	0	0	0	1	13	5		242
Aug 24			9	0	0	0	1	32	12		220
Aug 25			6	0	0	0	0	9	4		346
Aug 26			2	4	0	0	0	4	3		334
Aug 27			11	6	0	0	3	9	3		196
Aug 28			13	1	0	0	1	6	4		197
Aug 29			15	1	2	0	2	5	2		206
Aug 30			18	1	0	1	0	37	18		308
Aug 31			19	1	0	0	0	36	14		326
TOTAL		22	269	31	2	1	70	221	115		9,305
AVG.		4	10	1	0	0	2	7	4		300

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

SEPTEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped		LAMPREY	
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD		PINK
Sep 1			20	1	0	0	1	25	10		376
Sep 2			33	3	0	0	4	38	9		500
Sep 3			9	0	0	0	2	36	19		294
Sep 4			21	1	0	0	2	28	6		434
Sep 5			11	1	0	0	0	31	4		500
Sep 6			9	1	1	1	0	14	3		495
Sep 7			29	1	0	0	0	21	4		362
Sep 8			27	15	4	2	0	103	31		290
Sep 9			19	9	9	3	0	88	20		202
Sep 10			55	8	10	1	0	91	24		285
Sep 11			113	1	18	2	0	104	34		273
Sep 12			98	2	17	3	0	136	34		227
Sep 13			104	47	29	0	0	253	73		240
Sep 14			89	10	49	4	0	270	74		223
Sep 15			113	29	37	11	0	254	94		168
Sep 16			109	47	32	3	0	296	71		155
Sep 17			114	43	13	0	3	318	58		114
Sep 18			125	63	86	1	1	733	196		69
Sep 19			49	63	53	6	2	287	71		79
Sep 20			100	37	54	5	0	398	98		64
Sep 21			80	37	97	10	0	309	75		96
Sep 22			112	8	128	11	0	406	108		82
Sep 23			86	41	69	17	0	380	88		58
Sep 24			30	19	36	8	0	271	61		57
Sep 25			109	12	69	6	0	222	46		70
Sep 26			30	1	47	0	0	132	24		59
Sep 27			33	1	36	4	0	100	9		49
Sep 28			23	4	23	6	0	115	21		31
Sep 29			31	21	25	10	0	98	24		35
Sep 30			32	14	29	7	0	144	38		37
TOTAL			1,813	540	971	121	15	5,701	1,427		5,924
AVG.			60	18	32	4	1	190	48		197

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

TABLE 65

YEARLY TOTALS OF SALMONIDS COUNTED OVER
JOHN DAY DAM
1968 - 2017

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
TOTALS	14,406,338	8,699,402	4,828,392	993,775	895	28,928,815
10-Year Average	546,000	231,441	264,812	44,913	79	1,087,245

*Jacks included

2006 - Total includes 1 chum

2013 - Total includes 12 chum

Note: For 2017 the salmon table has been retabulated to include a column for Pink's.

TABLE 66

MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2017

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	24,363	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	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			21	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	
TOTAL				4,144	1,245,492	2,270,535	1,447,203	1,037,064	1,011,242	6,340,364	1,037,194	12,625	14,406,338	3,686,600	2,391,950	8,314,612	2,952,463	
10-Year Average				21,523	94,422	63,312	35,029	33,919	252,375	45,158			546,000	123,896	92,620	329,221	97,573	
*Jacks included																		

TABLE 67

MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM
1968 - 2017

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						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						7,004	4,141	22	2	1			11,170
1995					1	4,242	4,352	71	1				8,667
1996						15,316	10,323	59	0				25,698
1997					10	11,605	23,604	603	4	4			35,830
1998						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						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						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						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
TOTAL					278	2,572,578	2,229,514	24,470	1,413	138	1		4,828,392
10-Year Average					22	158,980	104,873	852	81				264,812

TABLE 68
 MONTHLY COUNT OF COHO SALMON
 JOHN DAY DAM 1968 - 2017

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
TOTAL				0	2	1	119	21,594	667,050	296,104	8,785	119	993,775
10-Year Average								1,058	30,113	13,678			44,913

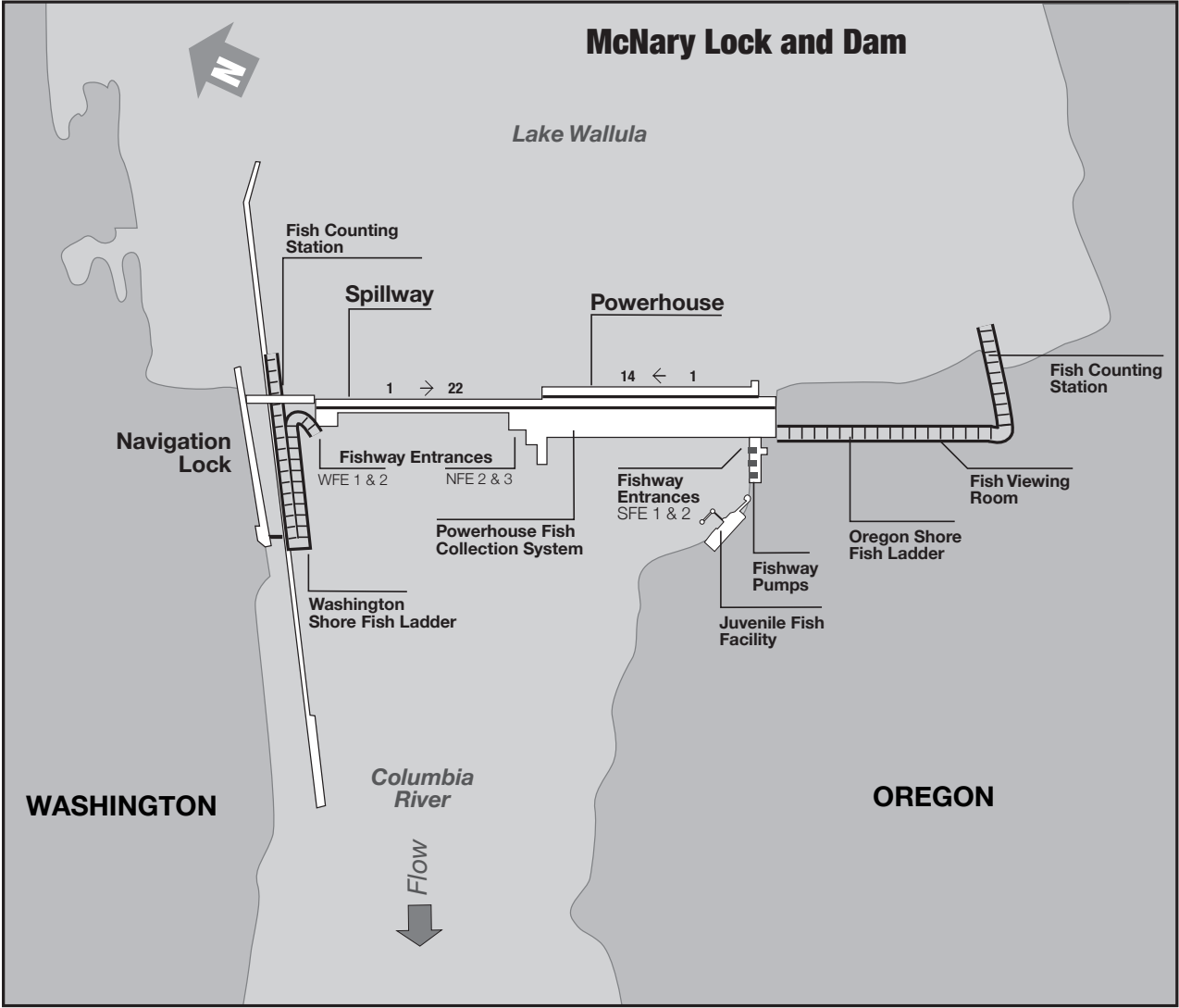
*Jacks included

TABLE 69

**MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2017**

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
TOTAL	181	1,420	25,232	119,309	42,518	121,199	940,009	1,419,048	4,275,190	1,699,182	52,038	4,076	8,699,402
10-YR Average				1,343	372	3,081	29,100	45,989	112,484	38,354			231,441

Plate 5 McNary Lock and Dam



McNARY DAM

FISH COUNTING SCHEDULE

Washington Ladder Schedule

1 January – 28 February	No counting.
1 March – 31 March	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).
1 November – 31 December	Video counts daily (0400-2000 hours PST).

Oregon Ladder Schedule

1 January – 28 February	No counting.
1 March – 31 March	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).
1 November – 31 December	Video counts daily (0400-2000 hours PST).

FISH LADDER OPERATING SCHEDULE

Washington Ladder

1 – 28 January	Ladder dewatered for annual maintenance and lamprey passage improvements.
28 January – 31 December	Ladder in service.

Oregon Ladder

1 – 29 January	Ladder in service.
29 January – 28 February	Ladder dewatered for annual maintenance.
28 February – 31 December	Ladder in service.

FISHWAY ACTIVITIES

Temperature monitoring occurred in both ladders from 1 April to 30 September.

Washington ladder maintenance activities in January consisted of maintenance on all above water systems, drive systems rehabilitated on six of seven tilting weirs and the regulating weir along with lamprey passage improvements (slots in the weir bases) installed in the exit area.

The Wasco County PUD system did not provide axillary water from 1 to 28 January. The turbine unit was out of service 1 January to 10 March for runner replacement. The PUD's bypass system provided auxiliary water when the ladder was in service.

Oregon ladder maintenance activities in February consisted of maintenance on all above water systems, drive systems rehabilitated on four of seven tilting weirs and a dive inspection of the diffuser grating. The 1000 cubic feet per second auxiliary conduit intake valve was closed from

29 January to 28 February winter in order to examine the discharge valves, which require a future rehabilitation contract.

Fish pumps 1 and 3 were out of service from 29 January to 28 February for annual maintenance. Fish pump 2 returned to service from major overhaul on 12 July. Exciter issues with the pump were resolved by 3 August.

In August, rehabilitated floating orifice gates (FOGs) were installed in slots W14, W43 and W44. The FOGs at W8, W37 and W41 were removed for rehabilitation with stop logs installed.

From 29 March to 18 December, the juvenile bypass channel was operated for both juvenile and adult fallback passage. From 18 to 20 December, the system was in emergency bypass during ESBS removal. When in emergency bypass or out of service, the system does not provide auxiliary flow to the Oregon ladder's north powerhouse entrances.

TABLE 70

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

2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*			-1	195	39,803	45,382	26,396	7,238	111,360	47,122	5,058	182	282,735
STEELHEAD			1,869	643	15	80	1,967	2,739	50,813	22,749	1,344	253	82,472
SOCKEYE					1	29,957	27,893	117	47	7			58,022
COHO*								3	15,134	8,064	406		23,607
CHUM													0
PINK								2	12	15	1		30
TOTAL			1,868	838	39,819	75,419	56,256	10,099	177,366	77,957	6,809		446,866
SHAD					14	868,625	699,409	42,563					1,610,611
LAMPREY				0	4	43	1,363	743	380	16			2,549
STURGEON					1	0	1						2
BULL TROUT													0

*Jacks Included

TABLE 71
DISCHARGE AND WATER QUALITY DATA
MCNARY PROJECT 2017

JANUARY					FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	148.9	0.0	6.0	41.0	Feb 1	148.7	0.0	6.0	36.0
Jan 2	160.4	0.0	6.0	41.0	Feb 2	148.3	0.0	6.0	36.0
Jan 3	162.6	0.0	6.0	41.0	Feb 3	153.9	0.0	6.0	36.0
Jan 4	167.0	0.0	6.0	40.0	Feb 4	154.2	0.0	6.0	35.0
Jan 5	182.1	0.0	6.0	39.0	Feb 5	151.8	0.0	6.0	35.0
Jan 6	178.2	0.0	6.0	38.0	Feb 6	155.5	0.0	6.0	35.0
Jan 7	176.8	0.0	6.0	38.0	Feb 7	148.8	0.0	6.0	35.0
Jan 8	164.5	0.0	6.0	37.0	Feb 8	163.3	0.0	6.0	35.0
Jan 9	164.8	0.0	6.0	37.0	Feb 9	182.8	9.6	6.0	35.0
Jan 10	164.0	0.0	6.0	37.0	Feb 10	197.9	0.0	6.0	35.0
Jan 11	175.5	0.0	6.0	36.0	Feb 11	210.0	26.1	6.0	35.0
Jan 12	182.1	0.0	6.0	36.0	Feb 12	219.6	42.7	6.0	35.0
Jan 13	170.8	0.0	6.0	36.0	Feb 13	233.1	44.9	6.0	36.0
Jan 14	175.0	0.0	6.0	35.0	Feb 14	179.2	2.9	6.0	36.0
Jan 15	171.6	0.0	6.0	35.0	Feb 15	179.7	26.3	6.0	36.0
Jan 16	173.8	0.0	6.0	35.0	Feb 16	192.9	40.0	5.0	36.0
Jan 17	184.1	0.0	6.0	35.0	Feb 17	192.3	40.3	4.8	36.0
Jan 18	167.8	0.0	6.0	35.0	Feb 18	217.9	40.5	5.0	36.0
Jan 19	166.0	0.0	6.0	35.0	Feb 19	231.8	46.2	5.0	36.0
Jan 20	151.2	0.0	6.0	35.0	Feb 20	227.4	48.1	3.0	37.0
Jan 21	152.4	0.0	6.0	35.0	Feb 21	227.8	48.3	2.8	37.0
Jan 22	145.4	0.0	6.0	35.0	Feb 22	250.7	49.6	3.0	37.0
Jan 23	160.9	0.0	6.0	35.0	Feb 23	263.0	54.7	3.5	37.0
Jan 24	162.9	0.0	6.0	35.0	Feb 24	253.5	42.1	3.0	37.0
Jan 25	155.5	0.0	6.0	36.0	Feb 25	242.4	29.5	2.8	38.0
Jan 26	146.5	0.0	6.0	36.0	Feb 26	212.1	0.0	NA	38.0
Jan 27	151.2	0.0	6.0	36.0	Feb 27	220.1	13.3	2.5	38.0
Jan 28	132.1	0.0	6.0	36.0	Feb 28	226.8	23.0	2.5	38.0
Jan 29	125.4	0.0	6.0	36.0					
Jan 30	135.4	0.0	6.0	36.0					
Jan 31	152.2	0.0	NA	36.0					
AVG.	161.5	0.0	6.0	36.6	AVG.	199.5	22.4	4.9	36.1

TABLE 72

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

MCNARY PROJECT - FISH COUNTS												MARCH 2017				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped			DISCH	SPILL	URBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Mar 1	0			0				106	22			214.3	10.3	2.5	38.0	
Mar 2	0			0				92	24			215.8	6.3	3.1	38.0	
Mar 3	0			0				88	29			240.6	29.6	3.3	38.0	
Mar 4	0			0				51	5			246.0	34.5	3.1	39.0	
Mar 5	0			0				76	30			223.4	12.3	3.3	39.0	
Mar 6	0			0				53	24			227.6	24.3	3.3	39.0	
Mar 7	0			0				74	29			237.1	39.5	3.2	39.0	
Mar 8	0			0				54	27			241.6	40.0	3.2	39.0	
Mar 9	0			-1				38	14			252.9	49.7	3.9	39.0	
Mar 10	0			0				51	24			271.2	63.3	4.2	39.0	
Mar 11	0			0				36	4			298.0	83.6	4.0	40.0	
Mar 12	0			0				54	4			280.0	69.5	3.6	40.0	
Mar 13	0			0				77	1			274.7	69.3	1.8	41.0	
Mar 14	0			0				76	9			282.7	73.8	1.5	41.0	
Mar 15	0			-1				53	6			295.4	91.9	1.5	41.0	
Mar 16	0			0				74	3			338.7	132.0	1.5	40.0	
Mar 17	0			0				44	2			381.2	175.7	1.3	41.0	
Mar 18	0			0				59	15			375.7	160.4	1.0	42.0	
Mar 19	0			0				68	3			372.4	158.4	1.0	42.0	
Mar 20	1			0				71	1			420.5	207.2	1.2	42.0	
Mar 21	0			0				57	3			409.3	202.3	1.1	42.0	
Mar 22	0			0				76	6			416.6	216.1	1.3	42.0	
Mar 23	0			0				57	6			445.9	244.5	1.2	41.0	
Mar 24	0			0				39	3			460.3	262.4	1.2	42.0	
Mar 25	0			0				47	2			435.9	235.2	NA	42.0	
Mar 26	0			0				41	4			417.9	216.2	1.4	43.0	
Mar 27	0			0				60	7			418.4	225.2	1.6	43.0	
Mar 28	0			0				55	16			410.2	222.6	NA	43.0	
Mar 29	0			0				46	24			417.9	230.3	1.2	44.0	
Mar 30	0			0				62	36			412.4	216.9	1.4	44.0	
Mar 31	0			0				34	24			421.1	222.4	2.2	44.0	
TOTAL	1			-2				1,869	407							
AVG.	0			0				60	13			334.1	129.9	2.2	40.9	

TABLE 73

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

MCNARY PROJECT - FISH COUNTS

APRIL 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped			DISCH	SPILL	URBIDITY	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	KCFS	KCFS		SECCHI
Apr 1	1			0				44	27				434.1	285.7	2.5	44.0
Apr 2	0			0				41	21				410.2	264.2	2.5	44.0
Apr 3	0			0				36	20				393.2	247.6	2.9	45.0
Apr 4	0			0				27	13				407.5	262.2	2.6	45.0
Apr 5	1			0				39	18				384.1	244.2	2.4	45.0
Apr 6	0			0				27	13				383.8	263.1	2.5	46.0
Apr 7	1			0				36	16				368.5	251.1	2.5	46.0
Apr 8	2			0				31	13				392.3	267.8	2.5	46.0
Apr 9	0			0				24	8				401.8	277.2	2.5	46.0
Apr 10	2			0				20	8				365.4	243.3	2.9	46.0
Apr 11	0			0				32	19				373.7	254.2	3.0	46.0
Apr 12	2			0				20	12				377.5	258.2	3.1	46.0
Apr 13	2			0				18	12				385.4	260.4	2.7	46.0
Apr 14	0			0				14	10				378.2	256.5	2.6	46.0
Apr 15	-1			0				21	15				374.4	251.8	2.6	47.0
Apr 16	1			0				10	4				365.5	241.5	2.6	47.0
Apr 17	5			0				8	6				343.1	222.3	3.0	47.0
Apr 18	6			0				20	10				363.3	241.7	2.8	48.0
Apr 19	2			0				16	7				329.9	210.5	NA	48.0
Apr 20	1			0				21	10				334.3	208.6	3.1	48.0
Apr 21	8			0				27	14				364.9	215.9	2.7	49.0
Apr 22	12			0				16	7				354.9	205.0	2.8	49.0
Apr 23	13			1				23	12				351.1	201.0	2.8	49.0
Apr 24	6			0				12	7				348.4	198.0	3.0	50.0
Apr 25	9			0				11	8				342.8	192.9	3.2	50.0
Apr 26	22			2				11	4				362.6	213.4	NA	50.0
Apr 27	18			1				9	7				357.8	208.3	2.8	50.0
Apr 28	27			0				13	6				361.1	211.1	2.7	50.0
Apr 29	28			0				10	3				356.4	208.3	3.1	50.0
Apr 30	23			0				6	6				332.7	194.6	3.1	51.0

TOTAL	191			4				643	336							
--------------	-----	--	--	---	--	--	--	-----	-----	--	--	--	--	--	--	--

AVG.	6			0				21	11				370.0	235.4	2.8	47.3
------	---	--	--	---	--	--	--	----	----	--	--	--	-------	-------	-----	------

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 74

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

MCNARY PROJECT - FISH COUNTS

MAY 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped		SHAD	LAMPREY	DISCH	SPILL	URBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD							PINK
May 1	36			2			0	3	1		0	0	337.1	200.7	3.9	51.0
May 2	37			2			0	5	3		0	0	333.6	204.1	3.9	51.0
May 3	49			2			0	6	1		0	0	322.1	200.7	3.9	51.0
May 4	53			2			0	4	4		0	0	317.7	201.1	4.0	51.0
May 5	75			1			0	-2	2		0	0	345.7	223.2	4.0	52.0
May 6	111			1			0	3	0		0	0	390.9	265.7	3.6	52.0
May 7	157			11			0	0	1		0	0	424.8	295.4	3.5	52.0
May 8	137			13			0	-2	0		0	0	439.8	298.3	3.4	52.0
May 9	306			7			0	3	3		0	0	429.9	300.7	3.6	53.0
May 10	691			26			0	1	0		0	0	431.0	293.6	3.7	54.0
May 11	978			49			0	1	2		0	0	437.7	291.6	3.2	54.0
May 12	1,115			68			0	0	0		0	0	432.0	285.2	3.4	54.0
May 13	1,119			73			0	1	1		0	0	435.2	287.7	3.6	53.0
May 14	1,087			54			0	1	1		0	0	422.8	275.7	2.5	52.0
May 15	839			86			0	1	1		0	0	433.8	292.5	2.5	52.0
May 16	715			60			0	-1	-1		0	0	423.8	278.3	2.1	52.0
May 17	845			105			0	-3	-2		0	0	427.3	280.7	2.0	53.0
May 18	701			78			0	-7	-6		0	0	420.8	273.9	2.2	53.0
May 19	637			84			0	1	1		0	0	409.3	260.4	2.3	53.0
May 20	767			91			0	-1	-1		0	0	394.3	243.3	2.6	54.0
May 21	823			104			0	0	0		0	0	385.5	230.4	2.7	54.0
May 22	996			103			0	1	0		0	0	393.5	235.9	2.7	55.0
May 23	1,083			187			0	1	1		0	0	394.8	235.6	2.5	55.0
May 24	1,218			269			0	0	0		0	0	404.4	244.2	2.5	56.0
May 25	2,844			625			0	2	2		0	0	429.6	263.4	3.0	56.0
May 26	3,777			485			0	-1	-1		0	0	431.1	261.3	2.9	58.0
May 27	3,622			628			0	0	0		0	0	418.7	250.2	3.2	56.0
May 28	2,753			487			0	0	0		0	1	413.1	244.3	2.9	57.0
May 29	2,526			553			-1	-1	-1		7	0	418.3	249.7	3.1	58.0
May 30	2,254			388			0	0	0		5	2	427.2	258.1	3.4	58.0
May 31	2,482			326			2	-1	0		2	1	438.1	268.7	3.5	58.0
TOTAL	34,833			4,970			1	15	12		14	4				
AVG.	1,124			160			0	0	0		0	0	405.3	257.9	3.1	53.9
RUN YEAR		CHINOOK	CHINOOK					TOTAL	unclipped							
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD		SHAD	LAMPREY				
SPRING		35,024	4,974				1	658	348		14	4				

Note: One Sturgeon counted on May 15.

TABLE 75

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

MCNARY PROJECT - FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL unclipped			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	URBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD						
Jun 1	1,739			419			0	-3	-3	0	1	445.2	276.9	2.5	57.0
Jun 2	1,564			420			5	0	0	0	1	460.0	291.0	2.2	57.0
Jun 3	1,433			332			6	0	0	0	2	450.8	280.2	2.2	57.0
Jun 4	1,133			311			14	2	2	6	0	440.1	269.0	2.3	58.0
Jun 5	814			156			9	1	0	2	4	448.8	277.4	2.9	58.0
Jun 6	903			140			9	-1	-1	64	4	433.0	264.8	2.7	57.0
Jun 7	939			154			19	-4	-4	140	0	421.4	254.8	2.4	58.0
Jun 8	742			116			39	-2	-2	384	4	424.8	260.8	2.4	58.0
Jun 9		844		152			18	-2	-2	192	0	442.9	275.7	2.2	58.0
Jun 10		1,032		110			46	1	1	120	0	435.1	267.5	2.0	58.0
Jun 11		849		121			76	0	0	1,034	4	405.4	237.8	2.0	58.0
Jun 12		1,010		94			84	-1	1	2,143	0	396.2	227.4	2.1	58.0
Jun 13		947		144			113	2	1	1,302	0	381.2	211.6	2.0	59.0
Jun 14		929		121			204	1	1	2,807	1	390.0	219.6	2.5	59.0
Jun 15		1,470		162			383	12	2	7,940	0	391.6	239.3	2.6	59.0
Jun 16		1,143		154			481	0	0	12,692	0	348.3	203.6	3.1	59.0
Jun 17		1,417		127			664	1	0	22,045	0	333.0	186.1	3.2	59.0
Jun 18		1,430		151			797	5	1	22,996	0	335.0	185.5	3.0	59.0
Jun 19		1,236		155			587	-1	-1	31,442	1	343.2	193.6	3.1	60.0
Jun 20		1,434		144			823	6	0	42,394	0	316.1	172.8	3.0	61.0
Jun 21		1,691		117			1,531	11	5	40,445	1	321.0	173.3	NA	61.0
Jun 22		1,271		94			1,789	-6	-4	37,950	0	315.8	165.6	3.9	61.0
Jun 23		1,444		85			1,711	7	5	31,715	1	306.5	157.7	3.6	62.0
Jun 24		1,796		141			2,902	3	3	41,339	2	310.5	159.5	3.7	62.0
Jun 25		1,751		140			3,736	7	6	73,654	1	299.7	150.4	3.4	62.0
Jun 26		1,663		159			2,934	3	3	95,593	3	277.4	139.0	NA	63.0
Jun 27		2,154		208			2,841	4	2	97,583	1	273.2	136.9	3.6	64.0
Jun 28		1,984		172			2,611	8	3	108,817	1	267.9	134.3	4.5	64.0
Jun 29		1,750		171			2,949	14	2	101,312	4	262.6	129.6	4.7	64.0
Jun 30		1,781		119			2,576	12	6	92,514	7	252.6	121.4	4.8	65.0
TOTAL	9,267	31,026		5,089			29,957	80	27	868,625	43				
AVG.	1,158	1,410		170			999	3	1	28,954	1	364.3	208.8	3.0	59.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	44,291	7,022
SUMMER	31,026	3,041
TOTAL	75,317	10,063

	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
	29,958	738	375	868,639	47

TABLE 76

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

MCNARY PROJECT - FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL unclipped			SHAD	LAMPREY	DISCH SPILL URBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			PINK	KCFS	KCFS	SECCHI	DEG F
Jul 1		1,743		61			2,291	-4	-4		125,328	3	270.4	126.8	4.9	65.0
Jul 2		1,565		69			2,699	14	8		82,756	12	245.0	114.4	NA	65.0
Jul 3		2,044		106			3,323	22	11		59,045	20	227.5	109.4	4.8	65.0
Jul 4		2,304		138			3,648	22	16		38,898	13	240.6	115.5	6.0	65.0
Jul 5		1,149		73			1,845	15	14		37,856	12	219.9	105.2	6.0	66.0
Jul 6		1,288		67			1,628	11	9		31,029	25	212.4	101.4	6.0	66.0
Jul 7		966		40			1,314	-20	-22		31,992	20	221.4	105.7	6.0	67.0
Jul 8		1,006		47			1,650	6	-2		23,067	50	213.5	101.7	5.5	67.0
Jul 9		1,323		49			1,518	48	30		25,610	50	191.6	90.7	5.5	68.0
Jul 10		1,363		69			1,351	24	17		19,493	18	197.5	93.8	5.9	67.0
Jul 11		1,007		63			1,229	62	44		25,880	78	190.7	91.4	6.0	68.0
Jul 12		1,417		42			1,120	53	34		25,858	38	197.8	94.8	4.7	68.0
Jul 13		1,153		49			1,000	57	33		17,436	62	213.4	105.5	4.9	68.0
Jul 14		573		50			531	37	24		12,449	56	225.2	112.8	5.1	68.0
Jul 15		552		30			496	42	22		14,577	32	190.6	95.7	5.3	68.0
Jul 16		373		23			336	54	36		11,737	48	180.3	90.5	5.4	68.0
Jul 17		424		34			341	48	30		9,745	65	192.3	96.2	5.0	68.0
Jul 18		384		34			219	60	38		9,710	31	212.7	106.5	5.8	69.0
Jul 19		531		23			267	68	43		8,980	36	199.5	100.0	5.0	69.0
Jul 20		521		27			174	94	55		9,408	21	186.0	93.2	5.7	68.0
Jul 21		409		41			184	82	62		8,386	26	177.0	88.4	5.6	68.0
Jul 22		374		47			156	79	49		11,530	70	161.2	80.7	5.8	68.0
Jul 23		268		31			123	110	55		11,755	55	149.7	75.2	5.9	68.0
Jul 24		291		28			117	83	53		6,929	129	164.8	82.7	5.9	69.0
Jul 25		379		54			84	124	84		7,191	72	170.8	85.9	6.0	70.0
Jul 26		303		49			76	112	81		6,876	45	163.7	82.1	6.0	70.0
Jul 27		216		25			53	129	92		7,678	68	150.2	75.5	6.0	70.0
Jul 28		270		28			42	139	91		5,143	89	163.2	81.8	6.0	70.0
Jul 29		242		31			37	144	79		5,001	23	180.8	90.6	6.0	70.0
Jul 30		269		30			29	111	51		4,310	21	149.6	75.0	6.0	70.0
Jul 31		212		19			12	141	95		3,756	75	157.9	79.1	6.0	70.0
TOTAL		24,919		1,477			27,893	1,967	1,228		699,409	1,363				
AVG.		804		48			900	63	40		22,562	44	194.1	95.1	5.6	67.9
RUN YEAR		CHINOOK		CHINOOK			TOTAL	unclipped			SHAD	LAMPREY				
TOTALS TO DATE		ADULT		JACK			SOCKEYE	STEELHEAD	STEELHEAD		SHAD	LAMPREY				
SPRING		44,291		7,022			57,851	2,705	1,603		1,568,048	1,410				
SUMMER		55,945		4,518												
TOTAL		100,236		11,540												

Note: 1 sturgeon counted up on Jul 3

TABLE 77

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

MCNARY PROJECT - FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					SHAD	LAMPREY	DISCH SPILL URBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped	STEELHEAD	PINK			KCFS	KCFS	SECCHI	DEG F
Aug 1		314		49	0	0	29	115	65	0	2,622	23	165.2	83.0	6.0	71.0	
Aug 2		207		24	0	0	23	117	71	0	1,995	36	168.3	84.6	6.0	71.0	
Aug 3		165		23	0	0	11	72	32	0	1,743	34	155.3	77.9	6.0	72.0	
Aug 4		188		17	0	0	8	95	64	0	3,421	45	149.3	75.0	6.0	72.0	
Aug 5		134		19	0	0	8	91	56	0	3,804	27	147.2	74.0	NA	71.0	
Aug 6		114		19	0	0	4	89	53	0	2,439	30	142.4	71.3	6.0	71.0	
Aug 7		119		21	0	0	6	56	35	0	3,566	46	120.8	60.5	5.8	71.0	
Aug 8		93		15	0	0	3	53	27	0	1,428	34	145.0	72.6	6.0	72.0	
Aug 9			104	18	0	0	0	38	26	0	2,561	26	153.0	76.6	6.0	72.0	
Aug 10			62	8	0	0	2	52	35	0	2,580	9	150.3	75.3	6.0	71.0	
Aug 11			64	10	0	0	1	43	26	0	2,504	32	146.4	73.4	6.0	72.0	
Aug 12			70	4	0	0	1	35	20	0	1,536	25	140.8	70.6	6.0	72.0	
Aug 13			53	4	0	0	0	33	19	0	1,872	29	139.3	69.9	6.0	72.0	
Aug 14			64	5	0	0	0	32	12	0	4,506	8	141.3	71.0	6.0	71.0	
Aug 15			90	19	0	0	0	25	10	0	1,357	25	144.8	72.5	6.0	71.0	
Aug 16			112	13	0	0	1	24	8	0	1,082	13	141.4	71.0	6.0	71.0	
Aug 17			135	16	0	0	1	23	15	0	365	18	126.7	63.6	6.0	71.0	
Aug 18			144	21	0	0	0	37	21	0	939	32	117.2	58.8	5.8	70.0	
Aug 19			274	21	0	0	1	47	29	0	420	28	125.6	63.0	6.0	70.0	
Aug 20			304	22	0	0	0	63	36	0	294	16	123.7	62.1	6.0	70.0	
Aug 21			308	25	1	0	0	76	44	0	261	27	129.2	64.7	6.0	70.0	
Aug 22			599	30	2	1	2	120	51	1	217	25	131.8	66.1	6.0	71.0	
Aug 23			352	34	2	0	3	134	83	0	226	20	132.8	66.6	6.0	71.0	
Aug 24			242	35	0	0	3	172	91	0	170	10	129.4	65.0	6.0	70.0	
Aug 25			202	34	0	0	0	174	67	1	115	17	114.6	57.5	6.0	71.0	
Aug 26			163	27	-1	0	0	123	49	0	183	16	112.2	56.3	6.0	71.0	
Aug 27			282	24	0	0	0	132	57	0	57	10	110.6	55.5	6.0	71.0	
Aug 28			348	40	0	0	3	140	54	0	66	23	110.9	55.5	6.0	71.0	
Aug 29			470	41	0	0	6	154	49	0	50	18	144.0	72.1	6.0	71.0	
Aug 30			351	44	0	0	1	160	63	0	59	18	142.2	71.3	6.0	71.0	
Aug 31			381	48	-2	0	0	214	76	0	125	23	148.3	74.4	6.0	71.0	
TOTAL		1,334	5,174	730	2	1	117	2,739	1,344	2	42,563	743					
AVG.		167	225	24	0	0	4	88	43		1373	24	137.1	68.8	6.0	71.1	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
TOTALS TO DATE										
SPRING	44,291	7,022				5,444	2,947	2	1,610,611	2,153
SUMMER	57,279	4,705								
FALL	5,174	543								
TOTAL	106,744	12,270								

TABLE 78

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

MCNARY PROJECT - FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped			SHAD	LAMPREY	DISCH SPILL URBDITY				
	SPRING	SUMMER	FALL	JACK	ADULT		JACK	SOCKEYE	STEELHEAD			STEELHEAD	PINK	KCFS	KCFS	SECCHI
Sep 1			807	134	5	1	2	283	85	0		46	143.8	0.0	6.0	71.0
Sep 2			901	164	3	0	5	254	94	0		24	128.0	0.0	6.0	71.0
Sep 3			1,174	159	5	2	6	320	106	0		34	97.8	0.0	6.0	71.0
Sep 4			1,078	142	6	0	1	344	113	0		36	106.5	0.0	6.0	71.0
Sep 5			1,419	122	7	1	3	447	161	0		22	104.8	0.0	6.0	71.0
Sep 6			644	91	9	8	2	452	163	0		21	125.5	0.0	6.0	70.0
Sep 7			780	107	19	3	4	405	144	1		14	129.9	0.0	6.0	70.0
Sep 8			919	103	18	3	6	374	131	0		18	118.5	0.0	5.0	70.0
Sep 9			1,160	132	23	5	0	480	129	0		11	99.5	0.0	6.0	70.0
Sep 10			2,109	201	38	5	5	530	155	1		14	99.2	0.0	6.0	70.0
Sep 11			1,936	200	59	8	0	563	168	0		18	113.8	0.0	6.0	70.0
Sep 12			1,737	159	54	11	3	512	157	0		24	118.6	0.0	6.0	70.0
Sep 13			1,575	134	56	11	4	693	196	0		13	113.9	0.0	6.0	70.0
Sep 14			3,861	179	44	7	2	685	213	3		21	105.9	0.0	6.0	71.0
Sep 15			5,456	369	82	11	0	665	202	0		15	118.5	0.0	6.0	70.0
Sep 16			6,773	511	118	11	0	1,153	324	0		4	137.3	0.0	6.0	69.0
Sep 17			8,308	568	312	48	1	1,922	484	0		7	102.4	0.0	6.0	69.0
Sep 18			7,951	512	794	56	0	2,984	690	0		6	83.6	0.0	6.0	68.0
Sep 19			7,383	364	805	79	0	2,955	628	0		4	91.3	0.0	6.0	67.0
Sep 20			4,169	413	672	55	0	2,250	525	0		3	95.3	0.0	6.0	66.0
Sep 21			4,210	325	884	72	1	3,060	708	0		1	96.1	0.0	6.0	66.0
Sep 22			3,879	416	891	54	1	2,934	678	0		1	94.9	0.0	5.6	65.0
Sep 23			3,695	340	760	24	0	2,582	662	0		5	72.1	0.0	5.8	65.0
Sep 24			5,454	387	727	26	0	3,137	876	0		3	71.5	0.0	6.0	65.0
Sep 25			5,491	345	1,091	36	0	3,771	986	0		2	91.5	0.0	6.0	64.0
Sep 26			5,373	443	1,902	91	0	5,494	1,506	4		5	115.8	0.0	6.0	64.0
Sep 27			5,031	480	2,298	177	0	4,748	1,094	2		1	116.3	0.0	6.0	64.0
Sep 28			3,123	297	1,189	83	0	2,356	488	0		2	110.1	0.0	6.0	65.0
Sep 29			3,261	174	633	24	1	1,987	455	0		2	114.3	0.0	6.0	65.0
Sep 30			3,502	230	698	20	0	2,473	500	1		3	89.4	0.0	6.0	64.0
TOTAL			103,159	8,201	14,202	932	47	50,813	12,821	12		380				
AVG.			3,439	273	473	31	2	1,694	427	0		13	106.9	0.0	5.9	68.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	44,291	7,022
SUMMER	57,279	4,705
FALL	108,333	8,744
TOTAL	209,903	20,471

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
14,204	933	58,015	56,257	15,768	14	1,610,611	2,533

TABLE 79

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

MCNARY PROJECT - FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					DISCH	SPILL	URBIDITY	KCFS	KCFS	SECCHI	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped	STEELHEAD	PINK							
Oct 1			4,184	261	554	22	0	2,670	656	0		2	92.6	0.0	6.0	64.0		
Oct 2			3,792	287	474	30	-1	1,863	405	0		-1	110.6	0.0	6.0	64.0		
Oct 3			3,349	236	533	21	0	1,387	282	0		1	113.5	0.0	6.0	64.0		
Oct 4			2,514	162	502	18	0	997	242	5		2	107.4	0.0	6.0	64.0		
Oct 5			1,858	161	369	22	1	983	241	2		3	129.1	0.0	6.0	63.0		
Oct 6			1,506	174	378	24	1	1,071	244	1		5	113.2	0.0	6.0	63.0		
Oct 7			2,518	247	553	44	7	1,363	314	0		2	81.7	0.0	6.0	62.0		
Oct 8			3,213	278	501	82	0	1,323	365	1		1	81.3	0.0	6.0	61.0		
Oct 9			2,445	192	237	19	0	988	314	0		0	102.3	0.0	6.0	61.0		
Oct 10			1,878	134	311	34	0	805	206	3		0	97.6	0.0	6.0	61.0		
Oct 11			1,548	80	312	15	0	980	244	0		1	94.5	0.0	6.0	60.0		
Oct 12			1,351	84	303	30	0	832	229	0		0	108.3	0.0	6.0	60.0		
Oct 13			1,436	88	207	18	0	584	165	2		0	87.8	0.0	6.0	60.0		
Oct 14			1,282	102	180	8	0	432	102	0		0	82.7	0.0	6.0	59.0		
Oct 15			1,479	106	220	8	-1	451	119	0		0	85.6	0.0	6.0	59.0		
Oct 16			1,145	97	139	6	0	356	88	1		0	82.4	0.0	6.0	58.0		
Oct 17			1,159	73	157	24	0	387	110	0		0	84.6	0.0	6.0	58.0		
Oct 18			1,406	86	283	45	0	823	243	0		0	94.4	0.0	5.8	58.0		
Oct 19			1,028	74	191	32	0	433	145	0		0	73.3	0.0	6.0	58.0		
Oct 20			580	40	153	7	0	427	173	0		0	61.8	0.0	6.0	58.0		
Oct 21			483	44	113	10	0	333	127	0		0	80.2	0.0	6.0	57.0		
Oct 22			352	32	61	21	0	173	87	0		0	70.3	0.0	6.0	58.0		
Oct 23			486	38	91	11	0	191	70	0		0	79.5	0.0	5.8	58.0		
Oct 24			633	40	135	5	0	376	154	0		0	94.0	0.0	6.0	58.0		
Oct 25			530	37	112	16	0	379	143	0		0	83.1	0.0	6.0	57.0		
Oct 26			642	24	106	10	0	637	308	0		0	86.5	0.0	6.0	57.0		
Oct 27			393	31	116	17	0	604	276	0		0	77.0	0.0	6.0	57.0		
Oct 28			252	17	56	15	0	307	127	0		0	79.2	0.0	6.0	56.0		
Oct 29			193	15	37	11	0	252	99	0		0	68.9	0.0	6.0	56.0		
Oct 30			91	16	33	2	0	193	74	0		0	88.6	0.0	6.0	57.0		
Oct 31			126	14	16	4	0	149	59	0		0	93.3	0.0	6.0	56.0		
TOTAL			43,852	3,270	7,433	631	7	22,749	6,411	15		16						
AVG.			1415	105	240	20	0	734	207	0		1	89.8	0.0	6.0	59.4		

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
TOTALS TO DATE	44,291	7,022	21,637	1,564	58,022	79,006	22,179	29	1,610,611	2,549
SPRING										
SUMMER	57,279	4,705								
FALL	152,185	12,014								
TOTAL	253,755	23,741								

Note: Live counts ended October 31.
Official Fall Chinook run ended October 31.

TABLE 80
MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

NOVEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	URBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD					unclipped STEELHEAD	PINK	SECCHI
Nov 1			282	26	39	2		253	109	0		82.9	0.0	NA	56.0
Nov 2			385	30	34	4		145	59	0		84.3	0.0	6.0	55.0
Nov 3			350	27	30	2		121	56	1		92.3	0.0	NA	55.0
Nov 4			134	28	58	3		94	46	0		98.0	0.0	6.0	55.0
Nov 5			151	17	6	1		35	13	0		102.5	0.0	6.0	54.0
Nov 6			256	28	33	4		54	22	0		102.5	0.0	6.0	53.0
Nov 7			323	31	17	7		50	18	0		97.5	0.0	6.0	53.0
Nov 8			400	23	30	5		35	17	0		111.6	0.0	6.0	53.0
Nov 9			298	35	7	3		43	18	0		103.0	0.0	6.0	52.0
Nov 10			191	21	6	2		25	11	0		136.2	0.0	6.0	51.0
Nov 11			199	23	46	7		38	17	0		122.3	0.0	NA	51.0
Nov 12			118	13	3	1		15	6	0		120.2	0.0	6.0	51.0
Nov 13			144	10	5	0		17	5	0		110.8	0.0	6.0	51.0
Nov 14			176	15	6	0		27	10	0		102.9	0.0	6.0	51.0
Nov 15			174	16	7	1		24	8	0		121.0	0.0	6.0	51.0
Nov 16			108	18	3	0		28	9	0		117.9	0.0	6.0	51.0
Nov 17			152	26	5	2		28	6	0		112.8	0.0	6.0	51.0
Nov 18			178	18	10	0		42	9	0		125.7	0.0	6.0	51.0
Nov 19			85	14	5	1		21	10	0		110.9	0.0	6.0	51.0
Nov 20			51	5	3	0		12	3	0		113.9	0.0	6.0	50.0
Nov 21			56	2	3	0		15	4	0		119.2	0.0	6.0	50.0
Nov 22			46	4	2	0		11	6	0		100.6	0.0	6.0	50.0
Nov 23			38	3	1	0		11	4	0		105.9	0.0	6.0	50.0
Nov 24			51	11	0	1		7	1	0		100.7	0.0	6.0	50.0
Nov 25			55	4	0	0		11	7	0		151.0	0.0	6.0	50.0
Nov 26			55	5	0	0		10	7	0		145.7	0.0	6.0	50.0
Nov 27			41	8	0	0		31	15	0		118.4	0.0	6.0	50.0
Nov 28			22	7	1	0		44	20	0		124.2	0.0	6.0	50.0
Nov 29			32	8	-1	1		51	14	0		117.4	0.0	6.0	49.0
Nov 30			31	0	0	0		46	20	0		129.6	0.0	NA	49.0
TOTAL			4,582	476	359	47		1,344	550	1					

AVG.	153	16	12	2	45	18	0	112.7	0.0	6.0	51.5
------	-----	----	----	---	----	----	---	-------	-----	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
TOTALS TO DATE										
SPRING	44,291	7,022	21,637	1,564	58,022	79,006	22,179	30	1,610,611	2,549
SUMMER	57,279	4,705								
FALL	152,185	12,014								
TOTAL	253,755	23,741								

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 81
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT. PORTLAND

MCNARY PROJECT - FISH COUNTS

DECEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped				DISCH	SPILL	URBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Dec 1			16	6				20	9				132.1	0.0	6.0	48.0
Dec 2			28	3				10	6				145.2	0.0	6.0	48.0
Dec 3			17	2				13	4				120.9	0.0	6.0	48.0
Dec 4			14	2				36	17				131.5	0.0	6.0	47.0
Dec 5			26	1				25	10				140.7	0.0	6.0	47.0
Dec 6			6	2				22	13				141.3	0.0	NA	46.0
Dec 7			5	2				13	5				165.1	0.0	6.0	46.0
Dec 8			3	0				0	0				157.3	0.0	6.0	46.0
Dec 9			8	0				4	2				144.0	0.0	6.0	46.0
Dec 10			3	0				0	1				140.5	0.0	6.0	46.0
Dec 11			0	0				5	2				162.5	0.0	6.0	45.0
Dec 12			6	0				6	1				157.1	0.0	6.0	45.0
Dec 13			0	0				8	1				147.3	0.0	6.0	44.0
Dec 14			1	1				6	3				143.9	0.0	NA	44.0
Dec 15			3	0				3	0				140.1	0.0	6.0	44.0
Dec 16			5	0				0	1				130.9	0.0	6.0	44.0
Dec 17			0	0				0	0				138.9	0.0	6.0	44.0
Dec 18			4	2				5	2				108.9	0.0	6.0	44.0
Dec 19			1	0				7	2				131.0	0.0	6.0	44.0
Dec 20			2	1				13	6				126.1	0.0	6.0	44.0
Dec 21			-1	1				15	7				140.5	0.0	6.0	44.0
Dec 22			2	0				10	4				124.4	0.0	6.0	44.0
Dec 23			2	0				3	1				141.0	0.0	6.0	44.0
Dec 24			1	0				8	3				157.8	0.0	6.0	43.0
Dec 25			5	0				6	0				150.9	0.0	6.0	42.0
Dec 26			1	0				8	4				167.4	0.0	NA	42.0
Dec 27			0	0				3	0				152.8	0.0	6.0	42.0
Dec 28			0	0				1	0				147.8	0.0	6.0	41.0
Dec 29			3	0				0	1				119.5	0.0	6.0	41.0
Dec 30			0	0				1	1				131.7	0.0	6.0	41.0
Dec 31			-1	-1				2	1				125.7	0.0	6.0	41.0
TOTAL			160	22				253	107							
AVG.			5	1				8	3				140.8	0.0	6.0	44.4

RUN YEAR	CHINOOK		COHO			TOTAL		unclipped			
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY
SPRING	44,291	7,022		21,637	1,564	58,022	79,006	22,179	30	1,610,611	2,549
SUMMER	57,279	4,705									
FALL	152,185	12,014									
TOTAL	253,755	23,741									

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 82

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			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		32		0			10	1	0			2
Jun 16		36		9			9	0	0			1
Jun 17		59		0			32	0	0			1
Jun 18		49		0			46	0	0			5
Jun 19		74		2			36	0	0			1
Jun 20		99		9			41	0	0			1
Jun 21		79		0			74	0	0			2
Jun 22		47		0			62	0	0			2
Jun 23		46		2			72	0	0			3
Jun 24		79		2			100	0	0			2
Jun 25		76		4			112	0	0			3
Jun 26		49		6			99	0	0			5
Jun 27		72		10			115	0	0			3
Jun 28		51		3			122	0	0			6
Jun 29		49		0			112	0	0			18
Jun 30		26		0			118	0	0			19
TOTAL		923		47			1,160	1	0			74

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

TABLE 83

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Jul 1		52		0			139	0	0		20
Jul 2		26		4			258	0	0		38
Jul 3		38		7			238	0	0		54
Jul 4		34		2			172	0	0		45
Jul 5		42		8			99	0	0		57
Jul 6		80		3			103	1	0		92
Jul 7		38		10			119	2	2		220
Jul 8		74		0			206	0	0		174
Jul 9		40		0			105	0	0		171
Jul 10		38		14			124	1	0		225
Jul 11		35		5			90	0	0		83
Jul 12		36		10			72	2	0		158
Jul 13		27		4			66	2	0		184
Jul 14		16		3			59	0	0		184
Jul 15		24		1			40	1	1		123
Jul 16		15		4			52	4	3		147
Jul 17		26		0			54	4	2		72
Jul 18		19		0			28	1	1		88
Jul 19		12		0			22	3	2		87
Jul 20		14		0			28	1	0		77
Jul 21		10		2			13	5	2		134
Jul 22		18		1			10	4	1		117
Jul 23		16		1			6	2	2		233
Jul 24		8		2			7	4	1		194
Jul 25		18		1			3	3	3		157
Jul 26		9		0			3	1	1		128
Jul 27		10		0			3	7	3		227
Jul 28		9		0			1	9	1		134
Jul 29		8		0			2	1	0		96
Jul 30		4		1			1	3	3		187
Jul 31		7		0			0	3	0		55
TOTAL		803		83			2,123	64	28		3,961

AVG.	26	3		68	2	1	128
------	----	---	--	----	---	---	-----

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

TABLE 84

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

MCNARY PROJECT - NIGHT FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Aug 1		7		0			1	4	3		151
Aug 2		5		2			1	3	3		93
Aug 3		6		0			0	4	1		114
Aug 4		12		0			1	3	3		106
Aug 5		9		1			2	6	4		175
Aug 6		6		0			0	4	4		287
Aug 7		4		0			0	6	2		219
Aug 8		1		0			0	4	1		69
Aug 9			3	0			0	0	0		92
Aug 10			2	0			4	0	0		93
Aug 11			5	1			0	0	0		147
Aug 12			3	0			0	0	0		152
Aug 13			3	0			0	3	3		114
Aug 14			2	0			0	1	1		87
Aug 15			4	0			0	0	0		57
Aug 16			5	0			0	0	0		49
Aug 17			7	0			0	3	1		181
Aug 18			14	0			0	2	1		130
Aug 19			10	0			0	2	0		145
Aug 20			16	0			0	5	0		173
Aug 21			10	0			0	7	6		105
Aug 22			15	0			0	11	5		62
Aug 23			8	1			0	10	7		57
Aug 24			10	0			0	7	1		95
Aug 25			86	20			0	48	17		13
Aug 26			6	0			0	1	0		99
Aug 27			9	0			0	7	4		119
Aug 28			11	0			0	12	3		84
Aug 29			11	1			0	3	3		40
Aug 30			8	1			0	6	4		69
Aug 31			21	0			0	9	2		63
TOTAL		50	269	27			9	171	79		3,440
AVG.		6	12	1			0	6	3		111

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

TABLE 85

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Sep 1			12	2	0		1	21	10			120
Sep 2			16	0	0		0	25	8			85
Sep 3			24	0	0		0	18	8			65
Sep 4			37	0	0		0	31	9			41
Sep 5			21	0	0		0	36	14			35
Sep 6			14	1	0		0	29	6			33
Sep 7			22	1	0		0	32	10			15
Sep 8			29	1	0		0	39	8			28
Sep 9			32	0	0		0	32	6			31
Sep 10			35	4	0		0	44	14			49
Sep 11			16	0	0		0	40	13			37
Sep 12			30	0	0		0	60	11			32
Sep 13			37	1	0		0	63	9			32
Sep 14			24	0	0		0	33	6			30
Sep 15			62	1	0		0	44	7			16
Sep 16			62	2	0		0	93	25			18
Sep 17			48	4	1		0	211	45			13
Sep 18			71	6	1		0	187	39			9
Sep 19			26	2	3		0	182	40			5
Sep 20			35	5	0		0	207	53			3
Sep 21			48	8	1		0	267	57			9
Sep 22			38	2	1		0	155	26			6
Sep 23			41	9	0		0	177	52			9
Sep 24			56	6	2		0	221	48			2
Sep 25			69	7	13		0	277	40			3
Sep 26			29	4	4		0	325	53			2
Sep 27			23	3	6		0	145	32			3
Sep 28			23	0	6		0	87	17			3
Sep 29			42	1	6		0	87	24			4
Sep 30			41	7	4		0	146	26			1
TOTAL			1,063	77	48		1	3,314	716			739

AVG.

35

3

2

0

110

24

25

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

TABLE 86

YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2017

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
Totals	15,006,462	8,702,170	5,349,909	863,925	29,922,466
10-Year Average	487,942	202,757	230,517	31,926	953,141

*Jacks included

TABLE 87

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL
														MAR 15- JUN 8	JUN 9- AUG 8	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

TABLE 87

(Continued)

**MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2017**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL
														MAR 15- JUN 8	JUN 9- AUG 8	AUG 9- OCT 31
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
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	191,921	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	77,572	57,638	39,343	24,867	212,562	30,983			448,571	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
Total	7	-1	994	1,064,602	2,690,872	1,784,988	1,584,515	886,246	5,657,310	1,315,126	19,807	951	15,005,417	4,119,225	3,236,654	7,664,375
10-Year Average				13,547	85,512	56,827	35,548	22,331	218,166	55,242			487,837	113,485	84,413	292,247

*Jacks included

TABLE 88

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM: 1954 - 2017**

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

TABLE 88
(Continued)

MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM; 1954 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
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					10,603
1995					1	3,001	5,259	58		1			8,320
1996						11,594	16,927	64					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					0	27,341	36,009	182	8				63,540
2006					0	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					0	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	0		58,022
Total				2	274	1,840,743	3,400,058	94,278	10,594	3,954	5	1	5,349,909
10-Year Average					8	115,303	114,245	829	117				230,517

TABLE 89

**MONTHLY COUNT OF COHO SALMON
McNARY DAM: 1954 - 2017**

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 89

(Continued)

**MONTHLY COUNT OF COHO SALMON
McNARY DAM; 1954 - 2017**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1986								1	851	522			1,374
1987							3	24	377	211			615
1988								17	1,210	783			2,010
1989								35	2,043	1,305			3,383
1990								1	1,007	1,051			2,059
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	0	23,607
TOTAL	1	0	1	14	68	515	23,162	606,822	226,492	6,762	88		863,925
10-Year Average								304	20,987	10,533			31,926

*Jacks included

TABLE 90

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2017**

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

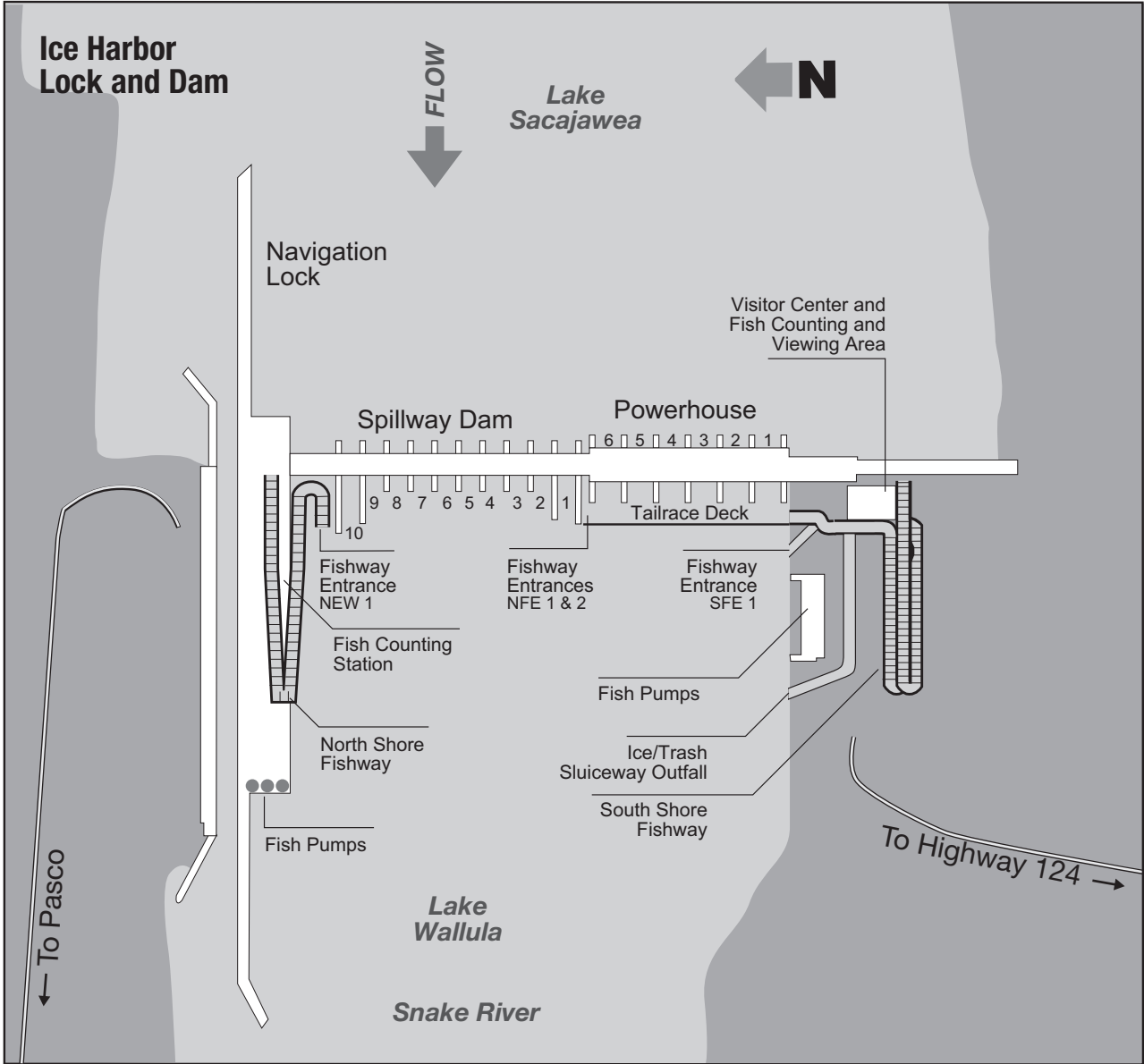
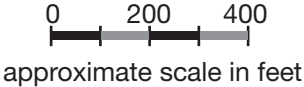
TABLE 90

(Continued)

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954 - 2017**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
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
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
Total	1,195	1,013	38,601	120,037	42,457	86,565	770,061	1,462,733	4,160,779	1,925,529	75,555	17,645	8,702,170
10-Year Avg.				1,328	232	1,678	18,704	35,785	99,920	43,714			202,757

Plate 6 Ice Harbor Lock and Dam



ICE HARBOR DAM

FISH COUNTING SCHEDULE

1 January – 31 March	No counting
1 April – 31 October	Visual counting daily from 0400-2000 hours PST
1 November – 31 December	No counting

FISH LADDER OPERATING SCHEDULE

North Ladder

1 January – 2 January	Ladder in service
3 January – 27 January	Ladder dewatered for annual maintenance
28 January – 31 December	Ladder in service

South Ladder

1 January – 29 January	Ladder in service
30 January – 28 February	Ladder dewatered for annual maintenance
1 March – 31 December	Ladder in service

FISHWAY ACTIVITIES

Water temperatures were recorded hourly from both fish ladder exit pools, the south fish ladder junction pool, the first bend upstream of the north fish ladder collection channel, and the downstream end of the juvenile fish collection channel. Hourly readings were taken from 7 July to 4 October in the juvenile fish collection channel, and from 1 April to 4 October in the other locations.

The RSW operated for fish passage from 3 April to 17 August. The RSW was closed before the end of the spill season (August 31) due to low river flows.

The Juvenile Fish Facility was operated for juvenile fish bypass and adult fallbacks from 22 March to 20 December. Juvenile fish were sampled from 3 April – 13 July, twice per week.

TABLE 91

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER ICE HARBOR DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				98	25,398	17,807	3,065	2,098	24,051	5,559			78,076
STEELHEAD				972	94	77	874	994	35,223	23,727			61,961
SOCKEYE						134	254	4					392
COHO*								1	3,362	2,374			5,737
PINK													0
TOTAL				1,070	25,492	18,018	4,193	3,097	62,636	31,660			146,166
SHAD					2	187,809	177,939	2,943					368,693
LAMPREY				0	5	19	735	429	224	26			1,438
STURGEON													0
BULL TROUT													0

*Jacks included

TABLE 92

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2017

JANUARY

DATE	DISCH		TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Jan 1	19.8	0.0	7.5	39.0
Jan 2	17.7	0.0	7.5	39.0
Jan 3	23.5	0.0	7.4	39.0
Jan 4	20.8	0.0	7.4	39.0
Jan 5	28.1	0.0	7.6	39.0
Jan 6	25.8	0.0	7.6	36.0
Jan 7	22.7	0.0	7.6	36.0
Jan 8	21.8	0.0	7.6	36.0
Jan 9	21.1	0.0	7.8	36.0
Jan 10	26.2	0.0	7.8	34.0
Jan 11	33.9	0.0	7.8	34.0
Jan 12	25.5	0.0	7.8	34.0
Jan 13	24.8	0.0	7.8	34.0
Jan 14	30.6	0.0	7.8	34.0
Jan 15	29.6	0.0	7.8	34.0
Jan 16	30.6	0.0	7.8	34.0
Jan 17	30.6	0.0	7.8	34.0
Jan 18	20.3	0.0	7.9	34.0
Jan 19	17.3	0.0	7.9	33.0
Jan 20	26.1	0.0	7.9	33.0
Jan 21	22.1	0.0	7.9	34.0
Jan 22	30.0	0.0	7.8	34.0
Jan 23	32.7	0.0	7.8	34.0
Jan 24	29.0	0.0	7.8	34.0
Jan 25	28.2	0.0	7.8	34.0
Jan 26	29.0	0.0	7.9	34.0
Jan 27	30.3	0.0	7.9	34.0
Jan 28	27.9	0.0	7.2	34.0
Jan 29	25.1	0.0	7.2	34.0
Jan 30	36.9	0.0	7.2	34.0
Jan 31	36.4	0.0	7.2	34.0

AVG.

26.6	0.0	7.7	35.0
------	-----	-----	------

FEBRUARY

DATE	DISCH		TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Feb 1	28.9	0.0	7.4	34.0
Feb 2	25.7	0.0	7.6	34.0
Feb 3	32.9	0.0	7.6	34.0
Feb 4	28.2	0.0	7.6	34.0
Feb 5	38.5	0.0	12.0	34.0
Feb 6	34.7	0.0	12.0	34.0
Feb 7	38.8	0.0	10.2	34.0
Feb 8	37.5	0.0	10.3	34.0
Feb 9	39.1	0.0	10.3	34.0
Feb 10	68.0	17.6	10.3	34.0
Feb 11	79.0	21.3	10.3	35.0
Feb 12	77.0	19.5	10.3	35.0
Feb 13	71.2	13.8	10.9	35.0
Feb 14	62.3	5.2	2.8	35.0
Feb 15	60.4	3.0	2.8	35.0
Feb 16	61.4	4.9	2.8	36.0
Feb 17	83.9	26.3	2.8	36.0
Feb 18	83.9	25.9	2.8	36.0
Feb 19	82.8	24.9	2.8	36.0
Feb 20	82.2	24.1	2.8	37.0
Feb 21	81.1	23.8	2.8	37.0
Feb 22	102.5	44.5	2.8	38.0
Feb 23	105.4	46.2	2.8	38.0
Feb 24	97.3	38.0	2.0	38.0
Feb 25	92.4	33.8	2.0	38.0
Feb 26	82.2	24.2	2.0	38.0
Feb 27	83.1	24.8	1.5	39.0
Feb 28	80.2	22.1	1.7	39.0

AVG.

65.7	15.9	5.9	35.8
------	------	-----	------

MARCH

DATE	DISCH		TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Mar 1	75.7	16.6	1.7	39.0
Mar 2	72.1	8.6	1.7	39.0
Mar 3	71.9	0.2	1.7	39.0
Mar 4	67.3	0.0	1.7	40.0
Mar 5	73.7	0.0	2.5	40.0
Mar 6	80.1	16.7	3.0	40.0
Mar 7	93.6	40.4	3.0	40.0
Mar 8	86.7	31.1	3.0	40.0
Mar 9	101.8	46.2	3.0	40.0
Mar 10	131.7	75.6	3.0	40.0
Mar 11	166.1	108.2	2.0	40.0
Mar 12	153.0	95.1	2.0	40.0
Mar 13	148.4	90.6	2.0	40.0
Mar 14	147.3	90.0	2.0	42.0
Mar 15	167.6	110.0	2.0	42.0
Mar 16	201.8	143.2	2.0	42.0
Mar 17	212.9	153.9	2.0	42.0
Mar 18	179.6	121.4	2.0	42.0
Mar 19	202.5	143.5	2.0	43.0
Mar 20	198.5	140.6	1.4	44.0
Mar 21	198.4	144.3	1.4	44.0
Mar 22	192.8	141.5	1.6	44.0
Mar 23	194.9	139.1	1.6	44.0
Mar 24	184.5	129.1	1.6	44.0
Mar 25	179.3	123.8	1.6	44.0
Mar 26	175.3	119.8	1.4	46.0
Mar 27	171.0	119.0	1.4	46.0
Mar 28	159.8	109.4	1.4	46.0
Mar 29	157.9	106.6	1.5	46.0
Mar 30	163.6	107.4	1.5	46.0
Mar 31	182.3	126.1	1.5	46.0

AVG.

148.1	90.3	2.0	42.3
-------	------	-----	------

TABLE 93

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

ICE HARBOR PROJECT - FISH COUNTS

APRIL 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD								
Apr 1	0			0				66	32					174.3	120.0	1.5	46.0
Apr 2	0			0				83	42					158.4	104.7	1.5	47.0
Apr 3	0			0				44	17					158.9	105.1	1.5	47.0
Apr 4	0			0				71	32					157.4	103.8	1.5	47.0
Apr 5	0			0				44	26					145.9	93.2	1.4	47.0
Apr 6	0			0				30	20					146.8	93.2	1.4	48.0
Apr 7	1			0				64	26					142.2	89.6	1.4	48.0
Apr 8	0			0				80	35					146.1	92.4	1.4	48.0
Apr 9	0			0				71	35					155.0	100.9	1.4	48.0
Apr 10	2			0				35	18					145.8	91.8	1.8	48.0
Apr 11	0			0				38	15					129.1	81.4	1.8	48.0
Apr 12	1			0				25	13					144.2	94.2	1.8	48.0
Apr 13	0			0				30	19					149.4	97.5	2.1	48.0
Apr 14	1			0				26	20					135.7	84.4	2.1	48.0
Apr 15	1			0				16	11					134.3	86.4	2.1	48.0
Apr 16	0			0				16	12					123.6	81.5	2.1	48.0
Apr 17	2			0				24	11					120.4	77.0	2.1	48.0
Apr 18	1			0				26	6					129.5	88.9	2.4	48.0
Apr 19	5			0				13	4					130.0	91.5	2.4	48.0
Apr 20	4			0				14	5					127.6	85.3	2.0	48.0
Apr 21	6			0				22	8					137.3	87.4	2.7	49.0
Apr 22	4			1				19	10					130.7	85.0	2.7	49.0
Apr 23	5			0				20	10					122.5	81.2	2.6	50.0
Apr 24	5			0				28	10					124.8	82.5	2.6	50.0
Apr 25	16			0				16	8					133.0	86.2	2.7	50.0
Apr 26	11			0				7	1					135.7	88.9	2.7	50.0
Apr 27	6			0				9	4					136.9	91.5	2.7	51.0
Apr 28	5			0				12	2					136.5	88.5	2.7	51.0
Apr 29	7			0				9	5					130.3	82.7	2.7	52.0
Apr 30	14			0				14	7					118.7	93.0	2.7	52.0
TOTAL	97			1				972	464								
AVG.	3			0				32	15					138.7	91.0	2.1	48.6

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 94

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

MAY 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD							SECCHI	DEG F
May 1	18			0				14	2		0	0		128.6	84.8	2.7	52.0
May 2	30			1				12	2		0	0		119.7	89.6	2.3	52.0
May 3	26			0				6	1		0	0		112.4	73.4	2.3	52.0
May 4	13			0				8	1		0	0		111.2	66.3	2.3	52.0
May 5	31			2				1	0		0	0		119.5	65.7	4.0	52.0
May 6	66			1				6	5		0	0		145.6	92.9	4.0	52.0
May 7	64			0				6	5		0	0		161.3	107.4	4.0	53.0
May 8	82			0				4	2		0	0		170.8	120.8	4.0	53.0
May 9	120			2				4	5		0	0		169.0	113.9	4.0	53.0
May 10	154			7				6	1		0	0		165.5	110.0	4.0	55.0
May 11	433			17				6	6		0	-1		164.1	110.3	4.0	55.0
May 12	416			20				3	1		0	0		177.5	126.4	4.0	55.0
May 13	177			20				4	0		0	0		182.8	127.8	4.0	55.0
May 14	330			8				1	0		0	0		180.1	125.0	4.0	55.0
May 15	690			49				3	1		0	-1		155.3	100.8	1.4	54.0
May 16	1,039			72				3	2		0	0		150.5	102.1	1.4	54.0
May 17	646			57				-1	1		0	0		144.8	95.8	1.8	54.0
May 18	502			40				2	0		0	0		127.4	79.9	1.8	52.0
May 19	469			59				-3	0		0	0		126.8	84.2	1.8	52.0
May 20	723			99				4	0		0	0		117.6	71.2	2.0	52.0
May 21	781			115				0	0		0	0		115.1	60.5	2.0	52.0
May 22	985			164				-1	-1		0	0		114.3	67.0	2.2	52.0
May 23	508			106				0	0		0	0		121.3	78.3	2.2	53.0
May 24	955			135				0	0		0	0		141.8	92.1	2.2	53.0
May 25	833			134				1	1		0	0		156.6	101.2	2.2	54.0
May 26	1,953			386				1	1		0	0		156.7	101.8	2.2	54.0
May 27	2,460			583				4	1		0	2		148.5	93.5	2.2	54.0
May 28	2,173			795				1	1		0	2		136.5	89.8	2.2	56.0
May 29	1,814			769				0	0		2	0		141.2	88.2	2.2	56.0
May 30	1,314			690				1	0		0	1		145.9	91.7	2.2	57.0
May 31	861			401				-2	0		0	2		166.1	110.9	2.4	57.0
TOTAL	20,666			4,732				94	38		2	5					
AVG.	667			153				3	1					144.3	94.3	2.7	53.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	20,763	4,733
SPRING		

STEELHEAD	unclipped STEELHEAD
1,066	502

SHAD	LAMPREY
2	5

TABLE 95
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL unclipped				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK							
Jun 1	810			287			0	4	0		0	0		172.7	117.6	2.4	57.0
Jun 2	813			277			0	2	1		0	0		183.4	128.4	2.4	57.0
Jun 3	1,540			427			0	1	0		1	2		168.7	114.2	2.4	58.0
Jun 4	1,276			305			0	0	0		5	1		170.1	118.2	2.4	58.0
Jun 5	672			182			0	1	0		10	0		170.8	118.8	2.4	58.0
Jun 6	310			104			0	-1	0		2	0		163.1	117.0	2.4	58.0
Jun 7	228			73			0	-1	0		2	1		154.1	102.0	2.4	58.0
Jun 8	544			188			0	4	0		19	2		153.7	100.7	2.3	58.0
Jun 9	416			126			0	4	0		8	1		153.8	100.8	2.3	58.0
Jun 10	423			105			0	0	0		32	0		151.5	98.4	2.0	58.0
Jun 11	511			142			0	-1	0		79	0		138.7	85.5	2.0	58.0
Jun 12		439		132			0	2	0		112	1		127.6	79.3	2.0	58.0
Jun 13		796		171			0	0	0		174	0		110.0	73.2	2.0	58.0
Jun 14		593		120			0	0	0		438	0		134.7	80.8	2.0	58.0
Jun 15		419		123			1	1	1		270	0		130.1	80.0	2.0	58.0
Jun 16		309		104			0	0	0		451	0		117.1	74.8	2.0	58.0
Jun 17		423		120			0	4	2		1,624	1		122.0	76.2	2.0	58.0
Jun 18		441		76			14	2	1		4,197	0		123.5	72.3	2.0	58.0
Jun 19		455		88			20	1	1		6,834	1		118.2	69.1	2.0	58.0
Jun 20		380		69			5	1	0		3,593	1		122.9	82.7	2.0	59.0
Jun 21		270		66			7	0	0		4,774	0		120.4	74.4	2.2	59.0
Jun 22		229		59			2	0	0		5,307	0		123.6	70.0	2.2	59.0
Jun 23		196		62			2	2	0		7,321	0		116.6	70.2	2.2	59.0
Jun 24		198		54			3	2	2		6,834	1		107.1	70.1	2.2	59.0
Jun 25		226		70			5	1	1		20,138	5		101.0	54.8	2.2	60.0
Jun 26		198		59			7	0	0		15,534	1		91.5	40.3	2.6	60.0
Jun 27		260		78			14	20	3		19,236	0		82.7	47.1	2.9	63.0
Jun 28		303		75			10	8	7		23,269	1		82.2	55.2	2.9	63.0
Jun 29		183		47			26	8	3		45,378	0		84.9	42.6	2.9	63.0
Jun 30		126		31			18	12	4		22,167	0		73.7	25.7	2.9	63.0
TOTAL	7,543	6,444		3,820			134	77	26		187,809	19					
AVG.	686	339		127			4	3	1		6,260	1		129.0	81.3	2.3	58.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,306	6,949
SUMMER	6,444	1,604
TOTAL	34,750	8,553

SOCKEYE	STEELHEAD	unclipped STEELHEAD
134	1,143	528

SHAD	LAMPREY
187,811	24

TABLE 96

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

ICE HARBOR PROJECT - FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL unclipped				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK						SHAD	LAMPREY
Jul 1		151		41			14	19	2		32,315	5		77.9	46.1	2.9	63.0
Jul 2		119		41			17	6	0		10,294	5		71.9	53.5	3.0	64.0
Jul 3		130		26			3	12	4		16,658	3		70.4	30.1	3.0	65.0
Jul 4		159		21			20	8	3		13,919	10		63.4	19.0	3.0	65.0
Jul 5		172		26			24	4	2		16,345	2		68.6	44.1	3.3	65.0
Jul 6		172		27			29	6	4		7,898	3		60.9	46.4	3.3	67.0
Jul 7		131		25			15	10	0		8,844	6		61.3	24.9	3.3	67.0
Jul 8		126		20			13	21	3		9,395	10		58.5	17.5	3.7	67.0
Jul 9		155		15			11	14	11		5,312	18		58.4	40.9	4.4	68.0
Jul 10		160		19			21	17	14		7,336	13		55.4	44.5	4.4	68.0
Jul 11		121		16			15	24	10		8,595	40		57.1	23.7	4.6	68.0
Jul 12		88		20			13	31	12		7,900	47		46.7	14.0	4.6	68.0
Jul 13		85		28			14	30	14		5,874	22		50.2	34.8	4.6	69.0
Jul 14		130		8			12	30	16		4,534	29		54.5	43.9	4.8	69.0
Jul 15		78		12			7	32	21		3,543	25		49.9	39.3	4.8	69.0
Jul 16		70		6			4	36	24		3,417	43		46.0	35.7	6.2	69.0
Jul 17		66		2			6	31	14		2,227	14		47.6	37.1	6.4	69.0
Jul 18		62		21			4	22	10		1,686	14		45.7	35.7	6.4	69.0
Jul 19		52		12			2	37	29		2,192	31		46.2	36.0	6.4	69.0
Jul 20		43		5			1	38	26		1,900	15		49.9	38.1	6.4	69.0
Jul 21		29		7			0	25	16		1,228	52		42.2	32.2	7.4	70.0
Jul 22		27		7			1	30	23		1,488	41		42.7	32.8	7.4	71.0
Jul 23		35		4			2	51	27		1,056	35		34.9	25.0	7.4	71.0
Jul 24		25		2			0	38	18		742	32		41.2	31.1	7.6	71.0
Jul 25		35		5			0	51	33		921	41		42.3	32.1	7.6	71.0
Jul 26		34		5			0	57	42		1,137	45		38.9	28.8	7.6	71.0
Jul 27		38		8			2	33	27		478	16		38.5	28.6	7.9	71.0
Jul 28		30		4			2	48	29		248	38		40.4	30.4	7.9	71.0
Jul 29		28		7			1	42	21		195	11		42.5	32.3	7.9	71.0
Jul 30		34		2			1	42	29		131	9		38.2	28.2	7.9	71.0
Jul 31		33		5			0	29	22		131	60		39.8	29.7	7.9	71.0
TOTAL		2,618		447			254	874	506		177,939	735					

AVG.	84	14	8	28	16	5,740	24	51.0	33.4	5.6	68.6
------	----	----	---	----	----	-------	----	------	------	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,306	6,949
SUMMER	9,062	2,051
TOTAL	37,368	9,000

unclipped		
SOCKEYE	STEELHEAD	STEELHEAD
388	2,017	1,034

SHAD	LAMPREY
365,750	759

TABLE 97

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

ICE HARBOR PROJECT - FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL			SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD	PINK						SECCHI	DEG F
Aug 1		23		6	0	0	0	29	14		160	18		40.4	30.3	7.9	71.0
Aug 2		30		8	0	0	1	29	18		166	23		42.1	31.7	8.2	71.0
Aug 3		12		5	0	0	1	36	15		114	9		38.9	28.9	8.2	71.0
Aug 4		23		4	0	0	1	25	12		89	14		36.8	26.7	8.2	71.0
Aug 5		16		0	0	0	0	20	10		356	22		32.1	22.3	8.2	71.0
Aug 6		22		0	0	0	0	25	17		166	5		32.1	22.1	7.8	71.0
Aug 7		21		1	0	0	0	23	18		217	16		33.1	23.3	7.8	71.0
Aug 8		27		1	0	0	0	26	11		133	16		32.3	22.5	7.6	71.0
Aug 9		18		8	0	0	0	22	16		130	20		30.1	20.2	7.6	71.0
Aug 10		15		2	0	0	0	16	6		153	12		30.1	19.9	7.6	71.0
Aug 11		15		1	0	0	0	16	5		41	13		27.4	17.3	7.6	71.0
Aug 12			6	2	0	0	1	19	7		62	12		27.4	17.3	7.6	71.0
Aug 13			16	0	0	0	0	21	13		108	7		29.1	19.0	7.6	71.0
Aug 14			17	0	0	0	0	19	6		285	6		26.8	16.9	7.6	71.0
Aug 15			15	6	0	0	0	11	6		96	13		28.7	18.8	7.9	71.0
Aug 16			17	4	0	0	0	8	5		64	20		31.2	21.1	7.9	71.0
Aug 17			28	0	0	0	0	4	4		157	31		27.3	17.5	7.9	71.0
Aug 18			15	2	0	0	0	7	4		211	8		27.5	17.6	7.9	71.0
Aug 19			39	2	0	0	0	9	12		61	18		26.1	16.0	7.9	71.0
Aug 20			61	4	0	0	0	3	3		31	4		29.5	19.5	7.9	71.0
Aug 21			82	6	0	0	0	13	12		53	2		27.6	18.0	7.9	71.0
Aug 22			134	6	1	0	0	21	12		13	7		30.9	21.1	7.9	71.0
Aug 23			143	14	0	0	0	22	13		8	5		30.0	20.3	7.9	71.0
Aug 24			172	15	0	0	0	51	15		6	36		31.0	21.3	8.3	71.0
Aug 25			123	10	0	0	0	53	19		8	19		28.6	18.9	8.3	71.0
Aug 26			99	14	0	0	0	61	29		6	7		28.2	18.5	8.3	71.0
Aug 27			63	9	0	0	0	68	38		3	12		30.7	21.0	8.3	70.0
Aug 28			140	16	0	0	0	56	23		10	11		29.4	19.7	8.4	70.0
Aug 29			156	14	0	0	0	90	48		24	12		27.9	18.2	8.4	70.0
Aug 30			189	15	0	0	0	98	46		5	13		30.5	20.8	8.4	69.0
Aug 31			163	23	0	0	0	93	30		7	18		29.3	19.4	7.6	69.0
TOTAL		222	1,678	198	1	0	4	994	487		2,943	429					
AVG.		20	84	6	0	0	0	32	16		95	14		30.7	20.8	8.0	70.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,306	6,949
SUMMER	9,284	2,087
FALL	1,678	162
TOTAL	39,268	9,198

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
1	0	392	3,011	1,521

SHAD	LAMPREY	STURGEON
368,693	1,188	0

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

ICE HARBOR PROJECT - FISH COUNTS													SEPTEMBER 2017				
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
Sep 1			135	8	0	0		105	33			20		18.4	0.0	7.2	69.0
Sep 2			125	38	0	0		94	36			13		17.0	0.0	7.2	69.0
Sep 3			210	39	1	0		90	29			10		17.8	0.0	7.2	69.0
Sep 4			367	42	0	0		163	39			2		21.4	0.0	7.0	70.0
Sep 5			452	51	2	0		166	58			6		23.3	0.0	7.0	70.0
Sep 6			522	56	1	0		232	75			0		23.1	0.0	7.0	69.0
Sep 7			343	43	0	1		310	78			2		22.7	0.0	7.0	69.0
Sep 8			320	47	2	0		295	110			8		28.6	0.0	7.0	69.0
Sep 9			287	61	0	1		212	64			5		27.2	0.0	7.0	69.0
Sep 10			389	86	2	1		322	84			12		25.5	0.0	8.6	69.0
Sep 11			480	61	2	1		230	59			7		29.8	0.0	7.8	69.0
Sep 12			568	112	5	1		326	84			16		27.3	0.0	7.8	69.0
Sep 13			607	138	0	5		420	69			9		17.2	0.0	5.8	69.0
Sep 14			564	85	1	3		437	92			9		22.7	0.0	5.8	69.0
Sep 15			560	86	11	5		363	89			9		30.5	0.0	5.8	69.0
Sep 16			1,077	118	12	0		545	107			12		32.1	0.0	5.8	69.0
Sep 17			1,723	229	32	8		675	167			15		30.7	0.0	5.8	68.0
Sep 18			1,801	273	28	7		1,239	315			12		32.6	0.0	5.8	68.0
Sep 19			1,790	335	132	18		2,134	476			12		33.4	0.0	5.8	68.0
Sep 20			1,704	270	224	17		2,302	432			12		26.8	0.0	5.8	67.0
Sep 21			836	167	170	13		1,745	370			1		29.7	0.0	5.8	67.0
Sep 22			546	116	126	9		1,130	200			5		24.3	0.0	5.8	65.0
Sep 23			654	154	232	13		2,317	395			7		22.3	0.0	5.8	65.0
Sep 24			488	125	125	4		1,559	269			4		17.8	0.0	5.8	65.0
Sep 25			669	117	162	35		1,921	373			0		23.5	0.0	5.9	64.0
Sep 26			792	127	235	44		3,298	730			2		27.0	0.0	6.2	64.0
Sep 27			736	98	217	32		2,744	592			7		26.8	0.0	6.2	64.0
Sep 28			860	158	333	50		3,630	718			3		29.2	0.0	6.2	64.0
Sep 29			419	123	416	22		2,811	414			0		34.9	0.0	6.2	64.0
Sep 30			530	134	577	24		3,408	587			4		26.6	0.0	7.0	66.0
TOTAL			20,554	3,497	3,048	314		35,223	7,144			224					
AVG.			685	117	102	10		1,174	238			7		25.7	0.0	6.5	67.5
RUN YEAR																	
TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY								
SPRING	28,306	6,949	3,049	314	392	38,234	8,665	368,693	1,412								
SUMMER	9,284	2,087															
FALL	22,232	3,659															
TOTAL	59,822	12,695															

TABLE 99

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	STEELHEAD								STEELHEAD	KCFS	KCFS	SECCHI
Oct 1			449	110	249	7			2,129	392			1		30.7	0.0	7.0	66.0
Oct 2			416	125	223	6			2,064	340			1		33.5	0.0	7.0	64.0
Oct 3			312	80	190	13			1,392	219			2		34.2	0.0	7.1	64.0
Oct 4			280	78	153	4			1,335	217			-1		31.5	0.0	8.2	64.0
Oct 5			236	105	213	5			1,584	213			0		35.1	0.0	8.2	63.0
Oct 6			304	95	191	18			1,691	317			0		32.3	0.0	8.2	63.0
Oct 7			160	52	129	5			1,287	270			5		18.2	0.0	8.2	63.0
Oct 8			182	78	105	3			1,105	217			1		28.9	0.0	8.3	62.0
Oct 9			267	93	95	6			1,172	182			4		23.9	0.0	8.3	62.0
Oct 10			242	104	89	1			972	172			-1		22.0	0.0	8.3	62.0
Oct 11			185	86	113	2			1,158	207			0		23.9	0.0	7.5	62.0
Oct 12			178	48	70	4			984	192			1		12.2	0.0	7.5	62.0
Oct 13			108	43	53	0			867	181			2		20.9	0.0	7.5	60.0
Oct 14			79	37	51	3			577	111			0		20.1	0.0	7.1	60.0
Oct 15			88	35	33	1			527	122			0		15.4	0.0	7.1	60.0
Oct 16			107	31	23	0			349	59			4		24.0	0.0	7.0	59.0
Oct 17			102	25	25	0			516	100			0		17.1	0.0	6.7	59.0
Oct 18			70	18	24	0			427	78			1		19.0	0.0	6.7	59.0
Oct 19			85	23	38	0			446	92			1		18.6	0.0	6.7	59.0
Oct 20			81	33	43	3			579	109			0		19.8	0.0	6.7	59.0
Oct 21			32	7	15	0			302	67			1		24.4	0.0	6.6	59.0
Oct 22			27	20	25	8			352	79			0		12.0	0.0	6.6	58.0
Oct 23			28	8	19	1			148	28			0		28.9	0.0	6.6	58.0
Oct 24			29	4	19	2			211	44			2		22.8	0.0	6.4	58.0
Oct 25			58	21	18	1			276	69			0		14.7	0.0	7.2	56.0
Oct 26			16	10	29	1			176	28			0		23.7	0.0	7.2	56.0
Oct 27			29	11	14	0			251	65			0		24.1	0.0	7.2	55.0
Oct 28			18	1	14	0			214	55			0		24.1	0.0	7.2	55.0
Oct 29			-38	6	7	0			335	108			1		15.3	0.0	6.8	55.0
Oct 30			23	7	5	0			207	51			0		22.3	0.0	6.8	55.0
Oct 31			8	4	4	1			94	24			1		18.2	0.0	5.8	55.0
TOTAL			4,161	1,398	2,279	95			23,727	4,408			26					
AVG.			134	45	74	3			765	142			1		23.0	0.0	7.2	59.7

RUN YEAR	CHINOOK		COHO		unclipped		SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	STURGEON
	ADULT	JACK	ADULT	JACK	STEELHEAD	STEELHEAD							
TOTALS TO DATE													
SPRING	28,306	6,949			5,328	409	392	61,961	13,073	0	368,693	1,438	0
SUMMER	9,284	2,087											
FALL	26,393	5,057											
TOTAL	63,983	14,093											

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 100

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2017

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	22.2	0.0	6.8	55.0	Dec 1	31.0	0.0	8.2	48.0
Nov 2	21.8	0.0	6.8	55.0	Dec 2	35.1	0.0	8.2	48.0
Nov 3	22.0	0.0	6.8	55.0	Dec 3	26.5	0.0	8.8	48.0
Nov 4	15.0	0.0	7.2	55.0	Dec 4	29.9	0.0	8.8	47.0
Nov 5	20.9	0.0	7.2	54.0	Dec 5	32.5	0.0	8.8	47.0
Nov 6	23.3	0.0	7.2	54.0	Dec 6	30.1	0.0	10.1	46.0
Nov 7	13.8	0.0	7.2	54.0	Dec 7	32.4	0.0	10.7	46.0
Nov 8	24.2	0.0	7.7	54.0	Dec 8	36.9	0.0	9.9	46.0
Nov 9	20.6	0.0	7.7	53.0	Dec 9	32.8	0.0	9.4	45.0
Nov 10	22.6	0.0	7.7	53.0	Dec 10	32.0	0.0	9.4	45.0
Nov 11	26.0	0.0	7.0	53.0	Dec 11	33.3	0.0	9.2	45.0
Nov 12	30.6	0.0	7.0	53.0	Dec 12	30.1	0.0	9.2	45.0
Nov 13	19.9	0.0	7.1	53.0	Dec 13	30.1	0.0	9.1	45.0
Nov 14	24.3	0.0	7.1	52.0	Dec 14	30.2	0.0	9.1	45.0
Nov 15	18.1	0.0	7.1	52.0	Dec 15	33.3	0.0	9.1	44.0
Nov 16	19.9	0.0	7.1	52.0	Dec 16	38.3	0.0	9.3	44.0
Nov 17	12.3	0.0	7.1	52.0	Dec 17	36.1	0.0	9.3	44.0
Nov 18	15.1	0.0	7.1	52.0	Dec 18	23.6	0.0	9.4	44.0
Nov 19	21.7	0.0	7.1	51.0	Dec 19	33.6	0.0	9.4	44.0
Nov 20	16.8	0.0	6.8	51.0	Dec 20	29.7	0.0	9.4	43.0
Nov 21	25.4	0.0	6.8	51.0	Dec 21	33.8	0.0	8.6	43.0
Nov 22	23.8	0.0	6.8	51.0	Dec 22	32.4	0.0	8.6	43.0
Nov 23	33.3	0.0	6.8	51.0	Dec 23	32.1	0.0	9.0	43.0
Nov 24	39.9	0.0	7.2	50.0	Dec 24	36.5	0.0	9.8	41.0
Nov 25	53.3	0.0	7.2	50.0	Dec 25	33.8	0.0	10.1	40.0
Nov 26	46.5	0.0	7.2	50.0	Dec 26	36.8	0.0	10.1	40.0
Nov 27	40.2	0.0	8.0	50.0	Dec 27	32.1	0.0	10.1	40.0
Nov 28	37.8	0.0	8.0	50.0	Dec 28	38.7	0.0	10.1	40.0
Nov 29	40.8	0.0	8.2	49.0	Dec 29	38.0	0.0	10.1	39.0
Nov 30	42.7	0.0	8.2	49.0	Dec 30	54.7	0.0	10.1	39.0
					Dec 31	54.8	0.0	10.1	38.0
AVG.	26.5	0.0	7.2	52.1	AVG.	34.2	0.0	9.4	43.7

TABLE 101
YEARLY TOTALS OF SALMONIDS COUNTED OVER
ICE HARBOR DAM
1962 - 2017

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
Totals	4,233,392	5,813,208	20,837	104,726	10,172,163
10-Year Average	161,109	156,467	993	4,786	323,356

*Jacks included

Video daytime counts during extended count seasons are included.

TABLE 102

MONTHLY COUNT OF CHINOOK SALMON
ICE HARBOR DAM
1962 - 2017

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL
														1 APR- 11 JUN	12 JUN- 11 AUG	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	0	16,419	7,671	4,086	4,662
1997				3,442	30,332	14,678	2,224	411	2,502	1,680	143	0	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	0	0		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
TOTAL		1	352	556,881	1,558,633	739,898	295,320	109,780	797,843	170,911	3,681	92	4,233,392	2,370,889	802,088	1,059,836
10-Year Average				8,562	59,905	27,702	6,462	6,401	45,678	6,365			161,109	79,244	24,104	57,727

*Jacks included

Video for daytime counts during extended count seasons are included.

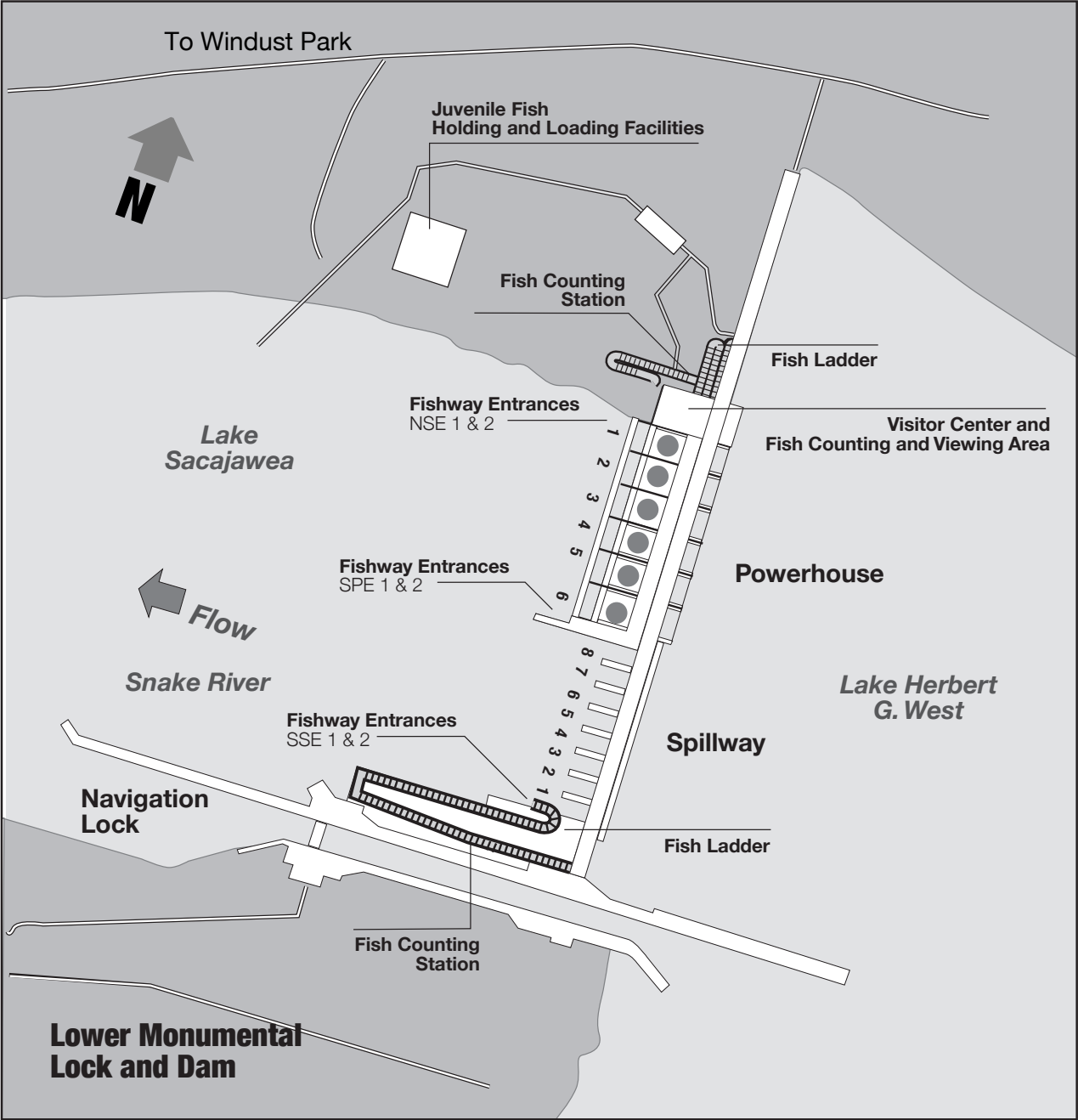
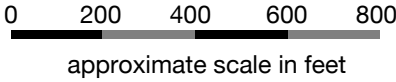
TABLE 103

**MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2017**

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
Totals	479	574	27,105	123,155	23,646	28,923	280,328	554,202	2,926,973	1,746,913	86,164	14,746	5,813,208
10-Year Average				1,966	224	815	9,434	19,517	81,618	42,156			156,467

Video daytime counts during extended count seasons are included.

Plate 7 Lower Monumental Lock and Dam



LOWER MONUMENTAL DAM

FISH COUNTING SCHEDULE

1 Apr – 31 Oct Visual counting daily 0400 – 2000 hours PST

FISH LADDER OPERATING SCHEDULE

North Ladder

1 Jan – 3 Jan Ladder in service.
3 Jan – 11 Feb Ladder dewatered for annual maintenance.
11 Feb – 31 Dec Ladder in service.

South Ladder

1 Jan – 13 Feb Ladder in service.
13 Feb – 24 Feb Ladder dewatered for annual maintenance.
24 Feb – 31 Dec Ladder in service.

FISHWAY ACTIVITIES

Water temperatures were recorded hourly from north and south fish ladder exit pools, at upper diffusers, and at the ladder entrance transition pools. Hourly readings were taken from June 1 to September 30. The purpose is to determine if summer spill has any effects on exit pool temperatures.

Monthly inspection of the north and south ladder exit pool zebra mussel monitoring stations occurred throughout the ladder operation period. No zebra mussels discovered.

All fish pumps were out of service from 3 January through 1 March for annual maintenance.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 21 March to 18 December.

Lower Monumental's removable spillway weir (RSW) was in service as per requirements of 2017 operating year. The RSW spill was closed on August 18

TABLE 104

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER MONUMENTAL DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				97	22,869	21,572	3,578	1,792	24,634	5,711			80,253
STEELHEAD				1,326	113	61	796	1,020	32,569	30,614			66,499
SOCKEYE						29	316	0	1				346
COHO*									2,932	4,655			7,587
PINK										1			1
TOTAL				1,423	22,982	21,662	4,690	2,812	60,136	40,981			154,686
LAMPREY					2	8	181	192	25	1			409
STURGEON													0
BULL TROUT				4	0	0	1						5

*Jacks included

TABLE 105

DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2017

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	18.0	0.0	4.5	38.5
Jan 2	20.4	0.0	4.5	38.0
Jan 3	18.0	0.0	4.5	38.0
Jan 4	21.9	0.0	4.5	38.0
Jan 5	22.5	0.0	4.5	38.0
Jan 6	26.1	0.0	4.5	36.0
Jan 7	25.7	0.0	4.5	36.0
Jan 8	22.9	0.0	4.5	35.0
Jan 9	22.2	0.0	4.5	35.0
Jan 10	21.1	0.0	4.5	34.0
Jan 11	25.6	0.0	4.5	34.0
Jan 12	30.9	0.0	4.0	34.0
Jan 13	27.2	0.0	4.0	34.0
Jan 14	24.6	0.0	4.0	34.0
Jan 15	31.0	0.0	4.0	33.0
Jan 16	27.9	0.0	4.0	33.0
Jan 17	31.5	0.0	4.0	33.0
Jan 18	30.5	0.0	4.0	33.0
Jan 19	20.8	0.0	4.0	33.0
Jan 20	17.6	0.0	4.0	33.0
Jan 21	26.6	0.0	4.0	33.0
Jan 22	21.6	0.0	4.0	33.0
Jan 23	31.0	0.0	4.0	33.0
Jan 24	30.4	0.0	4.0	33.0
Jan 25	30.0	0.0	4.0	34.0
Jan 26	27.5	0.0	4.0	34.0
Jan 27	27.7	0.0	4.0	34.0
Jan 28	29.7	0.0	4.0	33.0
Jan 29	28.7	0.0	4.0	33.0
Jan 30	25.8	0.0	4.0	33.0
Jan 31	36.8	0.0	3.5	34.0

AVG

25.9	0.0	4.2	34.4
------	-----	-----	------

FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	35.6	0.0	3.5	34.0
Feb 2	27.7	0.0	3.5	34.0
Feb 3	26.3	0.0	3.5	34.5
Feb 4	33.2	0.0	3.5	34.0
Feb 5	28.2	0.0	3.5	34.5
Feb 6	38.2	0.0	3.5	34.5
Feb 7	35.2	0.0	3.5	35.0
Feb 8	39.6	0.0	3.5	35.0
Feb 9	41.7	0.0	3.5	35.0
Feb 10	35.3	0.0	3.5	35.0
Feb 11	66.2	0.0	3.5	35.0
Feb 12	79.5	0.0	3.5	36.0
Feb 13	78.1	0.0	3.5	36.0
Feb 14	68.9	0.0	3.5	36.0
Feb 15	59.5	0.0	3.5	36.0
Feb 16	60.8	0.0	3.0	36.0
Feb 17	63.8	0.0	3.0	36.0
Feb 18	82.4	0.0	3.0	36.0
Feb 19	80.7	0.0	3.0	37.0
Feb 20	80.8	0.0	3.0	37.0
Feb 21	80.5	0.0	3.0	37.0
Feb 22	80.5	8.8	3.0	37.0
Feb 23	99.2	30.0	3.0	38.0
Feb 24	98.4	17.0	3.0	38.0
Feb 25	94.6	12.9	3.0	38.0
Feb 26	85.6	4.7	3.0	38.0
Feb 27	83.2	1.4	3.0	39.0
Feb 28	77.7	1.2	3.0	39.0

AVG

62.9	2.7	3.3	36.1
------	-----	-----	------

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Mar 1	77.2	1.6	3.0	39.0
Mar 2	74.3	0.0	3.0	39.0
Mar 3	70.2	0.0	2.5	39.5
Mar 4	70.8	0.0	2.5	39.5
Mar 5	67.1	0.0	2.5	39.5
Mar 6	73.7	0.0	2.5	39.5
Mar 7	83.6	2.4	2.5	39.5
Mar 8	89.0	6.1	2.5	39.5
Mar 9	84.0	1.9	2.5	39.5
Mar 10	100.0	15.8	2.5	40.0
Mar 11	128.3	43.7	2.5	40.0
Mar 12	161.4	77.4	2.5	40.0
Mar 13	146.3	62.4	2.5	40.0
Mar 14	142.8	60.0	2.5	40.0
Mar 15	147.5	66.7	2.5	41.0
Mar 16	163.2	80.2	2.5	42.0
Mar 17	200.2	118.0	1.0	43.0
Mar 18	213.1	131.6	1.0	44.0
Mar 19	175.0	94.8	1.0	44.0
Mar 20	204.1	123.5	1.0	44.0
Mar 21	193.8	116.4	1.0	44.0
Mar 22	204.3	137.2	1.0	44.0
Mar 23	192.3	129.0	1.0	45.0
Mar 24	194.3	123.7	1.0	45.0
Mar 25	182.9	100.0	1.0	46.0
Mar 26	176.2	92.5	1.0	46.5
Mar 27	173.6	90.1	1.0	46.5
Mar 28	168.2	85.1	1.0	46.5
Mar 29	159.8	77.0	1.0	47.0
Mar 30	153.3	71.7	1.0	47.0
Mar 31	160.5	82.2	1.0	47.0

AVG

142.9	64.2	1.8	42.5
-------	------	-----	------

TABLE 106

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

LOWER MONUMENTAL PROJECT - FISH COUNTS													APRIL 2017				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL				BULL		DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT				LAMPREY	KCFS
Apr 1	0			0				135	49			0		180.6	112.7	1.0	47.0
Apr 2	0			0				104	43			0		171.9	93.1	1.0	48.0
Apr 3	0			0				96	37			0		156.1	77.4	1.0	48.0
Apr 4	0			0				76	36			0		155.8	77.4	1.0	48.0
Apr 5	0			0				53	27			1		151.8	73.1	1.5	48.0
Apr 6	0			0				80	38			0		142.9	64.5	1.5	48.0
Apr 7	0			0				74	45			0		141.6	63.5	1.5	48.0
Apr 8	0			0				73	42			0		137.8	63.5	1.5	48.0
Apr 9	0			0				72	42			1		143.7	65.6	1.5	48.0
Apr 10	0			0				58	34			1		150.6	72.5	1.5	48.0
Apr 11	0			0				45	25			0		140.3	62.7	2.0	48.0
Apr 12	0			0				30	12			0		125.0	61.2	2.0	48.0
Apr 13	1			0				40	15			0		142.9	92.1	2.0	48.0
Apr 14	1			0				35	14			0		146.9	81.5	2.0	48.0
Apr 15	1			0				26	17			0		132.1	54.5	2.0	48.0
Apr 16	6			0				21	12			0		128.9	51.7	2.0	48.0
Apr 17	0			0				22	9			0		119.7	42.6	2.0	48.0
Apr 18	6			0				30	16			0		116.1	39.2	2.0	49.0
Apr 19	1			0				32	16			0		124.0	46.3	2.0	49.0
Apr 20	1			0				16	4			0		124.7	46.9	2.0	49.0
Apr 21	1			0				32	10			0		124.2	47.2	2.0	50.0
Apr 22	2			0				21	12			1		133.1	55.9	2.0	50.0
Apr 23	6			0				26	7			0		124.7	69.1	2.0	51.0
Apr 24	9			0				21	13			0		120.5	54.8	2.0	51.0
Apr 25	6			0				25	13			0		121.6	54.8	2.0	51.0
Apr 26	11			1				13	6			0		128.2	54.9	2.0	52.0
Apr 27	7			0				12	5			0		131.3	58.2	2.0	52.0
Apr 28	8			0				13	6			0		133.3	56.9	2.0	52.0
Apr 29	13			0				20	14			0		131.0	53.3	2.0	52.0
Apr 30	16			0				25	11			0		124.8	54.1	2.0	52.0
TOTAL	96			1				1,326	630			4					
AVG.	3			0				44	21			0		136.9	63.4	1.8	49.2

Note: Official Spring Chinook run started April 1.

TABLE 107

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

LOWER MONUMENTAL PROJECT - FISH COUNTS														MAY 2017			
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL SOCKEYE	unclipped STEELHEAD	STEELHEAD	PINK	STURGEON	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TEMP DEG F
	SPRING	SUMMER	FALL									TROUT	LAMPREY				
May 1	18			0			7	3						115.9	54.0	2.0	53.0
May 2	12			1			10	8						123.6	54.8	2.0	53.0
May 3	37			0			11	4						116.8	57.6	2.0	53.0
May 4	21			2			3	3						110.8	49.6	2.0	53.0
May 5	19			2			8	7						107.2	52.8	2.0	53.0
May 6	22			1			9	4						120.0	53.3	2.0	54.0
May 7	28			4			2	2						140.9	63.2	2.0	54.0
May 8	57			1			5	4						160.8	83.2	2.0	54.0
May 9	89			1			7	5						171.2	93.2	2.5	55.0
May 10	102			2			5	4						167.0	89.2	2.5	55.0
May 11	106			4			2	2						163.4	85.3	2.5	54.0
May 12	99			4			1	0						162.2	84.2	2.5	53.0
May 13	168			8			1	0						177.3	99.4	2.5	53.0
May 14	323			10			2	0						184.0	106.3	2.5	53.0
May 15	437			23			2	0						174.3	96.5	2.5	54.0
May 16	550			45			0	0						153.4	75.7	2.5	54.0
May 17	565			50			2	1						147.2	81.6	2.0	54.0
May 18	691			72			3	2						137.6	75.3	2.0	54.0
May 19	638			60			6	1						126.7	58.7	2.0	53.0
May 20	827			64			3	1						122.6	53.7	2.0	53.0
May 21	696			95			1	0						113.7	53.7	2.0	53.0
May 22	579			92			1	1						113.0	53.1	2.0	53.0
May 23	960			131			3	1						110.3	54.9	2.0	53.0
May 24	705			155			5	4						119.6	60.8	2.0	53.0
May 25	1,163			191			2	2						138.0	79.0	2.0	55.0
May 26	863			161			2	0						157.0	88.1	2.0	56.0
May 27	1,928			433			2	1						151.6	74.0	2.0	57.0
May 28	2,290			544			4	2						141.5	64.1	2.0	57.0
May 29	2,194			719			-1	-1						130.9	57.5	2.0	57.0
May 30	1,381			704			4	4						137.0	59.0	2.0	57.0
May 31	1,080			642			1	0						143.5	65.4	2.0	56.0
TOTAL	18,648			4,221			113	65				2					
AVG.	602			136			4	2				0	140.0	70.2	2.1	54.2	
RUN YEAR																	
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				STEELHEAD	unclipped STEELHEAD				BULL TROUT	LAMPREY				
SPRING		18,744	4,222				1,439	695				4	2				

TABLE 108

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER									FALL	TROUT			LAMPREY	SECCH
Jun 1	875		513			0	1	1				0	161.6	82.8	2.0	56.0
Jun 2	1,036		497			0	1	0				0	174.2	103.4	2.0	56.0
Jun 3	1,003		457			0	5	0				0	179.4	101.4	2.0	57.0
Jun 4	1,167		545			0	4	0				0	169.3	91.4	2.0	57.0
Jun 5	840		384			0	0	0				0	165.6	88.4	2.0	57.0
Jun 6	361		139			0	1	1				0	168.4	91.6	2.0	57.0
Jun 7	456		191			0	0	0				0	161.5	103.0	2.0	57.0
Jun 8	274		107			0	0	0				0	153.2	108.1	2.0	57.0
Jun 9	758		260			0	0	0				1	155.2	112.8	2.0	58.0
Jun 10	638		247			0	0	0				0	149.8	90.7	2.0	58.0
Jun 11	892		283			0	0	0				1	151.2	92.4	2.0	58.0
Jun 12	788		215			0	4	0				0	133.5	74.7	2.0	58.0
Jun 13	713		210			0	2	2				1	122.5	64.1	2.0	58.0
Jun 14		592	192			0	0	0				0	110.2	50.3	2.0	58.0
Jun 15		503	155			0	0	0				0	129.7	51.6	2.0	58.0
Jun 16		503	134			0	0	0				1	122.8	48.0	2.0	58.0
Jun 17		564	164			0	1	1				0	113.0	50.1	2.0	58.0
Jun 18		413	134			0	0	0				0	119.2	48.5	2.0	58.0
Jun 19		337	126			0	0	0				0	119.1	50.0	2.0	58.0
Jun 20		394	147			0	1	1				0	115.0	48.7	2.0	58.0
Jun 21		409	128			1	1	1				2	113.6	49.8	2.0	59.0
Jun 22		345	156			0	1	1				0	116.7	39.4	2.0	60.0
Jun 23		216	103			0	2	1				0	117.6	40.4	2.0	60.0
Jun 24		201	84			0	0	0				-2	111.4	36.1	2.0	60.0
Jun 25		167	73			0	1	0				0	102.6	28.6	2.0	62.0
Jun 26		188	85			1	3	1				1	95.8	18.7	2.0	63.0
Jun 27		217	72			6	7	4				1	87.4	17.6	2.5	63.0
Jun 28		199	101			8	7	6				0	79.8	16.6	2.5	63.0
Jun 29		242	99			4	13	7				0	79.4	16.9	3.0	64.0
Jun 30		164	116			9	6	3				2	82.3	16.5	3.0	65.0

TOTAL	9,801	5,654	6,117			29	61	30				8				
--------------	-------	-------	-------	--	--	----	----	----	--	--	--	---	--	--	--	--

AVG.	754	333	204			1	2	1				0	128.7	61.1	2.1	59.0
------	-----	-----	-----	--	--	---	---	---	--	--	--	---	-------	------	-----	------

RUN YEAR																
TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	unclipped STEELHEAD			BULL TROUT	LAMPREY				
SPRING	28,545	8,270				29	1,500	725			4	10				
SUMMER	5,654	2,069														
TOTAL	34,199	10,339														

TABLE 109

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	STURGEON					TROUT
Jul 1		132		74			15	6	5		0	2	73.3	16.9	3.5	65.0
Jul 2		157		77			16	16	5		0	0	75.3	16.6	3.5	65.0
Jul 3		123		84			10	15	6		0	0	69.2	17.1	3.5	66.0
Jul 4		126		78			12	10	6		1	0	68.7	16.6	3.5	66.0
Jul 5		89		72			18	8	6		0	1	62.7	17.1	3.5	66.0
Jul 6		137		70			16	18	14		0	2	65.2	17.0	3.0	66.5
Jul 7		129		68			21	8	5		0	3	59.3	17.1	3.0	67.5
Jul 8		101		74			29	7	6		0	2	60.5	16.6	3.0	67.1
Jul 9		100		44			14	8	6		0	2	56.7	17.0	3.0	67.5
Jul 10		86		49			14	7	4		0	4	56.7	16.8	3.0	67.6
Jul 11		120		82			29	17	13		0	4	52.4	17.1	3.0	69.6
Jul 12		100		47			23	14	11		0	12	53.8	16.6	3.0	70.0
Jul 13		114		62			36	24	20		0	13	46.0	19.0	3.0	70.0
Jul 14		88		53			11	28	17		0	21	48.8	16.6	3.0	70.0
Jul 15		96		36			11	18	10		0	10	51.2	16.9	3.0	70.0
Jul 16		65		33			14	34	15		0	12	47.8	16.7	3.0	70.0
Jul 17		63		22			5	14	8		0	13	44.5	16.9	3.0	70.0
Jul 18		33		27			9	43	23		0	8	45.7	16.5	3.0	71.0
Jul 19		57		24			6	36	15		0	3	43.0	16.7	3.5	71.0
Jul 20		52		22			1	51	30		0	5	45.2	16.7	3.5	71.0
Jul 21		55		29			2	46	30		0	5	46.1	16.9	3.5	71.0
Jul 22		43		15			0	27	18		0	10	40.2	17.0	4.0	71.0
Jul 23		38		12			1	28	17		0	3	41.4	17.1	4.0	71.0
Jul 24		34		15			1	35	22		0	7	34.6	16.9	4.0	71.0
Jul 25		17		17			0	26	16		0	6	39.7	17.1	4.0	71.0
Jul 26		22		8			0	42	27		0	12	40.2	16.7	4.0	71.0
Jul 27		35		7			0	55	41		0	1	38.3	17.1	4.0	70.0
Jul 28		22		20			1	25	18		0	5	36.6	16.7	4.0	71.0
Jul 29		41		11			0	42	26		0	2	38.8	16.9	4.0	72.0
Jul 30		28		9			0	32	20		0	11	40.5	16.6	4.0	72.0
Jul 31		27		7			1	56	31		0	2	36.5	16.8	4.0	72.0
TOTAL		2,330		1,248			316	796	491		1	181				
AVG.		75		40			10	26	16		0	6	50.3	16.9	3.5	69.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,545	8,270
SUMMER	7,984	3,317
TOTAL	36,529	11,587

SOCKEYE	STEELHEAD	unclipped STEELHEAD
345	2,296	1,216

BULL TROUT	LAMPREY
5	191

TABLE 110

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

AUGUST 2017

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		25		1				38	33				15	39.5	16.5	4.0	72.0
Aug 2		17		11				34	23				10	38.5	17.0	4.0	72.0
Aug 3		9		6				20	7				6	39.6	16.7	4.0	72.0
Aug 4		37		15				56	43				8	38.3	17.0	4.0	71.0
Aug 5		8		6				36	25				9	35.1	16.4	4.0	71.0
Aug 6		19		3				38	23				5	31.5	17.0	4.0	71.0
Aug 7		15		4				19	9				1	31.0	16.6	4.0	71.0
Aug 8		23		1				12	9				1	31.7	17.0	5.0	71.0
Aug 9		19		4				34	16				6	30.0	16.8	5.0	70.5
Aug 10		14		8				32	21				4	29.2	17.0	5.0	70.5
Aug 11		16		1				31	18				1	29.4	16.6	5.0	71.3
Aug 12		18		6				31	16				9	28.7	15.9	5.0	71.1
Aug 13		12		5				20	11				9	29.0	16.7	5.0	70.9
Aug 14			25	8				36	23				14	28.7	16.3	5.0	71.3
Aug 15			20	3				29	31				5	27.6	15.1	5.0	73.0
Aug 16			20	8				37	15				17	27.8	15.5	5.0	73.0
Aug 17			18	3				18	12				3	30.0	17.0	5.0	73.0
Aug 18			16	2				10	5				2	26.0	13.1	5.0	73.0
Aug 19			29	1				18	12				6	23.8	11.4	5.0	73.0
Aug 20			31	3				15	10				6	24.9	12.3	5.0	73.0
Aug 21			36	7				7	1				5	25.2	12.6	5.0	73.0
Aug 22			68	9				5	5				2	24.8	11.1	5.0	73.0
Aug 23			103	9				16	12				4	27.4	12.0	5.0	73.0
Aug 24			110	14				28	21				8	28.1	12.8	5.0	73.0
Aug 25			213	30				31	15				1	28.8	13.5	5.0	74.0
Aug 26			114	7				65	26				13	26.0	10.6	5.0	74.0
Aug 27			78	4				61	24				2	25.8	10.3	5.0	74.0
Aug 28			89	13				58	25				6	27.3	12.1	5.0	74.0
Aug 29			79	12				66	30				5	27.9	12.8	5.0	74.0
Aug 30			96	13				50	26				4	25.3	10.1	5.0	74.0
Aug 31			173	25				69	22				5	27.5	12.1	5.0	74.0
TOTAL		232	1,318	242				1,020	569				192				
AVG.		18	73	8				33	18				6	29.5	14.4	4.8	72.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,545	8,270
SUMMER	8,216	3,388
FALL	1,318	171
TOTAL	38,079	11,829

SOCKEYE	STEELHEAD	unclipped STEELHEAD
345	3,316	1,785

BULL TROUT	LAMPREY
5	383

TABLE 111

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

SEPTEMBER 2017

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			167	27	0	0	0	114	41			4		27.1	13.6	5.0	74.0
Sep 2			152	18	0	0	0	84	28			0		19.4	0.0	5.0	73.0
Sep 3			162	19	0	0	0	86	26			0		20.1	0.0	5.0	73.0
Sep 4			141	20	0	0	0	75	26			0		20.0	0.0	5.0	73.0
Sep 5			137	31	0	0	0	49	19			3		20.8	0.0	5.0	73.0
Sep 6			402	73	0	0	0	105	42			1		20.8	2.5	5.0	73.0
Sep 7			650	158	0	0	0	150	48			-1		22.5	3.0	5.0	73.0
Sep 8			425	92	0	0	0	166	54			1		21.7	2.2	5.0	73.0
Sep 9			311	68	0	0	0	279	107			6		30.7	11.3	5.0	73.0
Sep 10			520	120	0	1	1	468	149			2		25.3	6.9	5.0	73.0
Sep 11			386	65	1	0	0	293	88			1		22.8	3.4	5.0	73.0
Sep 12			503	129	2	0	0	438	122			1		29.2	9.7	5.0	73.0
Sep 13			603	162	8	5	0	391	114			4		25.6	0.8	5.0	73.0
Sep 14			466	135	6	1	0	294	50			1		20.4	0.0	5.0	73.0
Sep 15			590	142	12	2	0	484	98			0		22.4	0.0	5.0	73.0
Sep 16			729	184	13	3	0	774	195			2		30.3	0.0	5.0	73.0
Sep 17			739	146	16	5	0	433	88			2		30.0	0.0	5.0	73.0
Sep 18			1,529	342	30	5	0	652	130			-4		32.3	0.0	5.0	73.0
Sep 19			1,812	331	52	8	0	1,448	327			0		36.0	0.0	5.0	72.0
Sep 20			1,545	306	61	9	0	1,466	301			6		29.0	0.0	5.0	71.0
Sep 21			1,736	384	150	23	0	2,206	394			1		28.9	0.0	5.0	71.0
Sep 22			808	203	176	16	0	1,777	316			4		28.4	0.0	5.0	71.0
Sep 23			707	202	135	17	0	1,440	240			-1		25.0	0.0	5.0	71.0
Sep 24			667	228	155	15	0	1,630	281			-4		22.1	0.0	5.0	70.0
Sep 25			681	197	197	14	0	2,167	388			0		21.4	0.0	5.0	69.0
Sep 26			624	160	192	9	0	1,866	335			-1		22.9	0.0	5.0	66.0
Sep 27			656	153	172	24	0	2,022	467			-1		26.1	0.0	5.0	66.0
Sep 28			739	176	222	25	0	3,937	840			0		26.1	0.0	5.0	66.0
Sep 29			746	237	423	82	0	3,253	582			0		32.2	0.0	5.0	66.0
Sep 30			599	194	541	104	0	4,022	663			-2		35.5	0.0	5.0	65.0
TOTAL			19,932	4,702	2,564	368	1	32,569	6,559			25					
AVG.			664	157	85	12		1,086	219			1		25.8	1.8	5.0	71.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,545	8,270
SUMMER	8,216	3,388
FALL	21,250	4,873
TOTAL	58,011	16,531

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
2,564	368	346	35,885	8,344

BULL TROUT	LAMPREY
5	408

TABLE 112

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

OCTOBER 2017

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
Oct 1			576	170	642	168		3,930	620	0		1	25.6	0.0	4.5	65.0
Oct 2			379	88	390	70		2,318	363	0		0	30.8	0.0	4.5	65.0
Oct 3			292	92	320	43		2,383	432	0		-2	33.1	0.0	4.5	65.0
Oct 4			356	139	331	49		2,273	374	0		1	36.4	0.0	4.5	64.0
Oct 5			269	105	198	22		1,201	174	0		0	30.8	0.0	4.5	63.0
Oct 6			280	110	193	43		1,608	296	0		0	34.0	0.0	4.5	63.0
Oct 7			255	125	285	72		2,260	343	0		0	31.7	0.0	4.5	63.0
Oct 8			167	60	181	28		1,356	224	1		1	20.5	0.0	4.5	62.0
Oct 9			108	52	94	23		869	142	0		1	26.7	0.0	4.5	62.0
Oct 10			243	75	143	24		1,133	197	0		0	26.1	0.0	4.5	62.0
Oct 11			189	71	137	27		1,166	192	0		0	19.9	0.0	5.0	62.0
Oct 12			152	42	95	20		1,016	163	0		0	24.6	0.0	5.0	61.0
Oct 13			103	73	114	13		994	147	0		0	12.4	0.0	5.0	60.0
Oct 14			96	70	117	4		978	188	0		0	22.2	0.0	5.0	59.0
Oct 15			60	40	76	2		749	145	0		0	18.8	0.0	5.0	59.0
Oct 16			95	41	85	5		605	115	0		0	17.1	0.0	5.0	59.0
Oct 17			60	34	57	7		547	108	0		0	21.1	0.0	5.0	58.0
Oct 18			49	21	52	5		444	83	0		0	16.9	0.0	5.0	58.0
Oct 19			47	19	30	2		403	70	0		0	21.3	0.0	5.0	58.0
Oct 20			62	25	68	1		566	125	0		0	18.6	0.0	5.0	57.0
Oct 21			66	27	90	2		574	126	0		0	20.5	0.0	5.0	57.0
Oct 22			28	12	42	9		481	111	0		0	23.6	0.0	5.0	57.0
Oct 23			34	15	33	6		343	78	0		0	12.5	0.0	4.5	57.0
Oct 24			29	19	21	4		413	78	0		0	26.2	0.0	4.5	57.0
Oct 25			26	13	39	5		281	68	0		0	24.1	0.0	4.5	57.0
Oct 26			16	19	27	2		190	38	0		-1	16.1	0.0	4.5	57.0
Oct 27			18	8	28	6		262	60	0		0	22.1	0.0	4.5	57.0
Oct 28			21	9	25	2		297	65	0		0	23.7	0.0	4.5	57.0
Oct 29			11	7	23	11		307	83	0		0	22.8	0.0	4.5	56.0
Oct 30			12	5	18	6		326	92	0		0	18.2	0.0	4.5	56.0
Oct 31			21	5	18	2		341	118	0		0	21.7	0.0	4.5	56.0
TOTAL			4,120	1,591	3,972	683		30,614	5,418	1		1				
AVG.			133	51	128	22		988	175	0		0	23.2	0.0	4.7	59.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	28,545	8,270
SUMMER	8,216	3,388
FALL	25,370	6,464
TOTAL	62,131	18,122

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
6,536	1,051	346	66,499	13,762

BULL TROUT	LAMPREY
5	409

TABLE 113
DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2017

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	19.5	0.0	4.5	56.0	Dec 1	41.9	0.0	4.5	46.0
Nov 2	22.0	0.0	4.5	55.0	Dec 2	32.6	0.2	4.5	45.0
Nov 3	19.4	0.0	4.5	54.0	Dec 3	31.7	0.0	4.5	45.0
Nov 4	23.4	0.0	4.5	54.0	Dec 4	28.8	0.0	4.5	45.0
Nov 5	17.6	0.0	4.5	54.0	Dec 5	31.7	0.0	4.5	45.0
Nov 6	21.0	0.0	4.5	54.0	Dec 6	30.9	0.0	4.5	45.0
Nov 7	22.5	0.0	4.5	53.0	Dec 7	29.7	0.0	4.5	44.0
Nov 8	14.7	0.0	4.5	53.0	Dec 8	33.2	0.0	6.0	43.0
Nov 9	23.6	0.0	4.5	53.0	Dec 9	35.0	0.0	6.0	43.0
Nov 10	22.1	0.0	4.5	53.0	Dec 10	35.7	0.0	6.0	43.0
Nov 11	21.4	0.0	4.5	52.0	Dec 11	31.7	0.0	6.0	43.0
Nov 12	24.8	0.0	4.5	51.5	Dec 12	33.2	0.0	6.0	43.0
Nov 13	30.0	0.0	4.5	51.0	Dec 13	33.8	0.0	6.0	43.0
Nov 14	21.2	0.0	4.5	51.0	Dec 14	31.8	0.0	6.0	43.0
Nov 15	24.4	0.0	4.5	50.0	Dec 15	32.0	0.0	6.0	43.0
Nov 16	17.9	0.0	4.5	50.0	Dec 16	32.7	0.0	6.0	43.0
Nov 17	19.0	0.0	4.5	50.0	Dec 17	37.0	0.0	6.0	43.0
Nov 18	12.3	0.0	4.5	49.0	Dec 18	36.7	0.0	6.0	43.0
Nov 19	15.9	0.0	4.5	49.0	Dec 19	24.2	0.0	6.0	43.0
Nov 20	21.0	0.0	4.5	48.0	Dec 20	34.5	0.0	6.0	43.0
Nov 21	18.1	0.0	4.5	48.0	Dec 21	31.6	0.0	6.0	43.0
Nov 22	24.4	0.0	4.5	48.0	Dec 22	32.1	0.0	6.0	43.0
Nov 23	22.7	0.0	4.5	48.0	Dec 23	33.2	0.0	6.0	42.0
Nov 24	34.4	0.0	4.5	49.0	Dec 24	32.5	0.0	6.0	42.0
Nov 25	39.4	0.0	4.5	49.0	Dec 25	36.6	0.0	6.0	42.0
Nov 26	52.9	0.0	4.5	48.0	Dec 26	35.7	0.0	6.0	42.0
Nov 27	43.8	0.0	4.5	48.0	Dec 27	36.3	0.0	6.0	42.0
Nov 28	42.9	0.0	4.5	46.6	Dec 28	34.5	0.0	6.0	39.0
Nov 29	36.8	0.0	4.5	46.0	Dec 29	38.6	0.0	6.0	39.0
Nov 30	42.7	0.0	4.5	45.0	Dec 30	39.4	0.0	6.0	39.0
					Dec 31	44.7	5.2	6.0	39.0
AVG.	25.7	0.0	4.5	50.5	AVG.	34.0	0.2	5.7	42.8

TABLE 114
 YEARLY TOTALS OF SALMONIDS COUNTED OVER
 LOWER MONUMENTAL DAM
 1969 - 2017

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
Total	3,570,634	5,061,571	16,635	82,780	8,731,620
10-Year Average	160,366	157,503	1,149	5,388	324,406

*Jacks included

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

TABLE 115
MONTHLY COUNT OF CHINOOK SALMON
LOWER MONUMENTAL DAM
1969-2017

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
Total	2	0	60	400,339	1,377,445	700,492	231,779	79,493	636,251	141,905	1,838	30	3,569,634
10-Year Average				6,399	59,119	30,532	8,025	5,283	44,031	6,941			160,366

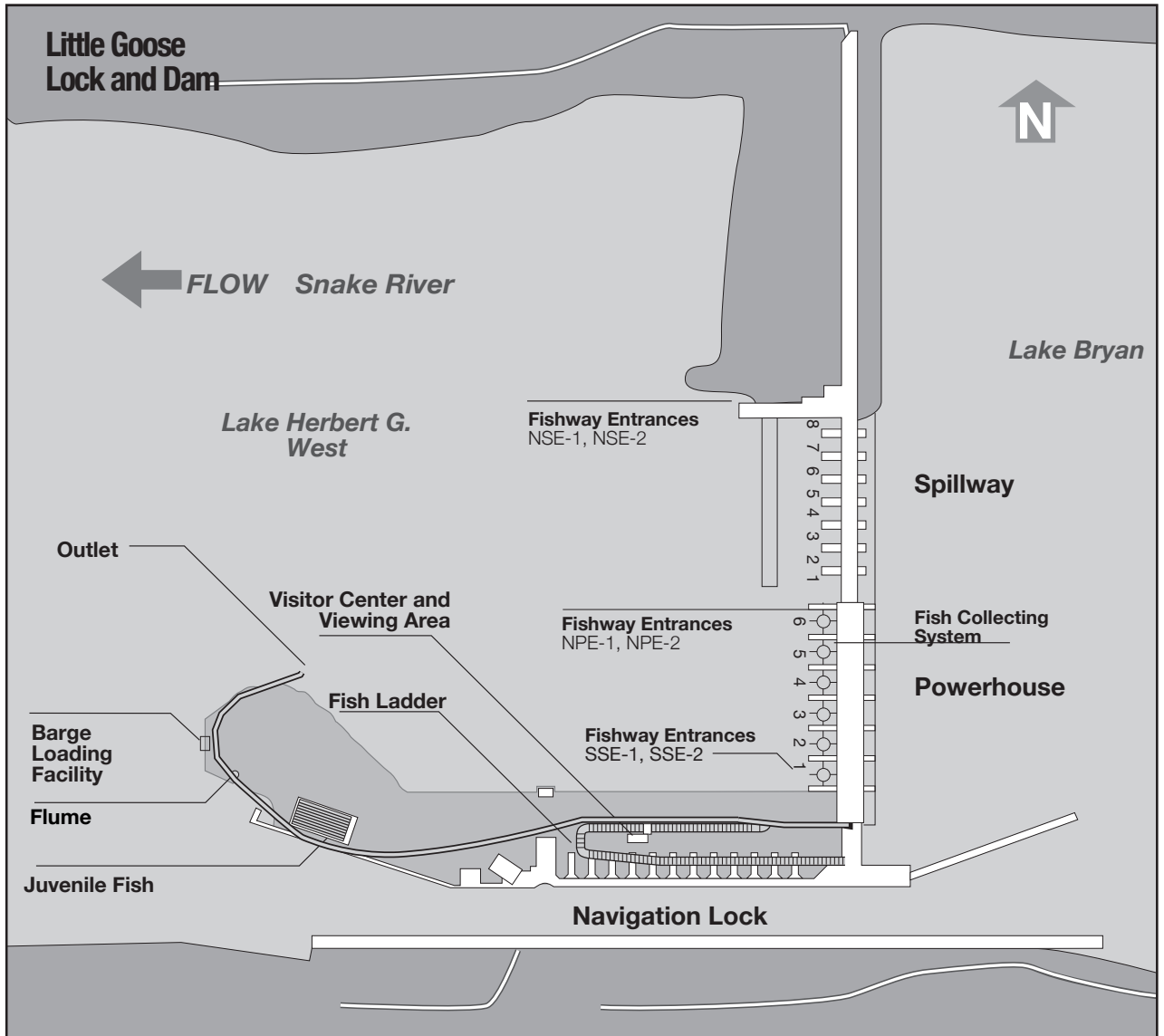
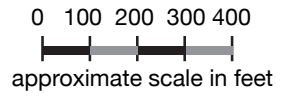
*Jacks included
2001-2004 and 2014 - 2015 extended season video counts are included.

TABLE 116
MONTHLY COUNT OF STEELHEAD
LOWER MONUMENTAL DAM
1969 - 2017

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
Total	5,252	8,850	18,442	114,653	22,500	19,832	218,368	435,233	2,372,153	1,771,620	58,017	16,651	5,061,571
10-Year Average				2,567	351	683	7,622	16,010	78,440	50,199			157,503

Note - Counts include 2001-04 and 2014 - 2015 extended season video counts.

Plate 8 Little Goose Lock and Dam



LITTLE GOOSE DAM

FISH COUNTING SCHEDULE

01 January – 31 March	No counting
01 April – 31 October	Visual counting daily from 0400-2000 hours PST

FISH LADDER OPERATING SCHEDULE

01 January – 02 January	Ladder in service
04 January	Ladder dewatered for annual maintenance
22 February – 02 January	Ladder in service

FISHWAY ACTIVITIES

Adult fishways were inspected for proper operating criteria on average three times per week during fish passage season.

Water temperature in the ladder was recorded on an hourly basis at the ladder exit, turn pool, junction pool and near the North powerhouse entrance. Little Goose was not able to install the permanent or temporary fish ladder temperature control system for 2017. Permanent install is schedule for the winter maintenance period.

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.

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.

Normandeau Associates Inc. 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 from March 28 to December 20.

The temporary spillway weir was in operation March 22 until July 19.

TABLE 117

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LITTLE GOOSE DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				61	14,893	28,020	4,507	1,479	22,135	5,976			77,071
STEELHEAD				1,338	149	23	368	565	25,303	31,513			59,259
SOCKEYE						4	281	0	2	1			288
COHO									2,180	5,711			7,891
PINK										1			1
TOTAL				1,399	15,042	28,047	5,156	2,044	49,620	43,202			144,510
LAMPREY						1	318	173	-4	-16			472
STURGEON													0
BULL TROUT				1	1								2

*Jacks included

TABLE 118
DISCHARGE AND WATER QUALITY DATA
LITTLE GOOSE PROJECT 2017

JANUARY				
DATE	DISCH		TURBIDITY	
	KCFS	SPILL KCFS	SECCHI	DEG F
Jan 1	18.5	0.0		
Jan 2	17.1	0.0		
Jan 3	20.3	0.0		
Jan 4	22.1	0.0		
Jan 5	23.6	0.0		
Jan 6	25.5	0.0		
Jan 7	22.7	0.0		
Jan 8	20.7	0.0		
Jan 9	20.5	0.0		
Jan 10	25.3	0.0		
Jan 11	30.5	0.0		
Jan 12	26.0	0.0		
Jan 13	25.2	0.0		
Jan 14	27.6	0.0		
Jan 15	28.5	0.0		
Jan 16	29.2	0.0		
Jan 17	28.4	0.0		
Jan 18	21.5	0.0		
Jan 19	18.0	0.0		
Jan 20	25.6	0.0		
Jan 21	21.3	0.0		
Jan 22	28.6	0.0		
Jan 23	26.2	0.0		
Jan 24	30.0	0.0		
Jan 25	25.4	0.0		
Jan 26	27.3	0.0		
Jan 27	27.9	0.0		
Jan 28	26.1	0.0		
Jan 29	25.6	0.0		
Jan 30	34.4	0.0		
Jan 31	30.9	0.0		

AVG.

25.2	0.0
------	-----

FEBRUARY				
DATE	DISCH		TURBIDITY	
	KCFS	SPILL KCFS	SECCHI	DEG F
Feb 1	28.3	0.0		
Feb 2	26.4	0.0		
Feb 3	32.3	0.0		
Feb 4	28.1	0.0		
Feb 5	34.8	0.0		
Feb 6	33.5	0.0		
Feb 7	35.9	0.0		
Feb 8	38.0	0.0		
Feb 9	36.8	0.0		
Feb 10	63.5	0.0		
Feb 11	72.3	0.0		
Feb 12	71.7	0.0		
Feb 13	64.0	0.0		
Feb 14	57.8	0.0		
Feb 15	57.5	0.0		
Feb 16	59.0	0.0		
Feb 17	75.1	0.0		
Feb 18	71.9	0.0		
Feb 19	72.5	0.0		
Feb 20	71.3	0.0		
Feb 21	75.2	0.0		
Feb 22	95.1	11.5		
Feb 23	91.9	11.9		
Feb 24	88.2	0.0		
Feb 25	78.9	0.0		
Feb 26	84.1	0.0		
Feb 27	71.9	0.0		
Feb 28	73.5	2.0		

AVG.

60.3	0.9
------	-----

MARCH				
DATE	DISCH		TURBIDITY	
	KCFS	SPILL KCFS	SECCHI	DEG F
Mar 1	71.1	0.0	2.4	39.1
Mar 2	66.5	0.0	3.1	39.3
Mar 3	68.2	0.0	2.0	39.7
Mar 4	65.2	0.0		
Mar 5	70.3	0.0		
Mar 6	80.3	0.0		
Mar 7	87.2	0.0	2.9	40.0
Mar 8	80.4	0.0	3.0	40.5
Mar 9	93.1	0.0	3.1	41.0
Mar 10	127.3	10.1		
Mar 11	146.8	21.2		
Mar 12	138.7	17.0		
Mar 13	133.1	15.7	0.8	42.1
Mar 14	137.3	11.1	0.6	42.6
Mar 15	154.0	22.9	0.8	42.8
Mar 16	178.5	49.2		
Mar 17	192.2	64.1		
Mar 18	164.6	36.2		
Mar 19	190.8	62.7		
Mar 20	178.8	60.1		
Mar 21	191.0	70.4	0.7	45.2
Mar 22	181.6	56.1	0.8	45.5
Mar 23	181.3	59.9	1.0	45.4
Mar 24	168.5	38.9		
Mar 25	167.2	52.3		
Mar 26	165.7	58.0		
Mar 27	160.8	47.7	1.3	47.0
Mar 28	150.8	24.1	2.0	47.3
Mar 29	143.0	35.1	1.8	47.3
Mar 30	150.8	53.9	2.0	47.6
Mar 31	169.0	54.9		

AVG.

137.2	29.7	1.8	43.3
-------	------	-----	------

*Water temps are from water quality sensor located in the tailrace

TABLE 119

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

LITTLE GOOSE PROJECT - FISH COUNTS

APRIL 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL												SECCHI	DEG F
Apr 1	0			0				107	37		0		161.5	51.0		
Apr 2	0			0				98	32		0		151.0	42.4	1.8	47.6
Apr 3	0			0				75	31		0		150.1	48.1		
Apr 4	0			0				83	25		0		146.0	41.6	1.8	47.4
Apr 5	0			0				58	23		0		140.4	47.6		
Apr 6	0			0				60	20		0		139.0	50.4	1.9	48.1
Apr 7	0			0				60	16		0		133.6	50.1		
Apr 8	0			0				52	23		0		141.3	49.1		
Apr 9	0			0				98	64		0		145.1	37.3	2.3	48.4
Apr 10	0			0				63	32		0		135.9	37.5		
Apr 11	0			0				56	38		0		120.4	37.0		
Apr 12	0			0				39	19		0		134.9	47.4	2.1	48.2
Apr 13	0			0				41	24		0		141.0	52.1	2.2	48.4
Apr 14	0			0				52	26		0		130.7	45.0		
Apr 15	2			0				40	22		0		124.8	49.2		
Apr 16	0			0				31	12		0		117.9	35.5	2.4	48.8
Apr 17	2			0				21	4		0		115.0	35.0		
Apr 18	2			0				41	22		0		120.2	36.2	1.8	48.9
Apr 19	1			1				25	13		0		122.5	36.7	1.9	49.7
Apr 20	1			0				25	13		0		124.2	52.6	2.4	50.0
Apr 21	0			1				28	12		0		129.4	48.0		
Apr 22	1			0				31	18		0		122.4	37.1		
Apr 23	2			0				19	12		0		118.6	35.6	2.5	51.1
Apr 24	6			0				17	7		1		119.3	41.5		
Apr 25	8			0				26	13		0		127.0	38.3		
Apr 26	6			0				20	7		0		129.5	44.5	2.0	51.9
Apr 27	5			0				34	17		0		133.1	44.6	2.3	51.8
Apr 28	10			0				10	4		0		131.4	42.4		
Apr 29	10			1				13	6		0		123.6	38.4		
Apr 30	2			0				15	10		0		115.5	35.9	2.6	52.0
TOTAL	58			3				1,338	602		1		131.5	42.9	2.1	49.5
AVG.	2			0				45	20		0		131.5	42.9	2.1	49.5

*April 2-Oct 31 water temps collected from juvenile fish collection channel.

Visual fish counting started April 1.

TABLE 120

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

LITTLE GOOSE PROJECT - FISH COUNTS

MAY 2017

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	SECCHI
May 1	6			0				11	1				0	120.9	54.4		
May 2	7			0				9	4				0	116.2	62.0		
May 3	5			2				9	7				-1	108.1	53.9	2.8	51.7
May 4	4			0				7	2				0	105.2	50.6	2.6	53.4
May 5	6			0				8	4				0	119.1	78.5		
May 6	11			0				4	4				0	142.4	110.1		
May 7	6			0				6	6				0	160.1	127.3	3.0	54.9
May 8	18			2				7	5				0	168.1	134.6		
May 9	18			1				5	4				0	165.0	131.4		
May 10	24			1				2	2				0	162.2	129.0	1.7	53.4
May 11	18			0				4	0				0	163.3	129.6	2.5	52.7
May 12	28			1				6	0				0	178.2	133.8		
May 13	40			1				2	1				0	181.0	120.1		
May 14	65			1				4	0				0	174.1	105.1	1.5	54.7
May 15	59			20				3	1				0	154.1	84.0		
May 16	85			10				7	0				0	146.8	81.8		
May 17	258			19				6	0				0	137.2	64.4	1.1	51.7
May 18	796			38				2	0				0	126.2	53.0	1.2	52.2
May 19	931			101				8	0				0	120.0	38.1		
May 20	575			53				7	0				0	113.0	35.2		
May 21	610			60				18	5				0	112.9	33.9	2.2	53.1
May 22	588			78				0	0				0	109.7	42.9		
May 23	692			108				5	4				0	119.3	43.2	2.1	54.7
May 24	638			103				1	1				0	138.8	62.8		
May 25	288			102				1	1				1	155.8	74.6	2.6	56.5
May 26	287			133				1	1				0	149.9	65.5		
May 27	229			148				0	0				1	141.9	57.3		
May 28	1,070			437				0	0				0	132.7	52.0	1.9	56.0
May 29	1,974			695				1	1				0	135.9	51.8		
May 30	1,702			632				5	1				0	143.9	59.2		
May 31	702			407				0	0				0	160.2	80.7	1.6	55.8
TOTAL	11,740			3,153				149	55				1				
AVG.	379			102				5	2				0	140.7	77.4	2.1	53.9
RUN YEAR																	
TOTALS TO DATE		CHINOOK	CHINOOK					STEELHEAD	unclipped				BULL				
SPRING		ADULT	JACK					STEELHEAD	STEELHEAD				TROUT				
		11,798	3,156					1,487	657				2				

TABLE 121

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

LITTLE GOOSE PROJECT - FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL													
Jun 1	780			420			0	1	0			0	175.1	90.5	1.6	57.0
Jun 2	762			589			0	1	0			0	178.8	94.3		
Jun 3	793			511			0	0	0			0	169.1	84.1		
Jun 4	578			407			0	0	0			0	165.2	80.5	1.8	57.1
Jun 5	390			356			0	0	0			0	168.1	91.0		
Jun 6	1,542			334			0	2	1			0	161.0	85.8		
Jun 7	1,384			260			0	3	-1			0	149.7	64.0	1.2	57.7
Jun 8	1,398			362			0	3	1			0	150.8	65.0	1.3	58.6
Jun 9	948			265			0	1	0			0	150.4	64.7		
Jun 10	1,338			347			0	1	0			0	147.0	61.8		
Jun 11	1,520			376			0	0	0			0	132.7	46.9	1.5	58.9
Jun 12	1,242			322			0	0	0			0	120.9	38.6		
Jun 13	907			245			0	4	0			0	111.7	40.0		
Jun 14	772			221			0	1	0			0	129.9	44.5		
Jun 15	446			164			0	0	0			0	124.3	38.6	1.6	57.9
Jun 16		1,186		199			0	0	0			0	113.7	34.0	1.9	58.8
Jun 17		539		204			0	0	0			0	120.7	35.9		
Jun 18		372		146			0	1	1			0	120.1	36.8	2.5	58.3
Jun 19		245		116			0	0	0			0	115.3	40.4		
Jun 20		581		222			0	0	0			0	115.2	40.0		
Jun 21		448		190			0	0	0			0	118.5	41.5		
Jun 22		371		179			0	0	0			0	119.1	35.7	2.5	62.1
Jun 23		217		126			0	0	0			0	112.3	33.7	2.1	61.9
Jun 24		133		66			0	0	0			0	104.5	31.2		
Jun 25		94		80			0	0	0			1	98.2	29.2	3.4	64.5
Jun 26		138		76			0	0	0			0	88.3	26.2		
Jun 27		137		78			0	0	0			0	80.7	24.0		
Jun 28		186		120			1	1	1			0	79.7	23.8		
Jun 29		880		235			1	4	4			0	82.6	24.7	2.6	65.9
Jun 30		326		151			2	0	0			0	74.8	22.6		
TOTAL	14,800	5,853		7,367			4	23	7			1				
AVG.	987	390		246			0	1	0			0	125.9	49.0	2.0	59.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	26,598	8,335
SUMMER	5,853	2,188
TOTALS	32,451	10,523

SOCKEYE	STEELHEAD	unclipped STEELHEAD
4	1,510	664

BULL TROUT	LAMPREY
2	1

TABLE 122

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

LITTLE GOOSE PROJECT - FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD		TROUT	LAMPREY			SECCHI	DEG F
Jul 1		156		98			5	2	1			0	74.0	21.9	3.0	66.7
Jul 2		203		95			6	5	4			0	69.1	20.7	3.4	68.0
Jul 3		120		55			10	10	4			0	69.2	20.5		
Jul 4		173		102			7	1	0			0	63.4	19.0		
Jul 5		179		78			8	2	1			0	64.9	19.5	3.4	69.3
Jul 6		101		55			10	6	2			1	59.7	18.0		
Jul 7		167		103			18	9	7			2	60.2	18.0		
Jul 8		158		70			18	8	6			5	57.1	17.2		
Jul 9		96		76			25	6	2			0	55.4	16.7		
Jul 10		96		77			20	4	4			4	53.5	16.0	4.0	69.7
Jul 11		108		52			10	9	5			10	54.0	16.3		
Jul 12		83		42			18	4	2			13	46.8	13.9	3.4	70.2
Jul 13		92		83			24	6	5			10	47.9	14.2	3.7	70.2
Jul 14		89		60			18	7	6			12	50.6	15.0		
Jul 15		85		58			20	8	6			38	47.5	14.1		
Jul 16		100		52			18	10	8			35	45.5	13.6	4.9	70.6
Jul 17		119		47			6	11	7			26	45.2	13.5		
Jul 18		94		30			8	8	4			23	42.5	12.6	4.1	71.3
Jul 19		181		48			8	28	23			24	44.6	13.3		
Jul 20		107		41			2	18	13			14	45.8	13.6	4.8	70.6
Jul 21		134		43			8	17	7			5	40.6	12.3		
Jul 22		86		18			1	23	12			14	40.8	12.2		
Jul 23		58		13			6	16	10			8	35.8	10.7	5.0	72.6
Jul 24		34		11			4	12	7			8	39.9	11.9		
Jul 25		36		28			0	17	12			11	40.8	12.2		
Jul 26		30		12			1	14	12			13	39.0	11.6	6.0	71.5
Jul 27		35		6			0	17	12			12	35.8	10.7	5.6	70.4
Jul 28		22		6			1	18	13			4	39.5	11.7	5.0	72.1
Jul 29		18		16			1	30	24			10	40.2	12.0		
Jul 30		26		12			0	23	17			10	37.2	11.0	5.8	71.6
Jul 31		30		4			0	19	13			6	39.5	11.7		
TOTAL		3,016		1,491			281	368	249			318				

AVG.	97	48	9	12	8	10	49.2	14.7	4.4	70.3
------	----	----	---	----	---	----	------	------	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	26,598	8,335
SUMMER	8,869	3,679
TOTAL	35,467	12,014

SOCKEYE	STEELHEAD	unclipped STEELHEAD
285	1,878	913

BULL TROUT	LAMPREY
2	319

TABLE 123

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

LITTLE GOOSE PROJECT - FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD		TROUT	LAMPREY			SECCHI	DEG F
Aug 1		18		11				19	17			5	39.2	11.6		
Aug 2		31		6				27	16			10	39.7	11.8		
Aug 3		12		6				9	7			5	38.2	11.4	4.9	73.6
Aug 4		6		6				8	6			10	35.0	10.6		
Aug 5		19		7				5	1			11	32.9	9.9	5.5	71.6
Aug 6		12		0				8	4			7	31.9	9.5	5.5	73.5
Aug 7		10		5				7	6			4	31.7	12.0		
Aug 8		5		4				9	7			5	31.1	10.7		
Aug 9		12		5				9	8			8	29.0	10.7		
Aug 10		11		1				2	1			1	29.2	13.3	6.0	73.2
Aug 11		16		1				8	7			1	29.4	10.8		
Aug 12		1		5				8	6			5	28.2	10.7		
Aug 13		24		5				14	12			7	29.1	10.7	5.7	70.9
Aug 14		20		6				9	7			6	27.8	10.8		
Aug 15		20		7				13	11			6	29.9	9.6		
Aug 16			10	6				15	11			6	29.6	10.5		
Aug 17			29	4				4	2			10	26.8	10.4	4.8	70.0
Aug 18			23	5				14	6			2	24.2	8.8		
Aug 19			24	4				18	10			6	26.5	8.7	5.2	69.5
Aug 20			17	13				8	6			6	25.6	8.8	6.0	70.3
Aug 21			19	4				38	22			6	25.0	8.8		
Aug 22			34	8				31	20			4	28.4	8.9		
Aug 23			20	6				16	10			4	29.2	10.4	5.8	70.4
Aug 24			92	12				11	10			2	30.4	10.7	5.0	69.3
Aug 25			126	10				16	11			7	26.5	10.7	6.0	68.9
Aug 26			158	19				34	23			7	26.4	9.0		
Aug 27			131	12				34	17			6	29.1	9.0	6.0	70.4
Aug 28			46	2				21	13			1	28.4	10.6	6.0	70.7
Aug 29			98	16				42	20			1	25.9	10.6		
Aug 30			86	5				49	25			6	27.8	9.0		
Aug 31			125	23				59	31			8	30.2	9.0	4.8	68.6
TOTAL		217	1,038	224				565	353			173				
AVG.		14	65	7				18	11			6	29.8	10.3	5.5	70.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	26,598	8,335
SUMMER	9,086	3,754
FALL	1,038	149
TOTALS	36,722	12,238

SOCKEYE	STEELHEAD	unclipped STEELHEAD
285	2,443	1,266

BULL TROUT	LAMPREY
2	492

TABLE 124
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped		BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	TROUT	LAMPREY	SECCHI			DEG F	
Sep 1			187	29	0	0	0	99	53			-1	21.7	0.0			
Sep 2			172	31	0	0	0	72	38			1	22.1	0.0			
Sep 3			125	22	0	0	0	64	28			-1	19.9	0.0	6.0	70.1	
Sep 4			151	11	0	0	0	55	17			2	19.9	0.0			
Sep 5			83	14	0	0	0	39	14			1	19.7	0.0	6.0	70.6	
Sep 6			68	17	0	0	0	30	11			1	23.0	0.0			
Sep 7			293	38	0	0	0	52	23			1	21.0	0.0	6.0	70.4	
Sep 8			608	85	0	0	0	78	25			1	33.5	0.0			
Sep 9			574	88	0	0	0	165	61			2	24.6	0.0			
Sep 10			361	50	0	0	0	232	74			-4	24.4	0.0	6.0	68.5	
Sep 11			454	61	0	0	0	264	90			0	27.8	0.0			
Sep 12			373	61	2	0	0	352	114			2	27.5	0.0			
Sep 13			493	83	1	2	0	313	79			-4	20.2	0.0	5.9	69.3	
Sep 14			511	113	4	1	0	209	66			1	22.9	0.0	5.0	68.5	
Sep 15			378	70	0	4	0	280	88			-1	30.2	0.0			
Sep 16			624	91	5	1	0	432	136			1	29.0	0.0			
Sep 17			640	114	2	2	0	422	100			1	31.2	0.0	6.0	68.8	
Sep 18			761	124	7	2	0	399	88			0	33.1	0.0			
Sep 19			1,363	192	10	0	0	645	154			0	25.6	0.0	4.7	67.4	
Sep 20			1,601	229	22	5	0	968	217			0	28.6	0.0			
Sep 21			1,594	270	50	14	0	1,465	269			0	28.7	0.0	4.4	66.2	
Sep 22			1,594	216	94	23	0	1,482	265			-2	27.2	0.0			
Sep 23			886	150	114	26	0	1,507	266			-4	20.1	0.0			
Sep 24			902	137	166	36	2	1,608	292			0	21.5	0.0	5.8	66.0	
Sep 25			760	143	121	37	0	1,554	281			0	22.4	0.0			
Sep 26			574	146	124	52	0	1,641	313			2	27.6	0.0			
Sep 27			689	110	200	37	0	1,856	328			1	26.1	0.0	4.9	65.1	
Sep 28			702	124	186	42	0	2,009	354			-2	33.4	0.0	6.0	66.0	
Sep 29			709	80	223	41	0	2,840	486			-1	31.9	0.0	6+	65.4	
Sep 30			860	146	463	61	0	4,171	727			-1	26.6	0.0			
TOTAL			19,090	3,045	1,794	386	2	25,303	5,057			-4					

AVG.	636	102	60	13	0	843	169			0	25.7	0.0	5.6	67.9
------	-----	-----	----	----	---	-----	-----	--	--	---	------	-----	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	26,598	8,335
SUMMER	9,086	3,754
FALL	20,128	3,194
TOTALS	55,812	15,283

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,794	386	287	27,746	6,323

BULL TROUT	LAMPREY
2	488

TABLE 125

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

LITTLE GOOSE PROJECT - FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL	unclipped	PINK	BULL		DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		TROUT	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Oct 1			583	97	514	68	0	3,443	562	0		0	31.3	0.0	4.3	64.2
Oct 2			529	95	634	72	0	3,275	515	0		-4	31.9	0.0		
Oct 3			349	53	456	84	0	2,401	404	0		0	34.5	0.0	4.2	63.5
Oct 4			318	49	382	80	0	2,140	389	0		-4	31.7	0.0		
Oct 5			307	76	298	64	1	1,729	289	0		0	31.1	0.0	4.7	62.8
Oct 6			344	108	348	49	0	1,942	293	0		-1	32.6	0.0		
Oct 7			281	58	277	28	0	1,624	268	0		-1	20.7	0.0		
Oct 8			296	62	366	40	0	1,764	305	0		0	26.9	0.0	5.6	61.4
Oct 9			174	54	178	25	0	1,391	251	0		-1	24.8	0.0		
Oct 10			155	17	185	18	0	1,032	212	0		-2	21.0	0.0		
Oct 11			145	30	136	11	0	1,003	174	0		0	22.2	0.0	5.1	60.9
Oct 12			158	36	170	23	0	1,059	223	0		0	13.9	0.0	5.2	60.7
Oct 13			163	29	144	22	0	949	158	0		0	20.8	0.0		
Oct 14			151	25	108	11	0	924	186	0		0	18.8	0.0		
Oct 15			95	14	116	4	0	719	113	0		0	17.9	0.0	5.1	60.2
Oct 16			79	16	85	10	0	607	115	0		-1	19.2	0.0	5.5	60.0
Oct 17			124	14	67	4	0	699	176	0		0	17.1	0.0		
Oct 18			76	16	48	5	0	355	79	0		0	20.5	0.0		
Oct 19			43	18	55	2	0	469	86	0		0	18.7	0.0	5.4	59.3
Oct 20			86	13	36	4	0	449	82	0		0	18.8	0.0		
Oct 21			44	7	38	4	0	354	66	0		0	20.4	0.0		
Oct 22			72	14	66	5	0	555	118	1		-2	15.4	0.0	5.5	58.3
Oct 23			91	10	52	7	0	487	102	0		0	24.7	0.0		
Oct 24			61	11	25	2	0	353	67	0		0	24.5	0.0	5.9	57.7
Oct 25			48	6	36	2	0	407	78	0		0	16.5	0.0		
Oct 26			31	14	18	12	0	224	48	0		0	21.8	0.0	4.8	57.3
Oct 27			41	18	32	7	0	270	49	0		0	22.4	0.0		
Oct 28			35	10	20	5	0	201	40	0		0	22.4	0.0		
Oct 29			14	4	25	8	0	169	31	0		0	16.8	0.0	6.0	56.4
Oct 30			73	23	23	6	0	274	62	0		0	21.1	0.0		
Oct 31			11	2	78	13	0	245	55	0		0	18.6	0.0	6+	55.6
TOTAL			4,977	999	5,016	695	1	31,513	5,596	1		-16				

AVG.	161	32	162	22	0	1,017	181	0	-1	22.5	0.0	5.2	59.9
------	-----	----	-----	----	---	-------	-----	---	----	------	-----	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	26,598	8,335
SUMMER	9,086	3,754
FALL	25,105	4,193
TOTALS	60,789	16,282

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY
6,810	1,081	288	59,259	11,919	1	2	472

TABLE 126

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2017

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	21.6	0.0			Dec 1	31.3	0.0		
Nov 2	19.4	0.0	6.0	54.8	Dec 2	31.9	0.0		
Nov 3	23.1	0.0			Dec 3	27.9	0.0		
Nov 4	16.9	0.0			Dec 4	30.2	0.0	6+	45.4
Nov 5	18.0	0.0	6.0	53.3	Dec 5	30.8	0.0	5.8	45.2
Nov 6	21.4	0.0	5.7	52.9	Dec 6	28.6	0.0	6+	44.6
Nov 7	16.6	0.0	6+	52.6	Dec 7	29.7	0.0		
Nov 8	21.3	0.0			Dec 8	34.3	0.0		
Nov 9	19.1	0.0			Dec 9	34.6	0.0		
Nov 10	20.0	0.0			Dec 10	29.2	0.0		
Nov 11	25.9	0.0			Dec 11	34.3	0.0		
Nov 12	29.8	0.0			Dec 12	24.7	0.0	6.0	42.5
Nov 13	18.8	2.7	5.5	50.6	Dec 13	30.9	0.0	6.0	42.2
Nov 14	20.0	0.0	4.7	50.2	Dec 14	31.6	0.0		
Nov 15	16.6	1.2			Dec 15	31.0	0.0		
Nov 16	16.0	0.0	5.6	50.1	Dec 16	34.6	0.0		
Nov 17	12.4	0.0			Dec 17	30.8	0.0		
Nov 18	15.3	0.0			Dec 18	28.0	0.0	6+	40.7
Nov 19	20.2	0.0			Dec 19	29.7	0.0	6+	40.7
Nov 20	17.0	0.0	5.7	49.0	Dec 20	29.5	0.0		
Nov 21	22.9	0.0	5.8	48.9	Dec 21	30.4	0.0	6+	40.4
Nov 22	21.4	0.0	5.7	48.6	Dec 22	32.5	0.0		
Nov 23	34.6	0.0			Dec 23	30.5	0.0		
Nov 24	40.3	0.0			Dec 24	34.3	0.0		
Nov 25	49.4	0.0			Dec 25	32.7	0.0		
Nov 26	43.5	0.0			Dec 26	33.3	0.0	6+	39.6
Nov 27	42.8	0.0			Dec 27	31.4	0.0	6+	39.5
Nov 28	35.2	0.0	5.6	46.8	Dec 28	38.6	0.0	6+	39.3
Nov 29	42.0	0.0	5.9	46.5	Dec 29	19.2	0.0		
Nov 30	37.7	0.0	6+	46.0	Dec 30	53.5	0.0		
					Dec 31	41.5	0.0		
AVG.	25.3	0.1	5.7	50.0	AVG.	32.0	0.0	6+	41.8

Temperature collected at the primary dewater and recorded in °F .

TABLE 127

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2017**

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
Total	2,996,171	3,908,384	15,260	75,428	6,995,243
10-Yr Avg	154,522	146,282	1,085	5,457	307,345

*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 2017 extended season counts for March, November, and December 0400 - 2000 PST.

TABLE 128

**MONTHLY COUNT OF CHINOOK SALMON
LITTLE GOOSE DAM; 1970-1981, 1991-2017**

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
Total			6	273,172	1,135,559	634,928	221,409	59,799	529,714	139,157	2,396	31	2,996,171
10-Year Average				4,204	55,257	32,137	9,423	4,313	40,218	8,902			154,522

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

*Jacks included

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.

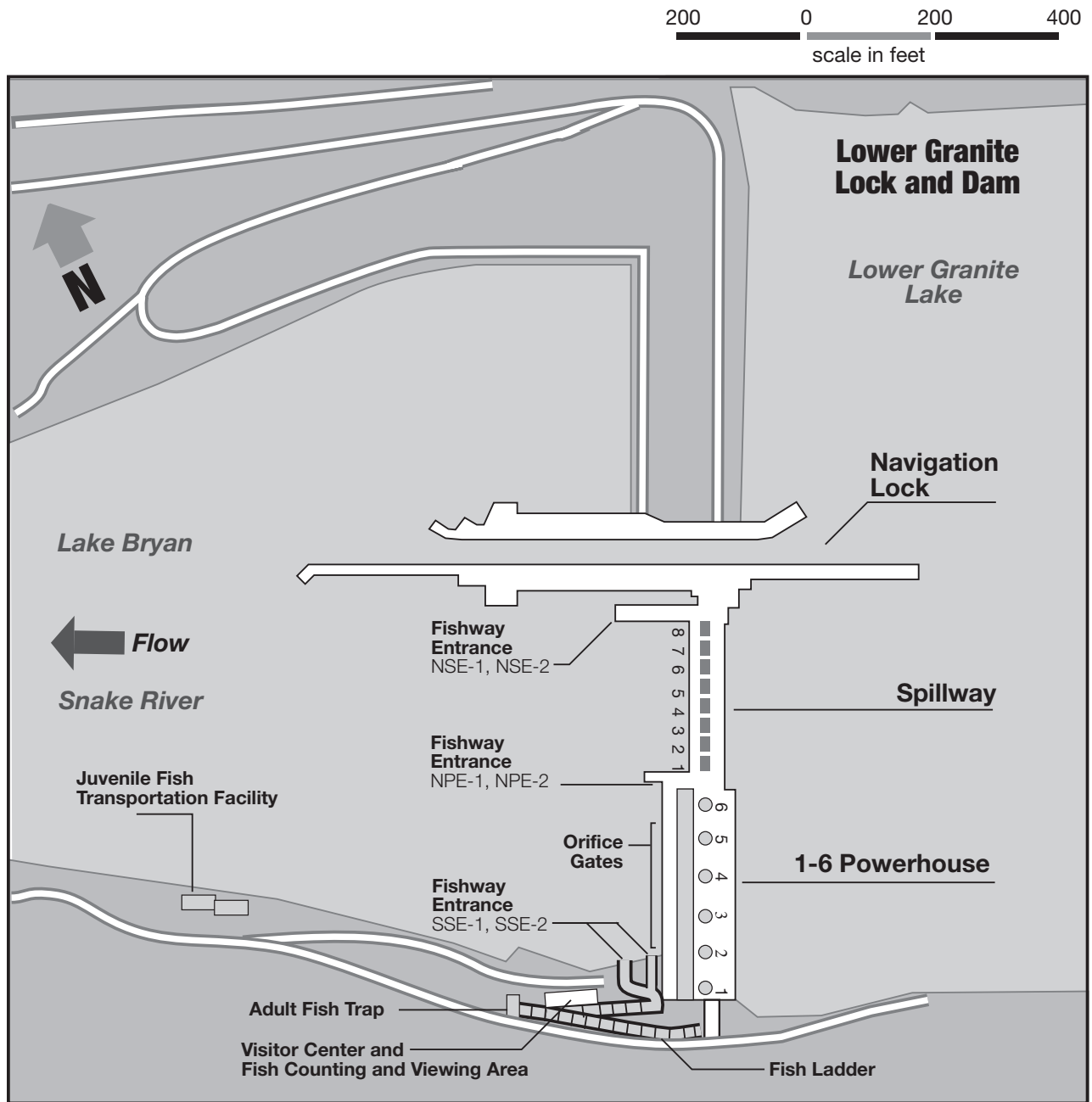
Includes 2016 extended season counts for March, November, and December 0400-2000 PST.

TABLE 129
MONTHLY COUNT OF STEELHEAD
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2017

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
Total	1,084	5,065	21,392	74,952	14,106	9,410	100,146	254,724	1,777,225	1,562,271	73,583	14,426	3,908,384
10-Year Average				2,564	369	289	3,825	10,392	73,612	54,426			146,282

** 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 extended season counts for March, November, and December 0400-2000 PST.

Plate 9 Lower Granite Lock and Dam



LOWER GRANITE DAM

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 – 13 Feb	Ladder dewatered for annual maintenance
22 Mar – 31 Dec	Ladder in service

FISHWAY ACTIVITIES

Fish ladder water temperatures were monitored hourly at the ladder exit, diffuser 14, turn pool, and junction pool from April 1 – October 31. Project temperatures were also monitored with eight digital loggers activated during winter maintenance. Lower Granite fish ladder temperature control system was operated for testing from June and remained in normal operation from July 6 – September 25.

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 16.

Lower Granite adult fish trap was operated March 12 – November 19. Fish ladder water temperatures did not impact adult trap operations this season. Adult fall Chinook were collected and transported to Nez Perce Tribe and WDFW hatcheries for broodstock August 18 – October 17.

The juvenile fish facility was operated for fish transport/bypass from March 20 – August 2. Juvenile bypass and collection facilities were dewatered early for Phase 1a construction of the juvenile bypass system upgrade.

TABLE 130

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER GRANITE DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			0	49	11,791	30,289	5,573	1,461	22,480	9,129	525	21	81,318
STEELHEAD			5,394	1,747	161	15	282	437	20,587	43,704	3,877	594	76,798
SOCKEYE						7	218	2	1				228
COHO*									1,277	7,087	431	7	8,802
PINK													0
TOTAL			5,394	1,796	11,952	30,311	6,073	1,900	44,345	59,920	4,833	622	167,146
SHAD						454	25,937	2,380					28,771
LAMPREY							177	138	31				346
STURGEON													0
BULL TROUT													0

*Jacks included

TABLE 131
DISCHARGE AND WATER DATA
LOWER GRANITE PROJECT 2017

		JANUARY						FEBRUARY			
		DISCH	SPILL	TURBIDITY				DISCH	SPILL	TURBIDITY	
		KCFS	KCFS	SECCHI	DEG F			KCFS	KCFS	SECCHI	DEG F
Jan 1		21.0	0.0			Feb 1		29.2	0.0		
Jan 2		17.1	0.0			Feb 2		28.4	0.0		
Jan 3		21.6	0.0			Feb 3		32.5	0.0		
Jan 4		22.1	0.0			Feb 4		30.1	0.0		
Jan 5		24.2	0.0			Feb 5		34.8	0.0		
Jan 6		25.7	0.0			Feb 6		33.4	0.0		
Jan 7		22.9	0.0			Feb 7		39.8	0.0		
Jan 8		21.0	0.0			Feb 8		39.0	0.0		
Jan 9		21.6	0.0			Feb 9		40.2	0.0		
Jan 10		28.6	0.0			Feb 10		63.1	0.0		
Jan 11		31.8	0.0			Feb 11		72.9	0.0		
Jan 12		25.7	0.0			Feb 12		71.6	0.0		
Jan 13		26.0	0.0			Feb 13		65.2	0.0		
Jan 14		25.7	0.0			Feb 14		59.7	0.9		
Jan 15		30.3	0.0			Feb 15		56.8	4.2		
Jan 16		29.2	0.0			Feb 16		61.2	4.4		
Jan 17		27.2	0.0			Feb 17		78.2	0.6		
Jan 18		22.2	0.0			Feb 18		72.4	0.0		
Jan 19		22.8	0.0			Feb 19		77.6	0.0		
Jan 20		26.9	0.0			Feb 20		77.3	2.5		
Jan 21		21.6	0.0			Feb 21		80.6	3.1		
Jan 22		29.4	0.0			Feb 22		95.7	23.5		
Jan 23		29.4	0.0			Feb 23		93.5	15.4		
Jan 24		27.1	0.0			Feb 24		88.2	2.4		
Jan 25		29.1	0.0			Feb 25		80.6	0.0		
Jan 26		27.2	0.0			Feb 26		83.7	0.0		
Jan 27		27.7	0.0			Feb 27		70.6	3.2		
Jan 28		30.5	0.0			Feb 28		74.4	3.0		
Jan 29		27.3	0.0								
Jan 30		28.8	0.0								
Jan 31		34.0	0.0								
AVG.		26.0	0.0			AVG.		61.8	2.3		

TABLE 132
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

MARCH 2017

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	
Mar 1								22	9				69.3	1.8			
Mar 2								68	28				67.0	0.0			
Mar 3								50	17				69.7	0.0	38.0	3.5	
Mar 4								71	27				67.0	0.0			
Mar 5								191	72				76.7	0.0			
Mar 6								100	38				82.4	0.0			
Mar 7								139	48				84.4	0.0	40.8	2.1	
Mar 8								101	40				90.0	0.0	40.0	3.0	
Mar 9								137	53				101.7	14.0			
Mar 10								186	66				133.9	45.5			
Mar 11								48	15				151.2	62.0			
Mar 12								31	15				141.0	52.3			
Mar 13								207	75				137.3	49.6			
Mar 14								179	48				144.0	56.3			
Mar 15								328	114				162.6	74.8	41.0	2.2	
Mar 16								177	59				191.6	100.7	41.0	1.0	
Mar 17								73	27				189.2	99.3	48.3	0.5	
Mar 18								144	43				174.9	85.5			
Mar 19								283	88				193.9	103.1			
Mar 20								83	33				180.5	101.4	48.7	0.5	
Mar 21								206	71				184.7	107.8			
Mar 22								269	76				186.1	106.6	48.5	1.0	
Mar 23								247	74				184.1	105.7			
Mar 24								284	106				178.9	91.1	48.6	1.0	
Mar 25								272	111				172.3	85.6	46.0	1.5	
Mar 26								238	94				172.3	80.5	46.0	1.6	
Mar 27								221	84				161.5	75.3	46.6	1.6	
Mar 28								214	94				161.5	75.1	47.0	1.8	
Mar 29								283	114				153.0	80.2	47.0	1.5	
Mar 30								267	133				162.0	82.1	47.0	1.8	
Mar 31								275	143				167.7	80.2	47.0	1.6	
TOTAL								5,394	2,015								
AVG.								174	65				141.7	58.6	45.1	1.6	

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

TABLE 133
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

APRIL 2017

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
Apr 1	0							160	86				158.5	86.8	47.0	1.5
Apr 2	0							205	95				155.8	84.4	46.0	1.9
Apr 3	0							144	61				153.8	82.8	47.0	1.6
Apr 4	0							113	59				150.1	78.7	47.0	1.8
Apr 5	1							88	41				144.7	73.8	47.0	2.0
Apr 6	0							105	53				140.5	69.7	49.0	2.4
Apr 7	0							90	55				138.9	68.4	50.0	2.7
Apr 8	0							62	36				143.4	77.3	45.0	2.5
Apr 9	0							55	24				153.2	82.1	47.8	2.2
Apr 10	0							72	43				147.5	72.3	47.0	2.2
Apr 11	0							57	31				140.5	68.7	47.0	2.2
Apr 12	0							56	25				136.0	62.8	47.0	2.2
Apr 13	0							58	38				134.1	60.5	47.0	2.6
Apr 14	0							60	36				135.6	45.6	48.0	2.5
Apr 15	0							47	25				138.2	46.8	48.0	1.5
Apr 16	0							39	26				121.0	31.7	48.0	2.0
Apr 17	1							43	26				119.9	46.0	48.3	2.3
Apr 18	0							19	12				124.6	52.0	48.5	2.3
Apr 19	0							28	23				126.2	53.8	49.0	2.6
Apr 20	2							27	22				128.1	55.3	50.0	2.6
Apr 21	0							33	13				134.0	61.4	51.0	2.2
Apr 22	1							24	13				126.5	54.3	49.0	2.3
Apr 23	0							30	17				120.5	54.0	49.0	2.2
Apr 24	0							19	13				123.8	57.5	50.8	2.4
Apr 25	5							25	17				130.9	58.6	51.0	2.5
Apr 26	4							20	10				132.2	56.7	51.0	2.6
Apr 27	4							16	12				136.7	52.1	52.0	2.6
Apr 28	8							19	11				135.2	48.3	51.0	2.7
Apr 29	13							15	7				124.4	35.7	51.0	2.5
Apr 30	10							18	8				120.2	41.0	50.2	2.8
TOTAL	49							1,747	938				135.8	60.6	48.7	2.3
AVG.	2							58	31							

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	49	0

STEELHEAD	unclipped STEELHEAD
7,141	2,953

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

TABLE 134

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

LOWER GRANITE PROJECT - FISH COUNTS

MAY 2017

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	
May 1	1			0				15	11				123.0	34.7	51.0	2.8	
May 2	8			0				10	5				118.2	46.1	51.0	3.0	
May 3	5			0				13	5				111.7	33.7	52.0	3.0	
May 4	5			0				9	5				110.2	22.2	52.1	3.5	
May 5	6			0				15	1				122.1	41.9	54.0	3.6	
May 6	6			0				13	5				145.5	72.4	54.0	3.2	
May 7	7			1				10	4				161.4	78.8	53.0	2.7	
May 8	5			1				2	2				171.7	79.8	51.2	2.1	
May 9	7			0				6	5				167.5	76.5	50.5	1.7	
May 10	5			0				5	4				164.7	74.0	51.0	0.9	
May 11	14			0				5	4				166.7	76.0	53.5	1.3	
May 12	20			2				4	4				179.0	87.7	54.0	1.5	
May 13	18			1				4	4				182.6	91.2	53.5	1.6	
May 14	35			2				5	5				172.7	81.8	50.3	1.3	
May 15	43			4				1	1				158.7	68.3	50.1	1.2	
May 16	62			5				2	2				149.4	59.2	50.5	1.0	
May 17	72			8				3	2				141.1	50.9	51.0	1.3	
May 18	104			8				6	6				130.4	41.5	50.8	1.7	
May 19	452			43				2	1				123.3	36.6	52.0	1.6	
May 20	1,183			58				4	2				116.4	33.3	52.0	2.5	
May 21	629			53				2	1				115.6	42.0	53.2	3.0	
May 22	646			48				3	1				114.7	44.5	54.0	2.8	
May 23	373			58				3	2				123.6	43.7	54.2	3.0	
May 24	722			113				7	2				141.5	52.2	55.0	3.2	
May 25	582			76				1	1				158.6	68.3	56.0	2.9	
May 26	434			92				2	2				153.1	63.1	54.0	2.2	
May 27	318			84				2	1				146.7	56.7	52.5	1.8	
May 28	302			116				1	0				136.5	49.9	53.5	2.0	
May 29	617			212				0	0				141.0	51.5	53.9	1.4	
May 30	1,361			488				2	1				148.4	58.5	54.2	1.6	
May 31	1,676			600				4	4				163.6	73.4	55.1	1.8	
TOTAL	9,718			2,073				161	93								
AVG.	313			67				5	3				143.9	57.7	52.7	2.2	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	9,767	2,073
SPRING		

	unclipped STEELHEAD
	7,302
	3,046

TABLE 135
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JUNE 2017

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	1,080			374			0	1	1	0			176.7	85.7	55.8	1.8
Jun 2	868			406			0	2	2	0			179.2	87.6	56.0	1.6
Jun 3	631			367			0	1	1	0			171.9	80.7	55.5	1.7
Jun 4	851			466			0	1	1	0			168.4	77.5	55.0	1.4
Jun 5	492			317			0	0	0	0			171.8	80.5	55.8	1.1
Jun 6	706			342			0	1	1	0			163.7	73.5	56.0	1.2
Jun 7	944			365			0	1	1	0			154.3	65.0	56.5	1.4
Jun 8	1,420			486			0	0	0	0			154.4	65.4	58.0	1.5
Jun 9	1,156			384			0	1	1	0			155.1	65.0	58.0	1.5
Jun 10	1,314			436			0	0	0	0			149.5	58.7	58.0	1.4
Jun 11	1,388			455			0	1	1	0			137.6	47.4	56.2	1.6
Jun 12	1,501			402			0	0	0	0			126.3	37.5	56.3	1.4
Jun 13	1,516			424			0	0	0	0			116.4	38.9	56.1	1.5
Jun 14	1,056			281			0	0	0	0			132.9	43.1	57.0	1.6
Jun 15	1,224			294			0	0	0	0			127.4	38.2	56.7	1.8
Jun 16	694			188			0	0	0	0			119.3	30.3	57.0	1.6
Jun 17	749			196			0	0	0	1			124.0	35.0	57.0	2.1
Jun 18		620		203			0	0	0	0			124.7	36.7	57.1	2.5
Jun 19		361		155			0	0	0	1			120.0	32.4	58.2	2.9
Jun 20		336		107			0	0	0	7			120.6	37.7	59.2	2.6
Jun 21		503		190			0	1	1	7			123.1	35.1	60.5	3.0
Jun 22		643		167			0	0	0	4			122.7	33.7	62.0	2.2
Jun 23		452		152			0	0	0	5			116.2	27.6	62.0	2.4
Jun 24		367		172			0	0	0	13			106.8	19.6	62.0	2.1
Jun 25		163		121			0	0	0	8			105.1	18.9	62.0	2.5
Jun 26		120		94			0	1	1	8			89.8	18.3	62.0	2.0
Jun 27		127		92			0	0	0	42			83.2	18.3	62.6	2.1
Jun 28		140		90			1	0	0	58			83.1	18.2	63.3	2.4
Jun 29		161		109			1	0	0	130			83.9	18.4	64.0	2.7
Jun 30		642		229			5	4	4	170			78.1	18.3	65.0	2.9
TOTAL	17,590	4,635		8,064			7	15	15	454						
AVG.	1,035	357		269			0	1	1	15			129.5	44.8	58.7	2.0
RUN YEAR																
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD						
SPRING		27,357	8,256				7	7,317	3,061	454						
SUMMER		4,635	1,881													
TOTAL		31,992	10,137													

TABLE 136
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JULY 2017

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
Jul 1		494		179			2	4	4	460	0		74.8	18.2	66.0	2.9
Jul 2		200		96			4	2	2	652	1		71.2	18.3	65.0	3.3
Jul 3		178		98			8	5	1	814	0		69.8	18.4	65.5	3.4
Jul 4		217		118			14	3	1	1,018	0		65.8	18.4	66.0	3.7
Jul 5		179		82			8	2	0	1,096	1		65.8	18.4	66.2	4.0
Jul 6		257		85			6	2	1	1,657	0		62.3	18.6	67.0	4.7
Jul 7		125		42			11	3	2	1,252	0		63.3	18.7	68.0	3.3
Jul 8		184		88			7	9	4	972	0		59.4	18.7	68.0	3.8
Jul 9		192		59			16	6	5	917	0		57.4	18.7	67.7	4.3
Jul 10		151		55			16	0	0	1,312	0		55.7	18.6	68.0	4.0
Jul 11		145		97			24	7	1	1,140	0		55.7	18.5	68.5	3.8
Jul 12		132		70			12	1	0	1,178	-1		51.1	18.4	68.5	4.1
Jul 13		107		54			11	4	2	1,082	5		51.0	18.1	69.0	3.9
Jul 14		89		43			8	7	6	1,021	0		50.5	18.1	68.5	4.0
Jul 15		125		54			14	6	5	1,097	6		49.9	18.2	69.0	4.2
Jul 16		78		49			11	8	7	498	5		47.5	28.7	68.5	4.5
Jul 17		137		58			10	12	10	1,561	4		48.4	18.1	68.5	4.6
Jul 18		102		46			8	11	7	1,330	11		42.3	18.1	68.5	4.6
Jul 19		73		28			8	4	2	1,130	19		47.9	18.2	68.0	4.7
Jul 20		128		35			4	9	5	806	10		47.2	18.1	68.0	4.2
Jul 21		85		34			4	23	19	695	12		43.1	18.1	68.0	4.3
Jul 22		76		41			6	10	5	707	10		42.1	18.1	68.0	4.3
Jul 23		102		30			4	25	13	571	10		39.3	18.2	67.5	4.4
Jul 24		65		22			1	14	12	700	8		40.0	18.2	68.0	4.8
Jul 25		53		22			1	14	10	434	13		41.6	18.1	67.5	5.0
Jul 26		48		23			0	13	7	518	14		41.6	18.2	68.0	5.0
Jul 27		47		5			0	19	7	366	11		38.1	18.1	68.0	5.0
Jul 28		28		18			0	15	13	275	13		40.8	18.2	69.0	5.0
Jul 29		37		10			0	11	10	244	6		41.0	18.1	68.5	5.0
Jul 30		31		16			0	18	11	187	13		39.7	18.1	68.0	5.0
Jul 31		38		13			0	15	14	247	6		41.0	18.1	68.0	5.0
TOTAL		3,903		1,670			218	282	186	25,937	177					
AVG.		126		54			7	9	6	837	6		51.1	18.6	67.8	4.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,357	8,256
SUMMER	8,538	3,551
TOTAL	35,895	11,807

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
225	7,599	3,247	26,391	177

TABLE 137
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL													
Aug 1		42		12	0		0	10	8	250	8		40.2	18.0	69.0	5.0
Aug 2		44		2	0		0	12	10	91	8		41.0	18.1	69.0	5.0
Aug 3		47		7	0		0	15	13	168	8		38.9	18.1	70.0	5.0
Aug 4		37		7	0		0	17	11	256	12		36.9	18.3	68.5	5.0
Aug 5		29		6	0		0	13	7	155	4		34.6	18.0	70.0	5.0
Aug 6		29		6	0		0	4	2	104	8		32.6	18.1	67.5	4.8
Aug 7		20		6	1		1	7	5	274	8		32.6	18.1		
Aug 8		32		4	0		0	11	6	234	6		32.6	18.1		
Aug 9		25		1	0		0	7	0	150	8		31.1	17.0	69.0	5.0
Aug 10		14		1	0		0	8	4	76	4		30.4	17.9		
Aug 11		17		1	0		0	5	4	47	4		30.3	18.1	68.0	4.0
Aug 12		17		2	0		0	2	1	52	6		30.0	18.1	68.5	5.0
Aug 13		11		0	0		0	6	4	25	6		29.9	18.1	66.5	4.6
Aug 14		10		2	0		0	8	7	23	7		30.1	18.3		
Aug 15		10		8	0		0	12	7	82	4		30.5	18.3		
Aug 16		14		5	0		0	13	11	58	1		31.2	18.2	68.5	4.7
Aug 17		16		6	0		0	20	14	47	6		28.4	16.5		
Aug 18			24	7	0		0	13	6	53	1		26.0	15.0	68.0	4.5
Aug 19			34	4	0		0	11	6	47	4		27.2	15.4		5.0
Aug 20			11	2	0		0	12	8	68	6		27.4	15.4		
Aug 21			20	5	0		0	9	4	43	1		26.7	14.7	67.5	5.0
Aug 22			35	7	0		0	10	4	6	4		30.0	17.2	68.0	5.0
Aug 23			28	8	0		0	11	5	20	2		30.0	16.4	70.0	5.0
Aug 24			41	5	0		0	17	7	14	1		31.1	17.3	68.5	5.0
Aug 25			53	10	0		0	26	19	12	2		28.2	15.3	70*	5.0
Aug 26			80	10	0		1	19	12	14	1		27.3	14.7	70*	5.0
Aug 27			108	17	0		0	27	14	2	4		30.1	16.3	70*	5.0
Aug 28			102	22	0		0	22	17	-2	0		29.2	15.7	69*	5.0
Aug 29			143	12	0		0	22	14	4	2		27.8	15.4	67.7	5.0
Aug 30			100	17	-1		0	33	19	6	1		29.6	17.6	67.1	5.0
Aug 31			62	4	0		0	35	13	1	1		30.3	18.3	66.0	5.0
TOTAL		414	841	206	0		2	437	262	2,380	138					
AVG		24	60	7			0	14	8	77	4		31.0	17.1	68.3	4.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,357	8,256
SUMMER	8,952	3,627
FALL	841	130
TOTAL	37,150	12,013

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
0	0	227	8,036	3,509	28,771	315

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

LOWER GRANITE PROJECT - FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE			STEELHEAD				STEELHEAD
Sep 1			77	18	0	0	41	19			4	23.0	3.4	66.9	5.0
Sep 2			152	23	0	0	63	34			2	22.4	3.4	67.0	5.0
Sep 3			152	25	0	0	36	17			2	19.6	3.5	67.4	5.0
Sep 4			139	31	0	0	74	36			1	24.0	3.3	66.9	5.0
Sep 5			73	28	0	0	68	28			1	26.5	3.6	67.4	5.0
Sep 6			90	13	0	0	42	14			5	25.6	3.5	69.0	5.0
Sep 7			108	13	0	0	50	22			0	24.3	3.3	69.5	4.8
Sep 8			144	20	0	0	38	19			2	32.4	3.4		5.0
Sep 9			600	74	0	0	63	25			2	26.3	3.3	69.0	5.0
Sep 10			600	78	-1	0	173	65			0	24.1	3.5	68.0	5.0
Sep 11			235	46	1	0	102	37			1	28.7	3.4	69.5	5.0
Sep 12			541	96	0	0	155	49			0	26.7	3.5	70.0	5.0
Sep 13			304	80	0	0	225	77			-1	23.0	3.3	69.0	5.0
Sep 14			310	95	0	0	253	62			2	21.2	3.5	69.0	5.0
Sep 15			346	122	0	0	208	74			-1	32.1	3.5	69.0	5.0
Sep 16			514	124	0	0	328	92			0	29.5	3.5	69.0	5.0
Sep 17			684	199	1	0	420	124			-1	26.3	3.5	68.0	5.0
Sep 18			562	144	4	0	310	71			1	26.3	3.5	67.5	5.0
Sep 19			946	170	2	0	501	116			0	23.2	3.2	67.0	4.5
Sep 20			1,151	169	4	0	483	103			4	29.3	3.4	65.0	4.8
Sep 21			1,375	256	12	2	608	152			4	25.9	3.5	65.0	5.0
Sep 22			1,726	340	34	1	1,090	206			1	24.9	3.4	64.0	4.8
Sep 23			1,114	252	46	1	1,191	242			1	26.8	3.5	64.0	5.0
Sep 24			1,500	336	65	2	1,630	274			0	23.5	3.5	64.0	5.0
Sep 25			979	266	80	2	1,554	246			0	23.5	3.5	64.0	5.0
Sep 26			686	254	128	13	1,549	252			0	26.6	3.5	64.0	5.0
Sep 27			786	203	163	4	1,756	308			-1	26.2	3.5	63.0	5.0
Sep 28			692	196	196	2	2,075	318			1	31.1	3.4	62.8	5.0
Sep 29			840	196	216	17	2,270	330			0	30.3	3.4	62.5	5.0
Sep 30			985	202	268	14	3,231	545			1	23.4	3.5	62.0	5.0
TOTAL			18,411	4,069	1,219	58	20,587	3,957			31				
AVG.			614	136	41	2	686	132			1	25.9	3.4	66.5	5.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,357	8,256
SUMMER	8,952	3,627
FALL	19,252	4,199
TOTAL	55,561	16,082

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
1,219	58	228	28,623	7,466	28,771	346

TABLE 139

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

LOWER GRANITE PROJECT - FISH COUNTS

OCTOBER 2017

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	DEG F
Oct 1			940	175	353	23		4,165	677		0		29.2	3.5	62.0	5.0
Oct 2			569	166	392	26		3,086	439		0		31.0	3.5	62.5	5.0
Oct 3			510	150	407	8		2,765	400		1		33.7	3.5	63.0	5.0
Oct 4			524	125	503	25		3,100	443		0		29.4	3.5	63.4	5.0
Oct 5			374	96	349	31		2,185	269		0		29.6	3.5	63.3	5.0
Oct 6			448	166	484	36		2,761	398		0		28.3	3.4	62.9	5.0
Oct 7			386	142	521	47		3,168	492		2		22.8	3.5	62.0	5.0
Oct 8			385	132	379	28		2,709	346		0		24.6	3.5	62.0	5.0
Oct 9			329	102	361	40		2,233	325		0		23.6	3.4	61.0	4.6
Oct 10			283	94	392	61		2,340	299		0		24.7	6.9	61.0	5.0
Oct 11			238	100	462	48		2,058	312		-1		17.8	0.0	60.0	5.0
Oct 12			218	61	251	29		1,322	180		-1		19.4	0.0	59.5	5.0
Oct 13			82	46	55	4		606	78		0		18.0	3.5	59.1	5.0
Oct 14			198	80	138	7		1,121	180		0		17.5	3.5	59.0	5.0
Oct 15			136	90	170	11		1,240	224		0		17.6	3.5	58.5	4.8
Oct 16			92	55	128	7		847	116		0		16.8	2.2	58.1	4.0
Oct 17			89	47	115	16		732	119		0		21.2	7.0	57.7	4.8
Oct 18			138	82	149	13		924	118		-1		14.1	0.0	56.7	4.3
Oct 19			53	40	80	1		528	83		0		20.9	6.9	64.0	5.0
Oct 20			67	43	144	16		528	84		0		17.5	3.5	55.4	5.0
Oct 21			68	30	82	5		613	83		0		17.7	3.5	55.1	5.0
Oct 22			121	25	114	8		694	94		0		17.7	3.5	55.0	5.0
Oct 23			56	29	73	2		437	84		0		22.8	3.6	54.3	5.0
Oct 24			85	36	82	5		543	73		0		22.1	3.5	54.2	4.9
Oct 25			74	23	90	0		444	55		0		17.6	3.5	53.9	5.0
Oct 26			68	37	67	2		447	73		0		20.4	3.5	55.6	4.8
Oct 27			68	31	36	6		448	74		0		18.7	3.5	53.6	5.0
Oct 28			70	46	48	4		603	119		0		18.6	3.5	53.5	5.0
Oct 29			74	30	44	2		508	92		0		18.2	3.6	53.3	5.0
Oct 30			44	31	67	2		364	53		0		18.4	3.5	53.0	5.0
Oct 31			24	8	34	4		185	29		0		19.2	3.3		
TOTAL			6,811	2,318	6,570	517		43,704	6,411		0					
AVG.			220	75	212	17		1,410	207		0		21.6	3.4	58.4	4.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE									
SPRING	27,357	8,256	7,789	575	228	72,327	13,877	28,771	346
SUMMER	8,952	3,627							
FALL	26,063	6,517							
TOTAL	62,372	18,400							

Note: Visual counts ended October 31.

TABLE 140
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

NOVEMBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE							
Nov 1			40	24	48	6	222	43				17.6	3.5	52.2	5.0
Nov 2			24	16	44	7	216	41				18.5	3.5	51.9	4.9
Nov 3			18	8	44	9	252	46				17.9	3.5		
Nov 4			28	13	30	5	322	67				18.8	3.3	51.2	4.8
Nov 5			27	13	24	4	289	57				18.7	3.5		
Nov 6			13	7	16	2	189	50				19.2	3.5	50.8	4.8
Nov 7			12	8	19	2	132	19				16.1	3.5	50.2	5.0
Nov 8			23	8	10	4	86	24				20.7	3.5		
Nov 9			23	14	17	0	179	32				16.5	3.5		
Nov 10			14	7	10	0	143	28				18.8	3.5		
Nov 11			15	7	14	0	151	30				24.1	3.5		
Nov 12			13	7	20	0	191	45				21.9	3.5		
Nov 13			17	13	11	0	84	20				19.1	3.5	47.8	5.0
Nov 14			9	9	5	0	88	20				18.1	3.4		
Nov 15			27	9	11	1	133	29				18.9	0.6	46.9	4.2
Nov 16			5	1	5	1	34	3				19.1	3.4	46.3	5.0
Nov 17			4	2	7	3	38	9				15.6	3.5		
Nov 18			9	4	9	1	55	12				20.6	3.5		
Nov 19			5	1	4	-1	87	14				17.3	3.5		
Nov 20			2	2	8	3	33	7				18.0	3.5		
Nov 21			3	1	4	0	85	25				23.3	3.4	46.1	4.4
Nov 22			2	1	5	0	127	26				21.9	3.5		
Nov 23			1	2	3	0	101	22				32.3	3.4		
Nov 24			1	0	2	1	145	35				39.5	3.5		
Nov 25			0	1	2	0	148	37				47.5	3.6		
Nov 26			0	0	2	0	62	17				43.2	3.5		
Nov 27			6	0	2	0	121	20				40.5	3.4	45.7	2.8
Nov 28			1	0	1	0	68	14				35.3	3.6	45.4	3.5
Nov 29			2	0	3	0	46	8				40.6	3.5	44.0	3.0
Nov 30			3	0	3	0	50	14				34.3	3.4		
TOTAL			347	178	383	48	3,877	814							
AVG.			12	6	13	2	129	27				24.5	3.4	48.2	4.4

RUN YEAR TOTALS TO DATE	CHINOOK	CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	SHAD	LAMPREY
	ADULT	JACK	ADULT	JACK			STEELHEAD		
SPRING	27,357	8,256	8,172	623	228	76,204	14,691	28,771	346
SUMMER	8,952	3,627							
FALL	26,410	6,695							
TOTAL	62,719	18,578							

Note: From November 1 to December 31, counts were from video. The counts are 16-hour counts and occurred between 0400-2000 PST.

TABLE 141

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

LOWER GRANITE PROJECT - FISH COUNTS

DECEMBER 2017

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER					STEELHEAD	unclipped STEELHEAD						SECCHI	DEG F	
Dec 1			10	1	2	0	67	16				31.1	3.5			
Dec 2			2	0	1	0	93	21				31.7	3.4			
Dec 3			2	0	2	1	113	37				32.8	3.4			
Dec 4			4	0	0	0	54	12				32.5	3.4	43.3	4.0	
Dec 5			-1	0	0	0	22	5				31.5	3.4	42.8	4.5	
Dec 6			2	0	0	0	14	3				29.3	3.4	42.4	4.0	
Dec 7			0	0	0	0	19	5				31.3	3.4	41.9	4.7	
Dec 8			0	0	0	0	17	4				31.7	3.4			
Dec 9			1	0	1	0	16	6				31.3	3.4			
Dec 10			0	0	0	0	23	4				30.0	3.3			
Dec 11			0	0	0	0	14	2				34.6	3.4	40.7	5.0	
Dec 12			0	0	0	0	13	6				32.4	3.4	40.0	3.8	
Dec 13			0	0	0	0	8	1				36.6	3.4	39.9	4.8	
Dec 14			0	0	-1	0	3	0				32.4	3.4	40.1	5.0	
Dec 15			0	0	0	0	4	0				31.0	3.4			
Dec 16			0	0	0	0	3	1				30.7	0.0			
Dec 17			0	0	0	0	10	5				29.4	0.0			
Dec 18			0	0	0	0	3	0				30.7	0.0	39.3	4.6	
Dec 19			0	0	0	0	9	3				31.7	0.0	39.8	5.0	
Dec 20			0	0	0	0	13	2				32.1	0.0	39.8	4.8	
Dec 21			0	0	0	0	16	2				30.6	0.0	39.9	5.0	
Dec 22			0	0	1	0	5	4				33.8	0.0			
Dec 23			0	0	0	0	6	2				31.6	0.0			
Dec 24			0	0	0	0	6	3				33.7	0.0			
Dec 25			0	0	0	0	11	2				34.0	0.0			
Dec 26			0	0	0	0	7	2				36.6	0.0	39.8	3.6	
Dec 27			0	0	0	0	7	0				33.8	0.0	39.4	3.5	
Dec 28			0	0	0	0	0	0				36.3	0.0	39.0	5.0	
Dec 29			0	0	0	0	3	2				36.8	0.0			
Dec 30			0	0	0	0	6	3				51.3	0.0			
Dec 31			0	0	0	0	9	0				50.1	0.0			
TOTAL			20	1	6	1	594	153								

AVG.	1	0	0	0	19	5	33.7	1.6	40.5	4.5
------	---	---	---	---	----	---	------	-----	------	-----

RUN YEAR

TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
SPRING	27,357	8,256	8,177	624	228	76,684	14,813	28,771	346	0
SUMMER	8,952	3,627								
FALL	26,430	6,696								
TOTAL	62,739	18,579								

Note: From November 1 to December 31, counts were from video. The counts are 16-hour counts and occurred between 0400-2000 PST. Official Fall Chinook run ended December 15.

TABLE 142

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

JUNE 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
Jun 1	27			5			0	0			0
Jun 2	39			7			0	0			0
Jun 3	17			7			0	0			0
Jun 4	18			12			0	0			0
Jun 5	10			7			0	0			0
Jun 6	19			19			0	0			0
Jun 7	46			22			0	0			0
Jun 8	49			16			0	0			0
Jun 9	44			13			0	0			0
Jun 10	30			9			0	0			0
Jun 11	26			12			0	0			0
Jun 12	57			14			0	0			0
Jun 13	71			15			0	0			0
Jun 14	52			11			0	0			0
Jun 15	50			6			0	0			0
Jun 16	30			16			0	0			0
Jun 17	25			4			0	0			0
Jun 18		32		9			0	0			0
Jun 19		24		3			0	0			1
Jun 20		25		9			0	0			0
Jun 21		41		4			0	0			0
Jun 22		37		8			0	0			1
Jun 23		30		1			0	0			0
Jun 24		11		3			0	0			0
Jun 25		4		6			0	0			0
Jun 26		3		1			0	0			0
Jun 27		4		3			0	0			0
Jun 28		7		8			0	0			0
Jun 29		20		11			0	0			1
Jun 30		7		10			1	1			0
TOTAL	610	245		271			1	1			3
AVG.	36	19		9			0	0			0

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

TABLE 143

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

JULY 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Jul 1		9		5			0	0	0		0
Jul 2		1		0			0	0	0		1
Jul 3		6		2			0	1	0		2
Jul 4		-1		8			3	2	2		3
Jul 5		2		5			1	0	0		4
Jul 6		6		6			4	0	0		2
Jul 7		7		4			0	0	0		4
Jul 8		5		2			2	0	0		6
Jul 9		10		1			4	0	0		1
Jul 10		3		11			8	3	1		5
Jul 11		13		6			8	0	0		11
Jul 12		12		12			5	0	0		15
Jul 13		9		7			4	1	1		27
Jul 14		4		7			5	2	2		19
Jul 15		9		2			6	1	1		41
Jul 16		6		8			7	0	0		39
Jul 17		7		9			5	0	0		52
Jul 18		1		5			4	0	0		62
Jul 19		7		3			1	0	0		94
Jul 20		7		3			2	2	2		70
Jul 21		1		2			0	1	1		63
Jul 22		4		2			0	0	0		61
Jul 23		4		0			0	1	1		58
Jul 24		5		0			2	1	0		76
Jul 25		3		3			0	1	0		73
Jul 26		0		2			0	0	0		51
Jul 27		1		5			0	0	0		82
Jul 28		1		0			0	1	0		62
Jul 29		4		0			0	1	1		52
Jul 30		1		1			0	1	1		61
Jul 31		5		0			0	2	2		56
TOTAL		152		121			71	21	15		1,153
AVG.		5		4			2	1	0		37

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

TABLE 144

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD		
Aug 1		3		0			0	0		59
Aug 2		3		2			0	0		56
Aug 3		3		0			2	1		71
Aug 4		1		0			0	0		44
Aug 5		1		0			0	0		55
Aug 6		-1		0			0	0		34
Aug 7		0		1			0	0		35
Aug 8		0		0			0	0		44
Aug 9		0		0			1	0		49
Aug 10		0		0			0	0		25
Aug 11		0		1			0	0		29
Aug 12		0		1			1	0		17
Aug 13		0		0			0	0		43
Aug 14		0		0			1	1		24
Aug 15		0		1			1	1		29
Aug 16		0		0			0	0		28
Aug 17		2		1			0	0		32
Aug 18			0	0			0	0		35
Aug 19			1	0			0	0		19
Aug 20			1	0			1	0		32
Aug 21			0	1			0	0		22
Aug 22			0	0			1	0		39
Aug 23			0	1			0	0		27
Aug 24			0	1			2	2		27
Aug 25			3	0			3	2		16
Aug 26			2	0			2	0		23
Aug 27			1	-1			0	0		28
Aug 28			0	0			3	0		33
Aug 29			0	0			1	1		39
Aug 30			0	0			0	0		33
Aug 31			0	0			2	1		31
TOTAL		12	8	9			21	9		1,078
AVG		1	1	0			1	0		35

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

TABLE 145

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL unclipped			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
Sep 1			6	0	0	0		2	1		15
Sep 2			2	1	0	0		2	0		15
Sep 3			3	1	0	0		4	2		27
Sep 4			0	0	0	0		2	0		23
Sep 5			1	0	0	0		5	3		29
Sep 6			2	0	0	0		2	0		19
Sep 7			0	1	0	0		1	1		18
Sep 8			1	2	0	0		3	1		20
Sep 9			3	0	0	0		5	4		15
Sep 10			0	1	0	0		23	19		21
Sep 11			2	3	0	0		7	1		21
Sep 12			5	3	0	0		7	2		20
Sep 13			3	1	0	0		23	8		12
Sep 14			5	3	0	0		17	7		16
Sep 15			10	4	0	0		22	6		12
Sep 16			8	4	0	0		35	10		12
Sep 17			8	2	0	0		17	7		15
Sep 18			26	2	0	0		60	15		13
Sep 19			21	4	0	0		50	14		7
Sep 20			29	6	0	0		56	19		6
Sep 21			31	9	0	0		128	38		3
Sep 22			30	7	3	0		109	28		2
Sep 23			3	4	8	0		68	14		-3
Sep 24			3	3	9	0		79	12		2
Sep 25			7	6	5	1		136	21		-2
Sep 26			7	7	3	0		165	26		3
Sep 27			12	2	16	1		190	51		0
Sep 28			15	2	22	0		167	35		3
Sep 29			16	0	11	0		227	44		1
Sep 30			11	1	32	0		300	60		5
TOTAL			270	79	109	2		1,912	449		350
AVG.			9	3	4	0		64	15		12

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

TABLE 146

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER GRANITE DAM
1975 - 2017

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
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	164,106	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
Total	2,959,445	4,799,922	14,148	71,264	7,844,779
10-Year Average	155,251	158,915	1,133	5,434	320,732

*Jacks included

TABLE 147

**MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 - 2017**

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	0	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	0	149,926
2014			0	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	0	128,833
2017			0	49	11,791	30,289	5,573	1,461	22,480	9,129	525	21	81,318
Total	26	219,380	1,119,542	653,842	216,362	45,533	527,499	165,572	11,566	123			2,959,445
10-Year Average	2,677	53,964	32,399	10,137	3,184	41,167	10,952	762					155,251

*Jacks included

TABLE 148

MONTHLY COUNT OF STEELHEAD

LOWER GRANITE DAM

1975 - 2017

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	1,683	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
Total	539	790	144,788	129,123	16,871	7,061	84,147	214,266	1,830,522	2,034,907	296,555	40,353	4,799,922
10-Yr Average			4,976	3,299	436	202	3,039	7,899	68,742	61,454	7,732	1,137	158,915

PRIEST RAPIDS AND WANAPUM DAMS

FISH COUNTING SCHEDULE

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

2017 FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – PRIEST RAPIDS DAM

Left Bank Ladder

01 Jan. – 02 Feb.	In service (within operational criteria).
03 Feb. – 29 Mar.	Out of criteria for annual inspection, maintenance and repairs.
30 Mar. – 31 Dec.	In service (within operational criteria).

Right Bank Ladder

01 Jan. – 2 Jan.	Out of criteria for annual inspection, maintenance, and repairs.
03 Jan. – 31 Dec.	In service (within operational criteria).

FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – WANAPUM DAM

Left Bank Ladder

01 Jan. – 10 Mar.	Out of criteria for annual inspection, maintenance, and repairs.
11 Mar. – 31 Dec.	In service (within operational criteria).

Right Bank Ladder

01 Jan. – 27 Feb.	Out of criteria for annual inspection, maintenance, and repairs.
28 Feb. – 31 Dec.	In service (within operational criteria).

Note: Out of criteria dates provided above reflect time periods when the adult fishway was out of operational flow and/or head differential criteria. Upstream fish passage is possible for one to several days before and after the indicated dates. Emergency outage less than 24 hours in duration not listed.

2017 FISHWAY ACTIVITIES

Adult Fish Counting

The video fish-counting system uses digital video cameras installed in the fishways to assist with counting migrating fish at Priest Rapids and Wanapum dams. Digital video images are streamed 24 hours per day to a digital video recorder (DVR) at each dam.

These DVRs are networked and accessed by fish counters via computers from the fish-counting room at Wanapum Maintenance Center. The fish counting staff playback these images in a fast-forward mode until a fish is observed, then slowed for fish identification and count. During periods of concentrated fish passage at the counting window, playback is slowed down to real time or replayed to facilitate counting accuracy. 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, Wildlife, and Water Quality's website: <http://www.grantpud.org/environment/fish-wildlife/fish-counts>.

Adult PIT Tag Detection

The PIT tag detection array is located in the exit section in both ladders of Priest Rapids Dam. The detection system is operated continuously whenever the adult fishways are operational. Another PIT tag monitoring site is located within the Off-Ladder Adult Fish Trap.

Off Ladder Adult Fish Trap

The adult fish trap is located off the left bank fish ladder at Priest Rapids Dam. The trap was used by the Washington Department of Fish and Wildlife (WDFW) to: (1) trap adult sockeye salmon for the Yakama Nation for the Lake Cle Elum and Cooper Lake sockeye reintroduction program; (2) perform a steelhead stock assessment; (3) complete the Priest Rapids Hatchery broodstock collection program; (4) and complete a Chinook run reconstruction program. The facility was completely dewatered and winterized on November 9, 2017.

Adult Lamprey Passage Study

Grant PUD continued the implementation of the Pacific Lamprey Management Plan to assess behavior and passage efficiency through the fishways at Priest Rapids and Wanapum dams to evaluate the efficacy of design enhancements. Twenty seventeen was the final year for monitoring lamprey associated with a reservoir passage study initiated in 2015.

TABLE 149

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER PRIEST RAPIDS DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				5	4,054	21,624	34,404	5,126	17,399	12,443	1,600		96,655
STEELHEAD				14	18	103	310	794	3,462	1,067	36		5,804
SOCKEYE					0	17,278	49,190	200	2				66,670
COHO*								0	4,681	3,975	63		8,719
PINK													0
TOTAL				19	4,072	39,005	83,904	6,120	25,544	17,485	1,699		177,848
SHAD				0	0	23	6,837	984	182	57			8,083
LAMPREY				0	49	345	10,039	12,406	2,955	199	19		26,012

*Jacks included

TABLE 150

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

PRIEST RAPIDS PROJECT- FISH COUNTS											APRIL 2017			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK								
Apr 1												241.4	157.5	41.6
Apr 2												231.7	149.8	42.0
Apr 3												232.0	117.7	42.1
Apr 4												234.5	128.8	42.2
Apr 5												241.1	138.6	42.3
Apr 6												227.2	127.9	42.4
Apr 7												213.4	137.0	42.6
Apr 8												216.3	140.3	42.6
Apr 9												241.1	129.0	42.7
Apr 10												233.8	121.5	42.9
Apr 11												237.5	150.0	43.0
Apr 12												220.5	121.8	43.2
Apr 13												218.0	120.5	43.4
Apr 14												224.4	101.0	43.5
Apr 15	0							1				189.2	84.1	43.7
Apr 16	0							1				178.7	90.9	44.0
Apr 17	0							0				230.2	126.6	44.5
Apr 18	0							0				194.6	61.4	44.8
Apr 19	0							1				180.7	79.6	44.9
Apr 20	0							1				234.4	127.3	45.3
Apr 21	0							4				192.7	88.8	45.7
Apr 22	0							0				201.5	102.8	46.0
Apr 23	0							1				228.3	133.5	46.3
Apr 24	1							3				197.0	113.6	46.5
Apr 25	0							0				198.2	109.5	46.6
Apr 26	0							0				207.5	108.8	46.7
Apr 27	1							1				188.9	102.6	46.8
Apr 28	2							0				192.6	117.4	46.9
Apr 29	0							0				199.0	98.8	47.1
Apr 30	1							1				201.5	102.5	47.5
TOTAL	5							14						
AVG.	0							1				214.3	116.3	44.3

TABLE 151

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS											MAY 2017			
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	7			0				2		0		158.0	85.1	47.2
May 2	1			0				0		0		167.0	73.7	47.3
May 3	5			0				0		0		214.6	122.8	47.6
May 4	6			0				2		0		214.5	92.2	48.0
May 5	5			0				1		0		228.2	134.0	48.6
May 6	3			0				0		0		229.1	136.0	48.8
May 7	8			0				2		0		185.4	97.9	49.0
May 8	22			0				1		0		235.3	131.3	49.3
May 9	3			0				0		0		268.0	156.7	49.6
May 10	9			0				0		0		230.5	140.5	49.8
May 11	2			0				0		0		219.3	115.0	49.7
May 12	20			0				3		0		246.5	125.1	49.7
May 13	30			0				0		0		251.9	136.5	49.6
May 14	34			0				1		0		257.6	139.6	49.5
May 15	47			0				0		0		287.0	174.7	49.6
May 16	48			0				0		0		268.3	192.7	49.6
May 17	89			0				0		0		264.7	156.7	49.7
May 18	169			3				0		0		275.0	179.1	50.1
May 19	175			4				1		0		198.0	92.5	50.6
May 20	208			5				0		1		293.8	175.1	51.3
May 21	183			5				0		1		266.6	133.9	51.8
May 22	159			4				0		3		251.9	149.6	52.4
May 23	118			8				0		8		262.5	164.1	52.7
May 24	166			4				0		3		230.9	163.3	52.5
May 25	114			6				4		3		270.8	158.5	52.6
May 26	205			0				0		3		271.8	147.0	52.9
May 27	162			10				0		8		266.8	152.3	53.1
May 28	293			23				0		7		286.0	175.6	53.4
May 29	489			34				0		4		289.3	175.5	53.7
May 30	550			48				1		3		290.9	200.0	54.0
May 31	502			68				0		5		283.8	145.5	54.3
TOTAL	3,832			222				18		49				
AVG.	124			7				1		2		247.2	142.7	50.6
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					SOCKEYE	STEELHEAD	SHAD	LAMPREY			
TOTALS TO DATE		3,837	222					0	32	0	49			

TABLE 152

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

PRIEST RAPIDS PROJECT- FISH COUNTS											JUNE 2017			
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	495			67			0	1	0	1		276.7	140.4	54.1
Jun 2	380			64			0	0	0	4		266.7	148.6	54.1
Jun 3	309			66			0	3	0	2		269.6	154.1	54.1
Jun 4	243			50			3	11	0	4		266.1	165.4	54.1
Jun 5	251			47			0	2	0	1		262.2	149.5	54.1
Jun 6	263			42			0	0	0	3		270.4	144.5	54.6
Jun 7	280			43			0	0	0	7		278.9	168.5	55.2
Jun 8	316			59			2	0	0	11		283.7	173.4	55.7
Jun 9	293			55			1	0	0	2		289.4	188.4	56.0
Jun 10	127			9			1	2	0	6		272.0	165.7	55.7
Jun 11	179			37			8	5	0	6		266.1	165.3	55.8
Jun 12	115			10			11	0	1	6		251.6	171.2	56.2
Jun 13	180			12			7	0	0	9		268.7	168.1	56.2
Jun 14		137		8			20	0	0	11		259.7	152.7	56.4
Jun 15		221		6			27	9	0	7		252.4	145.6	56.8
Jun 16		362		19			38	3	0	10		231.6	172.0	57.1
Jun 17		820		19			116	6	0	10		210.6	118.9	57.2
Jun 18		570		2			86	14	0	12		225.3	82.1	57.3
Jun 19		386		32			63	0	1	14		168.4	47.5	57.6
Jun 20		1,124		49			139	0	1	27		194.0	78.3	58.4
Jun 21		1,087		25			402	0	0	29		157.2	60.6	58.6
Jun 22		1,093		32			403	12	1	19		209.3	100.9	58.7
Jun 23		1,440		30			859	13	3	11		185.0	64.7	59.2
Jun 24		987		4			494	0	3	20		175.7	50.4	59.5
Jun 25		1,446		29			867	0	0	25		170.0	30.6	60.1
Jun 26		1,588		86			2,524	4	1	17		166.8	70.0	60.7
Jun 27		1,555		41			2,147	1	1	16		199.6	67.3	60.9
Jun 28		978		38			2,898	3	4	13		175.6	70.2	60.6
Jun 29		1,602		56			3,108	10	6	16		155.4	29.5	60.8
Jun 30		1,752		8			3,054	4	1	26		122.9	29.3	62.0
TOTAL	3,431	17,148		1,045			17,278	103	23	345				
AVG.		1,009		35			576	3	1	12		226.1	115.8	57.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	7,268	783
SUMMER	17,148	484
TOTAL	24,416	1,267

SOCKEYE	STEELHEAD	SHAD	LAMPREY
17,278	135	23	394

TABLE 153

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

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		1,290		1			3,384	0	12	41		71.8	30.8	62.2
Jul 2		2,237		69			5,044	4	44	14		154.6	66.3	62.4
Jul 3		1,917		93			4,732	8	105	14		171.5	31.2	62.8
Jul 4		1,848		18			2,756	2	256	18		130.6	29.0	63.0
Jul 5		2,186		23			3,166	2	95	9		132.3	29.1	63.2
Jul 6		2,135		8			3,371	7	453	22		151.8	28.9	63.5
Jul 7		2,018		3			3,580	4	68	16		119.0	26.1	63.7
Jul 8		2,006		28			3,190	8	485	28		135.3	25.4	64.0
Jul 9		1,512		56			2,524	7	416	34		99.6	24.1	64.5
Jul 10		1,052		50			2,111	5	612	50		77.9	27.7	64.6
Jul 11		1,289		28			1,816	4	579	59		170.7	30.9	64.3
Jul 12		1,354		25			1,897	5	385	61		186.0	69.8	64.4
Jul 13		1,513		43			2,047	7	582	128		170.6	29.5	64.9
Jul 14		1,334		67			975	9	478	224		106.2	26.9	65.2
Jul 15		1,616		8			1,680	8	221	211		128.1	25.7	65.2
Jul 16		1,237		25			1,294	6	192	383		109.6	25.4	65.0
Jul 17		669		25			803	5	218	529		148.6	21.1	64.2
Jul 18		619		42			911	12	200	548		96.9	20.1	64.5
Jul 19		716		5			909	13	103	816		138.1	19.1	65.0
Jul 20		445		8			811	7	154	549		88.2	19.8	65.0
Jul 21		527		42			436	9	139	419		70.7	20.8	64.9
Jul 22		629		32			376	16	129	643		112.0	21.5	**
Jul 23		522		31			452	16	200	673		70.6	25.3	65.8
Jul 24		473		32			263	10	113	678		112.8	26.6	65.9
Jul 25		337		19			155	5	99	459		95.8	23.6	65.8
Jul 26		300		6			158	8	76	291		71.7	24.9	66.0
Jul 27		349		27			115	27	142	700		48.5	29.9	66.6
Jul 28		375		47			49	15	118	366		96.6	27.1	**
Jul 29		385		30			41	23	41	651		47.1	26.8	66.5
Jul 30		239		10			91	25	69	602		46.1	28.1	**
Jul 31		350		24			53	33	53	803		77.6	30.1	**
TOTAL		33,479		925			49,190	310	6,837	10,039				
AVG.		1,080		30			1,587	10	221	324		110.9	28.8	64.6

**Data unavailable

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	7,268	783
SUMMER	50,627	1,409
TOTAL	57,895	2,192

SOCKEYE	STEELHEAD	SHAD	LAMPREY
66,468	445	6,860	10,433

TABLE 154

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

AUGUST 2017

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		327		41			31	21	31	630		69.0	28.7	67.3
Aug 2		280		39			23	41	35	682		64.9	26.1	67.2
Aug 3		226		47			24	28	65	654		78.5	28.1	67.5
Aug 4		198		28			21	37	84	731		45.9	28.3	67.6
Aug 5		257		31			27	26	67	545		82.9	30.6	67.6
Aug 6		141		24			5	22	65	537		94.1	26.8	67.9
Aug 7		185		36			12	32	72	541		75.1	27.1	68.0
Aug 8		263		38			6	28	26	422		97.0	26.4	68.0
Aug 9		96		6			6	14	35	346		79.8	26.5	68.0
Aug 10		76		1			5	6	67	277		52.7	28.4	67.9
Aug 11		122		24			3	34	16	331		63.0	28.6	67.9
Aug 12		114		17			3	21	48	724		99.7	29.2	68.1
Aug 13		69		19			5	20	32	294		56.9	28.7	67.8
Aug 14			83	22			0	19	15	156		99.4	25.7	67.2
Aug 15			93	21			8	10	20	425		102.0	25.8	67.7
Aug 16			47	13			0	16	67	513		99.6	26.9	67.8
Aug 17			60	4			0	18	8	556		84.4	27.3	67.7
Aug 18			66	17			5	17	38	202		90.4	30.0	68.2
Aug 19			112	16			9	15	22	576		50.0	27.1	68.1
Aug 20			122	19			0	19	58	437		73.1	26.1	68.3
Aug 21			89	13			2	16	3	431		57.7	25.4	68.8
Aug 22			176	16			0	8	10	401		43.1	25.7	69.4
Aug 23			168	9			0	19	8	433		99.4	25.6	69.7
Aug 24			197	12			2	27	5	249		94.2	25.1	69.4
Aug 25			259	22			0	27	8	367		81.0	25.1	68.5
Aug 26			186	17			0	16	20	209		67.9	25.6	68.6
Aug 27			155	16			0	45	8	107		53.4	26.9	69.1
Aug 28			53	14			2	52	13	173		72.9	24.2	69.2
Aug 29			104	17			1	54	15	171		77.5	23.3	69.2
Aug 30			115	13			0	59	8	141		126.2	26.5	69.2
Aug 31			72	3			0	27	15	145		98.6	10.1	68.1
TOTAL		2,354	2,157	615			200	794	984	12,406				
AVG.		181	120	20			6	26	32	400		78.4	26.3	68.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	7,268	783
SUMMER	52,981	1,760
FALL	2,157	264
TOTAL	62,406	2,807

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
0	0	66,668	1,239	7,844	22,839

TABLE 155

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS											SEPTEMBER 2017			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK								
Sep 1			76	26	0	0	0	47	20	202		137.6	3.2	68.1
Sep 2			137	23	0	0	0	44	15	213		74.0	2.9	68.4
Sep 3			136	12	0	0	0	27	0	239		67.4	2.8	68.7
Sep 4			128	12	0	0	1	39	-2	158		44.6	2.8	68.7
Sep 5			143	34	0	0	0	69	4	136		81.8	2.6	68.6
Sep 6			275	29	0	0	0	107	4	87		98.2	14.6	68.2
Sep 7			188	40	1	0	0	92	16	100		100.5	16.4	68.0
Sep 8			98	25	1	0	0	41	17	85		45.3	2.7	68.1
Sep 9			244	16	0	0	0	42	4	174		55.1	2.4	68.6
Sep 10			111	15	0	0	0	64	2	278		83.9	2.9	68.5
Sep 11			257	55	2	0	0	75	3	100		81.9	8.3	68.8
Sep 12			179	32	0	0	1	78	11	107		85.6	2.7	69.0
Sep 13			388	27	8	0	0	118	0	99		50.3	3.0	68.8
Sep 14			361	37	19	4	0	110	14	140		127.2	44.5	68.1
Sep 15			314	37	17	3	0	91	1	69		106.6	26.4	67.7
Sep 16			419	64	9		0	107	4	56		72.4	2.6	67.5
Sep 17			483	33	20	12	0	137	7	114		43.2	2.5	66.7
Sep 18			257	23	17	4	0	97	0	97		45.3	2.6	66.4
Sep 19			788	56	40	4	0	126	1	50		49.2	2.8	65.4
Sep 20			824	55	48	14	0	105	8	66		44.4	3.1	65.2
Sep 21			1,200	105	153	28	0	145	12	36		44.1	2.9	64.8
Sep 22			1,765	35	94	9	0	127	9	41		45.3	2.7	64.6
Sep 23			773	47	277	37	0	192	6	56		46.3	3.0	64.5
Sep 24			846	59	473	30	0	137	8	54		87.8	13.4	64.5
Sep 25			745	36	490	32	0	292	0	19		130.7	69.9	64.6
Sep 26			1,178	70	344	40	0	183	6	26		85.3	3.2	64.3
Sep 27			729	62	440	26	0	131	4	38		45.1	2.8	64.7
Sep 28			367	45	512	2	0	267	0	33		46.7	3.2	64.7
Sep 29			1,299	39	653	61	0	193	3	45		85.3	3.2	64.7
Sep 30			1,484	58	686	71	0	179	5	37		73.5	2.7	64.0
TOTAL			16,192	1,207	4,304	377	2	3,462	182	2,955				
AVG.			540	40	143	13	0	115	6	99		72.8	8.6	66.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	7,268	783
SUMMER	52,981	1,760
FALL	18,349	1,471
TOTAL	78,598	4,014

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
4,304	377	66,670	4,701	8,026	25,794

TABLE 156

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

PRIEST RAPIDS PROJECT- FISH COUNTS											OCTOBER 2017			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK								
Oct 1			1,047	77	696	63		149	9	31		58.5	2.9	63.6
Oct 2			810	62	750	23		128	0	15		77.1	3.1	63.0
Oct 3			1,027	42	370	26		103	6	21		63.6	3.2	63.0
Oct 4			903	84	102	0		51	0	18		89.9	2.9	63.1
Oct 5			614	37	263	4		209	4	6		70.0	2.5	63.2
Oct 6			883	51	137	8		60	2	15		49.8	2.5	62.9
Oct 7			577	35	153	23		57	2	9		42.4	1.8	62.5
Oct 8			365	31	193	6		111	0	11		40.6	2.4	61.9
Oct 9			330	45	92	5		30	2	4		63.3	2.9	61.5
Oct 10			451	42	52	0		18	9	14		43.2	2.6	61.3
Oct 11			266	16	112	0		1	1	22		54.8	2.7	61.0
Oct 12			129	12	129	7		15	0	2		40.3	2.6	60.6
Oct 13			220	34	53	4		19	0	2		58.0	2.6	60.2
Oct 14												69.3	2.0	59.6
Oct 15												55.6	2.3	59.6
Oct 16			283	8	76	2		4	0	1		83.6	2.6	59.6
Oct 17			486	45	43	5		22	15	10		81.2	1.9	59.4
Oct 18			496	25	54	12		10	1	4		40.1	2.0	59.1
Oct 19			169	15	24			6	1	1		40.6	1.8	58.8
Oct 20			292	21	52	4		19	0	4		39.7	1.9	58.4
Oct 21			90	10	50	3		4	0	1		39.5	2.4	58.3
Oct 22			355	15	50	4		2	3	3		38.7	1.4	58.2
Oct 23			157	3	52	3		7	0	2		40.3	2.9	57.9
Oct 24			144	13	51	3		13	0	0		79.8	2.7	58.0
Oct 25			203	16	44	1		6	0	0		46.9	2.5	57.7
Oct 26			277	20	20	1		5	2	1		51.8	2.7	57.6
Oct 27			317	20	39	0		0	0	0		52.8	2.8	57.5
Oct 28			217	17	30	4		4	0	2		60.3	3.0	57.3
Oct 29			182	5	15	0		1	0	0		83.8	2.9	57.1
Oct 30			193	1	44	3		8	0	0		53.9	2.5	56.7
Oct 31			149	9	15	0		5	0	0		82.7	2.6	56.2
TOTALS			11,632	811	3,761	214		1,067	57	199				
AVG.			401	28	130	8		37	2	7		57.8	2.5	59.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	7,268	783
SUMMER	52,981	1,760
FALL	29,981	2,282
TOTAL	90,230	4,825

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
8,065	591	66,670	5,768	8,083	25,993

TABLE 157

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS											NOVEMBER 2017			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK								
Nov 1			196	3	14	5		1	0	0		41.0	2.1	56.0
Nov 2			220	6	6	0		6	0	0		56.4	2.3	**
Nov 3			162	6	3	0		3	3	3		52.1	2.8	**
Nov 4			262	6	4	2		3	0	1		116.3	2.2	**
Nov 5			151	3	8	1		7	3	4		97.3	2.6	**
Nov 6			113	0	5	0		3	0	0		41.6	1.4	54.2
Nov 7			103	1	2	0		2	1	1		101.6	2.1	53.7
Nov 8			79	3	2	0		3	0	5		81.3	1.9	53.5
Nov 9			71	1	1	0		1	0	0		186.4	38.8	53.1
Nov 10			45	2	2	0		2	0	0		151.6	2.0	52.7
Nov 11			55	0	3	0		2	0	0		128.4	1.7	52.4
Nov 12			24	1	1	0		0	0	2		135.1	1.7	52.3
Nov 13			16	1	0	0		0	0	0		81.6	2.2	52.0
Nov 14			32	0	4	0		2	0	1		147.5	12.7	51.6
Nov 15			38	0	0	0		1	0	2		108.2	21.8	53.3
Nov 16												138.9	0.0	51.9
Nov 17												148.5	0.0	52.0
Nov 18												140.3	0.0	52.1
Nov 19												150.1	0.0	52.3
Nov 20												81.6	0.0	52.2
Nov 21												50.6	0.0	52.1
Nov 22												71.1	0.0	51.9
Nov 23												61.6	0.0	52.1
Nov 24												79.2	0.0	52.0
Nov 25												94.1	0.0	51.7
Nov 26												67.1	0.0	**
Nov 27												75.8	0.0	51.2
Nov 28												65.1	0.0	50.8
Nov 29												77.4	0.0	50.1
Nov 30												67.1	0.0	**
TOTALS			1,567	33	55	8		36	7	19				
AVG.			104	2	4	1		2	0	1		96.5	3.3	52.4

**Data unavailable

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	BULL TROUT
TOTALS TO DATE									
SPRING	7,268	783	8,120	599	66,670	5,804	8,090	26,012	0
SUMMER	52,981	1,760							
FALL	31,548	2,315							
TOTAL	91,797	4,858							

TABLE 158

**YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
1982 - 2017**

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
Totals	3,394,410	559,044	4,231,960	154,267	8,339,681
10-Year Average	166,213	18,275	271,092	10,977	466,557

*Jacks included

TABLE 159

MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2017

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
TOTAL	40	56	288	4,317	9,147	8,529	79,424	223,735	320,511	80,607	5,056	63	731,773
10-Year Average				33	33	198	2,255	6,201	7,807	1,649	99		18,275

ROCK ISLAND DAM

Fish Counting Schedule

Jan 1 – Apr 13	No video recording or fish counting during this period.
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	No video recording or fish counting during this period.

Fish Ladder Operating Schedule

Left Bank Ladder

Jan 1 – Feb 26	Fishway out of service for 2016/2017 annual maintenance period.
Feb 27 – Dec 17	Fishway in service.
Dec 18 – Dec 31	Fishway out of service for 2017/2018 annual maintenance period.

Middle Ladder

Jan 1 – Jan 5	Fishway out of service for 2016/2017 annual maintenance period.
Jan 6 – Dec 31	Fishway in service.

Right Bank Ladder

Jan 1 – Jan 9	Fishway in service.
Jan 10 – Feb 1	Fishway out of service for 2016/2017 annual maintenance period.
Feb 2 – Dec 3	Fishway in service.
Dec 4 – Dec 14	Fishway out of service for 2017/2018 annual maintenance period.
Dec 15 – Dec 31	Fishway in service.

Fish Facility Activities

The Rock Island Bypass Trap was operated by Chelan County PUD Natural Resource Department employees from 1 April through 31 August 2017. Juvenile fish were sampled daily during that time period. The annual bypass (biological) evaluation included the collection of species composition and fish condition data.

The adult fish PIT tag system was operational throughout the 2017 adult fish migration. PIT tag detections from all three fishways were uploaded daily to PTAGIS.

TABLE 160

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					2,538	18,627	40,820	6,443	5,937	6,334	1,371		82,070
STEELHEAD				34	25	33	236	803	2,845	1,212	77		5,265
SOCKEYE						7,075	65,468	620	52	3			73,218
COHO									2,302	10,748	150		13,200
PINK													0
TOTAL				34	2,563	25,735	106,524	7,866	11,136	18,297	1,598		173,753
LAMPREY						11	2,626	13,890	4,435	175			21,137
BULL TROUT					13	9	10	0	1				33

TABLE 161

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

ROCK ISLAND PROJECT- FISH COUNTS

APRIL 2017

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											
Apr 1												212.9	65.2	41.5
Apr 2												213.1	61.8	41.8
Apr 3												212.2	65.4	41.8
Apr 4												218.2	69.7	41.8
Apr 5												213.8	66.3	41.9
Apr 6												209.3	64.2	42.3
Apr 7												223.3	73.7	42.2
Apr 8												209.9	65.3	42.4
Apr 9												237.7	88.8	42.5
Apr 10												195.8	46.5	42.7
Apr 11												228.0	77.8	42.7
Apr 12												213.7	66.3	42.9
Apr 13												206.4	61.0	43.2
Apr 14								4	0			206.1	56.2	43.4
Apr 15								2	0			222.9	72.0	43.8
Apr 16								6	2			214.2	63.7	44.0
Apr 17								2	0			217.6	82.6	44.1
Apr 18								1	0			173.1	39.9	44.5
Apr 19								3	1			179.5	41.4	44.8
Apr 20								2	1			212.2	73.4	45.1
Apr 21								2	0			191.2	63.7	45.5
Apr 22								1	0			196.5	63.0	45.8
Apr 23								5	2			194.2	69.3	45.9
Apr 24								2	2			185.0	58.3	46.0
Apr 25								1	1			192.8	56.7	46.2
Apr 26								2	1			196.5	61.1	46.3
Apr 27								0	0			190.1	64.1	46.4
Apr 28								0	0			196.1	56.7	46.6
Apr 29								1	0			192.0	59.9	46.6
Apr 30								0	0			196.5	56.3	46.7
TOTAL								34	10					
AVG.								2	1			205.0	63.7	44.0

TABLE 162

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

MAY 2017

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											
May 1	1			0				2	2	0		185.0	44.6	46.5
May 2	0			0				3	0	0		214.6	60.9	46.8
May 3	0			0				1	0	1		212.6	63.9	47.6
May 4	0			0				0	0	0		198.7	55.0	47.9
May 5	10			0				0	0	0		212.2	65.4	48.4
May 6	2			0				0	0	0		229.8	94.6	48.5
May 7	0			0				0	0	0		225.5	94.8	48.5
May 8	2			0				0	0	0		218.2	90.9	48.7
May 9	3			0				1	0	0		247.7	100.3	48.7
May 10	5			0				0	0	0		243.9	95.1	49.0
May 11	1			0				0	0	0		217.6	79.8	49.2
May 12	7			0				2	2	0		246.1	98.1	49.0
May 13	7			0				0	0	0		208.0	73.0	48.9
May 14	6			0				2	0	0		245.7	98.0	49.1
May 15	16			0				0	0	0		257.2	119.3	49.0
May 16	21			0				0	0	0		271.0	124.1	49.0
May 17	27			0				4	0	0		258.5	113.9	49.3
May 18	61			0				0	0	0		259.0	117.5	49.9
May 19	54			0				0	0	0		270.3	131.9	50.6
May 20	152			0				2	1	0		260.4	118.5	51.1
May 21	163			0				1	0	0		271.9	128.6	51.4
May 22	163			4				1	1	0		265.4	120.9	51.4
May 23	136			1				0	0	1		242.6	100.1	51.7
May 24	146			4				0	0	1		242.7	115.2	52.1
May 25	129			1				0	0	1		261.2	123.8	52.0
May 26	161			0				1	1	0		253.5	113.8	52.1
May 27	167			12				0	0	0		239.8	113.4	52.4
May 28	227			3				0	0	1		249.6	121.1	52.6
May 29	222			9				1	0	3		256.2	126.3	53.1
May 30	271			3				1	0	0		259.7	125.5	53.3
May 31	321			20				3	0	5		253.3	122.3	53.2
TOTAL	2,481			57				25	7	13				
AVG.	80			2				1	0	0		241.2	101.6	50.0
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT			
TOTALS TO DATE														
SPRING		2,481	57					0	59	17	13			

TABLE 163

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JUNE 2017

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	512			14			0	0	0	0	0	246.8	112.9	53.0
Jun 2	423			83			0	0	0	0	0	246.1	108.6	53.1
Jun 3	848			37			1	4	0	1	0	248.4	108.2	53.3
Jun 4	441			81			0	2	1	0	0	245.7	103.2	53.5
Jun 5	454			56			0	0	0	1	0	241.8	109.3	54.1
Jun 6	285			58			1	0	0	1	0	246.6	104.4	54.5
Jun 7	448			11			0	1	1	0	0	256.8	117.1	55.1
Jun 8	313			29			2	0	0	0	0	256.0	117.0	55.3
Jun 9	409			1			0	0	0	0	0	266.6	123.2	55.1
Jun 10	282			48			1	0	0	0	0	241.3	108.6	55.0
Jun 11	204			20			2	1	0	0	0	249.8	114.5	55.3
Jun 12	224			42			2	0	0	0	0	231.7	97.7	55.7
Jun 13	187			7			6	2	2	0	0	242.3	108.3	56.2
Jun 14	116			4			3	1	1	0	0	240.0	100.7	56.6
Jun 15	147			5			2	0	0	0	0	233.6	90.6	56.7
Jun 16	130			8			11	0	0	1	0	208.6	66.5	56.4
Jun 17	176			3			7	2	1	0	0	193.3	49.8	56.1
Jun 18	164			9			9	0	0	0	0	222.8	64.5	56.7
Jun 19	479			10			24	1	1	0	0	184.8	46.0	57.3
Jun 20	269			15			37	5	0	1	0	181.5	47.7	57.7
Jun 21	610			8			133	0	0	0	0	168.7	41.8	57.8
Jun 22	571			0			128	2	1	1	1	200.4	42.1	58.1
Jun 23	1,272			4			262	1	0	0	1	171.1	39.0	58.5
Jun 24		965		18			261	1	1	0	1	179.3	36.3	59.1
Jun 25		1,177		5			369	4	4	1	2	174.5	38.9	59.2
Jun 26		1,307		25			596	1	0	0	1	175.3	43.8	59.2
Jun 27		1,332		14			712	0	0	1	0	180.1	41.2	59.7
Jun 28		1,447		5			1,007	1	1	0	1	169.0	38.5	59.9
Jun 29		1,525		13			1,388	4	3	0	2	152.1	36.0	60.4
Jun 30		1,270		7			2,111	0	0	1	2	132.0	36.3	60.9
TOTAL	8,964	9,023		640			7,075	33	17	9	11			
AVG.	390	1,289		21			236	1	1	0	0	212.9	76.4	56.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	11,445	610
SUMMER	9,023	87
TOTALS	20,468	697

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
7,075	92	34	22	11

TABLE 164

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

ROCK ISLAND PROJECT- FISH COUNTS

JULY 2017

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		853		15			2,088	1	0	1	7	152.4	33.8	61.3
Jul 2		1,089		36			2,229	2	2	1	7	177.2	33.7	61.3
Jul 3		2,640		11			3,916	6	5	2	5	187.8	33.5	61.5
Jul 4		2,921		30			4,608	2	1	1	6	152.8	32.0	61.5
Jul 5		2,073		14			4,960	3	1	0	6	141.6	30.4	61.9
Jul 6		2,307		16			4,571	3	2	1	4	154.0	32.3	62.4
Jul 7		2,238		50			4,404	6	4	0	7	147.7	30.2	62.5
Jul 8		1,758		45			4,822	4	2	1	7	124.8	24.7	62.8
Jul 9		3,393		78			4,786	8	6	0	8	89.4	26.4	62.8
Jul 10		1,634		24			4,693	6	6	0	16	167.7	35.5	63.3
Jul 11		1,810		22			3,186	4	1	2	15	164.1	34.4	63.3
Jul 12		1,441		12			2,484	4	4	0	6	167.5	31.9	63.2
Jul 13		1,175		13			2,021	4	4	0	5	128.9	34.2	62.9
Jul 14		1,284		37			2,514	6	4	1	5	139.0	32.6	62.8
Jul 15		1,262		18			2,227	6	1	0	32	130.4	29.0	63.1
Jul 16		1,196		39			1,419	6	3	0	51	131.8	24.9	63.6
Jul 17		1,456		43			1,348	10	5	0	48	143.7	30.9	63.5
Jul 18		1,629		39			1,648	6	4	0	47	123.5	29.4	63.5
Jul 19		886		10			1,171	3	2	0	46	96.5	27.4	63.4
Jul 20		1,032		8			1,242	2	0	0	59	104.6	26.3	63.8
Jul 21		722		44			1,049	6	4	0	33	110.4	23.9	63.5
Jul 22		629		15			834	6	5	0	75	122.3	24.1	63.4
Jul 23		434		13			488	11	9	0	96	126.4	23.1	64.1
Jul 24		506		13			491	32	22	0	221	114.2	27.0	64.6
Jul 25		879		30			692	6	4	0	152	99.2	25.9	64.9
Jul 26		761		22			471	14	11	0	132	111.5	25.2	64.5
Jul 27		485		14			331	10	5	0	176	140.6	25.2	64.4
Jul 28		347		23			286	11	7	0	333	97.0	24.6	64.2
Jul 29		469		10			242	14	6	0	402	82.7	24.7	65.0
Jul 30		310		27			138	15	10	0	312	110.0	23.1	65.0
Jul 31		406		24			109	19	12	0	307	133.9	28.0	65.4
TOTAL		40,025		795			65,468	236	152	10	2,626	131.4	28.7	63.3
AVG.		1,291		26			2,112	8	5	0	85			

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	11,445	610
SUMMER	49,048	882
TOTALS	60,493	1,492

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
72,543	328	186	32	2,637

TABLE 165

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT		FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER												
Aug 1		451		23			140	21	15		408	123.4	22.8	65.8
Aug 2		358		21			101	21	13		324	95.0	22.9	66.2
Aug 3		363		16			78	26	18		222	95.7	25.8	66.1
Aug 4		276		29			55	28	12		300	104.3	24.5	66.2
Aug 5		292		29			23	22	14		443	105.0	22.4	65.9
Aug 6		268		26			28	31	20		367	88.1	18.0	65.8
Aug 7		194		9			25	11	6		310	101.1	23.6	66.0
Aug 8		271		14			18	31	23		333	106.1	23.7	65.9
Aug 9		262		30			20	38	26		360	130.2	23.6	66.0
Aug 10		215		30			21	23	16		398	115.0	22.8	66.7
Aug 11		172		25			13	30	24		542	105.8	25.5	66.8
Aug 12		185		24			16	26	16		556	98.3	20.3	66.6
Aug 13		125		15			8	15	13		261	87.9	18.0	66.5
Aug 14		118		23			4	22	14		382	99.1	20.1	67.2
Aug 15		132		22			12	25	18		573	97.9	18.6	67.7
Aug 16		93		32			2	31	17		694	98.1	18.0	68.1
Aug 17		77		37			6	18	10		665	91.8	18.3	68.5
Aug 18		140		48			6	22	14		986	130.6	20.4	68.6
Aug 19		53		17			3	18	11		697	78.1	7.3	68.5
Aug 20		107		8			1	12	6		444	96.0	7.3	68.3
Aug 21		70		12			3	13	8		434	118.3	1.9	67.8
Aug 22		114		5			2	10	5		455	85.9	0.0	67.9
Aug 23		151		20			11	20	11		476	62.5	0.0	68.2
Aug 24		181		21			3	18	15		869	76.8	0.0	68.3
Aug 25		145		20			0	22	5		547	64.7	0.0	68.0
Aug 26		249		27			3	28	19		603	82.0	0.0	67.9
Aug 27		190		14			1	22	8		307	89.6	0.0	67.5
Aug 28		143		19			7	36	16		298	26.5	0.0	67.4
Aug 29		181		24			7	52	34		230	77.2	0.0	67.4
Aug 30		92		13			3	52	25		163	164.2	26.5	67.7
Aug 31		96		26			0	59	36		243	130.6	7.8	67.5
TOTAL		5,764		679			620	803	488		13,890			

AVG.	186	22	20	26	16	448	97.6	14.2	67.2
------	-----	----	----	----	----	-----	------	------	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	11,445	610
SUMMER	54,812	1,561
TOTALS	66,257	2,171

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
73,163	1,131	674	32	16,527

TABLE 166

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

ROCK ISLAND PROJECT- FISH COUNTS

SEPTEMBER 2017

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		102		29	0	0	3	50	27	0	334	73.0	0.0	67.0
Sep 2			140	16	0	0	2	60	39	0	208	122.1	0.0	67.2
Sep 3			65	5	0	0	3	52	18	0	159	79.3	0.0	67.4
Sep 4			54	3	0	0	1	34	12	1	188	104.8	0.0	67.8
Sep 5			67	7	0	0	3	44	12	0	263	125.8	0.0	68.3
Sep 6			85	9	2	0	2	54	27	0	218	92.2	0.0	68.4
Sep 7			75	5	0	0	1	53	24	0	203	39.9	0.0	68.4
Sep 8			126	11	0	0	2	68	38	0	338	52.1	0.0	68.4
Sep 9			126	24	0	0	4	45	15	0	256	65.5	0.0	68.1
Sep 10			91	13	0	0	0	72	33	0	230	93.2	0.0	67.9
Sep 11			98	20	0	0	0	87	32	0	234	91.0	0.0	67.8
Sep 12			93	25	2	0	3	76	21	0	161	35.9	0.0	67.3
Sep 13			107	16	8	0	1	61	32	0	212	82.9	0.0	67.3
Sep 14			86	15	5	0	1	59	30	0	138	53.8	0.0	67.1
Sep 15			100	14	4	0	0	86	38	0	182	86.2	0.0	67.1
Sep 16			124	18	5	0	2	77	38	0	179	45.2	0.0	66.7
Sep 17			119	9	3	0	0	63	34	0	146	64.2	0.0	66.2
Sep 18			83	19	8	3	2	79	37	0	60	45.8	0.0	65.9
Sep 19			161	25	6	0	0	96	45	0	77	65.9	0.0	65.7
Sep 20			150	25	10	0	1	141	53	0	89	44.4	0.0	65.1
Sep 21			120	19	14	0	0	84	35	0	89	43.2	0.0	64.9
Sep 22			184	18	8	0	1	76	36	0	79	25.8	0.0	64.5
Sep 23			306	19	19	0	2	119	50	0	15	48.1	0.0	64.5
Sep 24			381	7	33	1	0	149	71	0	44	84.4	0.0	64.5
Sep 25			362	35	123	5	3	133	55	0	63	96.7	0.0	64.6
Sep 26			436	36	290	0	3	221	112	0	56	11.0	0.0	64.7
Sep 27			363	45	380	0	1	179	82	0	67	53.4	0.0	64.7
Sep 28			399	20	397	2	0	158	67	0	55	75.8	0.0	64.8
Sep 29			426	21	531	1	6	210	78	0	37	62.2	0.0	64.8
Sep 30			345	35	440	2	5	159	54	0	55	66.3	0.0	64.8
TOTAL		102	5,272	563	2,288	14	52	2,845	1,245	1	4,435			
AVG.			182	19	76	0	2	95	42	0	148	67.7	0.0	66.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	11,445	610
SUMMER	54,914	1,590
FALL	5,272	534
TOTALS	71,631	2,734

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2,288	14	73,215	3,976	1,919	33	20,962

TABLE 167

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

ROCK ISLAND PROJECT- FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT									JACK
Oct 1			365	53	630	4	2	183	72		22	90.0	0.0	64.5
Oct 2			334	41	710	6	0	139	54		26	73.1	0.0	64.3
Oct 3			466	38	570	4	0	119	45		34	30.4	0.0	64.1
Oct 4			308	17	862	3	0	95	37		12	78.4	0.0	63.8
Oct 5			236	9	693	5	0	76	27		21	53.6	0.0	63.6
Oct 6			208	15	614	2	0	66	21		7	42.3	0.0	63.4
Oct 7			306	21	560	0	0	41	16		2	36.8	0.0	63.2
Oct 8			183	31	718	18	1	66	16		3	63.4	0.0	62.9
Oct 9			197	46	894	9	0	51	18		11	87.0	0.0	62.5
Oct 10			318	32	712	5	0	51	18		2	56.3	0.0	62.1
Oct 11			134	10	462	5	0	39	9		11	51.3	0.0	61.5
Oct 12			127	10	397	3	0	37	7		8	35.0	0.0	61.4
Oct 13			102	15	462	1	0	30	9		1	65.4	0.0	60.9
Oct 14			99	13	281	3	0	13	5		0	53.3	0.0	60.6
Oct 15			96	13	230	5	0	14	6		1	59.5	0.0	60.3
Oct 16			118	15	166	1	0	11	5		4	7.1	0.0	60.0
Oct 17			119	12	175	2	0	21	9		0	37.4	0.0	59.7
Oct 18			126	10	213	4	0	18	3		2	8.3	0.0	59.5
Oct 19			139	11	230	2	0	19	4		0	20.7	0.0	59.2
Oct 20			266	17	241	1	0	12	4		0	39.1	0.0	59.2
Oct 21			145	13	132	1	0	14	3		0	22.6	0.0	58.3
Oct 22			131	10	110	1	0	12	2		1	51.0	0.0	58.3
Oct 23			116	15	72	1	0	12	7		1	55.2	0.0	57.6
Oct 24			96	9	121	1	0	9	5		4	81.4	0.0	58.0
Oct 25			129	10	64	1	0	8	2		1	14.1	0.0	57.9
Oct 26			130	9	64	1	0	9	1		0	33.6	0.0	57.5
Oct 27			118	14	86	3	0	11	3		0	11.9	0.0	57.6
Oct 28			125	12	55	0	0	8	4		0	51.5	0.0	57.8
Oct 29			173	9	41	0	0	7	2		1	56.6	0.0	57.7
Oct 30			203	14	44	0	0	11	4		0	49.5	0.0	57.6
Oct 31			166	11	47	0	0	10	5		0	9.2	0.0	57.5
TOTAL			5,779	555	10,656	92	3	1,212	423		175			

AVG.			186	18	344	3		39	14		6	46.0	0.0	60.4
------	--	--	-----	----	-----	---	--	----	----	--	---	------	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	11,445	610
SUMMER	54,914	1,590
FALL	11,051	1,089
TOTALS	77,410	3,289

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
12,944	106	73,218	5,188	2,342	33	21,137

TABLE 168

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

ROCK ISLAND PROJECT- FISH COUNTS

NOVEMBER 2017

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER											
Nov 1			226	7	45	0		10	4		73.6	0.0	57.2
Nov 2			124	3	35	0		8	3		28.0	0.0	57.1
Nov 3			101	4	26	0		5	4		88.1	0.0	56.6
Nov 4			165	1	9	1		11	5		43.9	0.0	56.0
Nov 5			170	7	6	0		5	1		8.9	0.0	55.4
Nov 6			102	2	4	1		4	2		137.3	0.0	54.8
Nov 7			67	1	5	1		3	0		60.0	0.0	54.3
Nov 8			78	1	3	1		7	4		83.9	0.0	53.7
Nov 9			81	1	3	0		3	1		103.7	0.0	53.3
Nov 10			58	1	3	0		6	4		82.5	0.0	53.5
Nov 11			47	0	1	0		1	0		56.6	0.0	53.8
Nov 12			41	0	0	0		2	1		70.8	0.0	53.8
Nov 13			26	3	2	0		5	1		96.5	0.0	54.0
Nov 14			28	0	4	0		3	1		122.5	0.0	53.4
Nov 15			25	1	0	0		4	1		79.8	0.0	32.0
Nov 16											89.4	0.0	53.3
Nov 17											64.2	0.0	54.1
Nov 18											78.4	0.0	53.9
Nov 19											58.5	0.0	53.7
Nov 20											88.1	0.0	53.4
Nov 21											50.7	0.0	53.1
Nov 22											53.1	0.0	52.8
Nov 23											64.9	0.0	52.1
Nov 24											54.9	0.0	50.7
Nov 25											65.7	0.0	51.0
Nov 26											65.5	0.0	50.7
Nov 27											37.2	0.0	50.4
Nov 28											67.1	0.0	50.8
Nov 29											129.0	0.0	50.5
Nov 30											75.6	0.0	50.2
TOTAL			1,339	32	146	4		77	32				
AVG.			89	2	10	0		5	2		72.6	0.0	52.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
SPRING	11,445	610	13,090	110	73,218	5,265	2,374	33	21,137
SUMMER	54,914	1,590							
FALL	12,390	1,121							
TOTALS	78,749	3,321							

TABLE 169

**MONTHLY COUNT OF STEELHEAD
ROCK ISLAND DAM 1981 - 2017**

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
Total				2,465	2,535	4,158	49,981	153,749	233,505	67,146	6,331		519,870
10-Year Average				85	52	96	1,462	5,362	7,423	1,766	131		16,377

ROCKY REACH DAM

Fish Counting Schedule

Jan 1 - Apr 13	No video recording or fish counting during this period.
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	No video recording or fish counting during this period.

Fish Ladder Operating Schedule

Jan 1 to Feb 13	Fishway out of service for 2016/2017 annual maintenance period.
Feb 14 to Dec 10	Fishway in service.
Dec 11 to Dec 31	Fishway out of service for 2017/2018 annual maintenance period.

Fish Facility Activities

The adult fish passive integrated transponder (PIT) tag system was operational throughout the 2017 adult fish migration. PIT tag detections from the fishway were uploaded daily to PTAGIS.

The juvenile fish bypass system was operated for fish passage from 1 April through 31 August 2017. Juvenile fish sampling occurred over the same time frame. The annual bypass (biological) evaluation included the collection of species composition and fish condition data.

TABLE 170

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				0	1,500	12,025	32,035	5,819	4,711	5,582	1,170		62,842
STEELHEAD				90	33	23	85	478	2,069	1,152	58		3,988
SOCKEYE					0	3,311	42,789	562	34	5	0		46,701
COHO									531	4,808	93		5,432
PINK													0
TOTAL				90	1,533	15,359	74,909	6,859	7,345	11,547	1,321		118,963
LAMPREY						0	1,810	16,817	5,025	332	2		23,986
BULL TROUT				0	15	65	17	2	0	10	3		112

TABLE 171

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

ROCKY REACH PROJECT- FISH COUNTS

APRIL 2017

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											
Apr 1												216.3	86.3	41.1
Apr 2												217.8	93.3	41.5
Apr 3												218.7	90.1	41.5
Apr 4												225.6	88.6	41.5
Apr 5												220.4	89.2	41.6
Apr 6												217.4	82.8	41.8
Apr 7												237.5	100.8	42.0
Apr 8												225.3	88.6	42.2
Apr 9												245.2	106.9	42.3
Apr 10												201.8	62.8	42.3
Apr 11												231.3	93.7	42.4
Apr 12												225.4	92.6	42.7
Apr 13												220.1	82.7	42.9
Apr 14								14	4			214.0	76.7	43.2
Apr 15								11	2			227.8	101.1	43.6
Apr 16								4	0			226.4	90.1	43.8
Apr 17								4	1			222.1	84.4	43.9
Apr 18								5	0			184.1	44.8	44.2
Apr 19								1	0			185.6	49.4	44.5
Apr 20								9	0			233.8	95.5	44.8
Apr 21								7	1			196.6	64.8	45.2
Apr 22								6	0			180.3	48.8	45.5
Apr 23								8	1			195.6	57.8	45.7
Apr 24								1	0			177.4	52.8	45.7
Apr 25								4	1			200.5	67.0	45.9
Apr 26								0	0			198.9	81.3	46.0
Apr 27								4	2			180.7	55.8	46.2
Apr 28								3	0			194.7	37.6	46.3
Apr 29								5	2			187.1	38.5	46.3
Apr 30								4	1			183.8	61.4	46.3
TOTAL								90	15					
AVG.								5	1			209.7	75.5	43.8

TABLE 172
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

MAY 2017

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											
May 1	0			0				1	0	0		158.5	11.6	46.4
May 2	0			0				2	1	0		217.5	80.4	46.5
May 3	0			0				0	0	0		212.5	55.2	46.9
May 4	1			0				3	0	0		180.1	60.0	47.5
May 5	1			0				4	2	1		189.8	67.1	48.1
May 6	2			0				1	0	0		223.0	87.3	48.5
May 7	1			0				0	0	0		206.9	66.8	48.5
May 8	0			0				2	1	0		212.0	70.6	48.5
May 9	0			0				0	0	0		232.1	105.3	48.5
May 10	4			0				4	3	0		245.9	98.8	48.8
May 11	2			0				1	1	0		220.6	74.4	49.0
May 12	6			0				0	0	0		242.7	86.4	49.0
May 13	2			0				0	0	0		199.8	55.5	49.0
May 14	1			0				1	0	0		240.0	82.0	49.0
May 15	6			0				1	0	0		259.8	103.8	48.9
May 16	2			0				2	2	0		278.7	128.5	49.0
May 17	7			0				0	0	0		289.0	130.2	49.1
May 18	14			0				1	0	0		286.3	127.7	49.7
May 19	42			0				3	0	2		279.0	139.9	50.3
May 20	27			0				0	0	0		264.5	107.3	50.8
May 21	61			0				0	0	0		278.8	128.7	51.1
May 22	110			0				0	0	1		269.2	116.3	51.1
May 23	122			0				0	0	0		239.2	100.6	51.6
May 24	125			0				0	0	2		236.6	83.7	52.1
May 25	114			0				0	0	0		252.3	103.7	52.0
May 26	91			1				2	1	2		254.9	97.3	52.0
May 27	132			1				0	0	2		246.5	88.5	52.1
May 28	108			7				3	2	3		244.5	89.7	52.4
May 29	122			10				0	0	0		255.2	131.8	53.0
May 30	122			5				2	1	1		252.6	104.1	53.2
May 31	248			3				0	0	1		241.0	137.5	53.2
TOTAL	1,473			27				33	14	15				
AVG.	48			1				1	0	0		239.0	94.2	49.9
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD	BULL TROUT				
SPRING		1,473	27					123	29	15				

TABLE 173

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JUNE 2017

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	366			17			0	1	0	0		239.3	88.6	53.0
Jun 2	359			13			0	0	0	1		241.2	83.4	53.0
Jun 3	303			38			0	1	1	7		244.9	88.0	53.2
Jun 4	540			50			0	0	0	5		243.6	86.1	53.6
Jun 5	332			44			0	0	0	3		242.9	84.4	53.9
Jun 6	449			28			0	0	0	2		249.2	90.7	54.5
Jun 7	252			28			1	0	0	4		254.7	99.6	55.0
Jun 8	263			28			2	1	0	1		255.0	98.9	55.2
Jun 9	191			11			0	0	0	2		265.4	109.7	55.0
Jun 10	306			21			0	0	0	1		238.2	82.3	55.1
Jun 11	148			35			0	0	0	2		251.0	92.9	55.2
Jun 12	167			5			0	1	1	1		234.5	76.1	55.6
Jun 13	157			26			3	1	0	3		246.3	95.2	56.2
Jun 14	122			8			7	0	0	3		243.2	86.7	56.5
Jun 15	79			10			5	0	0	6		230.7	74.8	56.6
Jun 16	101			3			0	0	0	3		204.2	51.0	56.2
Jun 17	80			9			3	1	0	1		195.2	37.9	56.1
Jun 18	66			2			5	2	1	2		233.5	75.6	56.6
Jun 19	110			3			14	1	0	0		183.7	57.1	57.1
Jun 20	193			1			17	0	0	2		192.8	36.2	57.5
Jun 21	256			3			29	2	0	1		149.6	16.8	57.8
Jun 22	334			0			81	0	0	3		195.5	37.0	58.1
Jun 23	311			4			137	1	0	2		162.8	22.1	58.4
Jun 24		732		6			127	0	0	2		162.9	15.3	58.9
Jun 25		785		5			215	0	0	1		179.4	47.2	58.9
Jun 26		808		14			290	7	3	2		167.2	15.3	59.0
Jun 27		912		4			431	3	2	2		173.0	19.3	59.3
Jun 28		698		2			376	1	0	0		162.7	15.3	59.9
Jun 29		968		5			639	0	0	1		130.2	15.2	60.2
Jun 30		1,181		33			929	0	0	2		140.6	15.4	60.7
TOTAL	5,485	6,084		456			3,311	23	8	65				
AVG.	238	869		15			110	1	0	2		210.4	60.5	56.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,958	414
SUMMER	6,084	69
TOTALS	13,042	483

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
3,311	146	37	80

TABLE 174

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JULY 2017

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		1,063		9			1,578	0	0	0	0	150.7	29.1	60.9
Jul 2		635		1			1,183	0	0	0	0	170.2	16.5	60.9
Jul 3		826		9			1,565	0	0	2	2	167.2	68.7	61.2
Jul 4		1,767		45			1,805	1	1	1	1	144.9	15.0	61.3
Jul 5		1,703		10			2,468	2	1	1	2	109.7	15.2	61.7
Jul 6		1,455		6			3,087	3	2	3	3	141.2	72.2	62.1
Jul 7		1,661		28			2,770	1	0	1	4	110.9	15.4	62.2
Jul 8		1,660		16			2,674	2	0	1	3	117.6	12.1	62.2
Jul 9		1,324		27			2,383	4	3	2	8	79.6	10.9	62.9
Jul 10		2,383		25			3,318	1	0	1	7	157.8	14.9	63.1
Jul 11		1,331		15			2,840	3	1	0	7	152.6	13.1	63.0
Jul 12		1,348		14			2,142	0	0	0	13	147.7	15.5	62.6
Jul 13		1,005		7			1,541	3	2	0	6	139.1	12.6	62.5
Jul 14		1,006		13			1,456	1	1	0	7	155.6	12.7	62.1
Jul 15		1,048		27			1,706	4	2	0	12	115.7	12.7	63.2
Jul 16		1,283		7			1,498	3	3	0	11	117.9	8.8	63.4
Jul 17		939		24			1,069	0	0	0	30	128.4	12.6	63.2
Jul 18		1,105		8			1,098	2	1	1	17	116.0	12.6	63.0
Jul 19		1,519		23			1,118	4	2	0	28	107.7	12.6	63.1
Jul 20		782		19			949	1	0	2	43	114.1	13.6	63.3
Jul 21		855		25			865	2	0	0	47	115.2	14.3	63.0
Jul 22		551		21			707	3	1	0	38	125.7	8.7	63.1
Jul 23		591		28			565	3	3	0	51	112.3	8.7	64.0
Jul 24		312		17			380	4	1	1	70	97.7	12.6	64.4
Jul 25		486		26			437	2	2	0	88	90.3	8.7	64.3
Jul 26		682		14			537	4	3	0	80	125.7	8.7	63.9
Jul 27		582		13			303	3	1	1	109	146.9	8.8	64.3
Jul 28		405		21			243	2	2	0	130	92.0	12.4	64.7
Jul 29		450		18			206	9	2	0	202	83.1	8.8	64.5
Jul 30		334		16			158	9	2	0	263	101.7	9.1	64.8
Jul 31		399		13			140	9	5	0	528	115.6	12.7	65.1
TOTALS		31,490		545			42,789	85	41	17	1,810			
AVG.		1016		18			1,380	3	1	1	58	124.2	16.5	63.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,958	414
SUMMER	37,574	614
TOTAL	44,532	1,028

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
46,100	231	78	97	1,810

TABLE 175

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

ROCKY REACH PROJECT- FISH COUNTS

AUGUST 2017

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		SOCKEYE	WILD		BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL		ADULT	JACK		STEELHEAD	STEELHEAD					
Aug 1		430		25			99	14	10	0	515	114.8	8.7	65.7
Aug 2		416		16			120	11	6	0	622	74.8	8.8	65.7
Aug 3		171		26			57	13	9	1	413	80.7	8.8	65.6
Aug 4		354		31			61	6	4	0	363	104.0	8.8	65.8
Aug 5		200		35			33	15	7	0	441	75.0	8.8	65.3
Aug 6		309		17			16	16	9	0	178	67.0	6.3	65.6
Aug 7		284		37			31	15	8	0	368	87.2	8.8	65.6
Aug 8		222		27			27	5	4	1	206	93.6	9.8	65.5
Aug 9		208		18			12	11	6	0	473	106.1	14.2	65.9
Aug 10		212		14			16	14	10	0	342	84.4	8.3	66.4
Aug 11		152		22			17	18	10	0	417	127.3	8.8	66.3
Aug 12		170		22			10	29	24	0	324	90.6	5.8	66.1
Aug 13		130		4			17	20	15	0	743	82.7	6.3	66.8
Aug 14		140		15			9	14	9	0	1163	95.3	8.1	67.3
Aug 15		200		30			7	8	6	0	776	94.9	8.0	67.7
Aug 16		96		9			3	11	6	0	1021	92.9	7.9	68.2
Aug 17		93		42			1	16	7	0	940	87.7	8.0	68.3
Aug 18		99		25			1	18	8	0	976	125.3	51.2	68.5
Aug 19		54		23			1	19	8	0	1107	71.1	8.5	68.2
Aug 20		53		3			1	15	4	0	774	92.8	6.3	67.7
Aug 21		54		7			1	18	10	0	690	98.9	6.3	67.6
Aug 22		74		29			2	10	9	0	635	84.2	8.4	67.8
Aug 23		100		2			2	9	6	0	389	49.8	8.5	68.0
Aug 24		100		17			3	7	2	0	391	90.8	6.3	68.1
Aug 25		92		22			5	14	6	0	484	51.6	6.0	67.6
Aug 26		212		18			0	16	8	0	660	64.2	0.0	67.2
Aug 27		145		6			2	10	6	0	354	82.6	0.0	67.1
Aug 28		156		16			1	17	6	0	352	51.8	0.0	67.0
Aug 29		59		12			2	22	15	0	219	73.2	0.0	67.3
Aug 30		146		28			3	33	17	0	198	168.2	127.5	67.5
Aug 31		88		2			2	34	14	0	283	141.8	0.0	66.9
TOTAL		5,219		600			562	478	269	2	16,817			

AVG.	168	19	18	15	9	0	542	90.5	12.0	66.9
------	-----	----	----	----	---	---	-----	------	------	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,958	414
SUMMER	42,793	1,214
TOTALS	49,751	1,628

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
46,662	709	347	99	18,627

TABLE 176

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

SEPTEMBER 2017

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		95		20	0	0	2	27	15		250	64.3	0.0	66.8
Sep 2			109	28	0	0	1	56	33		334	120.6	0.0	67.1
Sep 3			108	3	0	0	0	43	19		412	88.3	0.0	67.6
Sep 4			152	12	0	0	8	68	31		479	65.9	0.0	68.1
Sep 5			35	5	0	0	1	44	23		243	105.3	0.0	68.3
Sep 6			70	13	0	0	2	30	10		319	91.1	0.0	68.4
Sep 7			61	11	0	0	0	35	13		303	67.2	0.0	68.2
Sep 8			33	4	0	0	0	41	16		106	45.4	0.0	67.9
Sep 9			121	22	0	0	0	31	12		187	65.7	0.0	67.8
Sep 10			116	11	0	0	4	30	14		389	95.0	0.0	67.8
Sep 11			35	8	0	0	0	49	16		129	82.1	0.0	67.4
Sep 12			185	29	0	0	1	56	19		130	52.8	0.0	67.1
Sep 13			89	29	0	0	1	61	33		178	67.3	0.0	67.1
Sep 14			69	8	1	0	4	43	19		239	45.5	0.0	67.1
Sep 15			93	23	2	0	0	58	26		129	71.7	0.0	67.1
Sep 16			90	26	1	0	0	71	27		239	94.4	0.0	66.5
Sep 17			58	4	1	0	1	55	28		88	57.6	0.0	66.2
Sep 18			69	17	1	0	0	67	19		133	38.6	0.0	66.0
Sep 19			90	17	2	0	1	33	14		56	56.4	0.0	65.6
Sep 20			60	3	2	0	2	63	24		55	45.4	0.0	65.3
Sep 21			140	16	6	0	0	107	39		44	33.8	0.0	64.8
Sep 22			114	18	3	1	0	73	29		34	42.0	0.0	64.5
Sep 23			114	14	9	0	0	66	24		42	47.6	0.0	64.5
Sep 24			273	15	10	0	0	99	44		83	75.3	0.0	64.6
Sep 25			268	14	11	1	0	89	43		80	95.2	9.2	64.8
Sep 26			349	34	21	0	0	108	64		128	17.5	0.0	64.6
Sep 27			296	38	68	0	0	116	50		54	44.3	0.0	64.7
Sep 28			293	33	72	0	1	148	54		30	62.5	0.0	64.7
Sep 29			303	18	130	0	3	136	60		89	40.3	0.0	65.0
Sep 30			297	33	188	1	2	166	46		43	60.2	0.0	65.0
TOTAL		95	4,090	526	528	3	34	2,069	864		5,025			
AVG.			141	18	18	0	1	69	29		168	64.6	0.3	66.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,958	414
SUMMER	42,888	1,234
FALL	4,090	506
TOTALS	53,936	2,154

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
528	3	46,696	2,778	1,211	99	23,652

TABLE 177

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

ROCKY REACH PROJECT- FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD					TROUT
Oct 1			250	41	115	2	1	120	32	0	72	55.8	0.0	64.8
Oct 2			197	19	197	3	0	137	42	0	34	57.9	0.0	64.5
Oct 3			321	33	287	1	0	96	35	0	18	48.2	0.0	64.1
Oct 4			362	25	269	5	0	130	49	0	58	65.0	0.0	63.9
Oct 5			181	13	251	5	0	89	38	0	18	44.7	0.0	63.7
Oct 6			66	14	171	0	0	32	15	0	28	42.6	0.0	63.5
Oct 7			220	42	274	0	0	60	16	0	12	37.7	0.0	63.3
Oct 8			228	19	268	1	0	39	8	0	15	33.1	0.0	63.0
Oct 9			122	20	248	5	0	60	16	0	23	61.6	0.0	62.5
Oct 10			227	36	525	0	0	49	14	0	18	33.8	0.0	62.0
Oct 11			157	26	340	8	0	31	9	0	7	35.3	0.0	61.8
Oct 12			78	9	182	2	0	30	12	0	5	40.4	0.0	61.5
Oct 13			139	13	247	2	0	42	9	0	10	64.7	0.0	61.1
Oct 14			93	7	170	3	0	40	13	0	2	57.9	0.0	60.8
Oct 15			133	18	138	0	1	20	10	0	0	59.6	0.0	60.4
Oct 16			90	10	102	0	0	17	5	0	0	16.9	0.0	60.0
Oct 17			105	16	140	0	0	12	6	1	2	37.6	0.0	59.8
Oct 18			150	4	103	2	1	15	9	0	0	22.0	0.0	59.6
Oct 19			84	17	162	2	0	16	7	0	3	35.2	0.0	59.5
Oct 20			266	7	109	1	0	20	11	0	1	30.8	0.0	59.5
Oct 21			249	20	75	5	0	10	5	0	0	38.1	0.0	59.3
Oct 22			187	10	106	2	0	19	3	0	1	25.3	0.0	58.9
Oct 23			144	12	40	2	0	13	5	0	1	50.7	0.0	58.7
Oct 24			98	7	40	1	0	7	2	1	0	48.6	0.0	58.5
Oct 25			97	9	36	1	0	6	4	0	0	30.4	0.0	58.4
Oct 26			151	5	38	0	0	9	3	1	4	28.0	0.0	58.4
Oct 27			84	10	29	0	2	8	3	1	0	33.4	0.0	58.3
Oct 28			158	11	37	0	0	4	1	0	0	47.0	0.0	58.3
Oct 29			111	10	30	1	0	10	2	3	0	39.3	0.0	58.4
Oct 30			205	9	10	0	0	5	1	3	0	40.1	0.0	58.2
Oct 31			128	9	14	1	0	6	0	0	0	13.8	0.0	58.0
TOTAL			5,081	501	4,753	55	5	1,152	385	10	332			

AVG.	164	16	153	2	0	37	12	0	11	41.1	0.0	60.7
------	-----	----	-----	---	---	----	----	---	----	------	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,958	414
SUMMER	42,888	1,234
FALL	9,171	1,007
TOTALS	59,017	2,655

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
5,281	58	46,701	3,930	1,596	109	23,984

TABLE 178

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

ROCKY REACH PROJECT- FISH COUNTS

NOVEMBER 2017

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			199	4	23	0		5	2	0	0	44.0	0.0	57.9
Nov 2			168	3	13	0		10	2	0	1	34.0	0.0	57.5
Nov 3			153	3	21	0		7	3	0	0	91.3	57.0	56.9
Nov 4			102	1	6	1		3	2	0	0	44.4	0.0	56.4
Nov 5			137	6	4	0		4	1	0	0	16.7	0.0	55.6
Nov 6			89	1	6	0		4	1	1	0	101.9	47.6	55.0
Nov 7			46	0	1	0		2	0	0	0	59.9	0.0	54.4
Nov 8			73	1	5	0		2	0	0	0	72.6	0.0	53.7
Nov 9			38	3	4	0		2	1	0	0	90.1	0.0	53.7
Nov 10			38	4	3	0		4	2	0	0	76.2	0.0	54.1
Nov 11			20	0	1	0		4	3	0	0	62.7	0.0	54.2
Nov 12			28	0	0	0		3	1	0	0	61.2	0.0	54.2
Nov 13			12	1	3	0		3	1	1	0	65.5	0.0	54.3
Nov 14			16	3	2	0		2	2	1	1	102.8	0.0	54.7
Nov 15			21	0	0	0		3	0	0	0	87.2	0.0	54.4
Nov 16												64.9	0.0	54.4
Nov 17												42.7	0.0	54.3
Nov 18												78.0	0.0	54.2
Nov 19												45.2	0.0	53.9
Nov 20												69.5	0.0	53.6
Nov 21												46.5	0.0	53.4
Nov 22												64.2	0.0	53.3
Nov 23												54.8	0.0	53.1
Nov 24												58.3	0.0	52.9
Nov 25												41.6	0.0	52.4
Nov 26												39.7	0.0	52.2
Nov 27												39.2	0.0	51.9
Nov 28												49.7	0.0	51.6
Nov 29												105.1	0.0	51.1
Nov 30												45.9	0.0	50.4
TOTAL			1,140	30	92	1		58	21	3	2			
AVG.			76	2	6	0		4	1	0	0	61.9	3.5	54.0

RUN YEAR	CHINOOK		COHO		SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
	ADULT	JACK	ADULT	JACK					
TOTALS TO DATE									
SPRING	6,958	414	5,373	59	46,701	3,988	1,617	112	23,986
SUMMER	42,888	1,234							
FALL	10,311	1,037							
TOTALS	60,157	2,685							

TABLE 179

MONTHLY COUNT OF STEELHEAD

ROCKY REACH DAM: 1981 - 2017

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
Total				4,150	2,879	2,764	29,940	106,561	171,432	58,514	6,802		383,042
10-Year Average				224	112	70	882	3,911	5,828	1,773	206		13,007

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 are arbitrarily separated into three populations based upon date of passage through the ladders: Spring Chinook – May 1 through June 28, summer Chinook – June 29 through August 28, and fall Chinook – August 29 through November 15.

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 2017.

Beginning on September 1 and continuing through September 30, the fishway entrances at Wells Dam were operated with a 1-foot head differential from 22:00 hours through 04:00 hours the following day, for 3-day blocks alternating with 3-day blocks of operating under a normal head differential (1.5 feet) during those hours.

East Ladder Maintenance

December 6, 2016 to January 9, 2017, outage for inspection and maintenance.

West Ladder Maintenance

January 16, 2017 through February 1, 2017, outage for inspection and 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 above turbine intakes. During the juvenile salmonid outmigration, bypass baffles and barriers are installed in spillway intake slots to partially constrict the five even-numbered spillways, providing a strong flow net to the constricted intakes. This configuration provides for high bypass efficiency (92% to 96%) with no more than 10,200 cfs of 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* 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 and baffles on bypass spillways are removed sequentially with increasing flow 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 2017 as guided by the Wells Habitat Conservation Plan (HCP) Coordinating Committee-approved *2017 Bypass Operating Plan*. With an early freshet in 2017 beginning in mid-March and persisting into the third week of April, the bypass barriers for spillways 6 and 8 were not installed at the start of bypass season because flow and involuntary spill volumes already met the criteria for barrier removal specified in the *2017 Bypass Operating Plan*. As flows and spill diminished in the third week of April, the barriers were installed in Spillway 8 (April 19) and Spillway 6 (April 25). Criteria for removal of bypass barriers were again met in early May, and the barriers for Spillway 6 were removed on May 6 and were not reinstalled until July 3. The barriers for Spillway 4 were removed on July 5 to allow removal of the bulkheads from the intake slots of Turbine Unit 4 and installation of the trash racks, in order to return Turbine Unit 4 to service after an extended outage. The bypass barriers for Spillway 4 were reinstalled on July 12.

The *2017 Bypass Operating Plan* was intended to provide non-turbine passage during 95 percent of the juvenile HCP Plan Species migration passing Wells Dam. Bypass operations were initiated on April 9 at 00:00 hours, and operated continuously until terminated at 24:00 hours on August 19, for a total of 133 days. Douglas PUD achieved the HCP requirement to provide bypass operations during 95 percent of the juvenile salmon and steelhead migration passing Wells Dam by providing bypass passage during 99.85 percent of the yearling Chinook migration, 100 percent of the steelhead migration, 99.99 percent of the Sockeye migration, 100 percent of the Coho migration, and 99.70 percent of the sub-yearling Chinook migration passing Wells Dam in 2017. These percentages do not account for the substantial involuntary spill at Wells Dam that began in mid-March and continued into the period of bypass operations, effectively providing non-turbine passage for 23 days prior to the scheduled start of bypass operations.

TABLE 180

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER WELLS DAM
2017

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					904	7,747	25,461	4,828	1,844	2,186	488		43,458
STEELHEAD					35	30	87	456	1,587	1,445	115		3,755
SOCKEYE						1,574	39,934	757	29	5	0		42,299
COHO									164	3,583	100		3,847
TOTAL					939	9,351	65,482	6,041	3,624	7,219	703		93,359
LAMPREY					0	1	13	103	158	12	0		287
BULL TROUT					18	39	5	0	0	0	0		62

*Jacks included

TABLE 181

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

WELLS PROJECT- FISH COUNTS

MAY 2017

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											
May 1	0			0				2	1	0		153.6	10.0	46.2
May 2	0			0				2	1	0		194.7	16.2	46.1
May 3	0			0				5	3	0		212.4	30.1	47.3
May 4	0			0				0	0	0		185.7	10.0	48.0
May 5	0			0				1	1	0		188.9	30.1	48.0
May 6	0			0				2	2	0		211.9	30.0	48.1
May 7	1			0				1	1	0		214.7	30.0	48.1
May 8	0			0				3	1	0		220.9	56.0	48.1
May 9	1			0				1	0	0		242.1	70.0	48.5
May 10	1			0				3	3	0		258.4	90.0	48.9
May 11	0			0				1	0	1		209.9	30.1	48.6
May 12	1			0				1	1	0		243.1	64.5	48.9
May 13	3			0				0	0	0		206.0	52.7	48.7
May 14	2			0				0	0	0		234.4	54.0	48.5
May 15	3			0				0	0	0		249.1	70.0	48.8
May 16	0			0				3	3	0		270.7	96.0	48.9
May 17	6			0				1	0	0		288.2	116.0	49.7
May 18	2			1				0	0	0		267.8	92.3	50.2
May 19	0			0				1	1	1		271.9	96.4	50.5
May 20	13			0				1	0	0		261.3	83.3	50.7
May 21	31			0				2	1	0		265.8	91.4	50.8
May 22	28			0				1	1	0		235.8	55.8	51.3
May 23	42			0				0	0	1		225.0	46.3	51.7
May 24	64			1				0	0	4		226.1	46.3	51.3
May 25	60			3				1	1	0		237.4	57.8	51.5
May 26	94			4				0	0	0		241.5	62.0	51.5
May 27	113			7				1	0	3		233.5	52.3	52.1
May 28	75			4				0	0	4		237.1	56.8	52.4
May 29	101			5				0	0	3		247.1	66.6	52.5
May 30	107			6				2	2	1		256.5	77.1	52.3
May 31	115			10				0	0	0		219.0	36.0	52.3
TOTAL	863			41				35	23	18				
AVG.	28			1				1	1	1		232.6	57.3	49.7
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD	BULL TROUT				
SPRING		863	41					35	23	18				

TABLE 182

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

WELLS PROJECT- FISH COUNTS

JUNE 2017

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	99			8			0	0	0	2	0	227.2	47.0	52.3
Jun 2	214			23			0	0	0	0	0	226.5	46.0	52.4
Jun 3	164			15			0	0	0	4	0	230.3	50.9	52.9
Jun 4	267			39			0	0	0	2	0	225.7	47.0	53.2
Jun 5	200			48			0	1	1	1	0	231.2	53.5	53.6
Jun 6	303			64			0	1	0	1	0	234.4	59.0	54.1
Jun 7	315			77			0	1	0	2	0	241.1	64.1	54.5
Jun 8	107			54			0	3	3	1	0	242.5	70.0	54.6
Jun 9	183			78			0	0	0	0	0	256.1	81.9	54.7
Jun 10	128			55			1	1	1	1	0	229.1	55.4	54.7
Jun 11	254			46			0	0	0	2	0	243.6	67.5	55.0
Jun 12	113			44			0	0	0	1	0	226.9	52.5	55.6
Jun 13	156			32			0	0	0	2	0	235.0	66.3	56.0
Jun 14	154			32			0	1	1	0	0	231.4	58.5	56.1
Jun 15	124			31			0	0	0	4	0	221.3	51.3	55.8
Jun 16	62			16			8	2	1	0	0	194.9	24.8	55.8
Jun 17	76			20			2	0	0	1	0	189.5	16.7	56.0
Jun 18	85			14			4	1	0	3	0	218.6	46.3	56.8
Jun 19	45			18			4	1	1	1	0	180.6	10.0	56.9
Jun 20	46			9			4	1	1	0	1	164.1	10.0	57.6
Jun 21	86			11			8	0	0	2	0	151.5	10.0	57.5
Jun 22	240			12			17	3	2	3	0	175.1	22.0	58.0
Jun 23	151			7			25	5	5	1	0	166.8	20.6	57.8
Jun 24	228			5			34	3	2	4	0	153.9	10.0	58.1
Jun 25	337			7			107	1	1	0	0	166.0	26.4	58.3
Jun 26	389			6			127	0	0	0	0	153.1	20.6	58.8
Jun 27	538			4			198	0	0	0	0	152.4	10.0	59.1
Jun 28	662			4			285	1	0	1	0	170.0	10.0	59.7
Jun 29		552		2			304	1	1	0	0	149.7	10.0	59.7
Jun 30		676		12			446	3	2	0	0	151.5	10.0	59.5
TOTAL	5,726	1,228		793			1,574	30	22	39	1			
AVG.	205	614		26			52	1	1	1	0	201.3	37.6	56.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,589	820
SUMMER	1,228	14
TOTAL	7,817	834

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
1,574	65	45	57	1

TABLE 183

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JULY 2017

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		865		21			723	2	2	0	0	150.9	13.5	59.9
Jul 2		673		15			814	1	0	1	0	163.8	43.7	60.1
Jul 3		689		7			1,232	0	0	1	0	137.3	11.5	60.3
Jul 4		904		14			1,275	2	2	1	0	132.7	10.0	60.9
Jul 5		598		8			1,363	1	0	1	2	78.7	8.8	61.2
Jul 6		1,287		9			1,852	3	3	0	0	105.6	10.0	61.0
Jul 7		912		10			2,269	3	3	0	0	65.9	8.8	61.4
Jul 8		1,076		15			2,640	2	2	0	0	119.2	8.9	61.6
Jul 9		1,089		17			1,836	1	1	0	2	92.6	7.8	61.7
Jul 10		1,005		22			3,238	2	1	0	0	167.3	38.3	61.5
Jul 11		1,040		32			2,133	4	3	0	3	151.2	10.0	61.8
Jul 12		734		20			2,404	3	0	0	1	133.5	10.0	60.8
Jul 13		1,084		18			2,307	3	3	0	0	132.6	10.0	62.0
Jul 14		915		25			2,264	2	2	0	0	145.0	21.2	62.1
Jul 15		1,025		20			1,498	2	1	0	2	126.6	10.0	62.7
Jul 16		1,000		27			1,372	0	0	0	0	119.4	10.0	62.7
Jul 17		1,339		30			1,509	3	2	0	0	128.0	10.0	32.0
Jul 18		809		15			1,260	2	2	0	0	102.4	10.0	32.0
Jul 19		757		22			1,104	1	1	0	0	118.6	10.0	32.0
Jul 20		855		30			1,020	3	0	0	0	120.3	10.0	62.6
Jul 21		759		34			975	7	2	0	1	116.4	10.0	62.7
Jul 22		674		23			870	1	0	0	0	123.6	10.0	63.2
Jul 23		624		25			833	6	0	0	0	132.2	10.0	62.7
Jul 24		509		21			566	4	1	0	0	114.3	10.0	62.4
Jul 25		312		25			456	5	2	0	0	98.1	8.5	63.4
Jul 26		543		29			433	2	1	0	0	109.6	10.0	63.2
Jul 27		595		37			515	5	2	0	0	137.1	10.0	63.4
Jul 28		806		37			438	5	4	0	1	94.7	7.8	63.6
Jul 29		448		28			245	2	2	0	0	100.5	7.8	64.2
Jul 30		392		21			305	4	1	1	1	90.8	7.8	64.5
Jul 31		457		29			185	6	4	0	0	102.0	7.8	64.1
TOTAL		24,775		686			39,934	87	47	5	13			
AVG.		799		22			1288	3	2	0	0	119.7	12.0	59.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,589	820
SUMMER	26,003	700
TOTAL	32,592	1,520

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
41,508	152	92	62	14

TABLE 184

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

WELLS PROJECT- FISH COUNTS

AUGUST 2017

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											
Aug 1		277		16			128	6	2		0	80.1	5.6	64.9
Aug 2		328		24			122	8	4		1	73.7	5.3	64.4
Aug 3		230		26			80	5	4		2	58.7	5.6	64.5
Aug 4		166		24			73	8	6		0	102.4	8.5	64.7
Aug 5		190		17			48	10	4		1	69.5	6.4	64.2
Aug 6		161		19			40	9	6		0	84.9	7.8	64.5
Aug 7		333		34			45	9	7		1	91.2	7.8	65.5
Aug 8		220		18			38	9	4		2	84.5	9.1	65.4
Aug 9		169		16			30	12	8		2	112.1	10.0	65.3
Aug 10		202		23			26	13	6		1	93.8	10.0	65.2
Aug 11		130		15			15	12	7		0	136.1	17.5	66.6
Aug 12		123		8			11	16	7		3	103.1	10.0	67.1
Aug 13		144		21			16	22	15		1	74.4	8.9	67.4
Aug 14		132		14			13	25	19		2	96.0	8.3	67.6
Aug 15		138		15			11	24	15		4	97.6	9.1	67.7
Aug 16		126		12			12	15	10		4	95.5	9.1	67.6
Aug 17		134		13			8	14	9		4	90.5	8.4	67.3
Aug 18		111		17			4	11	7		13	77.4	9.5	66.8
Aug 19		116		8			6	11	7		3	53.6	5.6	67.3
Aug 20		82		2			7	21	8		6	91.9	0.0	67.2
Aug 21		70		5			4	11	7		3	76.9	0.0	67.0
Aug 22		136		5			2	21	14		4	66.4	0.0	66.7
Aug 23		35		4			0	20	8		4	62.8	0.0	66.6
Aug 24		12		6			1	11	6		4	71.7	0.0	66.5
Aug 25		57		14			2	20	14		4	46.7	0.0	66.2
Aug 26		47		3			6	10	4		1	71.7	0.0	66.7
Aug 27		137		12			1	23	10		8	69.6	0.0	66.8
Aug 28		92		11			4	15	10		3	61.3	0.0	66.8
Aug 29			43	10			2	15	10		2	103.1	0.0	66.3
Aug 30			134	13			2	17	11		3	120.4	17.6	66.4
Aug 31			116	12			0	33	17		17	145.2	30.2	66.8
TOTAL		4,098	293	437			757	456	266		103			

AVG.	146	98	14				24	15	9		3	85.9	6.8	66.3
------	-----	----	----	--	--	--	----	----	---	--	---	------	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,589	820
SUMMER	30,101	1,102
FALL	293	35
TOTAL	36,983	1,957

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
42,265	608	358	62	117

TABLE 185

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

SEPTEMBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD					TROUT
Sep 1			99	7	0	0	1	29	15		4	54.5	0.0	67.2
Sep 2			47	10	0	0	0	27	15		2	90.9	3.3	67.7
Sep 3			41	10	0	0	2	26	18		4	78.7	6.9	68.0
Sep 4			48	7	0	0	2	33	20		6	64.5	0.0	68.0
Sep 5			29	3	0	0	1	40	25		3	93.8	0.0	67.6
Sep 6			32	1	0	0	0	33	16		4	116.1	0.0	67.3
Sep 7			15	3	0	0	2	32	14		5	54.2	0.0	67.4
Sep 8			24	2	0	0	5	44	17		5	54.7	0.0	67.1
Sep 9			26	3	0	0	2	28	10		1	51.2	0.0	66.9
Sep 10			47	11	0	0	2	47	22		6	51.1	0.0	66.7
Sep 11			46	6	0	0	0	36	21		8	61.3	0.0	66.9
Sep 12			71	10	0	0	2	34	17		6	46.0	0.0	67.2
Sep 13			54	4	0	0	0	33	20		8	51.4	0.0	66.8
Sep 14			58	9	0	0	3	45	19		9	61.2	0.0	66.4
Sep 15			40	13	0	0	1	52	21		11	61.9	0.0	66.3
Sep 16			12	8	0	0	0	30	19		5	46.4	0.0	66.4
Sep 17			21	8	0	0	0	47	16		6	43.5	0.0	65.8
Sep 18			30	3	3	0	0	46	22		12	41.9	0.0	65.3
Sep 19			14	8	2	0	0	42	18		26	36.6	0.0	64.9
Sep 20			34	7	3	0	1	57	29		3	32.5	0.0	65.0
Sep 21			29	15	1	0	0	50	22		6	19.6	0.0	65.1
Sep 22			69	20	3	0	0	58	25		2	29.1	0.0	64.8
Sep 23			57	7	3	0	2	76	34		0	64.6	0.0	64.6
Sep 24			82	6	2	0	0	79	29		1	42.0	0.0	64.5
Sep 25			51	6	4	0	1	59	16		3	61.0	0.0	64.9
Sep 26			118	6	6	0	1	57	21		2	58.1	0.0	65.0
Sep 27			87	4	6	1	0	62	37		1	40.2	0.0	65.3
Sep 28			131	12	21	0	0	115	62		3	59.7	0.0	65.5
Sep 29			109	14	49	0	1	138	71		4	27.5	0.0	65.4
Sep 30			80	20	59	1	0	132	49		2	43.7	0.0	32.0
TOTAL			1,601	243	162	2	29	1,587	740		158			
AVG.			53	8	5		1	53	25		5	54.6	0.3	65.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,589	820
SUMMER	30,101	1,102
FALL	1,894	278
TOTAL	38,584	2,200

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
162	2	42,294	2,195	1,098	62	275

TABLE 186

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

OCTOBER 2017

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD					TROUT
Oct 1			85	14	118	1	0	110	46		1	48.7	0.0	32.0
Oct 2			80	12	73	2	0	85	28		1	75.4	0.0	64.3
Oct 3			28	7	61	0	0	69	30		1	59.0	0.0	64.2
Oct 4			44	9	76	0	1	90	39		0	55.2	0.0	64.0
Oct 5			118	19	227	0	1	133	54		0	56.8	0.0	63.6
Oct 6			78	15	246	1	0	116	54		0	30.7	0.0	63.2
Oct 7			52	10	232	5	1	106	40		3	23.8	0.0	62.8
Oct 8			34	5	170	0	0	71	30		0	33.1	0.0	62.5
Oct 9			61	6	109	5	0	40	13		2	45.1	0.0	62.7
Oct 10			89	17	230	5	0	65	28		1	57.4	0.0	62.5
Oct 11			46	11	100	4	0	34	8		1	23.8	0.0	62.0
Oct 12			51	11	207	4	0	59	24		0	41.2	0.0	61.3
Oct 13			24	7	161	2	0	44	12		0	59.9	0.0	61.2
Oct 14			21	8	120	2	0	46	18		0	55.7	0.0	60.8
Oct 15			31	15	136		1	37	10		0	33.7	0.0	60.6
Oct 16			13	3	91	2	0	25	7		1	26.8	0.0	60.7
Oct 17			51	6	139	3	0	34	11		0	18.5	0.0	60.6
Oct 18			39	2	73	1	0	26	7		1	27.4	0.0	60.3
Oct 19			38	6	113	1	0	32	10		0	43.6	0.0	59.9
Oct 20			51	10	152	4	0	25	12		0	34.1	0.0	60.0
Oct 21			78	10	105	2	0	18	3		0	31.2	0.0	59.6
Oct 22			72	9	133	2	0	32	9		0	22.3	0.0	59.4
Oct 23			104	4	106	1	0	30	13		0	38.5	0.0	59.4
Oct 24			73	3	117	0	0	18	5		0	44.2	0.0	59.3
Oct 25			116	5	53	3	0	26	11		0	28.1	0.0	59.3
Oct 26			73	6	56	0	0	10	3		0	26.8	0.0	59.2
Oct 27			94	4	32	1	0	16	4		0	26.6	0.0	59.1
Oct 28			44	6	27	0	0	15	5		0	37.3	0.0	59.0
Oct 29			56	3	30	0	1	19	7		0	23.2	0.0	58.8
Oct 30			126	7	23	1	0	8	3		0	25.7	0.0	58.5
Oct 31			64	2	14	1	0	6	1		0	25.9	0.0	58.1
TOTAL			1,934	252	3,530	53	5	1,445	545		12			

AVG.			62	8	114	2	0	47	18		0	38.1	0.0	60.0
------	--	--	----	---	-----	---	---	----	----	--	---	------	-----	------

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	6,589	820
SUMMER	30,101	1,102
FALL	3,828	530
TOTAL	40,518	2,452

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
3,692	55	42,299	3,640	1,643	62	287

TABLE 187

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

NOVEMBER 2017

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER											
Nov 1			93	2	17	1		15	4		26.9	0.0	57.9
Nov 2			45	1	21	0		2	1		26.9	0.0	57.8
Nov 3			60	4	14	0		12	7		66.4	0.0	57.8
Nov 4			54	3	8	1		9	3		46.6	0.0	57.8
Nov 5			53	0	13	0		8	7		40.2	0.0	57.8
Nov 6			28	1	10	0		7	2		65.6	0.0	54.9
Nov 7			20	1	3	0		7	2		45.5	0.0	55.4
Nov 8			30	0	3	0		8	2		81.7	14.8	55.3
Nov 9			14	0	0	0		6	2		51.5	0.0	55.3
Nov 10			16	1	1	0		11	1		92.0	0.0	55.3
Nov 11			15	2	1	0		0	0		56.1	0.0	55.3
Nov 12			9	1	3	0		6	2		53.7	0.0	55.1
Nov 13			18	3	2	0		10	5		74.9	0.0	55.5
Nov 14			6	0	2	0		13	7		107.3	0.0	55.1
Nov 15			8	0	0	0		1	1		120.1	0.0	55.2
Nov 16											43.0	0.0	55.1
Nov 17											42.3	0.0	54.7
Nov 18											82.3	0.0	54.3
Nov 19											33.6	0.0	54.3
Nov 20											53.4	0.0	53.7
Nov 21											66.8	0.0	53.7
Nov 22											52.4	0.0	53.6
Nov 23											31.2	0.0	53.3
Nov 24											55.0	0.0	52.8
Nov 25											46.0	0.0	52.5
Nov 26											32.0	0.0	52.1
Nov 27											37.3	0.0	51.4
Nov 28											40.8	0.0	51.1
Nov 29											73.7	0.0	51.1
Nov 30											44.9	0.0	50.3

TOTALS		469	19	98	2		115	46					
AVG.		31	1	7	0		8	3			56.3	0.5	54.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE									
SPRING	6,589	820	3,790	57	42,299	3,755	1,689	62	287
SUMMER	30,101	1,102							
FALL	4,297	549							
TOTAL	40,987	2,471							

TABLE 188

**MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2017**

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
TOTAL					2,873	1,753	18,077	78,114	147,005	71,400	11,310		330,532
10-Year Average					85	47	468	2,655	4,886	1,892	239		10,273

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