



US Army Corps
of Engineers®
Portland District
Walla Walla District

Annual Fish Passage Report 2014



Columbia and Snake River Projects

2014

**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: 2009 – 2014....	2
Table 2. Fish Escapement at Mid Columbia River Dams: 2009 – 2014	3
Table 3. Steelhead over Columbia and Snake River Dams 1953 – 2014: by Run-Year	4-5
Table 4. Steelhead over Mid Columbia River Dams 1959 – 2014: 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.....	9-10
Table 5. Monthly Totals of Salmonids, Shad, and Lamprey: 2014	11
Table 6-17. Monthly Discharge, Water Quality Data, and Fish Count January through December: 2014.....	12-23
Table 18-21. Monthly Night Counts (June-September) for Salmonids, Shad, and Lamprey: 2014.....	24-27
Table 22a. Yearly Totals of Salmonids: 1938 – 2014	28-29
Table 22b. Yearly Totals of Salmonids (Daytime Counts): 1938 – 2014	30-31
Table 23. Monthly Count of Chinook Salmon: 1938 – 2014	32-33
Table 24. Monthly Count of Sockeye Salmon: 1938 – 2014	34-35
Table 25. Monthly Count of Coho Salmon: 1938 – 2014	36-37
Table 26. Monthly Count of Steelhead: 1938 – 2014	38-39
Table 27. Monthly Count of Shad: 1938 – 2014	40-41
Table 28. Monthly Count of Lamprey 1939 – 2014	42

THE DALLES DAM

Plate 3. The Dalles Dam General Site Map, Fish Passage Facilities.....	43
Fish Counting Schedule	44
Fishway Operating Schedule	44

TABLE OF CONTENTS
(Continued)

Fish Related Dewaterings 44-47

Table 29. Monthly Totals of Salmonids, Shad, and Lamprey: 201448

Table 30-38. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2014 49-57

Table 39-42. Monthly Night Counts (June-September) for Salmonids, Shad, and
Lamprey: 2014.....58-61

Table 43. Yearly totals of Salmonids: 1957 – 201462

Table 44. Monthly Count of Chinook Salmon: 1957 – 201463

Table 45. Monthly Count of Sockeye Salmon: 1957 – 201464

Table 46. Monthly Count of Coho Salmon: 1957 – 201465

Table 47. Monthly Count of Steelhead: 1957 – 201466

JOHN DAY DAM

Plate 4. John Day Dam General Site Map, Fish Passage Facilities67

Fish Counting Schedule68

Fishway Operating Schedule68

Fish Related Dewaterings 69-70

Table 48. Monthly Totals of Salmonids, Shad, and Lamprey: 201471

Table 49-59. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2014 72-82

Table 60-63. Monthly Night Counts (June-September) for Salmonids, Shad, and
Lamprey: 2014.....83-86

Table 64. Yearly totals of Salmonids: 1968 – 201487

Table 65. Monthly Count of Chinook Salmon: 1968 – 201488

Table 66. Monthly Count of Sockeye Salmon: 1968 – 201489

Table 67. Monthly Count of Coho Salmon: 1968 – 201490

Table 68. Monthly Count of Steelhead: 1968 – 201491

McNARY DAM

Plate 5. McNary Dam General Site Map, Fish Passage Facilities92

Fish Counting Schedule93

Fish Ladder Operating Schedule.....93

Fishway Activities 93-94

Table 69. Monthly Totals of Salmonids, Shad, and Lamprey: 201495

Table 70-78. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2014 96-104

TABLE OF CONTENTS
(Continued)

Table 79-81. Monthly Night Counts (July-September) for Salmonids, Shad, and Lamprey: 2014..... 105-107

Table 82. Yearly totals of Salmonids: 1954 – 2014108

Table 83. Monthly Count of Chinook Salmon: 1954 – 2014 109-110

Table 84. Monthly Count of Sockeye Salmon: 1954 – 2014 111-112

Table 85. Monthly Count of Coho Salmon: 1954 – 2014 113-114

Table 86. Monthly Count of Steelhead: 1954 – 2014 115-116

Snake River
Corps of Engineers Projects

ICE HARBOR DAM

Plate 6. Ice Harbor Dam General Site Map, Fish Passage Facilities117

Fish Counting Schedule118

Fish Ladder Operating Schedule.....118

Fishway Activities118

Table 87. Monthly Totals of Salmonids, Shad, and Lamprey: 2014119

Table 88-98. Monthly Discharge, Water Quality, and Fish Counts January through December: 2014..... 120-130

Table 99. Yearly totals of Salmonids: 1962 – 2014131

Table 100. Monthly Count of Chinook Salmon: 1962 – 2014132

Table 101. Monthly Count of Steelhead: 1962 – 2014133

LOWER MONUMENTAL DAM

Plate 7. Lower Monumental Dam General Site Map, Fish Passage Facilities134

Fish Counting Schedule135

Fish Ladder Operating Schedule.....135

Fishway Activities135

Table 102. Monthly Totals of Salmonids, Shad, and Lamprey: 2014136

Table 103-113. Monthly Discharge, Water Quality, and Fish Counts January through December: 2014..... 137-147

Table 114. Yearly totals of Salmonids: 1969 – 2014148

Table 115. Monthly Count of Chinook Salmon: 1969 – 2014149

TABLE OF CONTENTS
(Continued)

Table 116. Monthly Count of Steelhead: 1969 – 2014150

LITTLE GOOSE DAM

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

Fish Counting Schedule152

Fish Ladder Operating Schedule.....152

Fishway Activities 152-153

Table 117. Monthly Totals of Salmonids, Shad, and Lamprey: 2014154

Table 118-126. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2014..... 155-163

Table 127. Yearly totals of Salmonids: 1970 – 1981, 1991 – 2014164

Table 128. Monthly Count of Chinook Salmon: 1970 – 1981, 1991 – 2014165

Table 129. Monthly Count of Steelhead: 1970 – 1981, 1991 – 2014166

LOWER GRANITE DAM

Plate 9. Lower Granite Dam General Site Map, Fish Passage Facilities.....167

Fish Counting Schedule168

Fish Ladder Operating Schedule.....168

Fishway Activities 168-169

Table 130. Monthly Totals of Salmonids, Shad, and Lamprey: 2014170

Table 131-141. Monthly Discharge, Water Quality, and Fish Counts January through
December: 2014..... 171-181

Table 142-145. Monthly Night Counts (June-September) for Salmonids, Shad, and
Lamprey: 2014..... 182-185

Table 146. Yearly totals of Salmonids: 1975 – 2014186

Table 147. Monthly Count of Chinook Salmon: 1975 – 2014187

Table 148. Monthly Count of Steelhead: 1975 – 2014188

TABLE OF CONTENTS
(Continued)

Mid - Columbia River
Public Utility District Projects

PRIEST RAPIDS AND WANAPUM DAMS

Fishway Counting Schedule189
Fish Ladder Operating and Maintenance Schedule189
Fishway Activities 189-191

Table 149. Monthly Totals of Salmonids, Shad, and Lamprey: 2014192
Table 150-157. Monthly Discharge, Water Quality, and Fish Counts April through
November: 2014..... 193-200
Table 158. Yearly totals of Salmonids: 1982 – 2014201
Table 159. Monthly Count of Steelhead: 1960 – 2014202

ROCK ISLAND DAM

Fish Counting Schedule203
Fish Ladder Operating Schedule.....203
Fishway Activities 203-204

Table 160. Monthly Totals of Salmonids and Lamprey: 2014205
Table 161-168. Monthly Discharge, Water Quality, and Fish Counts April through
November: 2014..... 206-213
Table 169. Monthly Count of Steelhead: 1981 – 2014214

ROCKY REACH DAM

Fish Counting Schedule215
Fish Ladder Operating Schedule.....215
Fishway Activities215

Table 170. Monthly Totals of Salmonids and Lamprey: 2014216
Table 171-178. Monthly Discharge, Water Quality, and Fish Counts April through
November: 2014..... 217-224
Table 179. Monthly Count of Steelhead: 1981 – 2014225

TABLE OF CONTENTS
(Continued)

WELLS DAM

Fish Counting Schedule226
Fish Ladder Operating Schedule.....226
Juvenile Passage Facilities..... 226-227

Table 180. Monthly Totals of Salmonids and Lamprey: 2014228
Table 181-187. Monthly Discharge, Water Quality, and Fish Counts May through
November: 2014..... 229-235
Table 188. Monthly Count of Steelhead: 1976 – 2014.....236

Plate 1 Columbia and Snake River Projects

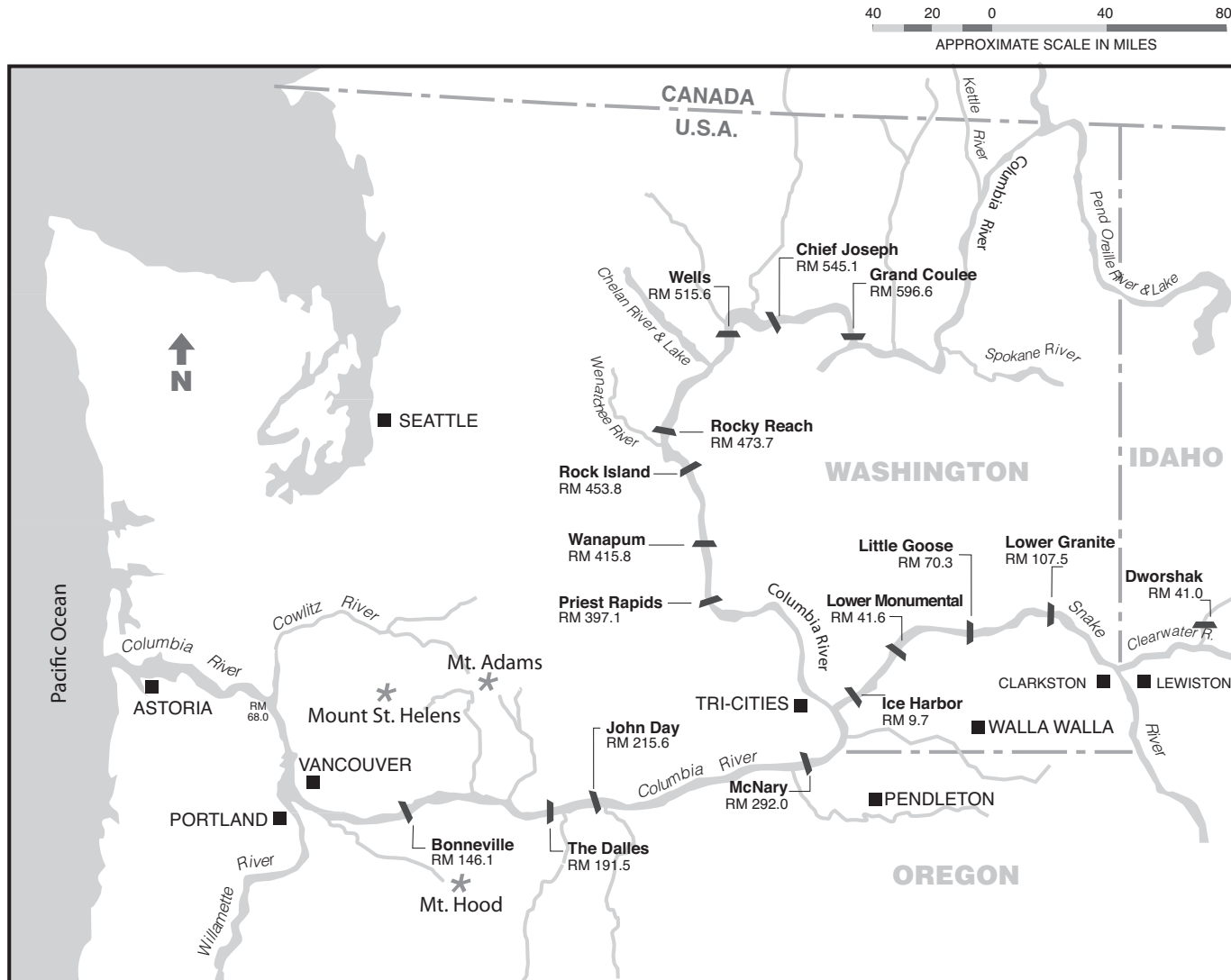


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS ON THE COLUMBIA AND SNAKE RIVERS: 2010-2014

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	M McNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
2010								
CHINOOK*	902,121	618,699	534,247	463,000	199,092	200,817	189,451	189,394
Spring*	256,996	201,385	191,240	163,257	107,235	103,232	98,446	100,612
Summer*	113,207	93,820	83,430	74,589	33,086	39,459	36,378	34,072
Fall*	531,918	323,494	259,577	225,154	58,771	58,126	54,627	54,710
Jacks	92,609	75,458	69,502	44,681	21,780	25,668	20,912	24,598
STEELHEAD	412,760	333,033	283,812	262,513	206,959	213,811	193,891	206,333
SOCKEYE	386,524	325,132	324,128	278,799	1,302	1,652	1,658	2,201
COHO*	127,142	31,374	23,269	15,089	1,735	2,003	2,008	1,902
Adults	120,223	29,091	21,506	13,673	1,521	1,707	1,727	1,509
Jacks	6,919	2,283	1,763	1,416	214	296	281	393
SHAD	1,042,471	1,241,769	**	276,673	70,853	**	**	3,279
LAMPREY	6,237	1,726	1,662	833	114	44	29	14
2011								
CHINOOK*	862,920	591,869	497,771	440,427	177,586	178,281	197,424	179,498
Spring*	218,042	164,310	143,224	132,995	87,467	87,926	90,813	81,405
Summer*	159,730	120,968	110,919	102,786	39,136	44,906	60,425	53,189
Fall*	485,148	306,591	243,628	204,646	50,983	45,449	46,186	44,904
Jacks	185,968	151,007	138,591	102,370	50,117	49,679	58,970	58,141
STEELHEAD	366,554	299,007	257,345	246,069	198,805	187,272	175,328	183,522
SOCKEYE	185,796	138,293	143,605	113,952	1,141	1,395	1,436	1,502
COHO*	149,710	76,753	65,668	44,304	6,727	4,829	4,851	5,348
Adults	145,138	72,120	62,795	42,220	5,914	4,579	4,445	5,057
Jacks	4,572	4,633	2,873	2,084	813	250	406	291
SHAD	948,070	**	**	224,905	37,409	**	**	174
LAMPREY	18,305	4,997	3,566	868	269	99	80	48
2012								
CHINOOK*	733,762	537,804	444,136	403,809	150,625	144,661	142,119	141,449
Spring*	165,666	124,244	114,410	107,550	74,862	71,499	71,696	69,891
Summer*	93,898	79,614	71,229	69,532	15,663	16,761	16,361	14,880
Fall*	474,198	333,946	258,497	226,727	60,100	56,401	54,062	56,678
Jacks	143,941	125,599	108,693	63,146	25,940	27,385	24,281	27,232
STEELHEAD	233,002	197,839	162,083	146,753	105,269	101,523	98,278	110,675
SOCKEYE	515,673	410,099	394,166	364,147	453	486	453	470
COHO*	59,921	33,898	33,859	18,201	2,985	2,501	2,662	2,635
Adults	54,882	31,037	30,216	16,776	2,653	2,216	2,402	2,433
Jacks	5,039	2,861	3,643	1,425	332	285	260	202
SHAD	2,432,394	**	**	675,421	175,936	**	**	7,413
LAMPREY	29,223	6,241	4,587	970	484	135	88	48
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

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

SEASON	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
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: 2010 - 2014

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
2010				
CHINOOK*	124,443	96,670	55,883	41,463
Spring*	31,471	33,063	9,489	8,257
Summer*	50,482	51,698	37,239	28,950
Fall*	42,490	11,909	9,155	4,256
Jacks	6,025	8,315	3,860	3,669
STEELHEAD	26,476	22,179	17,871	12,929
SOCKEYE	357,058	338,310	295,638	291,766
COHO*	2,655	7,695	2,691	1,234
Adults	2,389	6,209	2,181	1,224
Jacks	266	1,486	510	10
SHAD	1,815	**	**	**
LAMPREY	1,114	318	268	2
2011				
CHINOOK*	116,914	94,490	63,711	51,745
Spring*	21,276	23,916	11,304	8,122
Summer*	55,088	60,843	49,841	38,286
Fall*	40,550	9,731	2,566	5,337
Jacks	15,767	28,116	15,338	14,882
STEELHEAD	20,757	19,024	15,280	12,069
SOCKEYE	145,070	146,111	132,096	111,508
COHO*	23,392	31,045	7,951	5,796
Adults	22,098	30,341	7,812	5,784
Jacks	1,294	704	139	12
SHAD	271	**	**	**
LAMPREY	3,868	886	618	1
2012				
CHINOOK*	138,487	92,074	68,059	52,846
Spring*	20,510	21,889	7,011	6,011
Summer*	52,661	57,485	50,748	41,859
Fall*	65,316	12,700	10,300	4,976
Jacks	13,500	9,661	7,457	5,388
STEELHEAD	17,230	15,454	13,100	9,778
SOCKEYE	408,257	410,620	363,314	326,107
COHO*	9,957	8,277	2,440	2,042
Adults	8,380	8,115	2,397	2,035
Jacks	1,577	162	43	7
SHAD	1,939	**	**	**
LAMPREY	4,025	1,048	805	3
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

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 1953-2014

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 - 2014

BY RUN-YEAR (JUNE 1 - MAY 31)

RUN-YEAR	THE DALLES	JOHN DAY	M 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
Total	10,336,955	8,105,968	8,030,938	5,378,062	4,604,409	3,484,032	4,326,549
10-Year Average	279,667	265,063	229,902	173,597	171,475	158,766	172,167

*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, 2012-14.

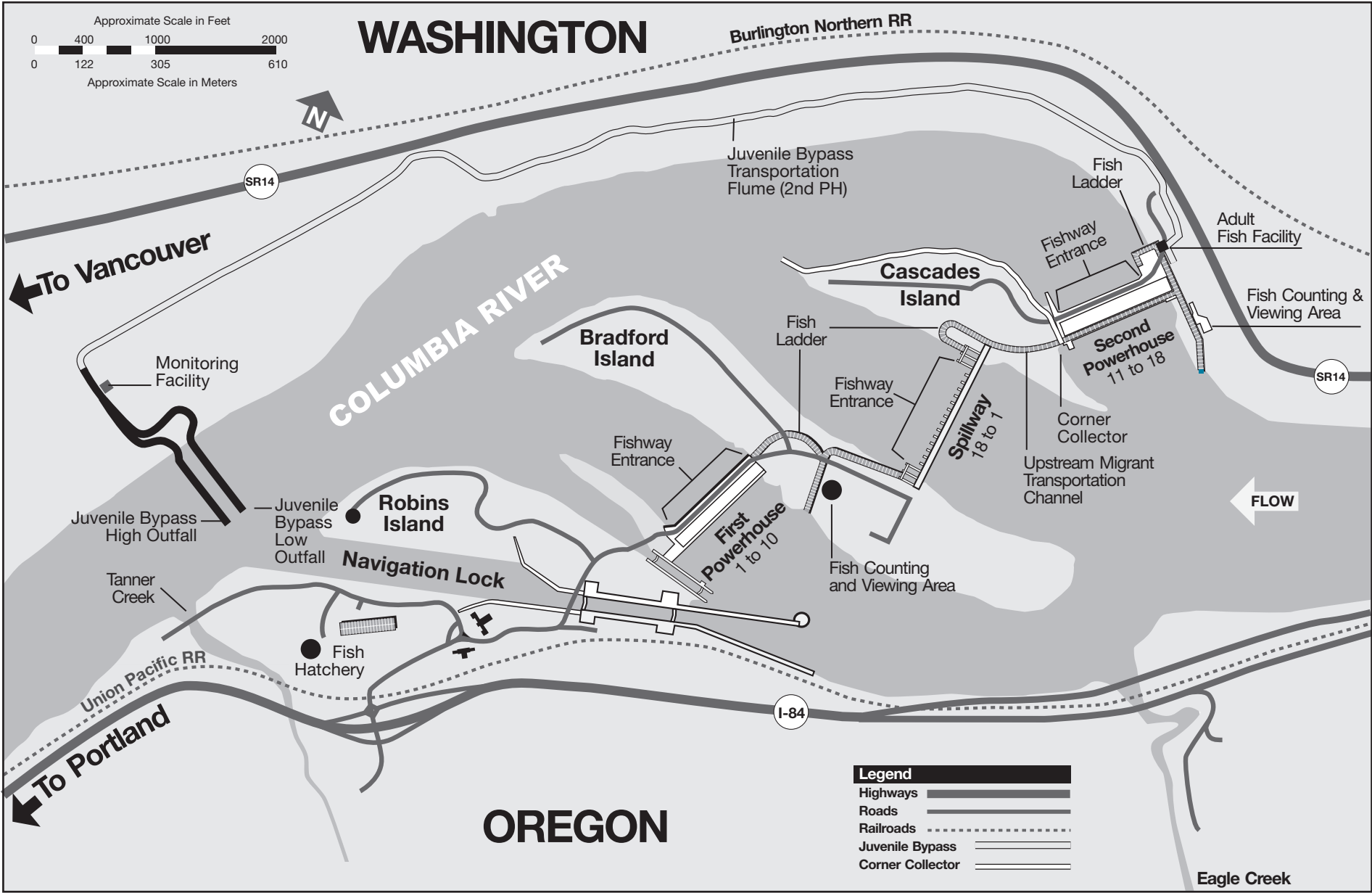
TABLE 4

STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2014
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
Total	685,435	478,629	352,094	305,177
10-Year Average	19,311	17,700	14,136	10,799

*Partial year

Plate 2 Bonneville Lock and Dam



BONNEVILLE DAM

FISH COUNTING SCHEDULE

Jan 1 – Mar 31	Video 0400-2000 hours (PST)
Apr 1 – Oct 31	Visual 0500-2100 hours (DST)
Jun 15- Sep 30	Night video 2100-0500 hours (DST)
Nov 1 – Dec 31	Video 0400-2000 hours (PST)

FISH FACILITIES OPERATION SCHEDULE

Fish Facility	OOS Date 2013	In Service Date 2014	OOS Date 2014	Reason for Outage
BI Lamprey Passage Structure	16 Oct 13	23 Apr 14	20 Oct 14	Winter maintenance
CI Lamprey Passage Structure	04 Oct 13	14 May 14	30 Oct 14	Winter maintenance
WS Lamprey Passage Structure	16 Oct 13	01 Apr 14	29 Oct 14	Winter maintenance
NDE Lamprey Flume System	30 Aug 13	19 May 14	02 Oct 14	Winter maintenance
Bradford Island Ladder	03 Dec 13	27 Feb 14	10 - 24 Nov 14	FV3-7 conduit inspection and Bradford bridge repair
A-branch Ladder	03 Dec 13	27 Feb 14	10 - 24 Nov 14	FV3-7 conduit inspection and Bradford bridge repair
B-branch Ladder	03 Dec 13	27 Feb 14	10 - 24 Nov 14	FV3-7 conduit inspection and Bradford bridge repair
Cascades Island ladder	N/A	N/A	03 Dec 14	Winter maintenance
UMT	N/A	N/A	03 Dec 14	Winter maintenance
WA Shore Ladder	N/A	N/A	08 Dec 14	Winter maintenance
DSM 2	11 Oct 13	18 Feb 14	---	Winter maintenance
B2CC	01 Sep 13	17 Mar 14	01 Sep 14	
AFF	28 Oct 13	01 Apr 14	19 Nov 14	Winter maintenance
SMF	12 Oct 13	03 Mar 14	31 Oct 14	Winter maintenance. Early 2013 outage for LFS construction on WA shore.

FISHWAY ACTIVITIES

The following are fishway modifications for the 2013/2014 passage year:

- Completion of AFF modifications to improve water velocities and sampling conditions to lessen impact of facility operations.
 - FGE testing in Unit 15 to improve gatewell conditions with a flow control plate
 - Cascades Island picket lead spacing reduced and side gaps amended to block lamprey access to the AWS and ladder exit area above the lower pickets.
 - Powerhouse 1 lamprey passage structure pumps relocated from forebay location to within the AWS to minimize debris buildup. Fry criteria screens placed on lamprey pumps.
 - Additional venting was added to the WA shore lamprey flume structure to reduce the amount of entrained air in the system.
-

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, outside agency personnel, and other project personnel follow procedures outlined in the Fish Passage Plan and detailed in the Fish Salvage Plan to minimize impacts on fish. Fish recovered are typically released into the forebay above the new navigation lock. Salvaged sturgeon and juvenile salmonids, however, are released below the dam at Hamilton Island. 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.

Bradford Island exit to junction pool (12/03/13): 5 Pacific lamprey, 7 steelhead, 1 chinook, 25 White sturgeon, 70 peamouth from the junction pool; 11 Pacific lamprey, 3 steelhead, 3 chinook, 2 shad, ~100 peamouth from the upper ladder.

B-branch diffuser pools (12/04/13): 2 steelhead, 1 chinook, ~200 White Sturgeon.

A-branch diffuser pools (12/04/13): 1 chinook, 4 steelhead, ~50 White Sturgeon.

Unit 17 tail logs (12/11/13): 1 Channel Catfish, 1 walleye, ~50 sculpin.

Unit 04 tail logs (12/18/13): 11 White Sturgeon, 10 sculpin spp., 10 suckers, 12 crayfish.

FG2-19 diffuser pit (01/13/14): 20 Pacific Lamprey, 1 sculpin spp. 1 lamprey had a damaged tail.

Unit 15 tail logs (04/08/14): 8 sculpin spp.

Unit 13 tail logs (04/15/14): 8 sculpin spp.

Willamette Falls Locks – chamber 3 (04/17/14): 2 unclipped Steelhead.

Unit 04 scroll case (04/22/14): 50 juvenile salmonids, 1 adult salmonids.

Unit 04 draft tube (04/22/14): 12 juvenile salmonids, 2 Chinook Salmon, 1 crayfish, 1 sucker, 20 juvenile lamprey.

Unit 06 tail logs (04/28/14): ~45 sculpin spp.

Unit 13 tail logs (05/20/14): 8 sculpin spp., 1 juvenile Chinook, 4 Pacific Lamprey.

Cascade Island AWS lamprey traps - USACE (05/20/14 – 07/02/14): 451 Pacific Lamprey.

Unit 04 tail logs (06/26/14): 2 steelhead, 8 Pacific Lamprey, 12 sculpin, 6 crawfish, 3 suckers.

Cascade Island exit to lower picket leads (07/01/14): 1 Sockeye Salmon, 1 Steelhead Trout, 50 Pacific Lamprey, 2 carp.

Unit 2 scroll case (07/07/14): 100 juvenile salmonids

Unit 2 draft tube (07/07/14): 30 Pacific Lamprey

Nav lock tainter valve #4 (07/19/14): 20 American Shad, 1 bass, 1 sculpin

Unit 2 tail logs (07/27/14): 15 sculpin, 3 crayfish, 2 pumpkinseed

Unit 13 draft tube (09/04/14): 3 White Sturgeon, 1 bullhead, 1 stickleback, 1 sculpin

Unit 5 tail logs (09/23/14): 10 redear sunfish, 3 suckers, 5 sculpins, 1 Northern Pikeminnow

Unit 13 tail logs (11/07/14): ~60 sculpin

Bradford Island junction pool (11/10/14): 20 salmonids, 100 White Sturgeon, 12 Pacific Lamprey

Adult Fish Facility (11/19/14): 40 White Sturgeon, 3 steelhead, 30 suckers, and 15 peamouth. One of the steelhead was in fair condition.

TABLE 5

MONTHLY TOTALS OF SALMONID, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER BONNEVILLE DAM.
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*	5		539	79,330	134,303	86,196	48,880	94,236	824,408	69,438	2,275	49	1,339,659
STEELHEAD	238	235	2,120	1,274	1,829	10,422	85,879	115,167	94,401	11,740	1,902	794	326,001
SOCKEYE	2			2	50	316,243	296,595	1,276	11				614,179
COHO*	3							6,085	185,680	85,640	16,840	286	294,534
CHUM									1	11	110	0	122
PINK							1						1
TOTAL	248	235	2,659	80,606	136,182	412,861	431,355	216,764	1,104,501	166,829	21,127	1,129	2,574,496
SHAD					487,086	2,084,362	31,012	809					2,603,269
LAMPREY				2	2,599	7,944	15,598	4,802	943	62	4	-1	31,953
STURGEON									3	29	5		37
BULL TROUT													0

*Jacks included

note: Counts were taken from 0400-2000 PST Jan 1 - Dec 31. Visual counting occurred Apr 1 - Oct 31.

Video counting occurred Jan 1 - Mar 31 and Nov 1 - Dec 31.

TABLE 6

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

BONNEVILLE PROJECT - FISH COUNTS

JANUARY 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped		PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD						KCFS	KCFS	SECCHI	
Jan 1	1			0	1	-1	0	1	0					121.6	0.5	7.0	40.0
Jan 2	0			0	5	0	0	1	0					120.7	0.5	7.0	40.0
Jan 3	0			0	1	0	0	0	0					118.9	0.5	7.0	40.0
Jan 4	0			0	-3	-2	0	1	-1					122.7	0.5	7.0	40.0
Jan 5	1			0	-3	0	0	7	4					126.4	0.5	7.0	41.0
Jan 6	0			0	0	0	0	8	4					145.9	0.5	7.0	41.0
Jan 7	0			0	2	0	0	-1	0					151.7	0.5	7.0	40.0
Jan 8	0			0	2	1	0	4	-1					146.9	0.5	7.0	40.0
Jan 9	0			0	0	0	0	6	4					152.7	0.5	7.0	40.0
Jan 10	0			0	0	0	0	46	16					146.2	0.5	7.0	40.0
Jan 11	1			1	0	0	0	19	12					112.8	0.5	7.0	39.0
Jan 12	1			0	0	0	0	31	14					150.2	0.5	7.0	40.0
Jan 13	0			0	0	0	0	29	11					136.8	0.5	7.0	41.0
Jan 14	0			0	0	0	0	24	9					125.8	0.5	6.5	41.0
Jan 15	0			0	0	0	0	11	6					123.1	0.5	7.0	41.0
Jan 16	0			0	0	0	0	0	0					154.1	0.5	7.0	41.0
Jan 17	0			0	0	0	1	11	6					138.1	0.5	7.0	41.0
Jan 18	0			0	0	0	0	3	3					125.8	0.5	7.0	41.0
Jan 19	0			0	0	0	0	-2	-3					127.7	0.5	7.0	41.0
Jan 20	0			0	0	0	0	2	0					140.4	0.5	7.0	40.0
Jan 21	0			0	0	0	0	4	1					149.5	0.5	7.0	40.0
Jan 22	0			0	0	0	0	3	1					138.2	0.5	7.0	39.0
Jan 23	0			0	0	0	0	3	-1					135.0	0.5	7.0	39.0
Jan 24	0			0	0	0	0	0	1					139.0	0.5	7.0	39.0
Jan 25	0			0	0	0	0	0	0					132.6	0.5	5.0	39.0
Jan 26	0			0	0	0	0	2	0					132.3	0.5	6.0	39.0
Jan 27	0			0	0	0	0	4	1					134.6	0.5	7.0	39.0
Jan 28	0			0	0	0	0	1	1					130.4	0.5	6.0	39.0
Jan 29	0			0	0	0	0	3	2					118.7	0.5	7.0	39.0
Jan 30	0			0	0	0	0	14	5					114.0	0.5	7.0	40.0
Jan 31	0			0	0	0	0	3	-1					120.2	0.5	7.0	40.0
TOTAL	4			1	5	-2	2	238	94								
AVG	0			0	0	0	0	8	3					133.3	0.5	6.9	40.0

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

TABLE 7
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS													FEBRUARY 2014					
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					7			2						117.4	0.5	7.0	40.0	
Feb 2					4			3						121.1	0.5	7.0	41.0	
Feb 3					4			3						120.0	0.5	7.0	41.0	
Feb 4					1			0						125.1	0.5	7.0	40.0	
Feb 5					0			0						132.0	0.5	7.0	39.0	
Feb 6					0			0						137.3	0.5	7.0	38.0	
Feb 7					2			3						133.2	0.9	7.0	38.0	
Feb 8					2			0						135.6	1.1	7.0	38.0	
Feb 9					1			1						132.6	1.2	7.0	37.0	
Feb 10					2			1						130.1	1.1	7.0	36.0	
Feb 11					-2			0						124.6	0.9	7.0	35.0	
Feb 12					8			4						111.6	0.5	7.0	35.0	
Feb 13					11			6						100.8	0.5	7.0	36.0	
Feb 14					17			3						134.5	0.5	7.0	36.0	
Feb 15					10			6						168.9	0.5	6.0	37.0	
Feb 16					16			6						139.5	0.6	4.0	38.0	
Feb 17					25			13						162.0	0.6	4.0	38.0	
Feb 18					19			6						160.7	0.6	3.5	38.0	
Feb 19					19			8						154.5	0.6	3.0	38.0	
Feb 20					17			9						143.3	0.6	2.5	38.0	
Feb 21					10			7						124.1	0.6	2.0	38.0	
Feb 22					-4			1						142.5	0.6	2.5	38.0	
Feb 23					15			9						131.6	0.6	2.0	38.0	
Feb 24					11			7						134.3	0.6	3.0	39.0	
Feb 25					10			6						125.1	0.6	4.5	38.0	
Feb 26					3			1						122.0	0.6	4.5	38.0	
Feb 27					8			5						133.0	0.6	3.0	38.0	
Feb 28					19			8						141.4	0.8	4.5	38.0	
TOTAL					235			118										
AVG					8			4						133.5	0.7	5.3	37.9	

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

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

BONNEVILLE PROJECT - FISH COUNTS

MARCH 2014

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
Mar 1	0			0				19	12					147.8	1.1	3.5	38.0	
Mar 2	0			0				8	3					165.9	1.1	5.0	37.0	
Mar 3	0			0				26	16					174.7	1.2	4.0	38.0	
Mar 4	0			0				51	24					200.3	1.3	5.0	38.0	
Mar 5	0			0				66	24					187.0	1.3	5.0	39.0	
Mar 6	0			0				139	68					226.3	1.2	5.0	39.0	
Mar 7	0			0				90	24					252.4	1.3	3.0	39.0	
Mar 8	1			0				36	15					271.9	13.1	3.0	41.0	
Mar 9	0			0				56	12					282.8	33.0	4.0	41.0	
Mar 10	0			0				34	7					277.9	40.0	2.5	41.0	
Mar 11	0			0				56	19					303.0	40.8	2.0	41.0	
Mar 12	0			0				60	22					301.0	68.4	3.0	40.0	
Mar 13	0			0				49	22					284.4	60.2	2.0	42.0	
Mar 14	0			0				61	8					257.2	42.6	3.0	42.0	
Mar 15	1			0				55	13					267.5	20.5	3.5	41.0	
Mar 16	2			0				101	23					247.0	47.2	2.5	42.0	
Mar 17	2			0				81	10					263.3	69.7	3.0	43.0	
Mar 18	0			0				107	24					262.2	38.2	2.5	44.0	
Mar 19	5			0				66	12					267.5	40.0	2.5	44.0	
Mar 20	3			0				74	2					273.3	49.2	2.0	44.0	
Mar 21	8			0				132	30					247.5	59.6	1.5	44.0	
Mar 22	11			0				95	14					260.2	27.0	1.5	44.0	
Mar 23	20			0				94	26					242.4	38.0	2.0	44.0	
Mar 24	27			1				81	28					223.5	19.1	2.0	44.0	
Mar 25	43			0				77	29					215.6	1.2	2.5	44.0	
Mar 26	47			1				73	22					221.3	1.2	3.0	44.0	
Mar 27	85			2				89	32					224.4	1.2	3.5	44.0	
Mar 28	89			1				93	33					238.8	1.2	3.5	44.0	
Mar 29	65			1				58	13					231.1	11.5	3.5	44.0	
Mar 30	30			1				53	22					250.4	2.5	3.0	45.0	
Mar 31	92			1				40	9					262.8	21.5	3.0	45.0	
TOTAL	531			8				2,120	618									
AVG	17			0				68	20					242.9	24.4	3.1	41.9	

Note: January 1 to March 31 counts were from video tape. 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 2014

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
Apr 1	19			0			0	26	12			0		243.9	33.5	3.0	45.0
Apr 2	66			0			0	32	8			0		234.9	33.2	3.5	44.0
Apr 3	157			1			0	46	9			0		239.5	26.8	4.0	44.0
Apr 4	141			1			0	37	11			0		226.2	26.3	4.0	45.0
Apr 5	157			2			0	44	12			0		241.0	18.4	4.0	45.0
Apr 6	212			1			0	44	13			1		232.4	28.6	4.0	45.0
Apr 7	187			1			1	48	24			0		219.9	20.8	4.0	45.0
Apr 8	243			1			0	59	20			0		219.4	26.1	4.0	45.0
Apr 9	346			1			0	61	14			0		222.9	34.6	4.0	45.0
Apr 10	413			1			0	46	9			0		261.3	36.5	5.0	46.0
Apr 11	445			0			0	43	13			0		244.8	99.9	5.0	48.0
Apr 12	787			3			0	44	20			0		236.7	100.4	5.0	48.0
Apr 13	895			6			0	57	20			0		246.5	100.4	5.0	48.0
Apr 14	1,368			5			0	52	18			0		234.7	100.4	4.5	49.0
Apr 15	1,756			5			0	44	10			0		225.3	100.4	4.0	49.0
Apr 16	1,509			4			0	34	8			0		268.3	101.9	5.0	50.0
Apr 17	1,384			8			0	38	13			0		261.5	100.6	4.5	50.0
Apr 18	2,256			9			0	46	12			0		245.0	100.9	4.0	50.0
Apr 19	1,350			5			0	42	11			0		261.1	100.4	4.0	50.0
Apr 20	2,264			10			0	28	-2			0		272.0	100.5	4.0	50.0
Apr 21	2,866			18			0	45	15			0		255.9	100.5	4.0	50.0
Apr 22	3,701			27			0	26	5			0		256.9	100.4	4.5	50.0
Apr 23	2,512			30			0	26	13			0		270.9	100.7	3.0	50.0
Apr 24	4,057			47			0	36	4			0		264.6	100.8	4.0	50.0
Apr 25	4,355			54			0	53	8			0		270.0	100.5	4.0	50.0
Apr 26	7,176			76			0	41	8			1		272.9	100.8	4.0	50.0
Apr 27	3,906			54			0	32	9			0		276.6	101.2	4.5	50.0
Apr 28	7,709			128			0	48	5			0		291.9	106.7	3.5	50.0
Apr 29	8,481			186			0	53	7			0		276.0	100.3	4.5	50.0
Apr 30	17,409			519			1	43	10			0		279.2	101.0	4.0	50.0
TOTAL	78,127			1,203			2	1,274	339			2					
AVG	2,604			40			0	42	11			0		251.7	76.8	4.2	48.0
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					unclipped SOCKEYE	unclipped STEELHEAD			LAMPREY					
TOTALS TO DATE																	
SPRING		78,657	1,211				2	2,643	681			2					

TABLE 10

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

BONNEVILLE PROJECT - FISH COUNTS

MAY 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped					SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM							
May 1	14,011			662			0	37	8			0	0		273.1	100.8	4.0	50.0
May 2	9,846			669			0	45	12			1	0		253.1	100.1	4.0	51.0
May 3	4,520			314			1	30	6			3	0		267.3	100.9	5.0	51.0
May 4	5,775			535			0	35	6			0	0		295.8	100.6	4.5	51.0
May 5	6,944			1,032			0	38	8			6	0		286.5	100.3	3.5	50.0
May 6	5,201			922			4	40	4			4	0		326.6	106.6	4.0	51.0
May 7	5,309			1,374			0	70	8			13	1		307.3	130.4	4.0	51.0
May 8	4,259			1,258			0	50	4			19	0		302.0	105.7	4.5	51.0
May 9	4,537			1,500			0	30	-2			25	0		291.2	105.2	4.5	52.0
May 10	3,042			992			0	47	5			11	0		277.6	103.7	4.5	53.0
May 11	3,866			1,790			0	34	1			123	0		280.0	99.9	4.5	53.0
May 12	3,563			1,529			0	40	2			1,215	0		299.5	100.7	5.5	53.0
May 13	2,104			1,018			0	46	11			1,395	4		300.8	115.6	4.5	54.0
May 14	1,995			1,028			0	67	12			2,640	2		277.3	115.0	5.0	54.0
May 15	1,923			851			0	52	5			5,119	4		272.0	100.7	4.5	55.0
May 16	2,639			1,154			0	77	6			4,904	28		270.9	111.8	5.0	55.0
May 17	2,757			986			0	82	10			6,010	25		311.6	103.8	5.0	56.0
May 18	1,969			728			1	75	8			6,163	54		334.2	124.9	5.0	56.0
May 19	2,064			777			0	103	16			4,546	52		344.0	145.0	4.5	56.0
May 20	2,273			746			0	70	14			10,056	187		353.8	155.7	4.0	56.0
May 21	1,827			584			0	84	12			23,193	309		335.4	163.1	4.0	56.0
May 22	1,675			529			0	50	8			13,591	164		323.6	144.1	4.0	57.0
May 23	2,093			598			1	65	16			10,134	188		340.1	129.0	4.5	58.0
May 24	1,955			580			1	61	9			15,742	137		359.6	138.8	4.5	58.0
May 25	2,069			430			2	79	17			41,232	260		369.9	157.0	5.0	58.0
May 26	1,929			415			0	64	14			26,859	298		354.2	162.6	4.5	58.0
May 27	2,001			444			3	61	10			38,311	239		372.2	152.8	3.5	58.0
May 28	1,895			372			3	70	24			43,081	180		370.7	169.6	4.5	59.0
May 29	1,691			399			8	70	16			56,798	232		358.6	169.4	4.0	58.0
May 30	1,652			312			16	74	18			75,911	127		360.3	157.6	5.0	59.0
May 31	2,037			354			10	83	15			99,981	108		335.3	156.8	4.0	59.0
TOTAL	109,421			24,882			50	1,829	303			487,086	2,599					
AVG	3,530			803			2	59	10			15,712	84		316.3	126.7	4.4	54.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	188,078	26,093
SPRING		

unclipped		
SOCKEYE	STEELHEAD	STEELHEAD
52	4,472	984

SHAD	LAMPREY
487,086	2,601

TABLE 11

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped					SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM			KCFS	KCFS	SECCHI	DEG F	
Jun 1		2,165		334			17	98	25			83,856	174		324.9	135.4	4.0	58.0
Jun 2		1,956		318			30	95	26			94,964	103		357.9	128.3	3.0	58.0
Jun 3		2,136		322			76	117	35			84,472	146		343.4	147.4	3.0	58.0
Jun 4		2,471		345			120	110	24			72,975	306		333.2	125.6	3.5	59.0
Jun 5		2,394		374			192	151	37			87,422	213		333.2	118.1	3.5	60.0
Jun 6		2,701		358			399	171	35			118,132	478		332.0	113.8	3.5	60.0
Jun 7		2,973		421			640	155	37			121,348	549		313.5	107.2	4.5	60.0
Jun 8		2,962		475			851	174	48			169,741	466		314.5	100.7	4.0	60.0
Jun 9		2,497		427			1,101	259	57			77,474	451		289.2	100.2	3.5	61.0
Jun 10		2,568		459			1,648	234	65			64,581	204		299.2	100.0	3.0	61.0
Jun 11		2,698		482			2,420	266	72			85,323	163		285.9	100.3	4.0	62.0
Jun 12		2,584		548			3,725	269	66			91,200	241		247.4	100.6	5.0	62.0
Jun 13		2,520		563			3,944	233	79			63,315	587		250.9	101.5	5.0	62.0
Jun 14		2,529		509			4,297	249	81			60,082	219		244.5	100.7	4.5	62.0
Jun 15		1,709		379			3,869	234	60			37,112	118		224.1	100.0	5.0	62.0
Jun 16		2,143		460			4,968	193	71			47,955	348		205.2	100.3	5.0	62.0
Jun 17		2,212		532			5,233	230	77			65,620	294		229.8	96.7	5.0	62.0
Jun 18		2,973		543			7,404	281	79			123,633	127		265.8	96.0	5.0	62.0
Jun 19		2,024		437			8,533	307	104			106,465	446		252.6	91.1	4.0	62.0
Jun 20		2,021		486			14,506	411	142			106,434	198		245.9	96.1	5.0	62.0
Jun 21		2,470		478			23,241	441	167			64,888	194		266.8	100.3	5.0	62.0
Jun 22		2,929		630			26,722	491	188			78,464	96		285.4	95.2	5.5	62.0
Jun 23		2,784		578			26,366	514	229			58,660	134		284.6	91.6	4.5	62.0
Jun 24		2,425		530			26,888	592	299			25,349	250		264.7	95.1	6.5	62.0
Jun 25		2,814		593			27,173	616	311			21,357	126		282.0	99.5	5.0	62.0
Jun 26		2,868		631			30,262	659	336			22,782	145		266.8	95.2	5.0	62.0
Jun 27		2,017		444			24,834	609	330			22,546	185		277.9	90.9	5.5	63.0
Jun 28		1,753		410			19,588	692	372			10,643	207		266.0	95.3	4.5	63.0
Jun 29		1,954		412			24,408	758	404			7,933	339		280.7	101.8	6.0	63.0
Jun 30		1,995		473			22,788	813	284			9,636	437		297.5	102.6	5.0	64.0
TOTAL		72,245		13,951			316,243	10,422	4,140			2,084,362	7,944					
AVG		2,408		465			10,541	347	138			69,479	265		282.2	104.3	4.5	61.3

RUN YEAR	CHINOOK	CHINOOK	unclipped			SHAD	LAMPREY
TOTALS TO DATE	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
SPRING	188,078	26,093	316,295	14,894	5,124	2,571,448	10,545
SUMMER	72,245	13,951					
TOTAL	260,323	40,044					

TABLE 12

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT		CHINOOK COHO		unclipped					SHAD	LAMPREY	STURGEON	DISCH SPILL TURBIDITY					
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				PINK	CHUM	KCFS	KCFS	SECCHI	DEG F
Jul 1		2,387		642			23,610	787	441	0		5,712	643		294.3	91.5	5.0	64.0
Jul 2		2,842		645			23,946	1,018	565	0		4,481	715		280.2	94.7	4.0	65.0
Jul 3		2,189		519			25,612	1,203	720	0		2,970	446		270.2	99.3	4.5	65.0
Jul 4		2,495		677			34,253	1,357	755	0		1,547	349		273.8	100.4	5.5	66.0
Jul 5		1,853		559			34,549	1,408	729	0		1,592	334		259.9	90.0	4.5	66.0
Jul 6		1,627		478			26,182	1,488	875	0		1,053	396		224.6	95.1	6.0	66.0
Jul 7		1,715		545			22,831	2,039	1,198	0		1,428	373		238.4	99.4	7.0	66.0
Jul 8		2,003		557			19,087	2,209	1,276	0		1,462	454		247.2	95.8	7.0	66.0
Jul 9		1,712		497			12,858	2,169	1,263	0		831	790		229.8	90.3	5.0	67.0
Jul 10		1,328		354			12,305	2,414	1,425	0		735	1,027		219.7	95.1	7.0	68.0
Jul 11		1,378		375			9,638	2,349	1,236	0		1,540	229		216.2	100.4	5.5	68.0
Jul 12		1,469		436			7,415	2,242	1,271	0		841	276		236.6	95.5	6.0	68.0
Jul 13		1,106		355			5,636	2,267	1,286	0		806	500		222.8	90.4	7.0	68.0
Jul 14		1,060		321			6,281	2,410	1,317	0		419	498		206.9	95.1	7.0	69.0
Jul 15		864		356			6,035	2,441	1,364	0		457	738		191.5	100.5	7.0	69.0
Jul 16		882		282			4,528	3,155	1,792	0		557	843		209.4	96.2	7.0	69.0
Jul 17		881		344			4,737	2,969	1,599	0		313	679		191.6	90.2	7.0	70.0
Jul 18		1,022		347			3,152	2,756	1,489	0		284	693		210.7	94.9	7.0	71.0
Jul 19		1,169		332			2,755	3,134	1,732	0		414	647		177.3	100.4	6.5	71.0
Jul 20		937		263			2,345	3,291	1,908	0		457	498		184.1	96.1	7.0	71.0
Jul 21		719		187			1,808	3,092	1,731	0		484	603		203.2	90.8	7.0	69.0
Jul 22		619		173			1,642	3,675	2,145	0		388	607		179.4	95.1	7.0	69.0
Jul 23		508		142			1,365	3,668	1,976	0		269	674		172.9	99.9	7.0	69.0
Jul 24		610		224			1,061	4,347	2,391	0		230	319		185.4	94.9	7.0	69.0
Jul 25		438		208			712	3,412	1,837	1		198	302		205.8	90.7	7.0	69.0
Jul 26		394		188			532	2,986	1,530	0		189	403		197.3	95.4	7.0	69.0
Jul 27		659		239			501	3,683	1,886	0		381	365		195.8	100.5	7.0	69.0
Jul 28		662		329			399	3,906	1,885	0		389	301		204.6	95.8	7.0	69.0
Jul 29		758		324			366	4,521	2,163	0		286	385		192.1	90.5	7.0	70.0
Jul 30		643		280			246	5,264	2,526	0		145	309		189.2	95.4	7.0	70.0
Jul 31		560		213			208	4,219	1,984	0		154	202		195.9	100.6	7.0	70.0
TOTAL		37,489		11,391			296,595	85,879	46,295	1		31,012	15,598					
AVG		1,209		367			9,568	2,770	1,493	0		1,000	503		216.3	95.5	6.4	68.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	unclipped				SHAD	LAMPREY
TOTALS TO DATE	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY
SPRING	188,078	26,093	612,890	100,773	51,419	1	2,602,460	26,143
SUMMER	109,734	25,342						
TOTAL	297,812	51,435						

TABLE 13

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped					SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM			KCFS	KCFS	SECCHI	DEG F			
Aug 1			614	271	0	0	246	4,806	2,220				99	196			176.8	96.4	7.0	70.0
Aug 2			540	264	0	0	157	4,539	1,878				88	213			165.2	91.5	7.0	71.0
Aug 3			444	210	0	1	141	3,784	1,620				75	275			153.6	96.6	7.0	71.0
Aug 4			287	154	0	0	108	3,281	1,543				46	192			172.7	100.4	7.0	71.0
Aug 5			244	84	4	0	98	2,782	1,380				38	194			156.6	95.1	7.0	71.0
Aug 6			363	172	2	1	108	3,668	1,780				47	137			154.4	90.3	7.0	71.0
Aug 7			317	148	1	1	73	3,515	1,544				48	157			177.0	96.1	7.0	71.0
Aug 8			433	167	1	1	70	3,479	1,649				35	317			159.4	100.8	7.0	71.0
Aug 9			375	156	6	1	57	3,004	1,454				72	95			167.5	96.6	6.5	70.0
Aug 10			650	177	0	2	41	3,836	1,789				33	113			169.2	91.4	7.0	70.0
Aug 11			710	271	14	8	36	4,210	1,876				25	156			166.0	95.9	7.0	70.0
Aug 12			1,173	381	36	16	21	6,144	2,720				17	210			177.0	100.2	7.0	71.0
Aug 13			1,374	336	61	22	19	8,717	3,758				16	241			168.5	95.8	7.0	72.0
Aug 14			1,185	253	56	24	8	7,473	2,871				17	160			159.9	91.0	7.0	73.0
Aug 15			1,143	206	39	6	18	5,778	2,123				22	506			158.8	96.5	7.0	72.0
Aug 16			966	156	49	6	8	3,848	1,302				3	252			148.2	100.8	7.0	73.0
Aug 17			2,809	246	145	26	7	2,665	989				6	147			139.1	95.5	6.0	73.0
Aug 18			4,353	390	361	37	8	3,043	1,260				14	140			148.7	93.2	6.0	72.0
Aug 19			2,570	363	250	28	4	4,441	1,692				12	25			153.3	98.2	7.0	72.0
Aug 20			1,775	240	116	16	5	4,177	1,367				3	141			145.2	101.1	7.0	73.0
Aug 21			1,076	173	105	11	12	3,189	975				8	86			140.5	94.5	7.0	73.0
Aug 22			749	130	45	9	0	1,435	462				21	60			145.7	93.1	7.0	73.0
Aug 23			1,158	142	41	7	1	1,094	366				2	46			144.0	96.3	7.0	72.0
Aug 24			4,615	340	71	12	0	1,304	571				12	49			139.9	100.4	7.0	71.0
Aug 25			4,921	468	101	25	3	2,080	831				6	118			138.3	96.0	7.0	71.0
Aug 26			5,433	623	218	46	6	2,894	1,057				6	71			140.1	92.7	7.0	71.0
Aug 27			7,271	810	572	108	12	3,905	1,335				16	114			153.6	95.1	7.0	72.0
Aug 28			9,071	909	595	103	3	3,983	1,371				7	190			149.0	100.3	7.0	72.0
Aug 29			11,418	1,256	735	124	4	3,380	1,155				5	98			143.1	95.2	7.0	73.0
Aug 30			6,382	747	768	91	2	2,541	864				8	53			141.9	93.0	7.0	73.0
Aug 31			8,625	949	848	113	0	2,172	742				2	50			141.3	97.8	7.0	72.0
TOTAL			83,044	11,192	5,240	845	1,276	115,167	46,544				809	4,802						
AVG			2,679	361	169	27	41	3,715	1,501				26	155			154.2	96.1	6.9	71.6
RUN YEAR																				
TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK			SHAD	LAMPREY							
SPRING	188,078	26,093		5,240	845	614,166	215,940	97,963	1			2,603,269	30,945							
SUMMER	109,734	25,342																		
FALL	83,044	11,192																		
TOTAL	380,856	62,627																		

TABLE 14

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

BONNEVILLE PROJECT - FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped					DISCH KCFs	SPILL KCFs	TURBIDITY SECCHI	TEMP DEG F			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM					SHAD	LAMPREY	STURGEON
Sep 1			15,250	1,293	1,325	144	4	2,112	704		0		51	0	107.0	97.5	7.0	72.0
Sep 2			21,479	2,123	1,816	141	2	2,293	805		0		79	0	101.5	8.9	7.0	71.0
Sep 3			24,855	2,434	2,555	125	0	2,902	951		0		97	0	100.4	3.6	6.0	71.0
Sep 4			23,664	2,226	2,493	124	1	3,029	983		0		88	0	100.3	1.3	7.0	71.0
Sep 5			16,054	1,471	1,981	132	1	2,173	628		0		84	0	106.2	1.3	7.0	70.0
Sep 6			40,367	2,902	4,965	281	1	2,200	629		0		31	0	104.8	1.3	4.0	70.0
Sep 7			67,024	5,447	9,615	640	0	3,802	1,437		0		32	0	91.6	1.3	7.0	70.0
Sep 8			67,521	6,458	9,785	700	1	5,371	1,603		0		18	0	83.8	1.3	5.0	69.0
Sep 9			45,809	5,401	8,561	536	1	5,550	1,548		0		46	0	82.3	1.4	7.0	69.0
Sep 10			30,068	4,398	7,486	416	0	4,848	1,289		0		56	1	87.8	1.3	7.0	70.0
Sep 11			26,034	3,558	9,738	283	0	3,762	1,037		0		17	1	88.5	1.4	7.0	70.0
Sep 12			30,202	4,558	13,718	362	0	3,858	1,145		0		20	0	91.8	1.4	7.0	69.0
Sep 13			29,335	4,193	11,540	346	0	4,014	1,104		0		18	0	104.3	1.7	7.0	69.0
Sep 14			32,859	4,386	10,526	264	1	3,544	998		0		13	0	88.5	1.5	7.0	68.0
Sep 15			31,766	4,938	11,831	414	0	3,784	1,138		0		18	0	93.1	1.3	7.0	69.0
Sep 16			24,533	4,742	10,133	605	0	4,079	1,166		0		35	0	90.3	1.4	6.0	67.0
Sep 17			20,898	4,469	6,620	464	0	4,088	1,131		0		34	0	100.8	1.3	7.0	67.0
Sep 18			21,801	4,510	5,297	393	0	4,165	1,144		0		36	0	91.5	1.3	7.0	68.0
Sep 19			21,130	4,964	4,145	317	0	4,152	1,100		0		23	0	91.6	1.3	7.0	68.0
Sep 20			16,878	3,293	3,458	164	-1	2,959	795		0		38	0	85.4	1.3	7.0	68.0
Sep 21			21,444	4,521	4,296	196	1	2,941	801		0		17	0	84.2	1.3	7.0	68.0
Sep 22			18,540	4,675	5,060	225	0	2,970	790		0		17	0	85.3	1.2	7.0	68.0
Sep 23			10,943	3,009	3,861	226	0	2,463	679		0		16	1	109.2	1.2	6.0	68.0
Sep 24			12,486	2,772	3,720	194	0	2,444	697		0		-1	0	122.8	1.2	7.0	68.0
Sep 25			11,119	3,158	4,366	237	0	2,311	616		0		9	0	97.7	1.4	7.0	68.0
Sep 26			7,904	2,442	3,571	248	0	2,217	605		0		14	0	88.1	1.2	7.0	68.0
Sep 27			8,348	2,589	3,730	304	0	2,285	589		0		7	0	95.1	1.2	7.0	68.0
Sep 28			8,522	2,188	3,614	242	0	1,745	485		0		3	0	89.6	1.3	7.0	68.0
Sep 29			4,598	1,368	2,236	155	0	1,202	357		1		17	0	85.0	1.2	6.5	67.0
Sep 30			6,484	2,007	4,227	533	-1	1,138	285		0		10	0	77.4	1.2	7.0	67.0
TOTAL			717,915	106,493	176,269	9,411	11	94,401	27,239		1		943	3				
AVG			23,931	3,550	5,876	314	0	3,147	908		0		31	0	94.2	4.9	6.7	68.8
RUN YEAR			CHINOOK	CHINOOK	COHO	COHO		unclipped										
TOTALS TO DATE			ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON				
SPRING			188,078	26,093	181,509	10,256	614,177	310,341	125,202	1	1	2,603,269	31,888	3				
SUMMER			109,734	25,342														
FALL			800,959	117,685														
TOTAL			1,098,771	169,120														

TABLE 15

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

OCTOBER 2014

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			6,811	2,253	3,874	338		771	200		0		12	0	79.6	1.2	7.0	67.0
Oct 2			6,222	2,031	3,216	202		847	244		0		1	1	93.8	1.2	7.0	67.0
Oct 3			4,257	1,482	2,971	194		863	233		0		4	0	102.2	1.2	7.0	66.0
Oct 4			4,139	1,506	2,708	246		740	210		0		3	1	82.7	1.2	7.0	66.0
Oct 5			3,749	1,644	3,232	204		743	195		0		10	0	82.5	1.2	7.0	65.0
Oct 6			2,923	1,100	2,830	162		672	163		0		4	1	114.9	1.2	7.0	65.0
Oct 7			3,210	1,081	2,970	269		625	161		0		1	3	104.5	1.2	7.0	66.0
Oct 8			2,361	960	3,317	203		547	171		0		1	0	105.7	1.1	7.0	66.0
Oct 9			2,041	675	3,192	235		361	100		0		0	1	108.2	1.1	7.0	66.0
Oct 10			2,008	559	3,202	190		338	109		0		0	1	96.6	1.1	7.0	67.0
Oct 11			1,542	340	2,702	169		321	111		0		-1	0	80.3	1.2	7.0	67.0
Oct 12			1,351	294	2,221	106		305	111		0		1	0	84.5	1.2	7.0	67.0
Oct 13			1,539	357	2,395	96		310	82		0		0	1	99.6	1.1	7.0	66.0
Oct 14			958	183	1,327	73		242	72		0		1	1	98.1	1.2	7.0	65.0
Oct 15			1,419	339	2,013	92		299	102		0		1	1	88.1	1.1	7.0	65.0
Oct 16			1,404	431	3,771	200		372	120		0		0	0	102.7	1.1	7.0	65.0
Oct 17			802	268	2,458	123		303	136		0		1	2	108.4	1.1	7.0	64.0
Oct 18			1,150	247	4,032	207		824	348		0		6	1	96.3	1.1	7.0	64.0
Oct 19			518	214	2,837	155		348	157		1		0	0	83.7	1.1	7.0	64.0
Oct 20			462	217	1,819	118		171	51		0		-1	1	90.7	1.1	7.0	64.0
Oct 21			550	197	2,303	73		207	56		0		0	5	101.9	1.1	7.0	64.0
Oct 22			410	136	2,138	89		176	59		0		2	2	95.4	1.1	7.0	64.0
Oct 23			450	138	2,456	51		191	61		1		2	6	105.8	1.1	6.0	64.0
Oct 24			378	106	2,640	36		165	70		1		2	0	106.0	1.1	7.0	63.0
Oct 25			284	95	1,999	57		199	118		2		7	0	79.3	1.1	7.0	63.0
Oct 26			233	93	2,598	66		203	104		3		4	1	83.1	1.1	7.0	62.0
Oct 27			162	73	2,383	65		123	54		1		1	0	96.8	1.1	7.0	61.0
Oct 28			145	47	1,614	82		93	32		0		0	0	106.4	1.1	6.0	61.0
Oct 29			266	61	2,331	99		133	49		0		0	0	107.1	1.1	7.0	61.0
Oct 30			148	53	1,385	72		121	44		2		0	0	122.9	1.0	7.0	61.0
Oct 31			282	84	2,383	51		127	54		0		0	0	125.1	0.9	6.0	61.0
TOTAL			52,174	17,264	81,317	4,323		11,740	3,777		11		62	29				

AVG			1,683	557	2623	139		379	122		0		2	1	97.8	1.1	6.9	64.4
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RUN YEAR	CHINOOK		COHO		unclipped													
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON					
SPRING	188,078	26,093				262,826	14,579	614,177	322,081	128,979	1	12	2,603,269	31,950	32			
SUMMER	109,734	25,342																
FALL	853,133	134,949																
TOTAL	1,150,945	186,384																

TABLE 16

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

BONNEVILLE PROJECT - FISH COUNTS

NOVEMBER 2014

DATE	CHINOOK ADULT		CHINOOK JACK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK												
Nov 1			269	124	2,767	34		112	45		2		2	1	120.5	1.1	7.0	61.0
Nov 2			96	64	1,499	33		75	35		3		0	1	125.1	1.0	6.0	60.0
Nov 3			150	53	1,420	18		116	48		1		0	2	122.2	1.0	6.0	60.0
Nov 4			132	70	1,347	11		108	33		0		-1	2	114.2	1.1	6.0	60.0
Nov 5			154	58	1,623	27		115	37		1		0	3	116.1	1.1	6.0	59.0
Nov 6			95	31	899	14		77	15		1		0	-1	114.6	1.1	7.0	59.0
Nov 7			129	48	1,146	5		80	27		2		0	-1	122.2	1.1	7.0	59.0
Nov 8			70	29	856	11		53	19		0		-3	0	128.5	1.1	7.0	59.0
Nov 9			62	8	590	7		67	27		2		1	-1	128.2	0.6	7.0	59.0
Nov 10			105	29	587	9		56	24		1		2	0	135.6	0.5	7.0	58.0
Nov 11			34	16	556	7		49	15		1		1	0	141.9	0.5	7.0	57.0
Nov 12			31	8	343	5		32	10		5		0	0	146.8	0.5	5.0	57.0
Nov 13			7	8	108	3		31	17		3		0	0	145.3	0.5	5.0	55.0
Nov 14			11	8	257	5		57	20		4		0	0	141.6	0.5	5.0	53.0
Nov 15			25	9	254	3		60	26		1		0	-1	143.0	0.5	6.0	52.0
Nov 16			21	7	134	2		44	13		3		0	0	147.9	0.5	6.0	52.0
Nov 17			13	2	183	3		47	17		5		1	0	147.3	0.5	6.5	51.0
Nov 18			8	4	219	4		70	23		9		0	0	143.1	0.5	6.0	50.0
Nov 19			13	3	225	4		52	19		5		0	0	141.4	0.5	5.0	49.0
Nov 20			17	4	79	1		40	17		8		0	0	140.1	0.5	7.0	49.0
Nov 21			15	5	79	1		33	16		4		1	0	131.9	0.5	7.0	49.0
Nov 22			35	1	152	1		47	16		25		0	0	119.3	0.5	7.0	49.0
Nov 23			27	4	258	6		44	18		7		0	0	111.1	0.5	7.0	48.0
Nov 24			21	2	215	1		48	13		4		0	0	120.1	0.5	6.0	48.0
Nov 25			22	8	168	2		26	11		1		0	0	131.9	0.6	6.0	48.0
Nov 26			38	6	288	2		77	38		5		0	0	140.6	1.0	7.0	49.0
Nov 27			30	5	152	0		61	31		4		0	0	131.4	1.0	6.0	49.0
Nov 28			12	1	89	1		79	31		2		0	0	126.8	1.0	6.0	49.0
Nov 29			1	2	76	0		76	35		1		0	0	145.1	1.0	6.0	48.0
Nov 30			10	5	51	0		70	28		0		0	0	168.1	1.0	5.0	47.0
TOTAL			1,653	622	16,620	220		1,902	724		110		4	5				
AVG			55	21	554	7		63	24		4		0	0	133.1	0.7	6.3	53.4

RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
	TOTALS TO DATE	ADULT										
SPRING	188,078	26,093	277,078	14,771	614,177	323,169	129,377	1	122	2,603,269	31,952	37
SUMMER	109,734	25,342										
FALL	854,503	135,512										
TOTAL	1,152,315	186,947										

Note: November 1 to December 31 counts were from video tape. The counts are 16-hour counts and occurred between 0400-2000 PST. Visual counting ended October 31. 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 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Dec 1			0	0	12	1		24	15		0		0		164.4	1.0	5.0	45.0
Dec 2			1	2	22	1		30	17		1		0		168.6	19.1	5.0	45.0
Dec 3			2	0	13	0		21	10		0		0		174.6	23.3	5.0	45.0
Dec 4			2	0	5	0		35	14		0		0		165.8	23.2	7.0	44.0
Dec 5			4	0	5	0		24	14		0		0		167.1	19.0	6.0	45.0
Dec 6			7	0	18	1		38	18		0		0		157.1	22.6	7.0	45.0
Dec 7			0	1	14	0		32	16		-1		0		162.4	10.3	7.0	45.0
Dec 8			6	0	23	0		41	18		0		0		160.9	0.5	6.0	45.0
Dec 9			1	1	13	0		53	19		0		0		159.3	0.5	7.0	45.0
Dec 10			-1	1	16	0		36	14		0		0		160.9	0.5	7.0	45.0
Dec 11			2	0	51	1		31	14		0		0		160.6	0.5	7.0	46.0
Dec 12			3	0	7	-1		30	11		0		0		160.7	0.5	7.0	46.0
Dec 13			4	0	16	0		25	18		0		0		162.8	0.5	6.5	46.0
Dec 14			2	1	5	0		12	7		0		0		170.0	0.5	6.0	45.0
Dec 15			0	1	5	0		14	8		0		0		166.0	0.5	7.0	45.0
Dec 16			2	1	4	0		6	3		0		0		162.9	0.5	7.0	45.0
Dec 17			0	0	2	0		15	10		0		0		163.8	0.5	7.0	44.0
Dec 18			-1	0	2	0		7	2		0		0		175.6	0.5	7.0	44.0
Dec 19			2	1	6	0		26	14		0		0		174.7	0.5	7.0	44.0
Dec 20			-1	0	5	0		11	7		0		0		199.8	0.5	7.0	45.0
Dec 21			0	0	11	0		15	10		0		0		211.9	0.5	5.0	45.0
Dec 22			2	0	12	0		22	8		0		0		199.2	0.5	1.5	45.0
Dec 23			0	0	7	0		20	12		0		0		170.9	0.5	3.5	45.0
Dec 24			0	1	3	0		29	13		0		0		140.8	0.5	3.5	45.0
Dec 25			0	0	1	0		20	12		0		0		167.3	0.5	5.0	45.0
Dec 26			2	0	0	1		44	18		0		0		170.6	0.5	6.0	45.0
Dec 27			0	0	2	0		41	20		0		0		177.0	0.5	6.0	45.0
Dec 28			0	0	1	0		18	12		0		0		169.4	0.5	6.0	45.0
Dec 29			0	0	1	0		31	18		0		-1		174.6	0.5	4.0	45.0
Dec 30			0	0	0	0		28	15		0		0		195.6	0.5	5.0	45.0
Dec 31			0	0	0	0		15	7		0		0		198.9	0.5	5.0	44.0
TOTAL			39	10	282	4		794	394		0		-1					
AVG			1	0	9	0		26	13				0		171.4	4.2	5.8	44.9

RUN YEAR	CHINOOK		COHO	COHO	unclipped								
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
SPRING	188,078	26,093		277,078	14,771	614,177	323,169	129,377	1	122	2,603,269	31,952	37
SUMMER	109,734	25,342											
FALL	854,503	135,512											
TOTAL	1,152,315	186,947											

Note: November 1 to December 31 counts were from video tape. The counts are 16-hour counts and occurred between 0400-2000 PST. Visual counting ended October 31. 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

Jun-14

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			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		13		0			54	10	1			327
Jun 15		95		6			181	11	6			629
Jun 16		71		8			150	8	3			813
Jun 17		107		13			237	10	3			682
Jun 18		94		27			218	15	8			739
Jun 19		71		15			367	16	6			360
Jun 20		103		30			762	22	4			256
Jun 21		105		50			931	45	6			369
Jun 22		96		40			830	25	6			316
Jun 23		59		18			921	24	5			250
Jun 24		113		18			1,626	22	8			12
Jun 25		65		2			1,002	12	8			337
Jun 26		61		10			1,258	18	11			124
Jun 27		31		3			771	16	9			-220
Jun 28		63		5			924	16	8			386
Jun 29		97		9			977	20	7			176
Jun 30		44		2			1,505	29	18			579
TOTAL		1,288		256			12,714	319	117			6,135
AVG		76		15			748	19	7			361

TABLE 19

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Jul-14

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD			
Jul 1		66		11			1,605	22	6		234
Jul 2		76		9			2,166	29	17		44
Jul 3		100		14			1,887	47	24		424
Jul 4		68		8			3,116	64	29		123
Jul 5		48		4			2,327	46	31		177
Jul 6		51		5			2,987	68	28		70
Jul 7		51		4			2,076	57	28		759
Jul 8		55		5			1,521	57	30		136
Jul 9		63		11			1,716	60	33		7
Jul 10		34		5			1,591	48	25		-47
Jul 11		41		2			1,205	69	38		891
Jul 12		64		4			1,145	65	40		790
Jul 13		28		10			823	73	48		929
Jul 14		50		4			819	50	27		678
Jul 15		34		11			801	93	50		683
Jul 16		40		9			869	163	105		840
Jul 17		68		3			547	58	36		606
Jul 18		39		3			237	57	36		748
Jul 19		41		7			262	100	62		610
Jul 20		22		4			247	86	54		662
Jul 21		10		5			230	101	53		783
Jul 22		33		3			179	114	59		1,167
Jul 23		30		11			158	103	56		1,226
Jul 24		7		0			78	90	46		649
Jul 25		20		1			132	130	98		172
Jul 26		8		5			64	39	23		158
Jul 27		17		6			73	90	55		322
Jul 28		10		2			63	62	36		100
Jul 29		18		4			39	134	79		420
Jul 30		24		-1			45	129	80		488
Jul 31		9		6			30	150	90		370
TOTAL		1,225		175			29,038	2,454	1,422		15,219
AVG		40		6			937	79	46		491

TABLE 20

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Aug-14

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK						
Aug 1			8	5	0	0	20	191	108			430
Aug 2			13	3	0	0	38	125	47			361
Aug 3			12	4	0	0	25	75	55			293
Aug 4			19	3	0	0	14	94	73			403
Aug 5			18	7	0	0	16	189	120			350
Aug 6			7	8	0	0	15	197	95			595
Aug 7			13	6	0	0	1	76	45			639
Aug 8			10	3	0	0	5	39	27			603
Aug 9			22	0	0	0	8	144	96			531
Aug 10			49	7	0	0	11	73	44			1,017
Aug 11			42	16	0	0	4	270	137			589
Aug 12			61	23	2	0	2	275	126			555
Aug 13			78	12	0	1	1	414	167			970
Aug 14			69	-1	0	0	3	254	123			302
Aug 15			50	8	0	0	2	143	88			258
Aug 16			50	4	1	0	2	76	34			644
Aug 17			235	2	3	0	1	79	38			357
Aug 18			227	2	9	2	2	114	81			799
Aug 19			80	7	0	0	0	130	57			119
Aug 20			40	-2	-1	0	-1	37	21			4
Aug 21			16	1	0	0	0	29	18			524
Aug 22			10	0	1	1	1	22	14			210
Aug 23			81	5	1	1	0	37	22			350
Aug 24			157	1	7	2	0	46	26			399
Aug 25			233	17	6	0	0	86	33			220
Aug 26			318	27	13	2	0	76	35			6
Aug 27			229	11	26	3	0	163	47			-184
Aug 28			390	11	16	3	0	105	39			147
Aug 29			220	21	28	4	0	126	45			587
Aug 30			144	23	37	1	0	81	26			-8
Aug 31			232	38	26	4	0	66	27			-35
TOTAL			3,133	272	175	24	170	3,832	1,914			12,035
AVG			101	9	6	1	5	124	62			388

TABLE 21

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Sep-14

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD			
Sep 1			818	92	38	21	1	135	56			-14
Sep 2			964	30	179	3	0	235	91			-4
Sep 3			1,307	50	110	8	0	139	41			-408
Sep 4			322	37	48	-1	0	122	49			-182
Sep 5			368	49	175	15	0	124	65			-103
Sep 6			2,062	105	521	48	0	217	70			-44
Sep 7			2,268	105	294	13	0	382	154			-142
Sep 8			1,214	75	545	14	0	324	115			-71
Sep 9			904	82	584	18	0	395	152			-68
Sep 10			551	50	728	9	0	345	113			-97
Sep 11			880	53	636	6	0	246	109			-27
Sep 12			414	26	509	6	0	238	86			22
Sep 13			691	47	623	15	0	228	80			1
Sep 14			736	57	477	6	0	257	87			-3
Sep 15			450	47	331	9	0	221	83			69
Sep 16			364	29	188	11	0	198	61			-89
Sep 17			183	33	131	1	0	190	64			-37
Sep 18			176	24	127	2	0	219	76			28
Sep 19			161	23	113	3	0	182	63			78
Sep 20			172	16	107	4	0	179	57			-7
Sep 21			90	36	147	2	1	130	49			5
Sep 22			173	18	220	3	0	198	56			10
Sep 23			88	16	115	2	0	153	69			-36
Sep 24			125	32	88	4	0	130	43			-26
Sep 25			175	29	37	5	0	132	48			-2
Sep 26			117	15	157	10	0	247	63			8
Sep 27			112	19	107	14	0	139	48			5
Sep 28			114	4	128	3	0	98	48			11
Sep 29			54	8	102	3	0	76	21			-13
Sep 30			16	0	2	2	0	48	8			-5
TOTAL			16,069	1,207	7,567	259	2	5,927	2,125			-1,141
AVG			536	40	252	9	0	198	71			-38

TABLE 22a

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1938 - 2014

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 22a
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1981 - 2014

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
Total	34,391,376	16,428,715	7,982,454	4,054,954	40,750	7,465	62,905,714
10-Year Average	796,401	354,313	246,777	138,906	116	456	1,536,968

*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 2013-14 include nighttime video counts.

TABLE 22b

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

1938 - 2014

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 22b
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM -- DAYTIME COUNTS
1938 - 2014

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
Total	34,188,823	16,279,053	7,910,160	4,023,113	40,750	7,453	62,449,352
10-Year Average	791,331	352,454	241,352	137,914	116	455	1,523,621

*Jacks included

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

TABLE 23

MONTHLY COUNT OF CHINOOK SALMON												BONNEVILLE DAM - 1938 - 2014			SPRING	SUMMER	FALL
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	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 23

(Continued)

MONTHLY COUNT OF CHINOOK SALMON													SPRING	SUMMER	FALL	
BONNEVILLE DAM - 1938-2014													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
TOTAL	129	421	102,081	4,407,227	3,865,307	2,804,775	1,889,963	4,050,675	16,191,619	971,879	54,814	1,789	34,340,679	8,375,165	4,694,738	21,270,776
10-Year Average			199	43,785	111,755	73,760	33,998	100,559	389,192	36,224	1,818		791,331	155,742	107,758	527,830

*Jacks included

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

TABLE 24

MONTHLY COUNT OF SOCKEYE SALMON
BONNEVILLE DAM 1938 - 2014

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 24

(Continued)

**MONTHLY COUNT OF SOCKEYE SALMON
BONNEVILLE DAM 1938 - 2014**

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
TOTAL	2	0	76	545	8,793	3,993,869	3,875,095	46,939	2,715	137	37	1	7,928,209
10-Year Average					54	162,217	78,787	286	9				241,352

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 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.

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

TABLE 25

MONTHLY COUNT OF COHO SALMON
BONNEVILLE DAM 1938 - 2014

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 25

(Continued)

MONTHLY COUNT OF COHO SALMON
BONNEVILLE DAM 1938 - 2014

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					3	951	34,901	9,673	252	5	45,805	4,468
2000						1	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	186,947
TOTAL	22	31	6	1	0	179	5,543	347,786	2,738,190	868,176	84,028	1,074	4,045,036	880,101
10 Year Average							3	10,927	78,416	44,728	3,772		137,914	31,481

*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.

TABLE 26

MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 -2014

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 26
(Continued)
MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 - 2014

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Jan 1-	Aug 26-
														Aug 25	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
TOTAL	10,803	10,495	82,674	201,509	185,440	564,193	4,674,925	6,005,748	4,163,348	427,084	66,165	17,736	16,410,120	10,671,510	5,741,662
10-Year Average			1,311	1,373	1,825	9,819	90,269	153,782	78,865	11,790	1,917		352,454	235,349	117,104

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.
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 through March 31
and November 1 through December 31.

TABLE 27

MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2014

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 27
(Continued)
MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2014

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
TOTAL				14	457	8,426,831	64,397,613	8,417,555	154,782	4,136	593	36	81,402,017
10 Year - Average					250,418	2,139,683	114,962	2,805					2,507,873

TABLE 28
MONTHLY COUNT OF LAMPREY at
BONNEVILLE DAM 1939¹ - 1969, 1997 - 2014

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, it is known that lamprey do not always use the fish ladder and may pass over a dam through several routes including the navigation lock and the auxiliary water supply.

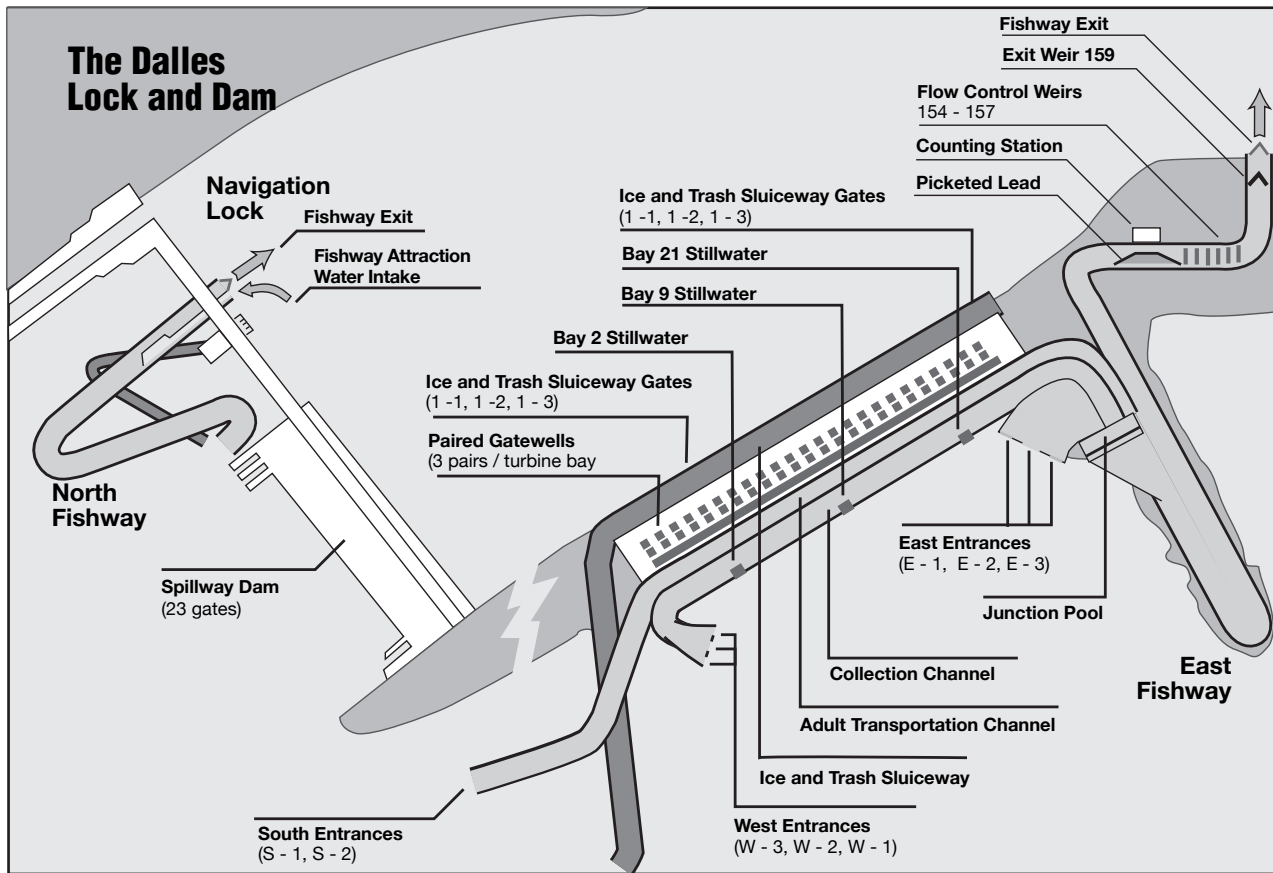
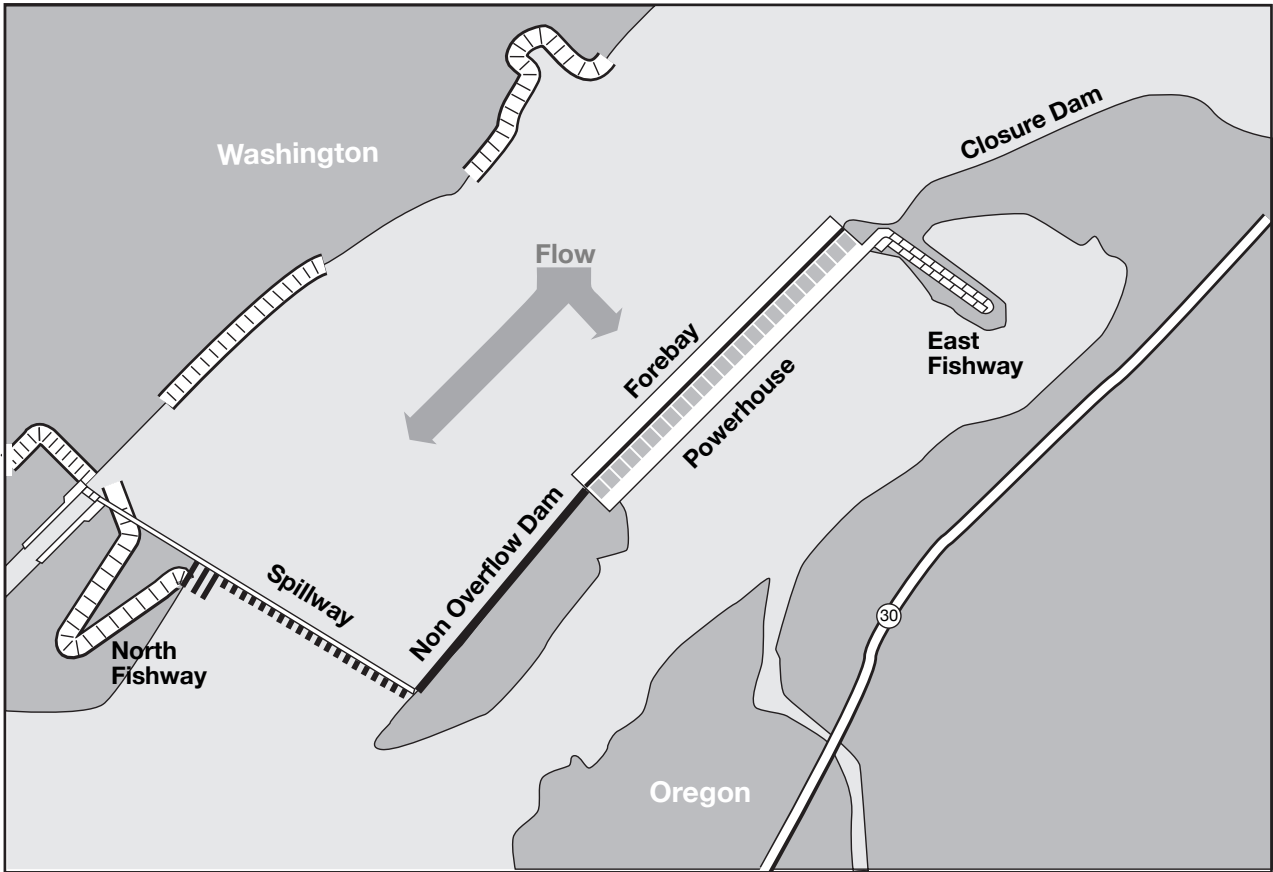
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939				732	9,027	95,814	103,726	14,403	3,349	71	0		227,122
1940				338	24,551	40,642	67,760	20,554	2,217	40	0		156,102
1941				1,428	7,449	6,960	34,952	12,801	1,305	57	2		64,954
1942				13	1,302	3,457	28,641	16,270	2,619	40	19		52,361
1943				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				8	2,575	17,796	39,223	41,214	3,167	347	5		104,337
1965			2	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
TOTAL			3	4,107	171,515	796,309	1,824,099	895,375	150,956	12,432	1,250		3,856,074
10-Year Average			3	811	5,350	10,359	3,907	1,286	64				21,779

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.

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 2014. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports.

East Adult Fishway

Jan 1 – Jan 31 Dewatered for winter maintenance
Feb 1 – Dec 1 In full operation with attraction water
Aug 4 Attraction water off half day for required ROV grating inspection
Dec 2 – Dec 31 Dewatered for winter maintenance

North Adult Fishway

Mar 1 – Feb 3 In full operation with attraction water
Feb 4 – Feb 28 Dewatered for winter maintenance
Mar 1 – Dec 30 In full operation with attraction water
Aug 4 Attraction water off half day for required ROV grating inspection

Ice/Trash Sluiceway (Juvenile)

Jan 1- Feb 28 OOS, end gate closed
Mar 1 – Mar 31 In service with 4 sluice gates open
Apr 1 – Nov 30 In service with 6 sluice gates open
Dec 1 – Dec 15 In service with 4 sluice gates open
Dec 16 – Dec 31 OOS, end gate closed

Spillway

Jan 1 – April 10 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

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, fish species, age class and stress levels. A follow up inspection is made to capture any missed fish. Efforts are made to provide continual water supply during the entire operation to reduce fish stranding and stress. Fishway areas that cannot be dewatered are inspected by ROV underwater camera.

Fish Ladder 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

Date	Event	Chinook	Steelhead	Lamprey	Sturgeon	Other	Comments	Morts
2/4/14	N. upper	5j	0	18	0	0	None	0
12/2/14	E. upper	20a	130a, 32j	27a	2j, 3a	0	1.)	below
12/4/14	E. lower	0	0	0	0	0	None	0
12/10/14	E. lower	2a	0	0	0	1wf	2.)	0

1.) 2 hatchery steelhead, 1 wild steelhead, 1 hatchery Chinook, 1 hatchery Coho, and 1 adult lamprey mortalities.

2.) 1 clipped steelhead, 1 hatchery steelhead, and 1 whitefish released to tailwater.

TURBINE DEWATERING PROCEDURES

Turbines are dewatered for routine overall maintenance or occasional forced outages. These usually entrap low numbers of fish, due in part to unit operational guidelines, which include running unit at full load and immediate tail log installation after unit shut down. If a turbine unit fails, dewatering guidelines cannot always be followed, which can result in higher numbers of fish entrapment. Fish removal from these areas has a greater fish stress risk due to handling. Procedures are continually analyzed to determine the best method for preventing fish stress or loss. Fish are removed from scroll case (sc) and draft tubes (dt) by fish bags. If numbers of fish require more than three bags, transport tanks are placed in the draft tube gallery for transport by crane. Fish are released to tailwater as soon as possible.

Turbine Dewatering Results

Key; adult=a, juvenile=j, scroll case=sc, draft tube=dt, catfish=ca, sculpin=sp, crappie=cr, small mouth bass=smb

Date	Event	Lamprey	Shad	Sturgeon	Other	Comments	Mort's
1/21/14	MU4sc	0	0	0	0	none	0
1/21/14	MU4dt	0	0	0	0	none	0
3/25/14	MU22sc	0	0	1	6sp	none	0
3/25/14	MU22dt	2a	0	1	4sp	none	0
5/20/14	MU20sc	0	0	0	0	none	0
5/28/14	MU20sc	0	0	0	1 ca	none	0
7/22/14	MU14sc	0	9 dead	2 good	0	none	shad
7/22/14	MU14dt	0	0	1 good	4 ca	none	0

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.

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 Sept, in conjunction with ODFW and PSMFC.

Zebra/Qqagga Mussel Monitoring

Zebra mussel veliger sampling was conducted from June to August (Three samples total) via plankton tow. Samples were sent to Portland State University's Center for Lakes and Reservoirs for analysis. No mussels found to date. Program will continue in 2015.

Research

The following are a list of fish related research and contract personnel that were on site during the 2014 passage season.

University of Idaho – Conducted studies involving the monitoring of movements of adult salmonids outfitted with radio-tags and Pacific lamprey outfitted with half duplex (HDX) PIT tags in 2014. They also installed downloaded and maintained receivers and antennas.

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.

Washington Department of Fish and Wildlife – Conducted hook and line removals of predatory northern pikeminnow from the forebay and tailrace decks.

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

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 - Participated in the Northern Pikeminnow Management Program (NPMP) dam angling fishery. Angling activities in support of study included hook and line capture, holding, PIT-tagging, examination, and gastric lavage.

U.S. Dept of Agriculture – Provided avian hazing of piscivorous birds to reduce avian predation on juvenile salmonids mid April to July 31 via pyrotechnics during juvenile passage season.

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

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

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 help with lamprey collection efforts.

USACE - dive team and boat crew removed derelict equipment attached at the powerhouse main unit intakes.

McMillen, LLC – Minor fishway modifications for lamprey; installed plating upstream and downstream of overflow weir orifices.

USACE – multi beam hydro survey of flows in forebay near field where the dive work will be conducted for east fish ladder auxiliary water system.

TABLE 29

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

2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				34,797	123,507	73,974	45,718	45,707	513,377	68,369			905,449
STEELHEAD				361	567	4,214	48,455	38,611	134,160	29,323			255,691
SOCKEYE					13	257,785	327,001	1,330	59				586,188
COHO*								711	134,991	21,944			157,646
CHUM													0
PINK								0	2	0			2
TOTAL				35,158	124,087	335,973	421,174	86,359	782,589	119,636			1,904,976
LAMPREY						1,327	6,356	2,980	944	55			11,662
STURGEON					2	10	12	7	1	3			35
BULL TROUT													0

*Jacks included
Shad no longer counted at The Dalles Dam.

TABLE 30

DISCHARGE AND WATER QUALITY D5 H5

THE DALLES PROJECT 2014

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Jan 1	115.6	0.0	40.2	5.5
Jan 2	108.2	0.0	40.3	5.5
Jan 3	113.6	0.0	40.3	5.5
Jan 4	118.4	0.0	40.1	5.5
Jan 5	113.7	0.0	39.9	5.5
Jan 6	112.3	0.0	39.8	5.5
Jan 7	141.3	0.0	39.9	5.5
Jan 8	143.9	0.0	39.9	5.5
Jan 9	137.5	0.0	39.9	5.5
Jan 10	143.1	0.0	39.9	5.5
Jan 11	142.4	0.0	40.2	5.5
Jan 12	96.5	0.0	40.1	5.5
Jan 13	137.0	0.0	40.1	5.5
Jan 14	111.2	0.0	40.2	5.5
Jan 15	112.4	0.0	40.1	5.5
Jan 16	116.7	0.0	39.9	5.5
Jan 17	137.3	0.0	39.8	5.5
Jan 18	123.3	0.0	39.8	5.5
Jan 19	121.3	0.0	39.9	5.5
Jan 20	120.2	0.0	40.0	5.5
Jan 21	128.1	0.0	40.0	5.5
Jan 22	136.4	0.0	40.0	5.5
Jan 23	136.2	0.0	40.0	5.5
Jan 24	124.3	0.0	39.9	5.5
Jan 25	130.6	0.0	39.7	5.5
Jan 26	121.8	0.0	39.7	6.0
Jan 27	131.5	0.0	39.5	6.0
Jan 28	118.9	0.0	39.3	6.0
Jan 29	133.7	0.0	39.3	6.0
Jan 30	105.4	0.0	39.3	6.0
Jan 31	102.9	0.0	39.3	5.0
AVG.	123.7	0.0	39.9	5.6

FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	*DEG F
Feb 1	112.8	0.0	39.1	5.0
Feb 2	111.8	0.0	38.9	5.5
Feb 3	108.7	0.0	38.6	5.5
Feb 4	109.1	0.0	38.4	5.5
Feb 5	112.4	0.0	37.9	5.5
Feb 6	118.3	0.0	37.4	5.5
Feb 7	139.0	0.0	37.0	5.5
Feb 8	125.5	0.0	36.7	5.5
Feb 9	126.8	0.0	36.5	5.5
Feb 10	124.3	0.0	36.5	5.5
Feb 11	122.6	0.0	36.4	5.5
Feb 12	115.8	0.0	36.5	5.5
Feb 13	91.9	0.0	36.7	5.5
Feb 14	78.1	0.0	36.9	5.5
Feb 15	123.2	0.0	36.4	5.5
Feb 16	143.4	0.0	36.3	5.5
Feb 17	104.8	0.0	36.9	3.0
Feb 18	134.8	0.0	37.1	2.5
Feb 19	138.9	0.0	37.0	2.0
Feb 20	115.0	0.0	37.2	3.5
Feb 21	120.6	0.0	37.5	2.5
Feb 22	106.1	0.0	37.7	2.5
Feb 23	123.2	0.0	37.9	2.0
Feb 24	118.6	0.0	38.1	2.0
Feb 25	114.4	0.0	38.2	4.0
Feb 26	113.4	0.0	38.4	3.0
Feb 27	112.9	0.0	38.7	3.0
Feb 28	123.3	0.0	39.2	4.0
AVG.	117.5	0.0	37.5	4.3

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Mar 1	123.8	0.0	39.5	4.0
Mar 2	133.9	0.0	39.4	3.0
Mar 3	154.8	0.0	39.4	3.5
Mar 4	161.2	0.0	39.8	5.0
Mar 5	169.3	0.0	40.2	4.0
Mar 6	167.9	0.0	40.1	4.5
Mar 7	188.0	0.0	40.3	4.0
Mar 8	217.5	0.0	39.9	3.5
Mar 9	235.7	0.0	40.1	3.0
Mar 10	222.7	0.0	40.5	3.5
Mar 11	237.1	0.0	40.6	3.5
Mar 12	272.9	0.0	40.9	3.8
Mar 13	278.6	0.0	41.6	3.5
Mar 14	241.7	0.0	42.4	2.0
Mar 15	234.5	0.0	43.1	2.0
Mar 16	239.9	19.0	43.6	2.0
Mar 17	219.4	46.2	43.8	2.0
Mar 18	235.0	31.8	43.7	2.0
Mar 19	235.8	34.4	44.1	2.0
Mar 20	240.2	18.7	44.0	2.0
Mar 21	249.7	14.5	44.0	2.0
Mar 22	241.7	0.0	44.1	2.0
Mar 23	233.0	0.0	44.4	2.0
Mar 24	215.3	0.0	44.6	2.0
Mar 25	206.2	0.0	44.6	2.0
Mar 26	196.2	0.0	44.4	3.0
Mar 27	211.6	0.0	44.4	2.0
Mar 28	204.2	0.0	44.4	3.0
Mar 29	218.1	0.0	44.2	3.0
Mar 30	204.5	0.0	44.3	2.0
Mar 31	228.2	0.0	44.2	2.0
AVG.	213.5	5.3	42.4	2.8

TABLE 31

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

THE DALLES PROJECT - FISH COUNTS														APRIL 2014			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM			LAMPREY	STURGEON	KCFS	KCFS
Apr 1	32			0				12	6				238.3	0.0	44.5	3.5	
Apr 2	114			-1				18	6				221.2	0.0	44.7	3.5	
Apr 3	36			0				13	6				217.2	0.0	44.9	4.0	
Apr 4	74			1				12	5				211.2	0.0	45.4	4.0	
Apr 5	48			1				12	5				209.9	0.0	45.5	3.3	
Apr 6	74			0				4	1				229.6	0.0	45.9	4.0	
Apr 7	94			0				10	5				208.7	0.0	46.5	4.0	
Apr 8	72			1				19	3				209.6	0.0	46.9	4.0	
Apr 9	92			0				9	2				205.6	0.0	47.4	4.0	
Apr 10	101			1				6	2				205.3	0.0	47.5	4.0	
Apr 11	139			1				9	1				238.5	95.4	48.1	3.5	
Apr 12	204			2				18	12				221.6	88.6	48.7	3.5	
Apr 13	149			0				11	6				213.8	85.5	48.9	3.5	
Apr 14	310			1				23	16				228.3	91.0	49.2	3.5	
Apr 15	596			8				19	6				214.7	85.9	49.4	4.0	
Apr 16	558			5				19	13				212.9	95.5	49.5	4.0	
Apr 17	704			16				24	7				237.7	95.1	49.8	4.0	
Apr 18	896			6				13	4				237.0	96.6	49.8	3.5	
Apr 19	505			4				7	2				226.9	90.6	49.6	3.5	
Apr 20	997			5				5	4				243.5	96.9	49.7	3.0	
Apr 21	912			6				8	4				249.8	100.0	49.9	4.0	
Apr 22	1,588			12				17	4				232.6	92.6	49.9	3.0	
Apr 23	1,866			10				9	5				237.7	97.2	49.7	4.0	
Apr 24	2,266			22				8	2				247.4	113.0	49.9	4.0	
Apr 25	1,907			11				5	1				234.9	119.6	49.8	3.5	
Apr 26	2,763			43				13	6				254.1	130.6	49.7	3.5	
Apr 27	3,036			30				2	0				254.1	122.6	49.9	3.5	
Apr 28	5,201			90				18	2				245.1	101.6	49.9	4.0	
Apr 29	3,814			52				9	5				249.7	100.0	50.4	4.5	
Apr 30	5,224			98				9	1				276.3	110.6	50.6	4.5	
TOTAL	34,372			425				361	142								
AVG.	1,146			14				12	5				230.4	67.0	48.4	3.8	

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 32

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

THE DALLES PROJECT - FISH COUNTS

MAY 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped	PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD					STEELHEAD	KCFS	KCFS		SECCHI
May 1	6,911			132			0	12	0				0	244.8	103.0	50.9	4.5
May 2	13,438			259			0	14	0				0	239.0	95.7	51.2	4.5
May 3	11,224			399			0	15	5				0	240.8	94.1	51.6	3.3
May 4	7,878			412			0	12	4				0	250.2	97.4	51.9	3.5
May 5	3,952			340			0	6	4				0	260.7	97.5	52.5	4.5
May 6	4,559			404			0	8	2				0	275.2	96.6	53.0	4.5
May 7	4,638			696			0	22	4				0	312.7	94.4	53.5	4.5
May 8	4,835			852			0	11	-1				0	281.2	94.9	53.8	4.5
May 9	4,477			989			0	10	2				0	278.2	97.4	54.0	3.2
May 10	3,598			1,202			0	31	0				0	265.5	101.8	54.0	3.5
May 11	3,009			1,039			0	19	1				0	231.1	93.0	54.1	4.0
May 12	2,411			1,009			0	11	2				0	272.5	107.7	54.3	4.0
May 13	2,622			1,239			0	13	1			1	0	276.3	109.1	54.4	4.5
May 14	2,769			1,332			0	15	1			0	0	265.8	106.2	54.9	4.5
May 15	2,166			1,139			0	20	9			0	0	241.4	96.4	55.4	5.0
May 16	2,199			898			0	14	1			0	0	246.8	96.5	55.8	5.0
May 17	1,754			804			0	23	2			0	0	262.1	94.8	55.9	5.0
May 18	2,229			759			0	22	1			0	0	298.3	96.0	56.4	4.0
May 19	1,781			650			0	24	0			0	0	312.7	98.5	56.7	4.5
May 20	1,845			667			0	23	1			0	0	331.7	118.6	57.1	4.5
May 21	1,239			640			0	28	0			0	0	330.1	128.0	57.1	4.5
May 22	1,302			554			0	27	4			0	0	311.5	120.2	57.2	4.0
May 23	1,624			418			0	32	10			0	0	293.0	104.4	57.5	3.3
May 24	1,394			520			0	25	1			0	0	328.3	125.1	57.4	4.0
May 25	1,693			378			0	8	1			0	0	339.5	124.9	57.6	3.5
May 26	1,533			465			0	31	6			0	0	344.3	130.9	57.8	3.5
May 27	1,415			345			0	16	2			0	0	336.6	129.3	58.0	4.0
May 28	1,927			398			2	18	4			0	0	357.7	135.5	58.1	3.5
May 29	1,034			270			0	17	6			0	0	350.2	130.1	58.1	4.0
May 30	1,251			298			4	22	5			0	0	340.3	129.2	58.1	3.0
May 31	1,009			284			7	18	3			1	0	337.5	129.8	58.1	3.0
TOTAL	103,716			19,791			13	567	81			2					
AVG.	3,346			638			0	18	3			0	292.1	108.9	55.4	4.1	
RUN YEAR		CHINOOK	CHINOOK					TOTAL	unclipped								
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD			STURGEON					
SPRING		138,088	20,216				13	928	223			2					

TABLE 33

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

THE DALLES PROJECT - FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL SOCKEYE	TOTAL unclipped STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL													SECCHI	DEG F	
Jun 1	1,277			260			8	13	1				0	0	314.2	105.9	58.2	3.2
Jun 2	1,482			252			11	23	6				1	0	308.0	104.8	58.5	3.5
Jun 3	2,295			352			19	31	4				1	0	336.7	126.4	58.6	4.0
Jun 4		1,180		213			34	36	6				1	0	322.3	125.3	58.9	4.0
Jun 5		1,256		284			74	27	5				0	0	309.5	118.7	59.2	3.5
Jun 6		1,594		227			117	33	7				2	1	314.4	123.2	59.7	3.5
Jun 7		2,157		375			222	55	11				11	0	322.1	122.7	60.1	5.0
Jun 8		2,780		283			412	61	13				7	0	290.1	115.5	60.5	4.0
Jun 9		2,743		427			636	63	19				16	0	282.6	112.8	60.9	4.0
Jun 10		2,368		234			602	42	14				12	0	269.2	107.7	61.0	4.0
Jun 11		2,002		449			1,051	71	12				22	0	281.9	112.5	61.4	3.5
Jun 12		2,143		244			1,737	57	10				21	0	262.7	105.3	61.8	4.0
Jun 13		2,437		406			2,382	117	42				24	0	236.9	94.0	61.6	4.0
Jun 14		2,178		350			3,678	86	24				29	0	219.2	87.8	61.1	4.0
Jun 15		2,960		456			4,060	85	30				38	0	229.2	91.5	61.2	4.0
Jun 16		1,920		312			3,376	62	24				10	1	198.2	79.3	61.2	4.0
Jun 17		1,326		354			3,389	86	29				24	0	190.5	76.3	60.8	4.0
Jun 18		1,620		229			3,913	72	25				25	1	213.2	85.3	60.6	4.0
Jun 19		1,630		497			5,038	90	39				62	0	250.2	100.2	60.8	4.5
Jun 20		2,570		335			7,443	98	39				66	0	235.0	93.8	60.9	3.0
Jun 21		1,781		396			7,956	115	49				40	0	222.2	89.1	60.7	3.0
Jun 22		2,132		222			16,605	156	75				39	0	246.4	98.4	61.1	4.5
Jun 23		2,585		522			23,266	215	72				106	0	285.2	113.6	61.6	4.5
Jun 24		2,173		445			21,646	231	108				145	0	260.7	103.8	62.0	4.5
Jun 25		2,469		447			23,653	273	98				94	0	253.3	106.6	62.4	4.5
Jun 26		2,412		441			30,176	382	198				93	1	260.9	104.7	62.9	4.5
Jun 27		3,411		509			30,212	466	232				127	1	246.2	98.0	63.2	4.5
Jun 28		2,594		600			27,531	440	240				162	1	248.2	98.4	63.3	4.0
Jun 29		1,952		378			19,502	387	225				95	0	248.5	105.7	63.6	4.0
Jun 30		1,656		392			19,036	341	190				54	4	265.5	118.7	63.9	4.5
TOTAL	5,054	58,029		10,891			257,785	4,214	1,847				1,327	10				
AVG.	1,685	2149		363			8,593	140	62				44	0	264.1	104.2	61.1	4.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	143,142	21,080
SUMMER	58,029	10,027
TOTAL	201,171	31,107

TOTAL SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
257,798	5,142	2,070

LAMPREY	STURGEON
1,327	12

TABLE 34

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JULY 2014

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		1,539		166			17,776	292	164			64	0	285.2	114.8	64.6	4.5
Jul 2		1,750		363			23,681	535	298			107	1	265.8	106.2	64.8	4.5
Jul 3		2,300		255			24,851	542	307			97	0	262.8	105.3	64.5	4.5
Jul 4		2,891		683			24,699	653	304			61	0	256.6	110.2	64.4	3.5
Jul 5		2,640		375			27,516	917	558			92	0	255.6	102.2	64.7	3.0
Jul 6		2,648		429			39,410	809	459			213	0	245.7	97.6	65.4	3.0
Jul 7		1,679		324			27,680	1,105	699			177	1	200.8	80.3	65.8	5.0
Jul 8		1,536		549			25,681	1,197	679			243	0	226.8	90.6	66.5	5.0
Jul 9		1,986		382			22,833	1,431	856			286	1	224.1	89.9	67.0	6.0
Jul 10		1,560		459			17,414	1,622	934			195	0	210.0	83.9	67.2	5.0
Jul 11		1,638		353			12,538	2,164	1,349			240	0	206.4	82.3	67.8	5.0
Jul 12		1,191		285			10,095	1,763	1,052			138	2	194.6	77.6	68.2	5.0
Jul 13		1,469		288			9,844	1,754	1,037			144	0	236.0	94.6	68.7	5.0
Jul 14		1,085		378			7,404	1,794	1,049			245	0	182.4	72.6	68.8	4.0
Jul 15		747		226			4,394	1,414	839			230	0	190.5	76.4	69.4	5.0
Jul 16		967		263			5,753	1,797	955			146	0	179.2	71.5	69.8	5.0
Jul 17		751		232			4,103	1,858	1,049			125	0	192.2	76.5	69.8	5.0
Jul 18		871		230			4,896	2,018	1,112			167	0	173.6	69.5	69.4	4.5
Jul 19		896		344			3,847	1,894	1,062			370	2	194.3	77.7	69.6	4.0
Jul 20		1,197		290			2,670	2,101	1,165			521	1	171.5	68.6	69.9	4.0
Jul 21		761		277			2,188	1,874	1,069			434	0	172.8	69.1	69.5	4.0
Jul 22		570		166			1,706	1,670	950			124	0	180.8	72.2	69.4	5.0
Jul 23		560		170			1,573	1,836	1,022			231	2	158.6	63.4	69.2	4.0
Jul 24		391		101			1,009	1,431	818			306	0	157.4	62.9	68.8	5.0
Jul 25		368		100			797	1,674	956			244	0	169.8	67.4	68.9	5.0
Jul 26		511		168			820	2,417	1,433			348	0	199.8	79.8	69.1	5.0
Jul 27		383		153			494	2,357	1,313			294	0	183.0	73.3	69.3	5.0
Jul 28		360		133			423	1,797	998			153	0	180.4	71.9	69.6	5.0
Jul 29		465		203			362	1,928	964			163	0	187.9	75.1	70.0	5.0
Jul 30		530		297			299	1,798	937			105	0	170.5	68.2	69.9	5.0
Jul 31		534		302			245	2,013	996			93	2	178.5	71.4	70.1	5.0
TOTAL		36,774		8,944			327,001	48,455	27,383			6,356	12				
AVG		1,186		289			10,548	1,563	883			205	0	203.0	81.4	68.1	4.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	143,142	21,080
SUMMER	94,803	18,971
TOTAL	237,945	40,051

TOTAL SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
584,799	53,597	29,453

LAMPREY	STURGEON
7,683	24

TABLE 35

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

THE DALLES PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped	PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD									
Aug 1		534		167	0	0	215	2,024	1,058			96	1	177.5	70.8	70.4	5.0	
Aug 2		457		198	0	0	168	2,071	1,126			105	0	163.3	65.3	70.7	4.0	
Aug 3		340		189	0	0	164	1,549	806			96	0	147.9	59.1	70.6	4.0	
Aug 4			460	253	0	0	129	1,512	817			140	1	133.0	53.2	70.8	4.0	
Aug 5			296	180	0	0	81	1,361	714			164	1	153.8	61.3	71.0	5.0	
Aug 6			281	113	0	0	82	1,319	717			51	0	138.2	55.2	70.5	5.0	
Aug 7			307	122	0	0	95	1,821	958			120	0	149.1	59.6	70.7	5.0	
Aug 8			363	218	0	0	75	1,679	856			101	0	157.7	63.0	70.8	5.0	
Aug 9			349	153	1	0	54	1,814	939			125	0	154.3	61.8	71.0	5.0	
Aug 10			379	162	0	0	60	1,741	857			170	1	152.5	61.0	71.8	5.0	
Aug 11			452	173	-1	1	31	1,437	777			150	0	144.3	58.0	72.3	5.0	
Aug 12			495	141	0	0	37	1,218	634			200	0	157.7	62.8	72.7	5.0	
Aug 13			658	289	1	0	15	908	467			141	0	141.2	56.2	72.4	5.0	
Aug 14			752	272	2	0	18	1,053	534			125	1	153.3	61.0	71.8	5.0	
Aug 15			570	234	1	0	10	1,003	526			83	1	151.8	60.7	71.9	4.0	
Aug 16			575	106	1	1	0	940	465			61	0	142.0	56.7	72.3	5.0	
Aug 17			668	195	5	3	17	1,267	577			94	0	127.4	51.3	72.6	5.0	
Aug 18			1,095	213	3	1	9	977	438			73	1	120.6	48.1	72.8	5.0	
Aug 19			1,152	216	2	2	14	522	233			112	0	133.7	53.4	72.8	5.0	
Aug 20			1,132	278	7	2	2	694	293			63	0	139.1	55.5	72.3	5.0	
Aug 21			1,031	269	12	9	10	1,044	408			106	0	128.0	50.8	71.5	5.0	
Aug 22			1,068	222	25	8	13	1,435	521			57	-1	127.0	50.9	71.5	5.0	
Aug 23			1,093	148	18	6	8	1,581	591			95	0	133.9	53.5	72.0	5.5	
Aug 24			1,102	129	12	4	10	1,526	580			83	0	127.9	51.4	72.3	5.0	
Aug 25			1,358	185	9	2	2	757	283			71	0	123.5	49.5	72.1	5.0	
Aug 26			2,555	219	28	5	6	556	228			50	0	131.2	52.2	72.3	5.0	
Aug 27			1,600	255	44	60	2	583	220			52	0	130.0	52.0	72.4	5.0	
Aug 28			2,339	375	27	7	0	768	307			47	0	136.0	54.3	72.3	5.0	
Aug 29			3,033	387	56	40	0	829	329			33	0	131.3	52.2	71.7	5.0	
Aug 30			4,845	549	122	33	2	1,019	396			54	1	131.0	52.2	71.5	5.0	
Aug 31			6,974	784	113	39	1	1,603	517			62	0	117.9	47.4	71.1	4.5	
TOTAL		1,331	36,982	7,394	488	223	1,330	38,611	18,172			2,980	7					
AVG.		444	1,321	239	16	7	43	1246	586			96	0	140.5	56.1	71.7	4.9	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	143,142	21,080
SUMMER	96,134	19,525
FALL	36,982	6,840
TOTAL	276,258	47,445

COHO ADULTS	COHO JACKS	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
488	223	586,129	92,208	47,625

LAMPREY	STURGEON
10,663	31

TABLE 36

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

SEPTEMBER 2014

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			6,039	793	280	35	8	2,478	838	0		54	0	124.5	49.5	70.8	5.0
Sep 2			8,422	650	377	89	9	3,192	1,102	0		63	0	88.8	0.1	70.7	5.0
Sep 3			11,117	973	460	90	13	3,026	1,050	0		32	0	96.1	0.0	70.2	5.5
Sep 4			15,191	1,027	920	270	8	7,402	2,848	0		15	0	100.1	0.0	69.6	5.0
Sep 5			13,465	2,276	1,109	258	0	5,581	1,545	0		24	0	110.9	0.0	70.0	5.0
Sep 6			11,916	1,225	1,431	312	0	5,500	1,857	0		33	0	101.1	0.0	70.1	5.0
Sep 7			14,494	874	1,809	187	5	4,350	1,329	0		42	0	97.9	0.0	70.2	4.5
Sep 8			28,721	2,522	2,361	261	2	3,420	1,049	0		36	0	80.4	0.0	70.1	5.0
Sep 9			35,915	4,109	4,633	655	2	3,149	984	0		36	0	78.7	0.0	69.6	5.0
Sep 10			30,396	2,817	5,299	552	1	4,609	1,436	-1		35	0	79.1	7.3	69.0	5.5
Sep 11			26,256	3,315	4,950	550	5	5,781	1,658	0		43	0	80.4	7.5	68.6	5.0
Sep 12			15,169	2,214	5,149	536	-2	7,488	2,408	0		34	0	76.5	7.3	68.4	5.0
Sep 13			13,987	2,703	5,693	862	6	8,460	2,672	0		17	0	93.8	7.3	68.1	5.0
Sep 14			21,989	2,598	11,485	606	1	7,300	2,418	0		37	0	93.4	7.6	68.4	5.0
Sep 15			19,668	3,905	8,148	684	0	5,661	1,753	0		52	0	81.5	7.9	68.5	5.0
Sep 16			18,623	3,032	8,261	233	0	4,021	1,339	0		52	0	86.7	7.7	68.3	5.0
Sep 17			19,285	1,928	10,344	239	0	4,293	1,340	0		43	0	84.6	0.0	68.1	5.0
Sep 18			12,591	2,802	8,872	221	0	4,825	1,500	0		36	0	93.7	0.0	67.9	6.0
Sep 19			11,715	2,177	7,238	381	0	4,301	1,224	0		39	0		0.0	67.7	5.0
Sep 20			15,770	4,507	5,658	434	0	5,131	1,555	0		33	0	85.0	0.0	67.7	5.0
Sep 21			15,520	2,695	5,784	307	1	4,627	1,308	0		25	0	74.1	0.0	67.8	5.0
Sep 22			13,538	3,834	3,478	232	0	4,364	1,355	0		26	0	79.7	0.0	67.7	5.0
Sep 23			11,292	2,331	3,276	372	0	3,846	1,099	0		20	0	80.4	0.0	67.5	5.0
Sep 24			8,542	3,135	1,866	180	0	3,049	902	0		25	0	102.0	0.0	67.2	5.0
Sep 25			5,595	1,684	2,263	194	0	2,183	698	0		15	0	115.1	0.0	67.1	5.0
Sep 26			9,256	1,908	2,378	83	0	3,173	892	0		20	0	91.9	0.0	67.1	5.0
Sep 27			10,191	2,355	3,942	111	0	3,747	1,155	0		15	0	78.3	0.0	67.2	5.0
Sep 28			6,997	1,755	3,290	72	0	3,000	886	1		10	0	88.3	0.0	67.3	5.0
Sep 29			7,301	1,009	3,079	160	0	3,724	1,220	2		22	0	81.7	0.0	67.3	5.0
Sep 30			5,307	1,956	1,854	138	0	2,479	773	0		10	1	69.9	0.0	66.7	5.0

TOTAL	444,268	69,109	125,687	9,304	59	134,160	42,193	2			944	1					
AVG.	14,809	2,304	4,190	310	2	4,472	1,406	0			31	0	89.5	3.4	68.5	5.1	

RUN YEAR	CHINOOK	CHINOOK
	ADULT	JACK
TOTALS TO DATE		
SPRING	143,142	21,080
SUMMER	96,134	19,525
FALL	481,250	75,949
TOTAL	720,526	116,554

COHO	COHO	TOTAL	
ADULT	JACK	SOCKEYE	STEELHEAD
126,175	9,527	586,188	226,368
			89,818
			2

LAMPREY	STURGEON
11,607	32

TABLE 37

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

THE DALLES PROJECT - FISH COUNTS

OCTOBER 2014

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
Oct 1			3,239	1196	1,672	123	0	2,106	763		2	0	72.4	0.0	66.0	5.0
Oct 2			4,130	1504	1,404	98	0	2,179	647		12	0	74.4	0.0	65.5	5.0
Oct 3			4,409	1370	1,539	105	0	2,007	714		3	0	86.9	0.0	65.5	5.0
Oct 4			5,096	1846	1,965	166	0	2,135	677		6	1	99.8	0.0	65.9	5.0
Oct 5			4,051	1350	1,337	72	0	1,663	567		2	0	76.1	0.0	66.1	5.0
Oct 6			3,701	1400	1,116	84	-1	1,459	471		3	0	79.6	0.0	66.1	5.0
Oct 7			2,664	1170	628	48	0	1,038	372		8	1	100.0	0.0	66.4	5.0
Oct 8			2,609	750	1,033	120	0	1,080	343		4	0	98.6	0.0	66.3	5.0
Oct 9			2,791	923	540	38	0	1,082	401		-1	0	102.8	0.0	65.9	5.0
Oct 10			1,981	638	393	18	0	704	231		1	0	102.9	0.0	65.6	5.0
Oct 11			1,906	606	365	34	0	823	298		1	0	89.9	0.0	65.5	5.0
Oct 12			1,976	454	406	20	0	776	295		1	0	71.8	0.0	65.0	5.0
Oct 13			1,346	357	330	17	0	947	437		1	0	79.1	0.0	64.5	5.0
Oct 14			826	214	203	6	0	522	227		2	0	91.0	0.0	64.4	5.0
Oct 15			1,022	300	141	8	0	377	153		1	0	91.0	0.0	64.3	5.0
Oct 16			1,023	188	300	9	1	688	240		0	0	82.6	0.0	64.0	5.0
Oct 17			1,360	289	979	25	0	862	328		0	0	93.9	0.0	63.9	5.0
Oct 18			978	227	499	8	0	595	227		0	0	97.7	0.0	64.0	5.0
Oct 19			988	266	375	25	0	565	266		1	1	76.7	0.0	63.9	5.0
Oct 20			882	252	361	30	0	847	361		0	0	74.0	0.0	63.7	5.0
Oct 21			538	192	177	14	0	552	230		0	0	78.5	0.0	63.4	5.0
Oct 22			638	266	213	13	0	573	254		1	0	87.9	0.0	62.9	5.0
Oct 23			601	191	742	22	0	474	187		1	0	81.3	0.0	62.6	5.0
Oct 24			537	192	2,000	91	0	1,249	623		1	0	84.9	0.0	62.1	5.0
Oct 25			395	136	629	44	0	838	382		0	0	97.7	0.0	61.9	5.0
Oct 26			481	114	405	25	0	692	387		1	0	86.9	0.0	61.6	5.0
Oct 27			419	124	288	21	0	859	445		2	0	80.0	0.0	61.4	5.0
Oct 28			353	101	236	11	0	665	343		2	0	85.5	0.0	61.1	5.0
Oct 29			198	70	88	6	0	410	200		0	0	102.6	0.0	61.0	5.0
Oct 30			220	65	134	4	0	270	115		0	0	108.5	0.0	60.9	5.0
Oct 31			223	37	130	11	0	286	144		0	0	113.7	0.0	60.7	5.0
TOTAL			51,581	16,788	20,628	1,316	0	29,323	11,328		55	3				
AVG.			1,664	542	665	42	0	946	365		2	0	88.7	0.0	63.9	5.0

RUN YEAR	CHINOOK	CHINOOK
	ADULT	JACK
TOTALS TO DATE		
SPRING	143,142	21,080
SUMMER	96,134	19,525
FALL	532,831	92,737
TOTAL	772,107	133,342

COHO	COHO	TOTAL		unclipped	PINK	CHUM	LAMPREY	STURGEON
ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				
146,803	10,843	586,188	255,691	101,146	2	0	11,662	35

Note: Visual counts ended October 31.

TABLE 38

DISCHARGE AND WATER QUALITY DAT5
THE DALLES PROJECT 2014

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F				SECCH	DEG F
Nov 1	105.1	0.0	60.1	5.0	Dec 1	157.6	0.0	45.6	5.0
Nov 2	111.6	0.0	59.2	5.0	Dec 2	154.4	0.0	45.8	5.0
Nov 3	109.7	0.0	58.7	5.0	Dec 3	151.4	0.0	45.8	5.0
Nov 4	100.8	0.0	58.7	5.0	Dec 4	156.9	0.0	46.1	5.0
Nov 5	109.4	0.0	58.6	5.0	Dec 5	164.5	0.0	46.2	5.0
Nov 6	97.5	0.0	58.3	5.0	Dec 6	138.1	0.0	46.2	5.0
Nov 7	121.0	0.0	58.0	5.0	Dec 7	141.1	0.0	46.1	5.0
Nov 8	117.7	0.0	57.6	5.0	Dec 8	142.2	0.0	45.9	5.0
Nov 9	109.6	0.0	57.3	5.0	Dec 9	145.0	0.0	45.9	5.0
Nov 10	126.8	0.0	56.7	5.0	Dec 10	161.3	0.0	45.8	5.0
Nov 11	122.5	0.0	55.7	5.0	Dec 11	137.7	0.0	45.8	5.0
Nov 12	140.8	0.0	54.3	5.0	Dec 12	138.6	0.0	45.8	5.0
Nov 13	140.6	0.0	53.4	5.0	Dec 13	144.5	0.0	45.4	5.0
Nov 14	135.0	0.0	53.3	5.0	Dec 14	151.7	0.0	45.0	5.0
Nov 15	132.7	0.0	53.0	5.0	Dec 15	152.7	0.0	44.7	5.0
Nov 16	143.1	0.0	52.0	5.0	Dec 16	158.1	0.0	44.7	5.0
Nov 17	150.0	0.0	51.0	5.0	Dec 17	151.9	0.0	44.9	5.0
Nov 18	138.8	0.0	50.3	5.0	Dec 18	172.0	0.0	45.0	5.0
Nov 19	132.7	0.0	49.6	5.0	Dec 19	167.6	0.0	45.0	5.0
Nov 20	131.8	0.0	48.8	5.0	Dec 20	184.1	0.0	45.1	5.0
Nov 21	119.3	0.0	48.4	5.0	Dec 21	170.7	0.0	45.4	5.0
Nov 22	111.2	0.0	48.2	5.0	Dec 22	166.9	0.0	45.7	5.0
Nov 23	102.9	0.0	48.2	5.0	Dec 23	143.9	0.0	45.7	4.0
Nov 24	111.1	0.0	47.9	5.0	Dec 24	141.3	0.0	45.5	4.0
Nov 25	118.8	0.0	47.6	5.0	Dec 25	142.7	0.0	45.2	4.0
Nov 26	116.7	0.0	47.4	5.0	Dec 26	152.6	0.0	44.9	3.0
Nov 27	113.4	0.0	47.1	5.0	Dec 27	162.4	0.0	44.8	3.0
Nov 28	105.6	0.0	47.0	5.0	Dec 28	154.7	0.0	44.8	4.0
Nov 29	128.4	0.0	46.9	5.0	Dec 29	158.1	0.0	44.6	5.0
Nov 30	143.4	0.0	46.1	5.0	Dec 30	175.8	0.0	44.0	5.0
					Dec 31		0.0	43.3	5.0
AVG.	121.6	0.0	52.6	5.0	AVG.	154.7	0.0	45.3	4.7

TABLE 39

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	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		5		1			96	1	0			37
Jun 15		101		15			201	4	2			98
Jun 16		39		1			225	8	3			72
Jun 17		49		1			145	5	2			60
Jun 18		73		5			232	4	0			76
Jun 19		62		3			336	10	5			160
Jun 20		72		2			388	6	4			123
Jun 21		39		2			501	9	1			130
Jun 22		89		8			1,237	9	2			201
Jun 23		73		4			1,404	10	5			299
Jun 24		117		5			1,499	11	4			384
Jun 25		76		2			924	17	7			345
Jun 26		56		0			1,728	7	7			312
Jun 27		134		3			1,351	20	6			308
Jun 28		72		0			1,161	15	8			280
Jun 29		59		4			1,045	16	11			196
Jun 30		24		2			1,331	10	6			110
TOTAL		1,140		58			13,804	162	73			3,191
AVG.		67		3			812	10	4			188

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

TABLE 40

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT		JACK	SOCKEYE			
Jul 1		32		2		1,039	15	7			84
Jul 2		54		8		1,294	20	10			91
Jul 3		75		9		1,766	23	7			131
Jul 4		28		3		1,351	14	4			121
Jul 5		70		5		1,506	24	18			165
Jul 6		62		16		2,293	36	24			216
Jul 7		39		7		1,632	18	10			286
Jul 8		66		11		2,118	41	23			344
Jul 9		24		2		1,344	28	13			328
Jul 10		48		7		1,085	46	20			257
Jul 11		30		4		762	32	18			313
Jul 12		46		7		1,046	29	17			380
Jul 13		47		4		562	42	24			269
Jul 14		33		3		442	41	26			323
Jul 15		30		4		421	61	29			217
Jul 16		36		7		414	47	33			250
Jul 17		23		3		384	35	21			180
Jul 18		39		2		308	55	33			318
Jul 19		49		1		270	52	27			605
Jul 20		33		0		109	44	23			396
Jul 21		22		3		258	24	15			352
Jul 22		18		0		162	29	16			302
Jul 23		27		-1		134	31	21			358
Jul 24		13		2		79	31	19			313
Jul 25		19		6		116	38	22			520
Jul 26		6		5		91	31	19			518
Jul 27		11		3		52	34	24			525
Jul 28		14		5		60	32	18			453
Jul 29		13		5		60	31	19			293
Jul 30		12		6		30	39	25			377
Jul 31		26		5		28	29	17			335
TOTAL		1,045		144		21,216	1,052	602			9,620
AVG		34		5		684	34	19			310

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

TABLE 41

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT		JACK	SOCKEYE			
Aug 1		14		5	0	0	37	29	18		239
Aug 2		17		3	0	0	47	39	17		259
Aug 3		12		1	0	0	13	28	16		321
Aug 4			12	5	0	0	21	20	13		242
Aug 5			14	4	0	0	21	23	15		209
Aug 6			10	4	0	0	13	40	28		148
Aug 7			13	2	0	0	19	38	25		230
Aug 8			5	1	0	0	11	24	17		192
Aug 9			26	3	0	0	6	77	47		311
Aug 10			18	2	0	0	4	65	37		484
Aug 11			23	9	0	0	7	59	36		454
Aug 12			45	8	0	0	6	40	24		646
Aug 13			31	6	0	0	2	32	23		474
Aug 14			26	6	0	0	8	37	20		331
Aug 15			20	2	0	0	3	20	14		367
Aug 16			19	5	0	0	4	35	8		537
Aug 17			46	6	0	0	1	34	13		400
Aug 18			62	6	0	0	2	13	4		351
Aug 19			44	4	0	0	0	27	10		449
Aug 20			29	3	0	0	0	30	12		386
Aug 21			29	0	1	0	0	21	8		331
Aug 22			27	1	0	0	0	79	25		276
Aug 23			17	3	0	0	0	71	28		400
Aug 24			32	0	1	0	2	52	24		296
Aug 25			63	3	0	0	0	28	11		239
Aug 26			57	5	1	0	0	44	17		279
Aug 27			87	8	0	0	0	35	16		326
Aug 28			42	3	0	5	0	42	12		182
Aug 29			75	-3	1	1	0	36	12		233
Aug 30			179	4	6	0	0	72	28		188
Aug 31			99	8	9	3	0	93	36		96
TOTAL		43	1,150	117	19	9	227	1,283	614		9,876
AVG.		14	41	4	1	0	7	41	20		319

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

TABLE 42

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Sep 1			173	25	22	1	0	236	90			81
Sep 2			144	11	13	1	0	141	55			73
Sep 3			171	18	27	2	0	402	163			49
Sep 4			104	2	59	5	0	525	224			45
Sep 5			169	23	40	2	0	476	191			46
Sep 6			190	25	39	10	0	482	147			67
Sep 7			634	47	249	35	0	463	158			78
Sep 8			816	35	330	23	0	296	105			54
Sep 9			679	36	323	22	0	378	133			65
Sep 10			421	21	148	1	1	468	178			61
Sep 11			200	22	196	8	0	425	139			71
Sep 12			170	18	247	1	0	585	235			73
Sep 13			391	40	207	3	0	557	209			71
Sep 14			363	76	426	20	0	416	158			206
Sep 15			251	30	214	12	0	380	135			69
Sep 16			161	21	360	15	0	307	111			102
Sep 17			148	27	245	4	0	349	142			111
Sep 18			49	9	177	5	0	247	92			85
Sep 19			58	15	127	2	0	283	92			68
Sep 20			74	13	205	5	0	232	72			61
Sep 21			63	9	155	7	0	229	72			69
Sep 22			99	16	158	1	0	312	97			46
Sep 23			49	9	114	1	0	171	60			36
Sep 24			44	6	40	0	0	124	45			32
Sep 25			36	10	51	1	0	191	91			18
Sep 26			89	9	151	5	0	256	92			22
Sep 27			60	12	83	0	0	186	65			21
Sep 28			34	16	92	3	0	277	125			23
Sep 29			54	12	93	1	0	197	74			12
Sep 30			8	0	18	0	0	88	26			2
TOTAL			5,902	613	4,609	196	1	9,679	3,576			1,817
AVG.			197	20	154	7	0	323	119			61

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

TABLE 43

**YEARLY TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2014**

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
Totals	17,966,088	10,591,718	4,876,643	1,207,536	265	1,646	34,643,896
10-Year Average	546,286	281,327	206,961	55,008			1,089,717

*Jacks included

TABLE 44
MONTHLY COUNT OF CHINOOK SALMON
THE DALLES DAM 1957 - 2014

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL	JACKS
														1 JAN- 3 JUN	4 JUN- 3 AUG	4 AUG- 31 DEC	
1957			22	42,161	59,410	86,096	35,643	28,828	56,753	3,564	201		312,678	109,723	116,661	86,294	37,374
1958			114	8,268	47,862	59,955	24,381	17,211	141,262	2,788	119		301,960	61,747	80,139	160,074	19,747
1959			8	16,771	32,634	27,799	42,817	20,142	65,229	2,022	39		207,461	50,874	71,362	85,225	39,857
1960				17,073	40,091	52,577	22,549	15,225	46,453	2,720	274		196,962	58,406	75,315	63,241	30,847
1961				43,822	35,059	24,478	24,596	16,866	53,371	3,143			201,335	79,183	50,824	71,328	35,409
1962				33,069	35,629	34,488	21,515	13,461	46,135	2,835			187,132	69,139	57,007	60,986	17,835
1963				19,119	33,207	25,063	20,414	21,865	57,248	4,053			180,969	52,937	47,333	60,699	54,749
1964			340	35,551	24,447	16,801	37,697	17,452	49,811	1,743			183,842	60,691	56,360	66,791	30,900
1965			190	17,870	24,930	17,900	31,072	25,119	74,904	3,064			195,049	43,617	50,527	100,905	67,552
1966		1,068		72,267	22,837	25,530	33,712	14,978	65,380	4,899			240,671	96,628	61,062	82,981	36,482
1967				48,744	22,817	24,718	45,346	23,927	107,427	7,133			280,112	71,976	72,582	135,554	98,817
1968			100	52,144	45,057	32,827	33,272	22,361	72,209	4,800	205		262,975	98,742	67,391	96,842	64,644
1969			65	19,025	80,162	33,432	27,750	29,330	118,890	5,604			314,258	100,482	61,978	151,798	96,244
1970				53,370	29,670	22,903	23,318	34,906	93,633	3,657			261,457	83,549	48,115	129,793	85,471
1971				28,227	44,181	22,011	29,655	16,190	103,370	6,894			250,528	73,655	51,847	125,026	75,329
1972				68,955	33,508	17,354	29,756	21,828	91,666	5,561			268,628	103,107	48,660	116,861	81,668
1973				94,334	15,040	19,548	19,181	23,341	101,771	7,730			280,945	111,088	38,774	131,083	72,088
1974				13,415	41,902	7,141	22,709	13,964	103,804	14,246			217,181	56,397	30,273	130,511	79,840
1975				18,526	32,869	12,155	26,447	28,973	90,193	8,120			217,283	52,483	39,062	125,737	74,418
1976				20,266	35,434	17,828	20,129	17,278	90,933	14,295			216,163	56,570	38,733	120,860	74,275
1977				72,726	16,672	22,084	22,059	12,266	69,927	9,216			224,950	90,373	44,378	90,199	55,067
1978				52,425	30,472	19,477	15,978	11,251	57,786	11,839			199,228	84,924	34,396	79,908	32,503
1979				13,993	12,569	14,310	17,687	20,458	61,757	9,516	357		150,647	27,297	32,298	91,052	42,886
1980				12,434	15,441	7,948	12,832	12,881	43,675	8,740			113,951	28,237	21,133	64,581	20,016
1981				24,227	16,335	8,491	10,779	15,802	53,840	5,702			135,176	41,160	19,676	74,340	33,919
1982				10,569	33,296	10,058	9,554	17,466	79,487	12,252			172,682	44,750	19,342	108,590	60,165
1983				13,270	22,893	8,766	8,430	12,501	73,942	16,388			156,190	36,856	17,051	102,283	41,335
1984				9,326	23,784	9,992	12,332	23,495	105,786	19,205			203,920	33,848	22,472	147,600	70,798
1985				36,035	39,173	15,785	10,332	37,806	203,470	27,058	1,323		370,982	76,514	25,385	269,083	145,007
1986			175	48,892	36,928	14,175	10,452	22,684	264,091	45,616			443,013	87,004	24,826	331,183	176,461
1987				48,812	27,586	17,923	12,145	50,680	236,216	27,828			421,190	77,453	30,804	312,933	65,115
1988				51,680	20,756	16,644	13,494	66,509	193,490	15,507			378,080	73,663	29,892	274,525	69,631
1989				24,474	27,477	15,539	13,899	58,674	130,931	10,438	736		282,168	53,014	30,555	198,599	28,671
1990			115	36,062	20,749	13,390	9,099	22,152	96,538	9,451			207,556	57,424	22,615	127,517	32,794
1991				14,513	17,313	10,949	7,638	8,384	84,861	9,365			153,023	32,359	18,467	102,197	36,820
1992				38,141	19,414	9,595	5,797	14,589	71,281	9,690			168,507	58,451	14,976	95,080	27,160
1993				42,391	25,824	14,165	6,481	19,297	71,395	5,400			184,953	69,356	20,063	95,534	12,298
1994				6,573	4,938	7,376	8,360	22,910	98,997	12,604			161,758	11,798	15,997	133,963	25,470
1995				3,008	4,244	6,176	7,111	23,094	82,723	15,437			141,793	7,553	13,558	120,682	32,813
1996				5,631	20,896	8,018	6,718	26,505	90,762	9,381			167,911	27,127	14,488	126,296	5,851
1997				25,639	42,467	14,718	8,011	23,666	100,652	8,648			223,801	69,740	21,134	132,704	16,249
1998				14,927	10,488	10,289	6,702	20,129	78,191	13,406			154,132	25,743	16,906	111,483	20,513
1999				5,396	17,579	10,972	13,864	30,830	107,411	13,439			199,491	23,743	24,937	150,811	28,412
2000				68,618	47,131	20,878	15,442	57,600	97,042	10,125			316,836	117,749	35,580	163,507	63,769
2001				228,568	79,627	50,030	35,889	38,452	172,871	23,897			629,334	313,865	80,249	233,081	72,644
2002				63,869	116,008	76,400	45,761	63,943	197,956	19,218			583,155	185,046	118,812	279,297	42,982
2003		11	7,227	84,312	54,173	70,347	43,926	42,146	280,091	33,070	3,085	84	618,472	149,967	111,931	356,574	62,007
2004			272	74,705	59,127	59,859	30,999	41,935	261,434	32,361	2,017	28	562,737	138,229	87,925	336,583	48,732
2005		1	44	18,797	41,560	48,505	27,685	25,764	203,518	23,064	958	9	389,905	64,219	73,136	252,550	24,991
2006			9	1,006	61,711	58,394	26,404	24,419	141,212	26,060	2,140	16	341,371	64,012	84,839	192,520	27,212
2007			1	19,338	46,147	34,405	19,510	21,415	93,517	17,883	1,326	20	253,613	68,253	52,062	133,298	65,306
2008				21,531	86,590	58,430	21,041	46,608	147,583	15,983			397,766	111,239	77,279	209,248	66,298
2009				8,464	132,674	83,688	30,189	74,468	176,655	19,699			525,837	147,554	107,794	270,489	175,120
2010				83,785	108,482	72,234	29,689	45,375	246,464	32,670			618,699	201,385	93,820	323,494	75,458
2011				8,526	150,084	76,725	47,267	37,941	230,089	41,237			591,869	164,310	120,968	306,591	151,007
2012				8,662	110,476	52,142	31,102	44,449	257,070	33,903	2,088	20	539,930	124,262	79,614	336,054	126,554
2013		4	2	18,841	79,731	70,063	37,731	99,513	513,045	79,494			898,424	101,513	106,389	690,522	141,021
2014				34,797	123,507	73,974	45,718	45,707	513,377	68,369			905,449	164,222	115,659	625,568	133,342
Total				9,818	2,077,940	2,541,068	1,773,518	1,310,066	1,707,009	7,619,575	912,030	14,868	17,966,088	4,635,483	2,928,750	10,086,815	3,492,569
10-Year Average				22,375	94,096	62,856	31,634	46,566	252,253	35,836			546,286	121,097	91,156	334,033	98,631

*Jacks included
**No fish count data for March in 2013

TABLE 45
 MONTHLY COUNT OF SOCKEYE SALMON
 THE DALLES DAM
 1957 - 2014

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	0			586,188
Total				3	1,703	2,472,920	2,375,227	25,623	1,133	29	1	4	4,876,643
10-Year Average				15	124,349	82,288	299	10					206,961

TABLE 46
MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2014

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								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							0	1,082	20,090	10,202			31,374	75,458
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							0	711	134,991	21,944			157,646	10,843
Total							1,584	47,139	857,129	295,575	6,069	41	1,207,536	307,943
10-Year Average							2,023	36,582	16,004				55,008	11,637

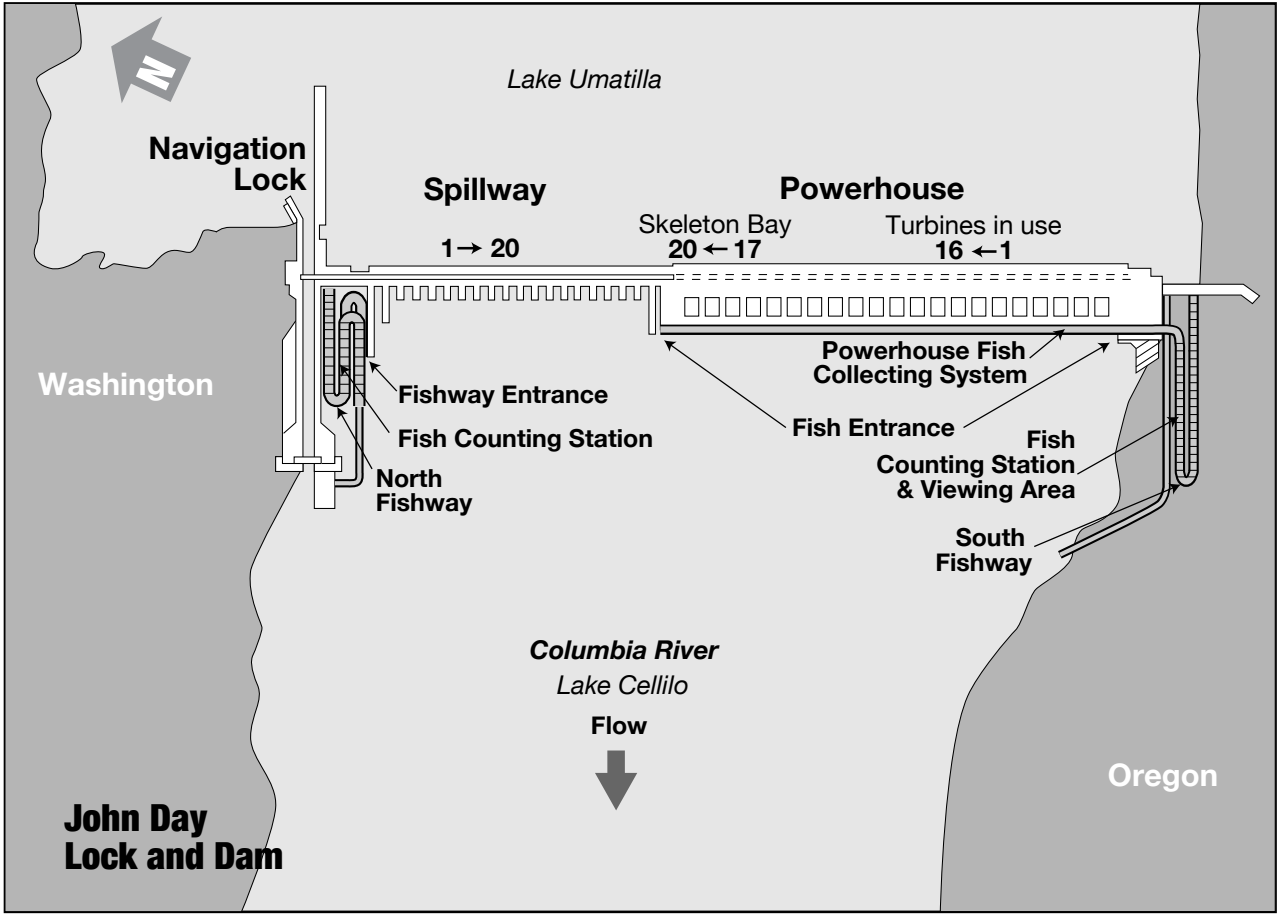
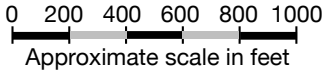
*Includes Jacks

TABLE 47

**MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2014**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1957			1,603	951	977	4,782	45,445	33,319	35,396	6,545	343		129,361
1958			122	274	1,898	4,906	20,384	11,442	75,036	6,846	512		121,420
1959			1	541	502	2,227	46,271	60,841	41,026	4,502	179		156,090
1960				289	557	2,591	28,218	32,667	42,447	4,021	399		111,189
1961				305	307	1,396	21,906	17,850	87,344	5,464			134,572
1962				528	252	1,068	36,609	31,507	87,463	5,874			163,301
1963				153	451	1,361	30,485	25,360	48,066	13,081			118,957
1964			50	369	127	493	36,773	31,742	38,197	2,282			110,033
1965			36	502	484	896	60,522	21,132	53,389	4,091			141,052
1966	25	788		933	600	3,816	52,975	26,382	53,721	6,932			146,172
1967				258	183	435	27,914	22,746	56,082	13,996			121,614
1968			23	691	344	973	20,974	58,866	57,666	7,456	488		147,481
1969			54	953	414	1,442	33,952	22,963	44,146	8,605			112,529
1970				337	172	733	15,905	32,752	44,823	4,465			99,187
1971				408	233	821	40,712	31,812	69,602	7,760			151,348
1972				463	159	604	35,569	30,631	63,748	4,129			135,303
1973				723	326	1,981	29,067	25,437	38,017	4,531			100,082
1974				529	1,362	1,859	24,779	21,835	15,059	5,452			70,875
1975				1,018	1,334	1,973	18,046	20,531	11,519	3,254			57,675
1976				768	1,604	3,357	22,021	30,386	21,586	2,846			82,568
1977				1,666	1,332	5,038	42,859	13,022	61,678	8,287			133,882
1978				834	1,378	3,459	13,493	11,457	26,189	3,675			60,485
1979				478	244	1,942	23,054	21,974	20,961	14,079	632		83,364
1980				2,885	790	2,134	15,114	30,755	34,447	7,838			93,963
1981				1,389	1,632	3,768	34,242	36,537	26,837	8,863			113,268
1982				729	1,289	2,710	22,607	31,410	49,050	9,639			117,434
1983				438	324	1,492	37,029	47,521	75,210	9,041			171,055
1984				846	894	3,715	52,825	36,859	107,377	16,607			219,123
1985				2,405	1,511	5,679	41,534	102,866	107,574	13,337	1,119		276,025
1986		1,395		610	712	4,492	78,494	60,458	111,066	24,726			281,953
1987				1,069	366	3,280	55,395	58,850	76,461	22,347			217,768
1988				2,520	969	3,984	34,612	54,986	85,061	16,367			198,499
1989				1,810	849	3,950	35,167	45,694	119,322	25,880	2,967		235,639
1990			1,169	1,515	920	3,078	17,942	17,772	58,805	28,070			129,271
1991				1,826	630	1,755	25,686	37,560	104,833	27,563			199,853
1992				1,104	743	3,494	18,753	37,269	157,216	13,600			232,179
1993				2,367	731	3,847	17,962	20,194	61,600	18,128			124,829
1994				1,327	391	2,263	11,434	11,703	55,247	29,889			112,254
1995				435	407	2,329	11,953	46,428	59,604	24,688			145,844
1996				669	481	1,981	20,317	61,136	65,400	12,472			162,456
1997				658	483	2,187	18,916	34,055	84,006	24,451			164,756
1998				609	433	2,433	9,911	12,180	62,331	28,785			116,682
1999				279	343	1,625	25,277	56,665	60,762	11,923			156,874
2000				491	319	6,467	37,760	48,697	96,040	15,467			205,241
2001				788	582	13,063	100,501	95,859	226,711	65,823			503,327
2002				2,308	439	7,027	67,132	84,140	170,382	56,492			387,920
2003		485	2,389	801	271	4,882	36,960	35,275	158,525	36,458	6,004	524	282,574
2004		140	1,072	1,066	680	7,116	23,581	30,398	152,302	23,099	1,647	22	241,123
2005		107	688	558	616	4,483	33,476	33,332	126,710	41,174	3,020	49	244,213
2006		16	811	972	252	2,241	15,892	43,884	138,845	33,537	12,641	132	249,223
2007		195	1,948	1,033	255	2,155	25,008	66,310	121,058	26,079	2,776	143	246,960
2008				1,084	383	4,847	69,771	47,273	131,616	22,666			277,640
2009				986	392	4,181	51,667	165,723	233,187	58,975			515,111
2010				1,901	580	10,348	104,984	55,209	128,816	31,195			333,033
2011				1,098	352	1,611	56,247	127,161	91,517	21,021			299,007
2012			950	631	258	2,809	49,514	54,567	71,995	18,065	2,631	220	201,640
2013	6	73		560	220	1,723	32,103	41,629	93,711	20,725			190,750
2014				361	567	4,214	48,455	38,611	134,160	29,323			255,691
Total	13,099	54,099	36,304	185,516	2,066,154	2,445,620	4,730,945	1,022,486	35,358				10,591,718
10-Year Average		918	388	3,861	48,712	67,370	127,162	30,276					281,327

Plate 4 John Day Lock and Dam



JOHN DAY DAM

FISH COUNTING SCHEDULE

Jan 1 – March 31	Video counting daily 0400-2000 hours Pacific Standard Time.
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 2014. Total length of time for annual fishway outages can be determined by referring to the 2013 annual report.

North Adult Fishway

Nov 29 – Dec 23	Dewatered for winter maintenance
Jan 1 – Nov 29	In service with attraction water
Aug 1	Attraction water off half day for required ROV grating inspection

South Adult Fishway

Jan 4 – Feb 26	Dewatered for winter maintenance
Feb 28 – Dec 31	In service with attraction water
Aug 1	Attraction water off half day for required ROV grating inspection

Smolt Monitoring Facility

Jan 1- March 30	Dewatered
Mar 31 – Jul 30	In full operation with juvenile sampling
Jul 31 – Sep 12	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 23	System in bypass for full flow PIT tag detection.
Dec 17 – Dec 31	System dewatered for winter maintenance.

Juvenile Bypass System

Jan 1- Mar 31	1/3 gatewell orifice open, rotated twice weekly
Apr 1- Dec 15	Full operation (for kelts in December)
Dec 19 – 31	1/3 gatewell orifice open, rotated twice weekly

Spillway

Jan 1 – Apr 9	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 DEWATERING PROCEDURES

Bulkheads are installed and drain valves open to dewater various areas of fishways. Fisheries personnel enter these areas to salvage fish that become stranded and /or trapped in shallow pools behind weirs. Minimal handling of fish is applied. Fish that are reluctant to vacate an area are captured and transported to the forebay or tailwater, depending on circumstances such as fish species, age class and stress levels. Follow up inspections are made to account for possible missed fish. Efforts are made to provide continual water supply during the entire operation to reduce fish stranding. Fishway areas not included on this list are inspected by Remote Operated Vehicle (ROV.)

John Day Dam 2014 Fish Ladder Dewatering Results

Key:a=adult, j=juvenile catfish=ca, mountain whitefish=mw, common carp=cc, sucker species=su, bass=ba, blue gill=bg

Fish Ladder 2014 Dewatering Results									
Date	Event	Chinook	Steelhead	Lamprey	Shad	Other	Comments	Morts	Cause
7-Jan	SFL-Upper	-	3J	-	-	(1)A-CP	REC	0	N/A
9-Jan	SFL-CC	-	2J	-	-	(4)CP,(1)SMB,(1)CR	REC	0	N/A
10-Jan	SE1 DC	-	(3)A-mort	-	-	(2)A-CP morts	1-J walleye & 1-J CT morts	All	failed valve
22-Feb	S-AWS	-	-	-	-	(10)WE (8)SMB	REC	0	N/A
2-Dec	N. Fishway	-	(1)A,(10)J	33	10	(1) mini jack	REC, tailwater	0	N/A

Smolt Monitoring Facility 2014 Dewatering Results

Key:a=adult, j=juvenile catfish=ca, mountain whitefish=mw, common carp=cc, sucker species=su, bass=ba, sculpin=sp

Smolt Monitoring Facility 2014 Dewatering Results									
Date	Event	Chinook	Steelhead	Lamprey	Shad	Other	Comments	Morts	Cause
3-Feb	JBS CONDUIT	-	1A	-	-	-	REC Forebay	0	N/A
24-Nov	PDS- SMF	35	35	4	30	(30)CT	Flushed thru Adult Drain	0	N/A

TURBINE DEWATERING PROCEDURES

Turbine dewatering for routine maintenance usually involves low numbers of fish, due to operational guidelines. If a turbine unit fails, operational guidelines cannot always be followed, which usually results in higher numbers of fish entrapment. Removal of fish from these areas has a greater fish stress risk due to handling. Procedures are continually analyzed to determine the best method for preventing fish stress or loss. Fish are removed from scroll case and draft tubes by fish bags. If numbers of fish are higher than two bags, transport tanks are placed in the draft tube gallery for transport by crane. Fish are released to tailwater either with bag and rope or tank and crane.

John Day Dam 2014 Turbine Dewatering Results

Key: scroll case=sc, draft tube=dt, catfish=ca, steelhead=sh,shad=sd, common carp=cc, sucker species=su, bass=ba, crappie=cp

Turbine 2014 Dewatering Results									
Date	Event	Chinook	Steelhead	Lamprey	Shad	Other	Comments	Morts	Cause
1-Apr	MU 10-SC	-	-	-	-	(1)CT	REC	(1)CT-J	old mort.
2-Apr	MU 10-DT	-	-	-	-	(1)CT	REC	0	N/A
8-Apr	MU10 SC	-	-	35 J	-	-	9-mort under wicket gate	(9)LR-J	exposure
13-May	MU2-DT	-	-	-	-	~(75)CT	REC	(2)LR	spill incident
13-May	MU2-DT	-	-	-	-	(1)-16"ST	REC	0	N/A
13-May	MU2-DT	-	-	-	-	(1)-70"ST	REC	0	N/A
3-Nov	MU 12 - SC	-	-	-	-	-	No Fish	0	0
12-Nov	MU1-SC	-	-	-	-	(3)SMB,(4)CT	REC	0	N/A
12-Nov	MU1-DT(day1)	-	-	-	-	(7)ST, (25)CT	(1)3'-ST all other juvenile	0	0
13-Nov	MU1-DT(day2)	-	-	-	-	(5)ST,(40)CT	2 Burbot (freshwater cod)	0	N/A

WATER QUALITY

Daily River Temperature was read at JD south forebay's electronic display during the daily fishway inspections. Additionally, the Water Temperatures were collected in both fish ladders at the entrance and exits with HOBO data loggers by JD Fisheries, 1 April – Nov. 30 (Fig. 4.) Water Clarity was read by Secchi disc at one counting station during the daily fishway inspections.

PIKEMINNOW ABATEMENT

Dam angling at the John Day powerhouse BRZ was performed in May through September 2014 by a crew from Washington Department Fish and Wildlife, under contract with the Pacific States Marine Fisheries Commission. The 2014 total catch of 4,250 NPM was significantly higher than the 2013 catch of 2,370 NPM.

FISHWAY VELOCITIES – Collection channel

2014 JD South Fishway Collection Channel Velocities were conforming to the FPP criteria of 1.5 to 4.0 f/s. A multiyear data confirm the optimal channel velocities at all times, year round.

TABLE 48

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

2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*	6		21	23,812	110,984	66,933	41,310	26,053	429,579	67,520			766,218
STEELHEAD	181	696	1,521	363	422	2,906	27,211	18,916	116,932	34,088			203,236
SOCKEYE					6	230,010	325,778	1,712	25	0			557,531
COHO*	1							151	95,529	20,160			115,841
CHUM													0
PINK													0
TOTAL	188	696	1,542	24,175	111,412	299,849	394,299	46,832	642,065	121,768			1,642,826
LAMPREY	-1	0	0	0	136	497	4,683	2,320	817	124			8,576
STURGEON								2	1	1			4
BULL TROUT													0

*Jacks Included

TABLE 49

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

JOHN DAY PROJECT - FISH COUNTS													JANUARY 2014			
DATE	CHINOOK ADULT			CHINOOK COHO		COHO		unclipped					DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY			STURGEON	SECCHI
Jan 1	0			1		2		5	3			0	116.6	0.0	-	-
Jan 2	0			0		1		0	0			0	106.2	0.0	6.0	40.0
Jan 3	0			0		0		2	1			0	115.0	0.0	6.0	41.0
Jan 4	0			0		-2		9	6			0	116.0	0.0	6.0	41.0
Jan 5	0			0		0		4	1			0	116.1	0.0	6.0	41.0
Jan 6	0			1		0		6	4			-1	112.5	0.0	6.0	41.0
Jan 7	0			0		0		3	3			0	139.0	0.0	6.0	41.0
Jan 8	0			0		0		1	1			0	148.0	0.0	5.5	40.0
Jan 9	0			0		0		3	2			0	136.9	0.0	5.5	40.0
Jan 10	1			0		0		10	2			0	147.1	0.0	5.5	40.0
Jan 11	0			0		0		19	9			0	140.1	0.0	5.5	40.0
Jan 12	0			0		0		12	5			0	97.6	0.0	-	40.0
Jan 13	0			0		0		9	4			0	139.1	0.0	-	40.0
Jan 14	0			0		0		20	10			0	110.5	0.0	-	40.0
Jan 15	0			0		0		13	7			0	110.4	0.0	-	40.0
Jan 16	0			1		0		18	8			0	118.7	0.0	-	40.0
Jan 17	0			0		0		4	1			0	133.4	0.0	-	39.0
Jan 18	0			0		0		7	2			0	127.1	0.0	-	41.0
Jan 19	0			0		0		3	1			0	122.0	0.0	6.0	41.0
Jan 20	0			1		0		4	1			0	120.4	0.0	6.0	41.0
Jan 21	0			0		0		3	1			0	127.0	0.0	5.5	40.0
Jan 22	0			0		0		2	1			0	136.4	0.0	5.5	40.0
Jan 23	0			1		0		0	0			0	135.8	0.0	5.5	40.0
Jan 24	0			0		0		1	0			0	126.1	0.0	5.5	40.0
Jan 25	0			0		0		3	0			0	128.4	0.0	5.5	39.0
Jan 26	0			0		0		0	0			0	122.0	0.0	6.0	40.0
Jan 27	0			0		0		0	0			0	132.1	0.0	6.0	40.0
Jan 28	0			0		0		2	2			0	118.5	0.0	6.0	38.0
Jan 29	0			0		0		1	0			0	132.0	0.0	5.5	39.0
Jan 30	0			0		0		1	1			0	106.9	0.0	5.5	38.0
Jan 31	0			0		0		16	7			0	105.6	0.0	5.5	38.0
TOTAL	1			5		1		181	83			-1				
AVG.													124.0	0.0	5.7	40.0

Note: From February 21 to March 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

TABLE 50

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS													FEBRUARY 2014				
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
Feb 1								15	4					112.3	0.0	5.5	38.0
Feb 2								21	5					111.6	0.0	6.0	40.0
Feb 3								8	6					107.1	0.0	6.0	40.0
Feb 4								6	4					109.1	0.0	6.0	38.0
Feb 5								0	0					107.2	0.0	5.5	39.0
Feb 6								2	1					117.4	0.0	5.5	38.0
Feb 7								4	0					138.9	0.0	5.5	38.0
Feb 8								0	0					124.6	0.0	5.5	38.0
Feb 9								0	0					124.1	0.0	5.5	38.0
Feb 10								2	2					121.1	0.0	5.5	38.0
Feb 11								0	0					123.6	0.0	5.5	36.0
Feb 12								0	0					112.0	0.0	5.5	36.0
Feb 13								0	0					89.9	0.0	5.5	35.0
Feb 14								0	0					72.5	0.0	6.0	36.0
Feb 15								2	0					117.0	0.0	6.0	37.0
Feb 16								6	2					133.6	0.0	2.5	37.0
Feb 17								33	6					93.0	0.0	2.5	37.0
Feb 18								46	12					125.5	0.0	2.5	36.0
Feb 19								34	5					129.4	0.0	2.5	37.0
Feb 20								48	22					108.7	0.0	3.0	36.0
Feb 21								73	20					108.3	0.0	3.0	36.0
Feb 22								49	19					104.5	0.0	3.5	36.0
Feb 23								59	15					116.9	0.0	2.5	37.0
Feb 24								74	33					115.8	0.0	2.5	37.0
Feb 25								51	20					113.8	0.0	2.5	36.0
Feb 26								55	19					109.3	0.0	2.5	37.0
Feb 27								56	18					111.1	0.0	3.0	36.0
Feb 28								52	19					121.4	0.0	3.0	36.0
TOTAL								696	232								
AVG.														113.6	0.0	4.3	37.1

Note: From February 21 to March 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

TABLE 51

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

JOHN DAY PROJECT - FISH COUNTS													MARCH 2014				
DATE	CHINOOK ADULT			CHINOOK COHO		COHO		unclipped					DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Mar 1	0			0				68	20					123.7	0.0	3.5	36.0
Mar 2	0			0				48	20					133.6	0.0	4.5	40.0
Mar 3	0			0				43	19					156.2	0.0	4.0	41.0
Mar 4	0			0				56	26					162.7	0.0	4.0	39.0
Mar 5	0			0				49	24					170.8	0.0	4.5	39.0
Mar 6	0			0				46	24					165.6	0.0	4.0	39.0
Mar 7	0			0				55	15					187.5	0.0	3.5	40.0
Mar 8	1			0				57	21					216.7	0.0	3.5	40.0
Mar 9	0			0				51	19					236.7	0.0	3.5	40.0
Mar 10	0			0				61	30					221.7	0.0	4.0	41.0
Mar 11	0			0				41	19					235.0	0.0	4.0	41.0
Mar 12	0			0				96	32					270.0	0.0	3.0	42.0
Mar 13	0			0				121	24					272.9	0.0	2.0	41.0
Mar 14	0			0				79	30					240.7	0.0	2.0	42.0
Mar 15	0			0				110	45					234.4	7.5	2.0	43.0
Mar 16	0			0				80	36					238.0	19.8	2.0	43.0
Mar 17	0			0				52	29					223.8	13.6	3.0	44.0
Mar 18	0			0				49	18					240.5	16.0	3.5	44.0
Mar 19	0			0				47	16					238.9	8.0	2.0	44.0
Mar 20	0			0				61	21					242.7	15.5	2.0	43.0
Mar 21	0			0				48	18					255.6	5.0	3.0	43.0
Mar 22	0			0				35	16					246.7	0.0	3.0	43.0
Mar 23	2			0				32	10					232.1	0.0	2.0	43.0
Mar 24	0			0				30	14					218.0	0.0	3.0	44.0
Mar 25	1			0				25	5					208.4	0.0	3.5	44.0
Mar 26	2			0				13	3					197.3	0.0	2.0	44.0
Mar 27	2			2				22	10					214.4	0.0	2.0	43.0
Mar 28	1			0				8	3					203.9	0.0	3.0	43.0
Mar 29	5			0				15	7					220.6	0.0	3.0	43.0
Mar 30	3			0				12	1					212.3	0.0	3.0	43.0
Mar 31	2			0				11	3					230.5	0.0	3.0	43.0
TOTAL	19			2				1,521	578								
AVG.														214.6	2.8	3.1	41.9

Note: From February 21 to March 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

TABLE 52

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

JOHN DAY PROJECT - FISH COUNTS

APRIL 2014

DATE	CHINOOK ADULT		CHINOOK FALL	COHO ADULT	COHO JACK	COHO JACK	SOCKEYE	unclipped		PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER						STEELHEAD	STEELHEAD							SECCHI	DEG F
Apr 1	8			0				9	2			0		242.1	0.0	3.0	43.0
Apr 2	13			1				7	1			0		223.5	0.0	3.5	44.0
Apr 3	24			2				10	1			0		217.0	0.0	3.5	44.0
Apr 4	36			0				16	12			0		211.5	0.0	3.5	45.0
Apr 5	49			2				22	8			0		213.0	0.0	3.5	45.0
Apr 6	59			2				8	5			0		231.6	0.0	4.0	51.0
Apr 7	39			0				15	7			0		210.5	0.0	4.0	51.0
Apr 8	62			1				5	1			0		213.6	0.0	4.0	51.0
Apr 9	47			3				9	8			0		206.4	0.0	5.0	49.0
Apr 10	70			0				12	6			0		209.3	75.1	4.5	49.0
Apr 11	72			0				27	21			0		250.5	71.3	4.5	49.0
Apr 12	74			0				14	8			0		237.7	68.0	4.5	49.0
Apr 13	107			8				26	21			0		226.4	72.1	4.0	51.0
Apr 14	190			10				26	15			0		240.1	67.9	4.0	51.0
Apr 15	142			2				19	11			0		225.7	78.8	4.0	51.0
Apr 16	239			6				8	4			0		231.9	75.2	5.0	49.0
Apr 17	417			0				12	10			0		250.9	76.5	4.5	49.0
Apr 18	537			3				16	9			0		249.7	73.8	4.5	49.0
Apr 19	539			1				18	8			0		246.3	77.2	4.5	49.0
Apr 20	619			10				10	4			0		256.3	79.3	4.0	49.0
Apr 21	468			3				11	9			0		264.3	79.2	4.5	50.0
Apr 22	1,002			9				11	6			0		246.2	77.2	4.5	50.0
Apr 23	1,155			13				2	0			1		252.7	90.0	4.5	50.0
Apr 24	1,481			17				7	1			-1		266.4	96.5	4.5	42.0
Apr 25	1,647			26				8	7			0		248.6	110.0	4.5	42.0
Apr 26	1,669			19				6	2			0		271.4	105.4	5.0	48.0
Apr 27	2,201			56				-1	3			0		268.9	89.0	5.0	49.0
Apr 28	2,216			30				9	3			0		256.1	82.7	5.0	49.0
Apr 29	4,510			72				10	2			0		268.0	87.2	5.0	50.0
Apr 30	3,764			60				11	6			0		290.6	87.1	5.0	50.0
TOTAL	23,456			356				363	201			0					
AVG.	782			12				12	7			0		240.9	57.3	4.3	48.3

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 53
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

MAY 2014

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
May 1	4,127			62			0	7	2				0	261.3	102.1	5.0	50.0
May 2	5,722			148			0	4	2				0	254.3	96.8	5.0	50.0
May 3	10,103			283			1	7	0				0	252.9	105.8	5.0	51.0
May 4	8,191			355			0	4	1				0	268.4	106.1	5.5	51.0
May 5	7,698			349			0	10	3				0	279.9	117.5	5.5	52.0
May 6	4,197			392			0	9	2				0	292.6	120.6	5.5	52.0
May 7	3,891			367			0	7	3				1	327.7	89.3	5.0	52.0
May 8	3,919			608			0	-26	-15				0	297.1	90.6	5.0	52.0
May 9	4,903			789			0	28	7				0	290.8	113.3	5.0	52.0
May 10	4,649			760			1	10	4				1	284.9	96.0	5.0	52.0
May 11	3,666			1,092			2	17	3				4	249.9	85.6	5.0	53.0
May 12	2,275			881			0	21	0				5	285.6	98.1	5.0	53.0
May 13	2,605			898			0	7	1				2	292.5	113.6	5.0	53.0
May 14	2,803			1,031			0	15	2				0	285.1	97.1	5.5	54.0
May 15	2,529			1,248			0	10	0				8	254.2	82.8	5.5	54.0
May 16	2,227			1,046			0	19	2				1	261.4	117.6	5.5	55.0
May 17	1,904			740			0	14	0				10	281.4	125.1	5.5	55.0
May 18	1,623			764			0	9	1				11	317.2	129.8	5.5	55.0
May 19	1,806			792			0	12	2				2	330.8	139.9	5.5	55.0
May 20	785			463			0	19	3				26	351.5	143.9	4.0	56.0
May 21	1,562			655			0	23	2				16	348.8	137.5	3.0	56.0
May 22	1,184			605			0	19	3				36	328.6	135.0	2.5	57.0
May 23	1,274			483			0	30	1				1	314.7	144.4	2.0	57.0
May 24	1,428			440			0	14	0				8	347.9	142.1	3.0	58.0
May 25	1,442			440			0	23	0				0	354.7	147.4	3.0	58.0
May 26	1,504			397			0	24	0				-2	362.0	149.6	3.0	58.0
May 27	1,428			344			0	23	1				1	358.9	154.7	3.0	58.0
May 28	1,399			289			0	11	4				2	376.1	140.3	3.0	58.0
May 29	910			293			0	11	2				-1	365.4	140.3	3.0	58.0
May 30	923			236			1	28	8				5	356.9	140.3	3.0	58.0
May 31	792			265			1	13	3				-1	357.6	116.3	3.0	58.0
TOTAL	93,469			17,515			6	422	47				136				
AVG.	3015			565			0	14	2				4	309.4	120.0	4.4	54.5
RUN YEAR		CHINOOK	CHINOOK						unclipped								
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD				LAMPREY				
SPRING		116,925	17,871				6	785	248				136				

TABLE 54

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	unclipped			DISCH	SPILL	TURBIDITY						
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD			STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS
Jun 1	1,136			314			7	22	4			-2		332.8	117.6	3.0	58.0
Jun 2	1,341			270			8	15	7			5		327.6	144.6	3.5	58.0
Jun 3	1,344			221			12	15	1			0		355.9	141.6	3.5	58.0
Jun 4	1,273			224			11	23	2			1		340.9	109.9	3.0	58.0
Jun 5	1,185			196			10	23	2			-1		325.1	112.3	4.0	59.0
Jun 6		1,455		213			60	26	5			2		329.8	135.0	4.0	59.0
Jun 7		1,476		208			94	35	9			0		341.6	117.3	4.0	59.0
Jun 8		1,669		229			202	30	7			4		306.2	90.0	4.0	59.0
Jun 9		2,501		302			333	146	109			1		298.7	90.8	4.0	59.0
Jun 10		2,699		296			589	49	11			2		285.8	118.6	4.0	59.0
Jun 11		2,251		322			841	44	21			0		297.3	107.5	5.0	61.0
Jun 12		2,204		335			1,058	68	22			5		280.8	74.3	5.0	61.0
Jun 13		1,890		317			1,609	68	15			3		247.1	76.2	5.0	61.0
Jun 14		2,657		322			2,011	68	20			7		239.7	96.7	5.0	61.0
Jun 15		2,285		281			3,120	87	27			5		241.9	81.0	5.0	61.0
Jun 16		2,905		376			3,753	76	26			22		211.9	62.2	5.0	61.0
Jun 17		1,505		293			3,640	53	20			14		208.4	71.9	5.0	61.0
Jun 18		1,113		217			2,987	55	14			6		227.5	105.5	4.0	61.0
Jun 19		1,189		254			3,742	68	22			16		263.9	95.9	4.0	61.0
Jun 20		1,462		340			4,679	87	39			22		251.9	72.1	4.5	62.0
Jun 21		2,060		395			7,434	75	36			13		239.1	84.1	5.0	61.0
Jun 22		2,274		288			9,954	101	48			24		264.7	119.4	4.0	61.0
Jun 23		2,079		337			16,528	152	57			23		299.4	105.6	4.0	62.0
Jun 24		1,901		572			22,891	153	63			29		275.1	81.1	5.0	61.0
Jun 25		1,828		485			21,806	138	59			39		270.0	89.0	5.0	62.0
Jun 26		2,322		402			22,343	184	90			36		281.3	104.0	4.5	62.0
Jun 27		2,507		557			26,819	228	80			37		260.7	102.1	4.5	62.0
Jun 28		2,477		526			28,152	328	164			44		267.5	78.5	4.5	63.0
Jun 29		2,484		351			23,582	229	88			73		261.8	91.1	5.0	63.0
Jun 30		1,733		285			21,735	260	130			67		286.9	120.4	5.0	63.0
TOTAL	6,279	50,926		9,728			230,010	2,906	1,198			497					
AVG.	1256	2,037		324			7,667	97	40			17		280.7	99.9	4.4	60.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	123,204	19,096
SUMMER	50,926	8,503
TOTAL	174,130	27,599

SOCKEYE	STEELHEAD	unclipped STEELHEAD
230,016	3,691	1,446

LAMPREY
633

TABLE 55

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

JOHN DAY PROJECT - FISH COUNTS

JULY 2014

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		1,647		295			18,917	293	174			83		299.9	107.3	5.0	63.0
Jul 2		1,286		221			20,410	262	129			93		279.6	83.3	5.0	63.0
Jul 3		1,917		252			23,070	304	146			115		276.6	85.3	4.0	64.0
Jul 4		1,813		342			20,644	359	198			81		268.6	107.3	4.0	64.0
Jul 5		1,875		489			20,830	290	126			91		268.9	98.7	4.0	65.0
Jul 6		2,418		450			26,990	647	350			139		256.6	66.9	4.0	65.0
Jul 7		1,463		443			31,299	428	232			128		222.5	77.4	4.0	65.0
Jul 8		1,904		396			27,020	590	277			109		244.6	96.2	4.0	67.0
Jul 9		1,559		331			27,259	761	431			117		241.4	85.7	5.0	66.0
Jul 10		1,649		458			21,646	987	544			275		223.3	66.7	5.0	67.0
Jul 11		1,567		454			16,056	1,186	657			211		222.0	67.9	5.0	68.0
Jul 12		1,627		370			12,212	1,459	890			216		213.3	98.2	5.0	68.0
Jul 13		1,294		368			11,498	1,587	983			204		245.4	74.7	5.0	68.0
Jul 14		1,420		410			9,060	1,352	746			261		194.0	63.1	5.0	68.0
Jul 15		994		266			5,904	1,080	567			225		210.4	61.8	5.0	68.0
Jul 16		595		183			4,125	739	419			210		193.4	82.5	5.0	69.0
Jul 17		843		262			5,731	1,408	792			223		207.8	73.1	5.0	69.0
Jul 18		571		209			3,638	1,283	660			147		191.4	61.4	5.0	69.0
Jul 19		619		195			4,151	1,128	534			126		204.6	57.7	5.0	69.0
Jul 20		723		215			2,587	944	500			116		183.6	76.0	5.0	69.0
Jul 21		930		286			2,538	1,258	650			160		191.2	74.1	5.0	69.0
Jul 22		505		113			1,708	974	533			161		194.3	51.5	5.0	69.0
Jul 23		480		150			1,457	598	334			117		171.9	50.5	5.0	69.0
Jul 24		518		93			1,511	586	310			82		168.9	55.5	5.0	69.0
Jul 25		404		120			1,308	633	320			90		185.0	64.2	5.5	69.0
Jul 26		409		96			1,135	741	374			159		213.8	60.4	5.0	69.0
Jul 27		462		160			943	824	414			114		199.6	57.7	5.0	69.0
Jul 28		434		114			714	1,310	714			145		192.6	60.8	5.0	69.0
Jul 29		283		150			491	972	454			149		202.9	55.1	5.0	69.0
Jul 30		354		135			487	817	437			133		182.8	58.4	5.0	70.0
Jul 31		451		270			439	1,411	705			203		194.5	55.6	6.0	70.0
TOTAL		33,014		8,296			325,778	27,211	14,600			4,683					
AVG		1,065		268			10,509	878	471			151		217.6	72.1	4.9	67.6
RUN YEAR		CHINOOK	CHINOOK						unclipped								
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD			LAMPREY					
SPRING		123,204	19,096				555,794	30,902	16,046			5,316					
SUMMER		83,940	16,799														
TOTAL		207,144	35,895														

TABLE 56

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

JOHN DAY PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped				PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Aug 1		461		194	0	0	259	1,155	624			118	0	186.2	54.8	6.0	70.0
Aug 2		444		186	0	0	204	1,197	599			162	0	183.4	47.0	6.0	70.0
Aug 3		458		148	0	0	227	1,236	666			120	0	156.6	43.9	6.0	70.0
Aug 4		394		155	0	0	164	1,042	571			90	0	145.9	49.7	6.0	70.0
Aug 5		336		173	0	0	215	880	371			76	0	165.5	45.1	6.0	70.0
Aug 6			289	125	0	0	108	1,008	496			112	0	150.1	48.8	5.0	71.0
Aug 7			240	121	0	0	113	759	414			138	0	163.3	50.3	5.5	70.0
Aug 8			219	131	0	0	103	674	310			106	0	167.8	49.6	5.5	71.0
Aug 9			239	97	0	0	62	524	253			65	1	165.5	50.5	-	-
Aug 10			153	69	0	0	42	478	243			46	0	168.8	46.1	5.5	71.0
Aug 11			246	88	0	0	70	477	231			51	0	153.9	51.2	5.5	71.0
Aug 12			314	114	0	0	35	440	217			92	0	170.6	45.7	5.5	72.0
Aug 13			430	134	0	0	13	479	257			112	0	152.9	48.8	5.0	72.0
Aug 14			501	215	0	0	16	534	284			115	0	162.9	48.7	5.0	72.0
Aug 15			408	151	0	0	8	469	197			74	0	163.3	45.9	5.0	72.0
Aug 16			336	126	2	0	15	392	173			40	0	152.7	40.1	5.0	72.0
Aug 17			378	90	0	1	3	347	153			67	0	132.8	38.5	5.0	72.0
Aug 18			415	149	0	0	8	336	150			56	0	129.0	43.7	5.0	72.0
Aug 19			528	173	2	0	9	373	177			47	0	146.1	44.6	5.0	72.0
Aug 20			618	138	0	0	4	343	130			54	0	148.7	41.9	5.0	72.0
Aug 21			549	122	0	0	3	303	131			52	0	139.5	40.3	5.0	72.0
Aug 22			424	108	2	0	3	286	104			88	0	134.2	43.3	5.5	72.0
Aug 23			553	164	7	1	12	428	155			60	0	144.7	40.8	5.5	72.0
Aug 24			639	80	11	0	0	673	251			50	0	136.2	39.8	5.0	72.0
Aug 25			929	132	13	2	1	715	284			58	0	132.4	42.1	5.0	72.0
Aug 26			738	113	3	-1	4	428	180			64	0	140.4	42.6	5.0	72.0
Aug 27			1,281	171	5	2	1	393	159			29	0	142.1	44.2	5.0	72.0
Aug 28			1,666	242	5	1	2	550	239			53	0	147.6	42.2	5.0	72.0
Aug 29			1,692	252	6	6	2	509	164			36	1	140.4	42.2	5.5	72.0
Aug 30			1,826	220	12	2	1	636	258			62	0	141.4	37.1	5.5	72.0
Aug 31			3,617	351	50	19	5	852	296			27	0	123.3	39.3	5.5	70.0
TOTAL		2,093	19,228	4,732	118	33	1,712	18,916	8,737			2,320	2				
AVG.		419	740	153	4	1	55	610	282			75	0	151.2	44.8	5.3	71.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	123,204	19,096
SUMMER	86,033	17,655
FALL	19,228	3,876
TOTAL	228,465	40,627

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
118	33	557,506	49,818	24,783

LAMPREY	STURGEON
7,636	2

TABLE 57

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

JOHN DAY PROJECT - FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	STEELHEAD					STEELHEAD	KCFS	KCFS		SECCHI
Sep 1			4,025	466	94	25	2	1,087	347		38	0	131.2	1.0	5.5	70.0
Sep 2			5,105	356	147	23	1	1,556	547		61	0	88.9	0.9	5.5	70.0
Sep 3			6,046	576	178	31	0	2,125	756		60	0	97.3	1.0	5.0	70.0
Sep 4			8,679	703	230	57	1	1,840	632		36	0	101.2	1.0	5.0	70.0
Sep 5			11,895	1,253	430	55	0	3,255	1,306		21	0	110.7	0.9	5.0	69.0
Sep 6			10,920	1,091	520	101	1	3,942	1,450		32	0	101.7	1.0	5.0	69.0
Sep 7			9,717	1,112	866	156	4	4,452	1,499		12	0	97.4	1.0	5.5	70.0
Sep 8			12,843	1,457	1,022	132	6	3,827	1,320		26	1	80.2	1.0	5.5	70.0
Sep 9			20,526	1,329	1,810	221	5	3,352	994		26	0	76.1	1.0	5.5	70.0
Sep 10			25,797	2,971	1,940	256	5	3,197	1,046		40	0	80.7	1.1	5.0	70.0
Sep 11			26,214	2,173	3,298	329	-1	4,217	1,325		24	1	80.2	1.0	5.0	70.0
Sep 12			18,775	2,927	3,454	318	0	4,717	1,503		26	-1	79.5	1.0	5.0	69.0
Sep 13			15,124	1,851	3,911	127	1	5,804	1,998		33	0	95.1	1.0	5.0	69.0
Sep 14			14,083	2,442	5,209	363	0	6,948	2,332		12	0	92.2	1.0	5.0	69.0
Sep 15			19,999	1,760	6,109	374	0	6,476	2,119		42	0	81.0	1.1	5.0	69.0
Sep 16			14,108	2,891	6,533	521	0	4,647	1,467		12	0	86.9	1.0	5.0	69.0
Sep 17			14,713	2,759	5,827	414	0	3,478	1,097		30	0	84.0	0.9	6.0	68.0
Sep 18			14,086	3,317	6,568	638	0	4,930	1,569		18	0	94.4	0.9	6.0	68.0
Sep 19			11,021	2,870	6,372	466	0	4,378	1,473		49	0	83.4	1.2	6.0	68.0
Sep 20			12,072	2,212	5,713	442	0	4,662	1,321		41	0	85.8	1.0	6.0	68.0
Sep 21			13,588	2,250	4,623	316	0	4,374	1,362		24	0	74.2	1.1	6.0	68.0
Sep 22			14,055	2,712	5,388	458	0	5,598	1,638		0	0	78.6	0.9	6.0	68.0
Sep 23			9,956	2,065	2,534	120	0	3,640	1,191		11	0	80.8	0.9	6.0	67.0
Sep 24			10,153	2,117	2,186	138	0	3,649	1,146		23	0	102.1	0.9	5.0	68.0
Sep 25			9,478	2,742	2,069	133	0	4,078	1,423		8	0	114.9	1.2	5.0	68.0
Sep 26			6,745	2,488	1,866	84	0	3,522	1,417		29	0	92.4	0.9	5.0	68.0
Sep 27			6,936	2,203	1,960	89	0	3,053	1,100		14	0	76.5	1.0	5.0	68.0
Sep 28			8,527	2,642	2,520	102	0	3,525	1,162		23	0	87.3	0.9	5.0	67.0
Sep 29			7,623	2,668	3,280	150	0	3,515	1,116		17	0	81.9	0.9	5.0	67.0
Sep 30			6,225	2,142	2,103	130	0	3,088	994		29	0	68.6	1.0	5.0	67.0
TOTAL			369,034	60,545	88,760	6,769	25	116,932	38,650		817	1				
AVG.			12,301	2,018	2,959	226	1	3,898	1,288		27	0	89.5	1.0	5.3	68.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	123,204	19,096
SUMMER	86,033	17,655
FALL	388,262	64,421
TOTAL	597,499	101,172

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
88,878	6,802	557,531	166,750	63,433

LAMPREY	STURGEON
8,453	3

TABLE 58

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

JOHN DAY PROJECT - FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped					DISCH	SPILL	TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Oct 1			4,684	1,266	1,470	86		2,161	587			10	0	72.6	0.9	6.0	67.0
Oct 2			3,699	1,071	1,474	92		1,850	593			13	0	72.0	1.1	6.0	67.0
Oct 3			3,866	1,103	1,071	22		1,985	678			15	0	86.9	0.9	6.0	67.0
Oct 4			4,094	1,389	1,179	54		1,617	619			4	0	100.9	0.9	6.0	67.0
Oct 5			4,746	1,579	1,036	63		1,832	595			6	0	73.5	0.9	6.0	67.0
Oct 6			3,314	1,205	966	67		1,606	550			12	0	80.3	0.9	6.0	66.0
Oct 7			2,899	999	974	79		1,599	562			2	0	96.2	0.8	6.0	66.0
Oct 8			2,884	919	715	63		1,390	520			8	0	101.2	0.9	6.0	64.0
Oct 9			2,696	889	666	48		1,212	447			9	0	104.9	0.9	6.0	64.0
Oct 10			2,717	812	489	69		836	286			5	0	100.2	0.8	6.0	64.0
Oct 11			2,425	656	486	38		985	331			1	0	89.2	0.8	6.0	65.0
Oct 12			1,755	397	573	28		853	287			4	0	71.6	0.8	6.0	65.5
Oct 13			1,517	348	312	11		817	336			0	0	77.1	0.8	6.0	65.0
Oct 14			1,064	263	293	17		673	336			8	1	90.2	1.2	6.0	65.0
Oct 15			833	207	237	6		635	321			2	0	91.2	0.8	5.5	65.0
Oct 16			677	207	249	7		746	368			7	0	84.5	0.7	5.5	65.0
Oct 17			899	195	247	21		628	258			-1	0	91.9	0.7	5.5	65.0
Oct 18			913	157	477	54		915	400			4	0	98.1	0.8	5.0	64.0
Oct 19			1,020	178	454	36		836	334			-2	0	73.5	0.8	5.0	64.0
Oct 20			915	185	384	23		824	386			3	0	75.2	0.8	5.0	64.0
Oct 21			825	181	413	24		999	483			2	0	79.2	0.8	5.0	64.0
Oct 22			674	108	264	10		806	382			0	0	86.8	0.8	5.0	63.0
Oct 23			543	206	257	22		831	398			1	0	80.3	0.8	5.0	63.0
Oct 24			517	145	666	40		886	469			1	0	82.7	0.8	5.0	62.0
Oct 25			542	180	1,770	54		1,510	883			4	0	96.9	0.7	5.0	62.0
Oct 26			320	101	821	64		1,626	964			1	0	86.6	0.8	5.0	61.0
Oct 27			388	93	432	24		1,331	832			1	0	80.0	0.8	5.0	61.0
Oct 28			279	76	200	18		582	338			2	0	81.8	0.8	5.0	61.0
Oct 29			195	54	183	22		686	369			0	0	102.8	0.8	5.0	61.0
Oct 30			194	61	102	13		485	275			0	0	107.3	0.8	5.0	61.0
Oct 31			155	41	115	10		346	178			2	0	113.9	0.8	5.0	61.0
TOTAL			52,249	15,271	18,975	1,185		34,088	14,365			124	1				
AVG.			1,685	493	612	38		1,100	463			4	0	88.0	0.8	5.5	64.1

RUN YEAR	CHINOOK	CHINOOK	COHO	COHO	unclipped			LAMPREY		STURGEON
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		
SPRING	123,204	19,096		107,853	7,987	557,531	200,838	77,798	8,577	4
SUMMER	86,033	17,655								
FALL	440,511	79,692								
TOTAL	649,748	116,443								

Note: Visual counts ended October 31.

TABLE 59

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2014

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1	105.4	0.8	5.0	61.0	Dec 1	155.7	0.0	5.5	47.0
Nov 2	112.1	0.8	5.0	60.0	Dec 2	153.4	0.0	6.0	46.0
Nov 3	106.9	0.7	5.0	59.0	Dec 3	149.3	0.0	6.0	47.0
Nov 4	102.4	0.7	5.0	59.0	Dec 4	157.9	0.0	5.0	45.0
Nov 5	109.7	0.7	5.0	59.0	Dec 5	168.2	0.0	5.0	46.0
Nov 6	94.1	0.7	5.0	58.0	Dec 6	137.8	0.0	5.5	46.0
Nov 7	125.6	0.5	6.0	58.0	Dec 7	142.0	0.0	5.5	46.0
Nov 8	116.2	0.8	5.0	58.0	Dec 8	142.6	0.0	5.5	46.0
Nov 9	111.2	0.8	5.0	57.0	Dec 9	146.9	0.0	6.0	45.0
Nov 10	126.8	0.8	5.0	57.0	Dec 10	161.8	0.0	6.0	46.0
Nov 11	123.5	0.8	5.5	56.0	Dec 11	138.8	0.0	6.0	46.0
Nov 12	142.4	0.7	5.0	55.0	Dec 12	137.0	0.0	5.5	45.0
Nov 13	142.1	0.8	5.0	55.0	Dec 13	146.1	0.0	5.5	45.0
Nov 14	137.4	0.8	5.0	55.0	Dec 14	152.5	0.0	5.5	45.0
Nov 15	134.5	0.8	5.0	54.0	Dec 15	152.2	0.0	5.0	45.0
Nov 16	145.3	0.8	5.0	53.0	Dec 16	155.3	0.0	5.0	45.0
Nov 17	151.4	0.8	5.0	53.0	Dec 17	150.3	0.0	5.0	45.0
Nov 18	140.7	0.8	5.0	52.0	Dec 18	173.4	0.0	5.0	45.0
Nov 19	130.1	0.7	6.0	51.0	Dec 19	169.3	0.0	5.0	45.0
Nov 20	134.6	0.8	6.0	49.0	Dec 20	188.2	0.0	5.0	45.0
Nov 21	117.2	0.7	6.0	49.0	Dec 21	169.7	0.0	5.5	45.0
Nov 22	112.2	0.7	6.0	49.0	Dec 22	160.5	0.0	5.0	45.0
Nov 23	104.0	0.7	6.0	49.0	Dec 23	137.1	0.0	6.0	45.0
Nov 24	108.5	0.8	5.0	47.0	Dec 24	138.2	0.0	5.0	45.0
Nov 25	119.8	0.8	6.0	47.0	Dec 25	135.1	0.0	5.0	46.0
Nov 26	116.0	0.8	5.0	47.0	Dec 26	151.7	0.0	5.0	45.0
Nov 27	114.4	0.8	5.0	47.0	Dec 27	157.2	0.0	5.0	45.0
Nov 28	104.9	0.8	5.0	47.0	Dec 28	153.7	0.0	5.5	46.0
Nov 29	129.1	0.7	5.0	47.0	Dec 29	154.0	0.0	5.0	46.0
Nov 30	144.4	0.0	6.0	47.0	Dec 30	175.2	0.0	6.0	46.0
					Dec 31	188.0	0.0	6.0	45.0
AVG.	122.1	0.7	5.3	53.2	AVG.	154.8	0.0	5.4	45.5

TABLE 60

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

JUNE 2014

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		32		21		56	0	0	15
Jun 15		31		27		67	2	2	20
Jun 16		28		16		126	7	7	16
Jun 17		46		10		79	2	2	21
Jun 18		31		3		61	0	0	23
Jun 19		35		2		82	0	0	20
Jun 20		48		10		80	2	2	22
Jun 21		27		2		176	0	0	33
Jun 22		26		1		210	10	5	31
Jun 23		48		11		257	4	2	19
Jun 24		83		9		240	6	6	52
Jun 25		59		6		526	6	4	63
Jun 26		39		4		505	8	2	70
Jun 27		61		7		325	5	2	62
Jun 28		34		0		273	2	2	103
Jun 29		34		4		271	2	2	121
Jun 30		40		5		560	2	2	104
TOTAL		702		138		3,894	58	40	795
AVG.		41		8		229	3	2	47

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

TABLE 61

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT -NIGHT FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			LAMPREY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		PINK
Jul 1		56		3			321	0	0		144
Jul 2		34		15			386	2	2		134
Jul 3		31		9			460	1	1		113
Jul 4		72		36			528	38	38		109
Jul 5		28		16			656	13	13		129
Jul 6		54		22			683	12	12		254
Jul 7		-7		14			953	9	7		193
Jul 8		51		3			974	20	16		181
Jul 9		10		7			881	9	2		226
Jul 10		40		28			810	25	19		264
Jul 11		51		14			921	35	28		320
Jul 12		75		13			758	36	36		290
Jul 13		38		5			838	28	28		385
Jul 14		27		13			489	12	4		417
Jul 15		18		1			524	17	6		333
Jul 16		25		3			525	14	2		252
Jul 17		22		3			534	29	8		300
Jul 18		16		3			493	18	8		220
Jul 19		38		0			445	34	8		257
Jul 20		18		0			276	24	6		273
Jul 21		14		1			151	10	4		318
Jul 22		17		2			105	13	6		351
Jul 23		20		2			145	21	4		319
Jul 24		8		3			107	14	5		263
Jul 25		7		6			159	10	3		271
Jul 26		10		0			148	15	5		290
Jul 27		14		0			61	18	7		300
Jul 28		8		0			45	12	3		349
Jul 29		11		4			30	11	5		434
Jul 30		11		1			33	12	7		450
Jul 31		10		2			29	15	10		214
TOTAL		827		229			13,468	527	303		8,353
AVG		27		7			434	17	10		269

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

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped			LAMPREY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		PINK
Aug 1		12		2	0		40	16	10		244
Aug 2		16		0	0		46	10	5		396
Aug 3		5		2	0		29	1	-2		394
Aug 4		10		2	0		12	14	8		186
Aug 5		12		4	0		26	17	11		364
Aug 6			23	2	0		22	21	8		278
Aug 7			19	1	0		8	22	11		308
Aug 8			20	2	0		20	26	12		203
Aug 9			11	0	0		4	8	5		265
Aug 10			6	1	0		6	25	5		289
Aug 11			14	1	0		3	15	7		347
Aug 12			19	2	0		7	16	3		251
Aug 13			17	4	0		0	14	8		316
Aug 14			15	8	0		3	25	12		282
Aug 15			14	4	0		0	20	9		290
Aug 16			15	1	0		0	10	3		266
Aug 17			13	3	0		2	9	5		194
Aug 18			16	4	0		1	15	7		184
Aug 19			30	3	0		0	9	6		231
Aug 20			22	1	0		0	18	7		211
Aug 21			24	3	0		0	26	7		238
Aug 22			12	1	0		0	22	3		141
Aug 23			17	1	0		1	36	20		95
Aug 24			16	3	2		1	58	27		173
Aug 25			18	2	0		0	32	17		123
Aug 26			22	2	0		0	28	11		72
Aug 27			42	1	0		1	39	14		100
Aug 28			37	2	0		0	37	9		138
Aug 29			44	1	0		0	32	8		120
Aug 30			54	1	1		0	73	26		52
Aug 31			119	5	3		0	103	35		78
TOTAL		55	659	69	6		232	797	317		6,829
AVG.		11	25	2	0		7	26	10		220

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

SEPTEMBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	unclipped		PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		
Sep 1			52	5	4	0		152	54		112
Sep 2			62	4	2	0		179	70		90
Sep 3			68	11	2	0		231	64		58
Sep 4			105	16	11	0		243	90		50
Sep 5			174	22	12	0		488	193		41
Sep 6			162	61	10	0		549	178		40
Sep 7			197	23	40	1		422	152		38
Sep 8			386	38	66	3		520	163		77
Sep 9			762	46	240	2		576	175		52
Sep 10			487	32	125	8		511	186		66
Sep 11			230	25	194	16		439	119		60
Sep 12			129	16	87	4		373	117		59
Sep 13			179	15	115	3		537	172		71
Sep 14			324	19	123	4		560	205		116
Sep 15			258	63	63	0		536	157		54
Sep 16			232	79	62	1		472	162		59
Sep 17			208	30	105	4		595	172		97
Sep 18			168	104	218	26		674	226		77
Sep 19			82	88	148	19		425	137		88
Sep 20			81	38	132	7		266	90		99
Sep 21			180	26	75	4		281	118		86
Sep 22			101	16	41	2		253	102		85
Sep 23			184	28	40	0		278	114		71
Sep 24			32	29	39	5		320	117		42
Sep 25			28	5	58	2		277	126		45
Sep 26			71	13	49	4		212	88		55
Sep 27			64	15	87	9		256	98		45
Sep 28			54	6	173	2		204	69		54
Sep 29			52	14	102	1		237	104		52
Sep 30			2	1	15	0		84	22		27
TOTAL			5,114	888	2,438	127		11,150	3,840		1,966
AVG.			170	30	81	4		372	128		66

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

TABLE 64

YEARLY TOTALS OF SALMONIDS COUNTED OVER
JOHN DAY DAM
1968 - 2014

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTAL
1968	233,654	121,256	87,847	38,233	480,990
1969	276,051	86,348	39,847	13,589	415,835
1970	222,506	82,440	78,133	19,543	402,622
1971	193,881	115,977	72,232	40,830	422,920
1972	225,631	141,628	51,793	17,533	436,585
1973	249,492	101,440	64,744	13,359	429,035
1974	167,888	43,756	33,121	14,651	259,416
1975	159,079	32,651	50,774	6,305	248,809
1976	175,911	59,808	30,446	5,806	271,971
1977	194,931	102,558	85,701	1,123	384,313
1978	174,852	44,188	13,778	8,355	241,173
1979	118,154	55,877	43,630	5,061	222,722
1980	100,664	78,199	50,675	1,924	231,462
1981	114,359	95,172	46,146	2,562	258,239
1982	144,082	108,603	37,970	4,063	294,718
1983	139,866	154,425	91,917	1,640	387,848
1984	188,373	201,154	107,951	2,080	499,558
1985	337,624	247,093	124,941	1,652	711,310
1986	346,700	238,010	46,327	1,933	632,970
1987	327,752	170,654	75,529	3,355	577,290
1988	277,251	164,650	48,095	6,813	496,809
1989	208,254	193,460	39,374	9,663	450,751
1990	156,313	107,849	42,077	3,023	309,262
1991	118,921	160,257	63,760	8,021	350,959
1992	132,025	195,194	69,731	2,633	399,583
1993	141,705	95,642	61,218	2,995	301,560
1994	126,645	93,075	11,170	2,842	233,732
1995	107,277	123,246	8,667	2,117	241,307
1996	130,602	156,002	25,698	4,279	316,581
1997	185,240	157,038	35,830	4,229	382,337
1998	130,028	158,547	9,837	8,497	306,909
1999	163,282	165,314	14,809	13,232	356,638
2000	269,371	220,328	88,372	23,969	602,040
2001	510,987	483,409	107,869	51,181	1,153,446
2002	447,729	390,300	41,915	9,272	889,216
2003	472,340	305,042	35,417	38,765	851,564
2004	447,891	233,431	113,497	35,522	830,341
2005	322,991	232,103	69,770	36,205	661,081
2006	290,161	231,355	35,387	38,374	595,281
2007	215,876	237,517	24,277	39,421	517,091
2008	342,952	277,162	193,409	44,898	858,421
2009	451,974	581,645	157,402	71,739	1,262,760
2010	534,247	283,812	324,128	23,272	1,165,459
2011	497,771	257,345	143,605	65,668	965,087
2012	444,136	162,083	394,166	33,859	1,034,259
2013	710,149	155,742	155,498	18,139	1,039,604
2014	766,218	203,236	557,531	115,841	1,642,826
TOTALS	12,693,786	8,306,021	4,106,011	918,066	26,024,690
10-Year Average	457,648	262,200	205,517	48,742	974,187

*Jacks included

1999 - Total includes 1 pink
2005 - Total includes 12 pinks
2006 - Total includes 1 chum and 3 pinks
2011 - Total includes 698 pinks
2012 - Total includes 15 pinks
2013 - Total includes 64 pinks and 12 chum

TABLE 65

MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2014

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		21	23,812	110,984	66,933	41,310	26,053	429,579	67,520	0	0	766,218	142,300	103,688	520,203	116,443
TOTAL				4,123	1,163,899	2,036,046	1,259,227	925,325	910,658	5,525,095	856,292	12,625	12,693,786	3,348,000	2,106,441	7,226,169	2,772,654
10-Year Average				16,082	83,924	57,074	31,495	28,120	206,672	33,647			457,648	106,855	83,600	266,559	92,336

*Jacks included

TABLE 66

**MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM
1968 - 2014**

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	0		557,531
TOTAL						132	2,053,709	2,032,011	19,379	698	81	1	4,106,011
10-Year Average						114,291	90,816	389	16				205,517

TABLE 67
MONTHLY COUNT OF COHO SALMON
JOHN DAY DAM 1968 - 2014

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	
TOTAL					0	2	1	119	21,114	609,474	278,451	8,785	119	918,066
10-Year Average								1,129	30,654	16,215				48,742

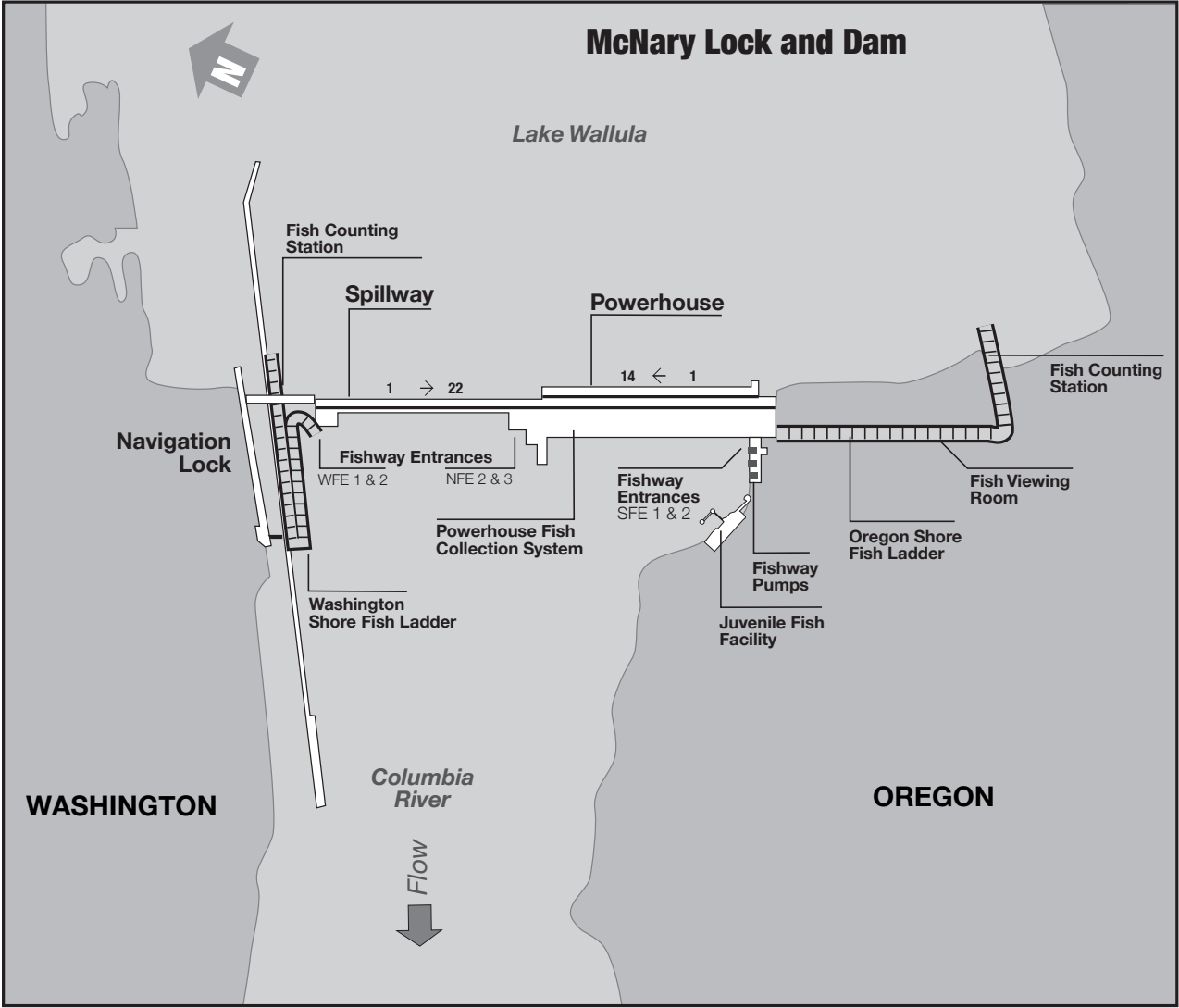
*Jacks included

TABLE 68

**MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2014**

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	1,521	363	422	2,906	27,211	18,916	116,932	34,088			203,236
TOTAL	1,420	25,236	118,071	42,224	116,919	917,469	1,381,504	4,028,150	1,618,733	52,038	4,076		8,306,021
10-YR Average				1,673	486	3,498	32,538	51,851	123,896	44,192			262,200

Plate 5 McNary Lock and Dam



McNARY DAM

FISH COUNTING SCHEDULE

Washington Ladder Schedule

1 January – 31 March	No counting.
1 April – 31 October	Visual counts daily (0400-2000 hours PST).
1 July – 30 September	Nightly video lamprey counts (2000-0400 hours PST).
1 November – 31 December	No counting.

Oregon Ladder Schedule

1 January – 31 March	No counting.
1 April – 31 October	Visual counts daily (0400-2000 hours PST).
1 July – 30 September	Nightly video lamprey counts (2000-0400 hours PST).
1 November – 31 December	No counting.

FISH LADDER OPERATING SCHEDULE

Washington Ladder

1 – 6 January	Ladder in service.
6 – 27 January	Ladder dewatered for annual maintenance.
27 January – 31 December	Ladder in service.

Oregon Ladder

1 – 27 January	Ladder in service.
27 January – 28 February	Ladder dewatered for annual maintenance.
28 February – 31 December	Ladder in service.

FISHWAY ACTIVITIES

Washington ladder maintenance activities consisted of a dive inspection of diffuser gratings with maintenance performed on all above-water structures and in the ladder to tailwater elevation. Also, a contractor sealed the ladder's largest leak which was just downstream of the exit. The junction pool still can not be dewatered due to problems with the concrete spillway bulkheads.

The Wasco county PUD was out of service from 6 to 29 January for annual maintenance with conduit bulkheads in place. On 27 to 29 January, the bypass system was functional around the unit's outage.

Oregon ladder maintenance activities consisted of a camera inspection of the powerhouse diffuser gratings, a physical inspection of all other diffuser gratings, repairs to main diffuser 13 and lamprey passage structure attached to it, repairs to the picketed leads and their support structure, rehabilitation of the 1000 cfs conduit's intake valve, rehabilitation of the conduit's discharge valves beginning at main diffusers 12 and 13, along with

maintenance performed on all entrance and exit weirs. Finally, a contractor installed a prototype adult lamprey passage structure at entrance weir, SFEW2.

Fish pump 2 remains out of service for major overhaul, which is now scheduled for completion around mid-September, 2015. Fish pumps 1 and 3 were out of service from 26 January to 28 February for annual maintenance. The ladder was on orifice flow one day before going out of service. For the season, there are no long outages to report.

From 27 January to 28 February, the 1000 cfs auxiliary supply conduit was out of service.

From 28 March to 22 December, the juvenile bypass channel was operated for both juvenile and adult fallback passage. From 12 November to 22 December, the system was in emergency bypass due to severe winter weather and failure of the rectangular screen cleaning device. When in emergency bypass, the system does not provide auxiliary flow to the Oregon ladder's north powerhouse entrances.

TABLE 69

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER McNARY DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				10,091	102,818	63,317	47,458	18,523	395,599	77,266			715,072
STEELHEAD				519	341	2,269	23,228	21,019	119,067	43,329			209,772
SOCKEYE					0	178,748	365,457	1,760	43	4			546,012
COHO*								36	86,736	25,815			112,587
CHUM													0
PINK													0
TOTAL				10,610	103,159	244,334	436,143	41,338	601,445	146,414			1,583,443
SHAD					2,748	632,174	296,961	5,943					937,826
LAMPREY				3	4	33	652	794	237	60			1,783
STURGEON													0
BULL TROUT													0

*Jacks Included

TABLE 70
DISCHARGE AND WATER QUALITY DATA
MCNARY PROJECT 2014

JANUARY				
DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Jan 1	107.3	0.0	6.0	40.0
Jan 2	107.3	0.0	6.0	40.0
Jan 3	114.5	0.0	6.0	40.0
Jan 4	107.4	0.0	6.0	40.0
Jan 5	108.3	0.0	6.0	40.0
Jan 6	129.6	0.0	6.0	40.0
Jan 7	139.6	0.0	6.0	39.0
Jan 8	140.5	0.0	6.0	39.0
Jan 9	145.0	0.0	6.0	39.0
Jan 10	132.7	0.0	6.0	39.0
Jan 11	143.7	0.0	6.0	39.0
Jan 12	104.1	0.0	6.0	39.0
Jan 13	133.8	0.0	6.0	39.0
Jan 14	116.6	0.0	6.0	39.0
Jan 15	103.0	0.0	6.0	39.0
Jan 16	102.4	0.0	6.0	39.0
Jan 17	134.4	0.0	6.0	40.0
Jan 18	119.6	0.0	6.0	40.0
Jan 19	120.3	0.0	6.0	40.0
Jan 20	118.5	0.0	6.0	40.0
Jan 21	127.8	0.0	6.0	39.0
Jan 22	140.7	0.0	6.0	39.0
Jan 23	137.9	0.0	6.0	39.0
Jan 24	123.7	0.0	6.0	39.0
Jan 25	123.6	0.0	6.0	39.0
Jan 26	117.2	0.0	6.0	38.0
Jan 27	106.1	0.0	6.0	38.0
Jan 28	112.5	0.0	6.0	38.0
Jan 29	139.3	0.0	6.0	38.0
Jan 30	129.0	0.0	6.0	38.0
Jan 31	105.4	0.0	6.0	38.0
AVG.	122.3	0.0	6.0	39.1

FEBRUARY				
DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Feb 1	111.1	0.0	6.0	38.0
Feb 2	122.2	0.0	6.0	38.0
Feb 3	105.8	0.0	6.0	38.0
Feb 4	95.8	0.0	6.0	38.0
Feb 5	104.1	0.0	6.0	37.0
Feb 6	100.5	0.0	6.0	36.0
Feb 7	130.1	0.0	6.0	36.0
Feb 8	138.0	0.0	6.0	35.0
Feb 9	129.5	0.0	6.0	34.0
Feb 10	103.8	0.0	6.0	34.0
Feb 11	91.2	0.0	6.0	34.0
Feb 12	105.6	0.0	6.0	34.0
Feb 13	89.3	0.0	6.0	34.0
Feb 14	88.6	0.0	6.0	35.0
Feb 15	111.5	0.0	6.0	36.0
Feb 16	116.9	0.0	6.0	36.0
Feb 17	98.3	0.0	6.0	37.0
Feb 18	113.3	0.0	6.0	38.0
Feb 19	110.1	0.0	6.0	38.0
Feb 20	106.8	0.0	6.0	38.0
Feb 21	104.4	0.0	6.0	38.0
Feb 22	106.8	0.0	6.0	39.0
Feb 23	105.6	0.0	6.0	39.0
Feb 24	101.0	0.0	5.0	39.0
Feb 25	107.7	0.0	5.0	38.0
Feb 26	107.0	0.0	5.6	38.0
Feb 27	107.6	0.0	6.0	38.0
Feb 28	115.8	0.0	6.0	38.0
AVG.	108.2	0.0	5.9	36.8

MARCH				
DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Mar 1	123.8	0.0	5.0	38.0
Mar 2	125.3	0.0	5.0	38.0
Mar 3	144.4	3.7	4.8	37.0
Mar 4	169.4	0.0	3.1	37.0
Mar 5	170.1	0.0	3.9	38.0
Mar 6	155.6	0.4	3.9	37.0
Mar 7	180.0	0.0	4.5	38.0
Mar 8	211.9	31.2	4.5	39.0
Mar 9	234.9	46.7	3.6	40.0
Mar 10	221.0	26.9	2.2	40.0
Mar 11	245.1	46.4	2.4	40.0
Mar 12	263.7	114.8	4.0	40.0
Mar 13	255.3	126.6	1.3	40.0
Mar 14	234.8	84.0	1.3	42.0
Mar 15	239.9	47.0	1.3	42.0
Mar 16	245.4	55.2	1.6	42.0
Mar 17	224.1	46.1	1.5	42.0
Mar 18	234.1	47.9	1.5	42.0
Mar 19	241.3	47.9	2.4	43.0
Mar 20	252.9	69.6	2.0	43.0
Mar 21	260.5	71.4	2.2	43.0
Mar 22	253.2	59.2	2.2	42.0
Mar 23	230.6	37.0	2.4	42.0
Mar 24	210.2	16.9	2.7	42.0
Mar 25	210.6	22.3	3.7	43.0
Mar 26	196.3	9.6	3.7	43.0
Mar 27	207.6	21.8	3.7	43.0
Mar 28	205.2	34.8	3.8	43.0
Mar 29	227.1	52.2	4.2	43.0
Mar 30	226.7	52.0	4.3	43.0
Mar 31	240.2	65.0	4.2	43.0
AVG.	214.2	39.9	3.1	40.9

TABLE 71

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

MCNARY PROJECT - FISH COUNTS

APRIL 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD			LAMPREY	KCFS	KCFS
Apr 1	0			0				17	12			0	243.8	68.7	3.8	43.0
Apr 2	0			0				13	5			0	221.5	87.8	3.0	44.0
Apr 3	1			0				14	8			1	217.8	82.8	4.2	44.0
Apr 4	4			0				27	16			0	217.7	79.8	5.0	44.0
Apr 5	3			0				22	10			0	205.1	71.4	5.0	44.0
Apr 6	10			0				20	13			0	227.5	89.2	5.2	45.0
Apr 7	14			0				25	18			0	219.9	81.4	5.2	45.0
Apr 8	10			1				21	12			0	207.6	74.1	5.0	45.0
Apr 9	29			0				27	13			0	210.3	75.4	5.0	45.0
Apr 10	34			1				29	18			1	206.2	61.5	5.0	45.0
Apr 11	39			0				23	16			0	241.6	98.5	5.5	48.0
Apr 12	40			-1				19	15			0	241.9	97.1	5.0	47.0
Apr 13	49			0				33	22			-1	222.2	88.9	5.0	47.0
Apr 14	59			1				19	11			0	235.9	94.2	5.1	48.0
Apr 15	29			0				12	8			0	228.9	95.9	5.0	48.0
Apr 16	68			2				27	21			0	231.9	124.2	5.0	48.0
Apr 17	85			5				14	12			0	239.7	115.8	5.0	48.0
Apr 18	148			0				24	20			0	253.4	127.5	5.0	48.0
Apr 19	141			3				11	6			0	253.9	112.8	5.2	48.0
Apr 20	323			4				20	12			0	258.4	111.1	5.0	48.0
Apr 21	251			4				8	3			0	256.7	106.1	5.0	48.0
Apr 22	331			7				16	11			0	247.1	102.0	5.2	48.0
Apr 23	433			4				10	4			2	250.0	108.0	5.0	48.0
Apr 24	186			1				9	6			0	258.0	107.7	5.8	48.0
Apr 25	499			0				14	3			0	262.7	114.7	5.8	48.0
Apr 26	1,089			14				10	7			0	264.5	147.6	5.8	48.0
Apr 27	1,619			8				15	7			0	265.7	150.3	5.7	49.0
Apr 28	1,693			8				13	9			0	263.5	115.0	5.8	49.0
Apr 29	1,188			31				2	0			-1	258.9	108.2	5.0	49.0
Apr 30	1,604			19				5	0			1	282.8	133.7	5.5	49.0
TOTAL	9,979			112				519	318			3				
AVG.	333			4				17	11			0	239.8	101.0	5.1	46.9

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 72

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

MCNARY PROJECT - FISH COUNTS

MAY 2014

DATE	CHINOOK ADULT		CHINOOK FALL JACK	COHO ADULT JACK	COHO JACK	TOTAL	unclipped STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER													
May 1	3,600		69			6	-1			0	1	264.2	120.9	5.5	50.0
May 2	3,158		46			10	4			0	0	252.1	114.6	5.4	51.0
May 3	4,019		54			6	2			0	0	264.1	125.6	6.0	52.0
May 4	4,814		80			2	2			0	0	264.8	122.1	6.0	52.0
May 5	9,052		181			6	1			0	0	289.1	145.7	6.0	52.0
May 6	8,188		226			13	2			0	0	301.5	167.3	6.0	52.0
May 7	6,443		291			11	3			0	0	320.1	169.7	5.5	52.0
May 8	2,639		221			-7	-12			0	0	284.1	136.9	5.3	52.0
May 9	5,622		349			11	4			0	1	286.8	135.2	5.0	53.0
May 10	3,774		476			7	0			0	4	291.3	139.3	5.1	53.0
May 11	3,650		578			11	5			0	0	263.0	111.8	5.3	53.0
May 12	3,134		626			12	3			0	-1	270.3	119.3	6.0	53.0
May 13	2,786		724			5	1			0	0	288.9	139.5	6.0	54.0
May 14	2,529		728			13	1			0	0	278.5	147.5	6.0	54.0
May 15	2,938		834			21	1			0	0	262.2	151.1	6.0	54.0
May 16	2,870		994			8	0			0	0	266.1	149.7	6.0	55.0
May 17	2,392		1059			19	0			0	0	293.2	169.3	6.0	55.0
May 18	2,033		789			13	2			0	0	318.8	180.0	6.0	55.0
May 19	1,253		629			10	1			1	0	331.3	183.8	6.0	55.0
May 20	1,002		452			8	-1			1	1	347.3	196.0	6.0	55.0
May 21	1,490		650			15	-1			28	0	346.4	201.0	6.0	55.0
May 22	1,186		419			3	-1			60	0	322.3	177.0	6.0	56.0
May 23	1,400		481			19	0			41	0	322.3	173.8	6.0	56.0
May 24	1,355		609			11	-1			123	0	351.6	200.1	4.9	56.0
May 25	971		486			19	0			159	8	353.1	203.1	5.0	56.0
May 26	994		352			15	1			173	0	362.1	211.1	5.0	57.0
May 27	1,174		335			10	1			26	-10	359.6	209.1	4.6	57.0
May 28	1,462		459			25	0			66	0	375.5	227.9	4.5	56.0
May 29	1,006		311			11	1			324	0	360.4	220.5	4.8	56.0
May 30	965		277			14	2			594	0	348.7	207.6	5.0	56.0
May 31	857		277			14	5			1152	0	356.4	220.0	5.0	56.0
TOTAL	88,756		14,062			341	25			2,748	4				
AVG.	2,863		454			11	1			89	0	309.6	167.0	5.5	54.2
RUN YEAR		CHINOOK	CHINOOK			TOTAL	unclipped			SHAD	LAMPREY				
TOTALS TO DATE		ADULT	JACK			STEELHEAD	STEELHEAD								
SPRING		98,735	14,174			860	343			2,748	7				

TABLE 73

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL					SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK							
Jun 1	855			253			1	14	0		1,841	0	332.0	193.3	4.5	57.0	
Jun 2	1,029			284			0	8	2		913	0	325.4	177.5	4.5	57.0	
Jun 3	563			207			1	21	4		1,962	1	365.7	219.1	4.7	58.0	
Jun 4	1,057			254			1	17	1		2,763	0	334.3	184.4	4.3	58.0	
Jun 5	1,241			268			1	20	3		4,885	0	329.7	186.4	4.6	59.0	
Jun 6	1,278			203			9	21	7		5,205	0	334.5	193.2	4.0	59.0	
Jun 7	1,052			180			12	15	1		7,730	0	334.5	187.3	4.0	60.0	
Jun 8	1,337			210			30	23	5		9,534	0	306.6	154.9	4.0	60.0	
Jun 9		1,227		213			33	42	17		16,486	0	293.3	141.9	4.3	60.0	
Jun 10		1,602		256			106	28	6		17,858	0	293.8	144.9	4.2	60.0	
Jun 11		2,356		258			346	75	7		18,809	2	297.6	147.1	4.0	61.0	
Jun 12		2,415		345			398	41	7		18,711	1	278.9	130.3	4.3	61.0	
Jun 13		1,920		228			593	54	9		11,123	0	259.9	113.2	4.5	60.0	
Jun 14		2,223		293			881	47	5		11,767	0	250.7	100.7	4.7	60.0	
Jun 15		2,159		278			1,536	45	-2		29,899	0	243.8	97.7	5.0	60.0	
Jun 16		2,023		292			1,941	57	10		12,528	1	214.9	86.1	6.0	60.0	
Jun 17		1,782		318			2,789	76	26		15,783	0	207.4	103.9	6.0	59.0	
Jun 18		3,096		464			3,593	83	31		23,481	2	253.2	126.8	6.0	60.0	
Jun 19		1,505		303			3,389	65	25		19,808	4	259.3	129.7	6.0	60.0	
Jun 20		1,509		240			2,973	56	23		19,150	0	261.9	131.1	6.0	59.0	
Jun 21		1,520		270			3,627	55	24		31,501	0	260.4	130.5	6.0	60.0	
Jun 22		1,775		288			4,624	70	28		24,318	0	265.3	133.1	6.0	60.0	
Jun 23		2,180		320			7,563	91	24		29,348	5	299.0	149.5	6.0	61.0	
Jun 24		2,565		378			9,794	125	50		52,689	2	291.4	145.9	6.0	61.0	
Jun 25		1,507		247			14,327	98	42		53,509	0	279.8	140.1	6.0	61.0	
Jun 26		2,184		299			19,847	168	60		60,779	1	271.2	135.7	6.0	62.0	
Jun 27		2,107		479			26,380	172	67		51,029	5	278.3	139.3	6.0	62.0	
Jun 28		2,438		530			19,014	179	78		29,023	-1	274.7	137.6	6.0	62.0	
Jun 29		2,928		598			26,637	241	95		23,224	4	276.5	138.6	6.0	62.0	
Jun 30		2,579		549			28,302	262	108		26,518	6	288.5	144.6	6.0	62.0	
TOTAL	8,412	45,600		9,305			178,748	2,269	763		632,174	33					
AVG.	1,052	2,073		310			5,958	76	25		21,072	1	285.4	144.8	5.2	60.0	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	107,147	16,033
SUMMER	45,600	7,446
TOTAL	152,747	23,479

	TOTAL SOCKEYE	unclipped STEELHEAD	SHAD	LAMPREY
	178,748	3,129	634,922	40

TABLE 74
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL unclipped		PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD							
Jul 1		2,847		672			25,233	254	121		30,148	12	299.4	149.9	5.5	62.0
Jul 2		1,988		556			17,216	317	154		29,941	18	288.8	144.5	5.9	63.0
Jul 3		1,595		282			16,192	246	97		26,651	6	288.0	144.1	5.8	63.0
Jul 4		1,551		182			22,397	263	119		26,562	6	270.2	135.4	6.0	64.0
Jul 5		1,632		213			18,139	277	144		20,499	5	274.2	137.3	6.0	64.0
Jul 6		3,116		236			23,323	304	146		21,257	7	254.6	127.7	6.0	64.0
Jul 7		2,106		374			21,502	310	137		10,182	22	238.0	119.2	6.0	64.0
Jul 8		2,617		487			27,882	444	265		9,850	18	244.9	122.7	6.0	65.0
Jul 9		1,905		360			31,396	406	206		7,165	14	245.8	123.3	6.0	66.0
Jul 10		1,741		329			27,078	508	267		7,431	16	234.9	117.8	6.0	66.0
Jul 11		1,451		457			25,215	670	321		15,015	11	223.6	112.0	6.0	66.0
Jul 12		1,578		317			23,661	712	393		14,344	13	228.9	114.6	6.0	67.0
Jul 13		1,557		391			16,338	902	463		9,382	13	238.4	119.3	6.0	67.0
Jul 14		1,495		285			12,306	942	541		8,856	19	213.6	107.0	6.0	67.0
Jul 15		1,434		331			12,346	1,211	730		6,169	26	220.5	110.2	6.0	67.0
Jul 16		1,098		288			8,406	1,233	678		7,372	15	195.6	97.8	6.0	68.0
Jul 17		938		245			6,390	890	506		4,745	26	217.8	109.0	6.0	68.0
Jul 18		838		253			5,535	1,263	732		5,336	42	204.0	102.2	6.0	68.0
Jul 19		862		258			4,464	1,037	568		3,929	19	201.4	101.0	6.0	68.0
Jul 20		803		259			4,279	1,055	592		4,749	16	202.2	101.1	6.0	68.0
Jul 21		808		244			4,182	1,410	763		3,906	41	207.8	104.2	6.0	68.0
Jul 22		901		213			2,551	1,302	653		4,785	16	182.0	91.2	6.0	68.0
Jul 23		784		186			1,885	1,031	500		3,818	24	185.1	92.5	6.0	68.0
Jul 24		502		154			1,613	878	449		2,833	34	189.5	94.9	6.0	67.0
Jul 25		484		133			1,347	882	452		2,897	22	186.9	93.7	6.0	67.0
Jul 26		421		96			1,102	828	407		1,908	17	213.8	107.0	6.0	67.0
Jul 27		428		101			971	610	293		2,080	24	212.6	106.6	6.0	67.0
Jul 28		439		96			858	574	264		1,905	26	204.5	102.6	6.0	67.0
Jul 29		505		154			742	681	348		1,325	41	206.7	103.7	6.0	67.0
Jul 30		358		113			500	787	426		1,108	41	194.4	97.5	6.0	68.0
Jul 31		289		122			408	1,001	537		813	42	205.5	103.0	6.0	69.0
TOTAL		39,071		8,387			365,457	23,228	12,272		296,961	652				
AVG.		1260		271			11,789	749	396		9,579	21	225.0	112.7	6.0	66.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	107,147	16,033
SUMMER	84,671	15,833
TOTAL	191,818	31,866

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
544,205	26,357	13,378	931,883	692

TABLE 75

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

MCNARY PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			unclipped		SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	KCFS						
Aug 1		305		96	0	0	337	1,076	541		563	72	184.1	92.3	6.0	69.0	
Aug 2		434		130	0	0	303	990	532		560	39	197.6	99.0	6.0	70.0	
Aug 3		482		161	0	0	162	935	439		356	67	174.7	87.5	6.0	70.0	
Aug 4		436		119	0	0	160	916	448		597	54	151.5	76.1	6.0	71.0	
Aug 5		534		190	0	0	154	1,106	531		388	43	168.0	84.3	6.0	71.0	
Aug 6		372		128	0	0	102	982	469		790	38	164.0	82.1	6.0	71.0	
Aug 7		318		156	0	0	106	1,048	501		268	28	168.9	84.6	6.0	71.0	
Aug 8		422		209	0	0	90	1,413	684		248	21	177.6	88.8	6.0	71.0	
Aug 9			256	126	0	0	59	1,283	636		337	26	171.4	85.8	6.0	71.0	
Aug 10			262	110	0	0	43	926	447		230	20	170.7	85.4	6.0	71.0	
Aug 11			229	107	0	0	43	584	309		167	44	166.3	83.2	6.0	71.0	
Aug 12			172	60	0	0	21	522	231		218	17	177.9	88.9	6.0	71.0	
Aug 13			186	86	0	0	20	532	250		256	20	169.4	84.8	6.0	71.0	
Aug 14			372	110	0	0	40	636	298		217	67	165.8	83.0	6.0	71.0	
Aug 15			407	141	0	0	23	603	282		132	22	167.0	83.6	6.0	71.0	
Aug 16			477	194	0	0	28	577	285		114	19	161.7	81.0	6.0	71.0	
Aug 17			505	191	-1	0	9	658	323		60	24	139.2	69.6	6.0	71.0	
Aug 18			375	156	0	0	14	498	223		67	11	135.0	67.7	6.0	71.0	
Aug 19			349	112	1	0	6	450	200		51	8	152.7	76.4	6.0	71.0	
Aug 20			261	116	0	0	2	383	214		34	3	162.5	81.5	6.0	72.0	
Aug 21			437	177	0	0	5	447	233		87	23	162.0	81.2	6.0	72.0	
Aug 22			392	138	0	0	9	369	165		32	11	141.2	70.7	6.0	71.0	
Aug 23			277	102	0	0	1	248	125		4	6	143.6	72.2	6.0	70.0	
Aug 24			452	151	4	2	4	354	139		26	20	148.8	74.6	6.0	70.0	
Aug 25			458	139	0	0	5	375	140		62	11	139.1	69.6	6.0	71.0	
Aug 26			469	89	2	0	2	381	147		19	27	150.6	75.2	6.0	70.0	
Aug 27			540	136	4	0	4	532	200		38	9	148.7	74.3	6.0	70.0	
Aug 28			561	104	3	1	0	489	191		3	11	157.3	78.7	6.0	71.0	
Aug 29			837	123	3	0	3	586	225		9	12	150.2	75.7	6.0	71.0	
Aug 30			1,296	273	10	4	2	558	218		8	9	152.0	76.3	6.0	71.0	
Aug 31			1,287	233	2	1	3	562	232		2	12	138.9	69.7	6.0	71.0	
TOTAL		3,303	10,857	4,363	28	8	1,760	21,019	9,858		5,943	794					
AVG.		413	472	141	1	0	57	678	318		192	26	159.9	80.1	6.0	70.8	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	107,147	16,033
SUMMER	87,974	17,022
FALL	10,857	3,174
TOTAL	205,978	36,229

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
28	8	545,965	47,376	23,236

SHAD	LAMPREY
937,826	1,486

TABLE 76

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

MCNARY PROJECT - FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped		SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			PINK	KCFS	KCFS	SECCHI
Sep 1			1,975	324	7	1	8	690	261		9	138.0	69.2	6.0	70.0
Sep 2			3,164	341	3	1	5	708	279		7	90.2	0.0	6.0	70.0
Sep 3			4,511	438	56	19	9	1,344	535		8	104.4	0.0	6.0	69.0
Sep 4			2,770	347	72	51	1	1,249	424		8	104.7	0.0	6.0	69.0
Sep 5			4,299	492	165	38	1	1,374	476		12	106.7	0.0	6.0	69.0
Sep 6			6,804	795	158	46	1	1,805	621		8	105.4	0.0	6.0	69.0
Sep 7			9,183	928	270	127	1	1,972	704		10	94.4	0.0	6.0	69.0
Sep 8			11,719	1,081	457	100	2	3,299	1,189		8	79.7	0.0	6.0	68.0
Sep 9			11,975	1,052	685	244	1	6,109	2,355		12	83.2	0.0	6.0	68.0
Sep 10			9,780	1,033	1,174	243	1	5,313	1,859		8	88.1	0.0	5.8	68.0
Sep 11			14,877	1,391	1,267	404	3	3,575	1,199		6	77.3	0.0	5.0	68.0
Sep 12			22,647	2,244	1,664	362	2	3,542	1,064		11	87.8	0.0	5.5	68.0
Sep 13			26,261	3,307	1,760	561	-1	3,755	1,038		5	100.7	0.0	6.0	68.0
Sep 14			22,728	2,907	2,983	504	4	4,159	1,141		7	93.8	0.0	6.0	68.0
Sep 15			21,810	2,562	3,493	614	1	5,022	1,298		4	81.9	0.0	6.0	68.0
Sep 16			18,936	2,520	4,164	450	2	6,282	1,554		-1	85.5	0.0	6.0	67.0
Sep 17			11,888	1,898	4,554	500	1	5,766	1,608		9	90.0	0.0	6.0	67.0
Sep 18			15,093	2,862	5,879	624	0	7,339	2,057		9	95.5	0.0	6.0	67.0
Sep 19			10,704	2,348	4,775	1,368	0	5,871	1,895		6	96.2	0.0	6.0	66.0
Sep 20			10,943	2,319	3,134	1,308	0	4,192	1,322		5	78.2	0.0	6.0	66.0
Sep 21			13,117	2,345	3,882	1,031	1	4,390	1,413		14	71.6	0.0	6.0	67.0
Sep 22			12,882	2,088	3,880	740	0	4,502	1,507		11	83.1	0.0	6.0	68.0
Sep 23			12,588	2,049	4,921	740	-1	5,648	1,743		11	84.8	0.0	6.0	67.0
Sep 24			8,587	1,661	4,297	719	1	4,987	1,481		7	104.4	0.0	6.0	67.0
Sep 25			10,037	3,466	9,467	256	0	5,273	1,212		14	117.0	0.0	6.0	67.0
Sep 26			3,460	1,123	2,196	215	0	2,660	776		8	96.8	0.0	6.0	67.0
Sep 27			11,193	2,687	1,448	89	0	2,446	755		10	76.0	0.0	6.0	67.0
Sep 28			10,800	2,934	2,844	188	0	6,138	1,951		5	83.6	0.0	6.0	67.0
Sep 29			6,825	1,540	2,237	141	0	4,329	1,324		6	87.8	0.0	6.0	67.0
Sep 30			10,523	2,438	2,934	226	0	5,328	1,751		0	78.8	0.0	6.0	66.0
TOTAL			342,079	53,520	74,826	11,910	43	119,067	36,792		237				
AVG.			11,403	1784	2494	397	1	3,969	1,226		8	92.2	2.3	5.9	67.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	107,147	16,033
SUMMER	87,974	17,022
FALL	352,936	56,694
TOTAL	548,057	89,749

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
74,854	11,918	546,008	166,443	60,028

SHAD	LAMPREY
937,826	1,723

TABLE 77

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

MCNARY PROJECT - FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					LAMPREY	DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD		KCFS	KCFS	SECCHI	DEG F
Oct 1			5,188	2,031	2,219	177	0	3,684	1,224			1	77.6	0.0	6.0	66.0
Oct 2			4,538	1,642	2,047	192	0	3,030	971			2	72.8	0.0	6.0	66.0
Oct 3			4,210	1,421	1,586	138	1	2,550	699			7	87.5	0.0	6.0	66.0
Oct 4			3,166	1,037	1,354	146	1	1,983	509			4	98.4	0.0	6.0	66.0
Oct 5			3,717	1,203	1,103	160	0	1,898	552			4	85.0	0.0	6.0	65.0
Oct 6			3,854	970	1,283	122	1	2,085	605			2	80.9	0.0	6.0	65.0
Oct 7			4,401	1,414	1,685	90	1	2,058	655			0	105.7	0.0	6.0	65.0
Oct 8			3,176	1,156	1,277	66	0	1,866	589			1	111.5	0.0	6.0	65.0
Oct 9			2,343	848	989	96	0	1,859	620			2	103.0	0.0	6.0	65.0
Oct 10			2,814	1,217	714	72	0	1,451	484			3	94.7	0.0	6.0	65.0
Oct 11			2,310	1,125	870	74	0	1,801	660			3	95.5	0.0	6.0	65.0
Oct 12			3,133	1,091	961	83	0	2,091	773			2	80.6	0.0	6.0	65.0
Oct 13			1,880	657	523	37	0	914	304			5	73.7	0.0	6.0	65.0
Oct 14			1,506	381	425	51	0	793	258			6	88.9	0.0	6.0	65.0
Oct 15			1,078	343	413	33	0	912	282			0	95.7	0.0	6.0	64.0
Oct 16			1,000	279	323	36	0	798	242			2	90.6	0.0	6.0	63.0
Oct 17			863	229	335	48	0	791	313			9	98.9	0.0	6.0	63.0
Oct 18			888	245	277	34	0	795	363			0	97.1	0.0	6.0	63.0
Oct 19			740	216	286	15	0	633	273			2	81.7	0.0	6.0	62.0
Oct 20			1,121	211	294	21	0	648	250			0	72.5	0.0	6.0	62.0
Oct 21			1,029	271	446	39	0	1,006	441			0	78.9	0.0	6.0	62.0
Oct 22			771	244	450	35	0	919	406			0	91.0	0.0	6.0	62.0
Oct 23			722	223	342	21	0	763	319			0	95.2	0.0	6.0	61.0
Oct 24			610	142	300	18	0	878	364			0	86.8	0.0	6.0	62.0
Oct 25			598	114	264	28	0	839	325			2	96.8	0.0	6.0	61.0
Oct 26			363	165	264	30	0	759	308			0	85.5	0.0	6.0	61.0
Oct 27			540	174	691	86	0	1,515	630			0	89.5	0.0	6.0	60.0
Oct 28			526	135	879	67	0	1,373	552			1	93.0	0.1	6.0	60.0
Oct 29			241	75	426	38	0	952	353			1	110.1	0.0	6.0	59.0
Oct 30			264	95	448	23	0	934	385			0	113.5	0.0	6.0	59.0
Oct 31			260	62	225	40	0	751	391			1	118.0	0.0	6.0	58.0
TOTAL			57,850	19,416	23,699	2,116	4	43,329	15,100			60				
AVG.			1866	626	764	68	0	1,398	487			2	92.0	0.0	6.0	63.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE	107,147	16,033	98,553	14,034	546,012	209,772	75,128	937,826	1,783
SPRING									
SUMMER	87,974	17,022							
FALL	410,786	76,110							
TOTAL	605,907	109,165							

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

TABLE 78
DISCHARGE AND WATER QUALITY DATA
MCNARY PROJECT 2014

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F				SECCHI	DEG F
Nov 1	103.8	0.0	6.0	58.0	Dec 1	146.5	9.8	6.0	49.0
Nov 2	100.8	0.0	6.0	58.0	Dec 2	136.9	8.9	6.0	48.0
Nov 3	91.2	0.0	6.0	58.0	Dec 3	119.3	8.6	6.0	47.0
Nov 4	107.4	0.0	6.0	58.0	Dec 4	142.1	8.6	6.0	47.0
Nov 5	116.8	0.0	6.0	58.0	Dec 5	162.6	8.6	6.0	46.0
Nov 6	99.7	0.0	6.0	57.0	Dec 6	158.3	0.0	6.0	45.0
Nov 7	125.7	0.0	6.0	57.0	Dec 7	156.8	0.0	6.0	45.0
Nov 8	126.1	0.0	6.0	57.0	Dec 8	149.5	0.0	6.0	45.0
Nov 9	110.6	0.0	6.0	57.0	Dec 9	156.1	0.0	6.0	45.0
Nov 10	132.7	0.0	6.0	57.0	Dec 10	158.0	0.1	6.0	45.0
Nov 11	119.8	0.0	5.3	57.0	Dec 11	142.8	0.0	6.0	46.0
Nov 12	125.5	0.0	6.0	56.0	Dec 12	136.2	9.0	6.0	46.0
Nov 13	127.0	0.0	6.0	54.0	Dec 13	136.9	9.0	6.0	46.0
Nov 14	148.8	0.0	6.0	53.0	Dec 14	145.4	9.0	6.0	46.0
Nov 15	138.0	9.0	6.0	52.0	Dec 15	159.9	0.1	6.0	46.0
Nov 16	136.4	8.9	6.0	50.0	Dec 16	148.0	0.0	6.0	46.0
Nov 17	142.7	8.9	6.0	49.0	Dec 17	147.9	0.0	6.0	46.0
Nov 18	132.8	0.2	6.0	49.0	Dec 18	153.7	0.0	6.0	45.0
Nov 19	151.4	0.0	6.0	48.0	Dec 19	164.6	0.0	6.0	45.0
Nov 20	135.2	0.0	6.0	48.0	Dec 20	175.9	0.0	6.0	45.0
Nov 21	126.2	0.0	6.0	48.0	Dec 21	158.7	0.0	6.0	45.0
Nov 22	121.0	0.0	6.0	48.0	Dec 22	153.5	0.0	6.0	45.0
Nov 23	104.1	0.0	6.0	48.0	Dec 23	152.3	0.0	6.0	45.0
Nov 24	110.5	8.8	6.0	48.0	Dec 24	153.4	0.0	6.0	45.0
Nov 25	125.6	9.0	6.0	48.0	Dec 25	139.4	0.0	6.0	45.0
Nov 26	126.9	9.0	6.0	48.0	Dec 26	147.1	0.0	6.0	45.0
Nov 27	106.8	0.2	6.0	48.0	Dec 27	155.9	0.0	6.0	45.0
Nov 28	108.9	0.0	6.0	49.0	Dec 28	143.9	0.0	6.0	44.0
Nov 29	118.3	0.0	6.0	49.0	Dec 29	153.7	0.0	6.0	44.0
Nov 30	154.9	9.8	6.0	49.0	Dec 30	170.6	0.0	6.0	43.0
					Dec 31	175.5	0.0	6.0	42.0
AVG.	122.5	2.1	6.0	52.5	AVG.	151.7	2.3	6.0	45.4

TABLE 79

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Jul 1		80		3			833	5	0		770	12
Jul 2		38		13			672	5	0		600	7
Jul 3		45		0			839	1	0		729	1
Jul 4		32		0			1,310	10	3		655	5
Jul 5		47		0			1,725	17	4		624	3
Jul 6		32		4			1,276	10	1		351	4
Jul 7		27		0			998	7	0		273	10
Jul 8		82		22			2,908	26	4		353	11
Jul 9		57		22			2,877	10	2		312	12
Jul 10		47		10			2,637	18	0		326	7
Jul 11		30		15			1,905	19	5		298	5
Jul 12		30		11			1,089	18	1		346	14
Jul 13		18		6			778	17	4		294	15
Jul 14		51		24			1,343	12	4		304	13
Jul 15		40		6			1,132	29	16		876	24
Jul 16		15		26			420	19	5		374	38
Jul 17		28		7			635	13	5		617	42
Jul 18		25		7			633	19	10		409	64
Jul 19		30		3			422	19	8		213	43
Jul 20		45		12			376	22	9		184	25
Jul 21		46		10			385	13	4		159	61
Jul 22		21		2			213	28	20		181	35
Jul 23		14		3			127	12	8		106	28
Jul 24		6		2			177	12	4		36	14
Jul 25		12		2			134	3	2		82	23
Jul 26		12		0			78	7	2		52	12
Jul 27		13		4			108	8	2		76	14
Jul 28		17		8			72	10	4		77	40
Jul 29		9		1			69	17	8		23	57
Jul 30		10		2			53	24	8		34	50
Jul 31		10		5			55	25	12		27	69
TOTAL		969		230			26,279	455	155		9,761	758
AVG.		31		7			848	15	5		315	24

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

TABLE 80

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Aug 1		16		1	0	0	58	17	7		11	77
Aug 2		14		1	0	0	31	42	17		20	72
Aug 3		22		7	0	0	35	34	14		42	81
Aug 4		8		7	0	0	12	35	15		91	65
Aug 5		12		7	0	0	21	17	7		35	35
Aug 6		4		4	0	0	5	15	7		9	64
Aug 7		11		4	0	0	5	25	10		8	38
Aug 8		5		5	0	0	4	16	7		11	67
Aug 9			5	3	0	0	2	23	8		18	40
Aug 10			15	8	0	0	0	31	10		3	43
Aug 11			7	5	0	0	2	15	5		12	16
Aug 12			17	2	0	0	0	15	2		13	63
Aug 13			20	2	0	0	1	14	4		15	123
Aug 14			9	6	0	0	0	15	1		14	25
Aug 15			7	4	0	0	0	12	2		16	36
Aug 16			11	4	0	0	1	17	8		9	19
Aug 17			4	2	1	0	0	15	5		12	73
Aug 18			4	2	1	0	0	10	4		5	36
Aug 19			18	2	0	0	0	12	8		2	16
Aug 20			14	7	0	0	0	15	12		2	31
Aug 21			12	1	0	0	0	11	8		0	22
Aug 22			6	2	0	0	0	13	2		0	16
Aug 23			11	0	0	0	0	11	4		0	27
Aug 24			15	1	0	0	0	9	4		22	35
Aug 25			17	1	0	0	0	16	1		3	21
Aug 26			14	1	0	0	0	28	4		6	21
Aug 27			19	2	0	0	0	14	6		5	24
Aug 28			17	2	0	0	0	17	6		1	15
Aug 29			12	1	0	0	0	21	3		1	21
Aug 30			24	4	0	0	0	21	5		1	10
Aug 31			37	1	0	0	0	31	9		0	11
TOTAL		92	315	99	2	0	177	587	205		387	1,243
AVG.		12	14	3	0	0	6	19	7		12	40

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

TABLE 81

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped STEELHEAD	PINK	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK					
Sep 1			44	2	0	1	0	55	21		62
Sep 2			21	2	0	0	0	53	9		18
Sep 3			6	3	1	0	0	70	20		19
Sep 4			19	0	1	1	0	60	7		30
Sep 5			32	4	4	1	0	111	23		7
Sep 6			69	2	2	2	0	92	15		13
Sep 7			149	9	7	4	0	154	65		6
Sep 8			37	6	6	4	0	188	59		10
Sep 9			39	4	14	3	0	324	89		7
Sep 10			78	10	12	0	0	184	56		13
Sep 11			194	15	13	1	0	211	48		15
Sep 12			85	1	18	5	0	59	20		10
Sep 13			127	12	30	3	0	180	35		7
Sep 14			65	16	18	3	0	160	37		9
Sep 15			33	7	20	2	0	178	41		5
Sep 16			32	12	18	4	0	138	37		6
Sep 17			65	23	33	0	0	181	62		5
Sep 18			39	3	52	6	0	173	54		2
Sep 19			36	5	61	3	0	146	44		8
Sep 20			51	12	60	5	0	92	15		8
Sep 21			54	9	82	9	0	155	45		10
Sep 22			87	10	105	13	0	200	72		7
Sep 23			63	17	99	11	0	207	43		9
Sep 24			66	15	78	9	0	157	43		7
Sep 25			80	11	87	15	0	160	44		7
Sep 26			52	16	32	3	0	61	21		8
Sep 27			100	8	44	4	0	158	27		4
Sep 28			47	11	35	5	0	96	19		0
Sep 29			28	13	42	7	0	144	40		3
Sep 30			20	8	40	4	0	73	24		1
TOTAL			1,818	266	1,014	128	0	4,220	1,135		316

AVG. 61 9 34 4 0 141 38 11

Note: Night counts are video counts from 2000-0400 PST. Counts on the 12th are for the Washington Shore ladder only. On 9/30, Oregon shore night-time video ends at 2300 PST while Washington shore night-time video include all hours.

TABLE 82

YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2014

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
Totals	13,451,590	8,323,798	4,750,447	808,404	27,334,239
10-Year Average	399,418	230,117	181,672	32,109	843,315

*Jacks included

TABLE 83

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2014

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 83

(Continued)

**MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2014**

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
Total	7	-1	995	1,003,906	2,475,807	1,619,115	1,471,733	816,346	4,951,457	1,096,712	14,749	769	13,451,595	3,808,429	2,979,265	6,682,927
10-Year Average				8,872	76,090	51,589	31,737	18,384	171,890	40,263			399,418	97,857	76,200	227,633

*Jacks included

TABLE 84
MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM: 1954 - 2014

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 84

(Continued)

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM; 1954 - 2014**

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	
Total					1	221	1,436,482	3,210,570	89,843	9,518	3,806	5	1	4,750,447
10-Year Average						2	80,187	101,042	429	12				181,672

TABLE 85

**MONTHLY COUNT OF COHO SALMON
McNARY DAM: 1954 - 2014**

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 85

(Continued)

**MONTHLY COUNT OF COHO SALMON
McNARY DAM; 1954 - 2014**

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
TOTAL	1	0	1	14	50	515	22,828	568,901	209,650	6,356	88		808,404
10-Year Average							286	20,243	11,354				32,109

*Jacks included

TABLE 86

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2014**

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

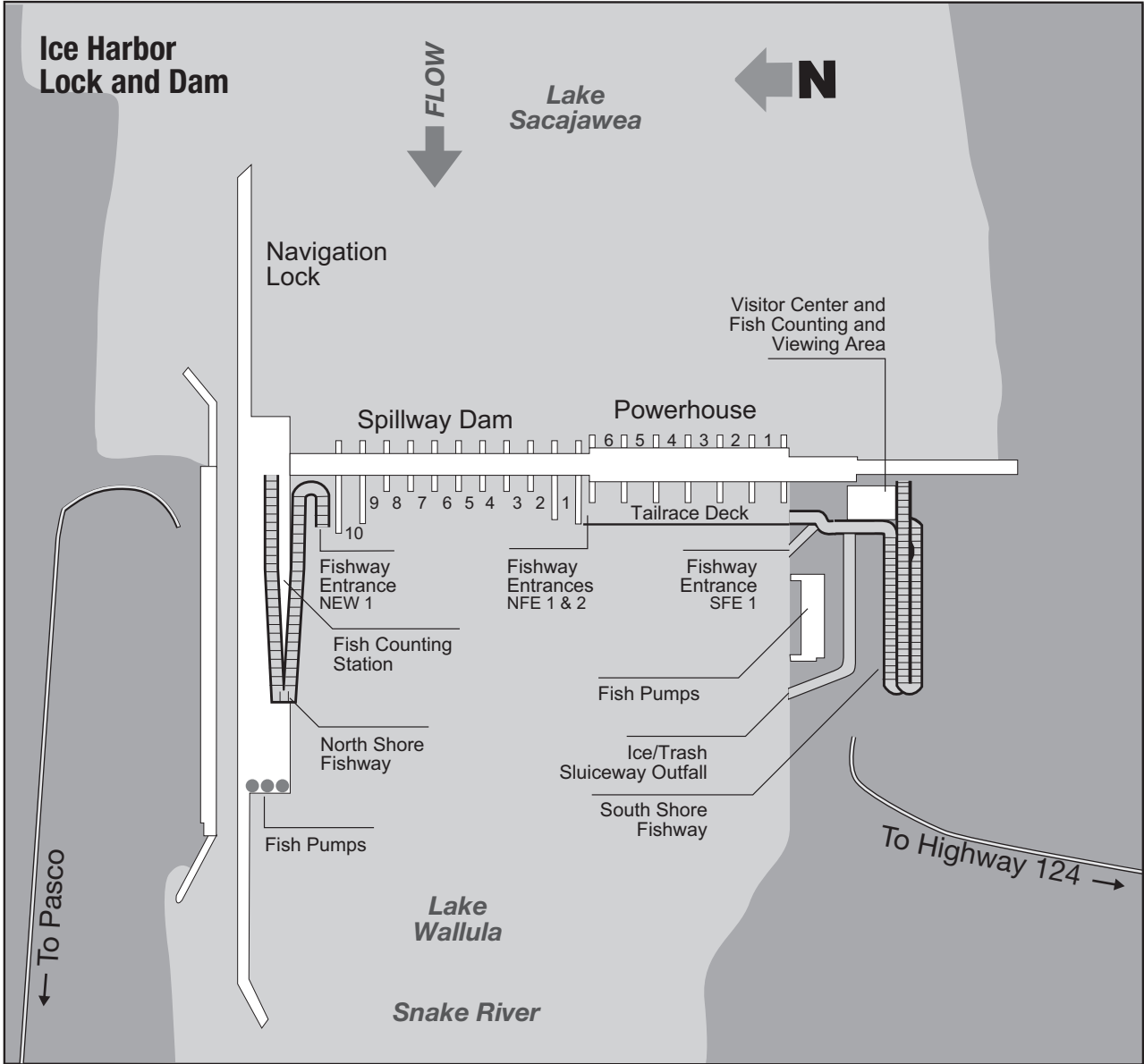
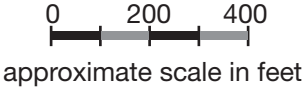
TABLE 86

(Continued)

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954 - 2014**

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
Total	1,195	1,013	36,732	118,334	42,285	83,801	752,981	1,429,100	3,941,461	1,825,293	74,211	17,392	8,323,798
10-Year Avg.				1,613	295	1,957	20,978	39,132	110,210	50,377			230,117

Plate 6 Ice Harbor Lock and Dam



ICE HARBOR DAM

FISH COUNTING SCHEDULE

1 January – 28 February	Video review counting, recorded 0400-2000 hours PST daily
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 – 9 February	Ladder in service
10 February – 24 February	Ladder dewatered for annual maintenance
25 February – 31 December	Ladder in service

South Ladder

1 January – 5 January	Ladder in service
6 January – 3 February	Ladder dewatered for annual maintenance
4 February – 31 December	Ladder in service

FISHWAY ACTIVITIES

Water temperatures were recorded hourly from both fish ladder exit pools and the downstream end of the juvenile collection channel. Hourly readings were taken from May 27 to September 30.

The RSW operated for the duration of the spill season, 3 April through 31 August.

Modification of the contour of spillbay 2 ogee and flow deflector to improve fish passage conditions began in September.

The Juvenile Fish Facility was operated for juvenile fish bypass and adult fallbacks from 17 March to 17 December. Juvenile fish were sampled April 2 – July 15.

Researchers monitored adult lamprey passage by video and radio tags in the adult fish ladders.

Researchers collected data on adult salmonid passage using radio tags and PIT tags.

TABLE 87

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER ICE HARBOR DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				5,641	75,061	23,863	8,276	4,760	67,206	8,159			192,966
STEELHEAD	211	287		911	366	1,278	10,030	10,929	87,114	40,840			151,966
SOCKEYE						187	2,134	69	2	0			2,392
COHO*								6	11,992	4,079			16,077
PINK													0
TOTAL	211	287		6,552	75,427	25,328	20,440	15,764	166,314	53,078			363,401
SHAD					3	46,893	42,989	905					90,790
LAMPREY				0	5	7	194	415	92	8			721
STURGEON													0
BULL TROUT													0

*Jacks included

TABLE 88

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

ICE HARBOR PROJECT - FISH COUNTS

JANUARY 2014

DATE	CHINOOK ADULT		CHINOOK JACK	COHO		COHO JACK	SOCKEY	TOTAL			SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER		FALL	ADULT			JACK	STEELHEAD	unclipped STEELHEAD						PINK	SECCHI
Jan 1								4		5				17.7	0.0	9.5	40.0
Jan 2								0		0				19.3	0.0	9.5	38.0
Jan 3								2		0				17.9	0.0	9.5	38.0
Jan 4								4		0				20.9	0.0	9.5	38.0
Jan 5								4		2				22.7	0.0	12.0	37.0
Jan 6								1		0				15.3	0.0	12.0	37.0
Jan 7								2		1				22.4	0.0	12.0	37.0
Jan 8								2		2				28.9	0.0	12.0	37.0
Jan 9								3		1				20.5	0.0	12.0	37.0
Jan 10								3		1				19.0	0.0	12.0	37.0
Jan 11								3		0				15.4	0.0	12.0	37.0
Jan 12								3		1				18.1	0.0	12.0	37.0
Jan 13								13		6				23.0	0.0	11.5	37.0
Jan 14								20		13				26.2	0.0	11.5	37.0
Jan 15								16		11				26.1	0.0	11.5	37.0
Jan 16								21		11				23.9	0.0	11.5	38.0
Jan 17								18		7				23.4	0.0	11.5	38.0
Jan 18								20		9				21.1	0.0	11.5	38.0
Jan 19								19		12				20.7	0.0	11.5	38.0
Jan 20								5		4				20.3	0.0	11.5	38.0
Jan 21								8		3				19.6	0.0	9.4	38.0
Jan 22								7		4				21.8	0.0	9.5	38.0
Jan 23								1		0				18.2	0.0	9.5	38.0
Jan 24								6		5				21.1	0.0	9.0	38.0
Jan 25								2		1				21.2	0.0	9.0	38.0
Jan 26								6		2				20.6	0.0	9.0	38.0
Jan 27								1		1				20.0	0.0	9.0	38.0
Jan 28								6		0				21.8	0.0	2.8	38.0
Jan 29								1		0				21.4	0.0	2.8	38.0
Jan 30								4		0				12.7	0.0	2.8	38.0
Jan 31								6		2				19.3	0.0	2.3	38.0
TOTAL								211		104							
AVG.								7		3				20.7	0.0	9.7	37.7

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

TABLE 89

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

ICE HARBOR PROJECT - FISH COUNTS

FEBRUARY 2014

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
Feb 1								8	1					17.7	0.0	2.6	38.0
Feb 2								3	0					21.3	0.0	2.6	38.0
Feb 3								5	2					18.9	0.0	2.8	38.0
Feb 4								4	0					24.2	0.0	3.1	38.0
Feb 5								2	1					23.7	0.0	3.1	38.0
Feb 6								4	1					21.6	0.0	3.1	38.0
Feb 7								4	1					21.8	0.0	7.0	37.0
Feb 8								3	2					18.0	0.0	7.0	37.0
Feb 9								7	2					19.3	0.0	7.0	37.0
Feb 10								3	2					15.7	0.0	7.0	37.0
Feb 11								1	0					22.1	0.0	8.1	37.0
Feb 12								0	0					27.0	0.0	8.1	36.0
Feb 13								1	0					17.9	0.0	8.1	36.0
Feb 14								2	1					33.5	0.0	8.1	36.0
Feb 15								15	5					32.4	0.0	8.1	36.0
Feb 16								24	7					43.5	0.0	8.1	36.0
Feb 17								25	11					31.3	0.0	8.1	37.0
Feb 18								20	7					42.4	0.0	8.5	37.0
Feb 19								14	2					36.6	0.0	8.5	37.0
Feb 20								31	6					35.6	0.0	8.5	37.0
Feb 21								17	0					38.3	0.0	4.1	37.0
Feb 22								10	0					31.7	0.0	4.1	38.0
Feb 23								5	0					33.7	0.0	4.1	38.0
Feb 24								2	1					32.4	0.0	1.0	38.0
Feb 25								11	0					33.8	0.0	1.0	38.0
Feb 26								24	2					31.5	0.0	1.0	38.0
Feb 27								16	0					26.1	0.0	1.0	38.0
Feb 28								26	6					36.4	0.0	1.0	38.0
TOTAL								287	60								
AVG.								10	2					28.2	0.0	5.2	37.3

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

TABLE 90

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2014

MARCH

DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Mar 1	37.6	0.0	1.2	38.0
Mar 2	40.0	0.0	1.8	38.0
Mar 3	50.2	0.0	1.8	38.0
Mar 4	42.5	0.0	2.9	38.0
Mar 5	68.3	0.0	2.9	38.0
Mar 6	69.3	0.0	1.9	39.0
Mar 7	85.3	10.3	1.9	39.0
Mar 8	112.8	36.3	2.2	40.0
Mar 9	101.0	24.7	2.2	40.0
Mar 10	89.8	30.8	2.8	40.0
Mar 11	124.2	58.0	1.9	40.0
Mar 12	141.8	62.9	1.9	40.0
Mar 13	127.3	55.0	1.9	40.0
Mar 14	86.9	14.1	1.9	42.0
Mar 15	89.6	12.4	1.9	42.0
Mar 16	82.9	12.7	1.9	42.0
Mar 17	75.0	15.9	1.9	44.0
Mar 18	79.0	15.7	1.9	44.0
Mar 19	76.3	15.7	1.9	44.0
Mar 20	72.9	11.9	1.9	44.0
Mar 21	74.0	3.1	1.1	44.0
Mar 22	66.4	0.0	1.1	45.0
Mar 23	60.1	0.0	1.1	45.0
Mar 24	60.2	0.0	1.1	45.0
Mar 25	51.7	0.0	1.1	45.0
Mar 26	54.2	0.0	2.8	45.0
Mar 27	56.2	0.0	2.8	45.0
Mar 28	59.0	0.0	2.8	45.0
Mar 29	76.6	0.0	2.8	45.0
Mar 30	70.4	0.0	2.8	45.0
Mar 31	94.4	0.0	2.8	46.0
AVG.	76.6	12.2	2.0	42.1

TABLE 91

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

ICE HARBOR PROJECT - FISH COUNTS

APRIL 2014

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
Apr 1	0			0				36	11					78.2	0.0	2.8	46.0
Apr 2	-1			0				57	16					79.8	0.0	4.5	46.0
Apr 3	0			0				21	11					76.0	0.2	4.5	46.0
Apr 4	1			0				28	16					67.5	50.8	4.5	46.0
Apr 5	0			0				31	20					70.6	51.9	4.5	46.0
Apr 6	1			0				55	40					74.3	52.5	4.5	47.0
Apr 7	2			0				19	8					67.7	49.8	4.5	47.0
Apr 8	6			0				50	32					76.9	54.5	5.2	48.0
Apr 9	7			0				43	30					77.4	54.3	5.2	48.0
Apr 10	5			0				31	20					71.5	53.0	5.2	48.0
Apr 11	6			0				47	27					88.4	59.4	5.2	48.0
Apr 12	15			0				38	20					84.4	57.4	5.2	48.0
Apr 13	30			0				33	18					87.0	58.1	5.2	48.0
Apr 14	42			0				30	18					88.4	58.3	5.2	48.0
Apr 15	22			0				36	21					85.8	58.2	5.2	49.0
Apr 16	27			1				42	25					83.5	67.2	5.2	49.0
Apr 17	21			0				25	20					71.7	53.7	4.8	49.0
Apr 18	67			1				46	30					74.5	55.7	4.8	49.0
Apr 19	48			1				12	6					77.7	55.3	4.8	50.0
Apr 20	139			1				27	23					70.9	55.2	4.8	50.0
Apr 21	91			0				28	20					74.4	53.1	4.8	50.0
Apr 22	228			1				26	19					72.9	52.9	5.2	50.0
Apr 23	241			2				16	7					83.8	58.2	5.0	50.0
Apr 24	239			2				25	13					74.8	56.4	5.0	50.0
Apr 25	252			5				27	10					79.6	58.2	5.1	50.0
Apr 26	273			1				2	-6					85.9	58.9	5.1	50.0
Apr 27	302			6				10	4					80.8	55.6	5.1	49.0
Apr 28	1,452			27				26	13					66.8	54.3	5.1	49.0
Apr 29	1,148			9				23	15					81.7	31.4	5.6	50.0
Apr 30	907			13				21	11					81.2	24.4	5.6	50.0
TOTAL	5,571			70				911	518								
AVG.	186			2				30	17					77.8	48.3	4.9	48.5

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

TABLE 92

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

ICE HARBOR PROJECT - FISH COUNTS

MAY 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				STEELHEAD	unclipped STEELHEAD	PINK	SHAD						LAMPREY	SECCHI
May 1	1,395			6			11	6		0	0		71.8	43.7	5.6	50.0	
May 2	2,054			18			7	-6		0	0		65.3	51.6	5.8	51.0	
May 3	2,706			49			22	9		0	0		75.6	56.7	5.8	51.0	
May 4	2,586			44			16	6		0	0		79.6	60.5	5.8	52.0	
May 5	3,172			46			16	10		0	0		92.7	38.4	5.8	52.0	
May 6	5,238			206			26	12		0	0		100.1	44.6	5.8	51.0	
May 7	8,274			247			20	11		0	0		106.0	71.1	5.8	51.0	
May 8	4,898			222			19	6		0	0		95.2	61.6	5.8	51.0	
May 9	3,992			262			14	6		0	0		89.3	39.8	4.9	51.0	
May 10	3,833			318			14	8		0	0		81.3	24.4	4.9	51.0	
May 11	2,565			290			25	10		0	0		90.9	35.6	4.9	51.0	
May 12	2,484			409			7	2		0	1		83.4	24.9	4.9	51.0	
May 13	2,236			453			9	0		0	1		77.3	44.8	5.4	54.0	
May 14	2,536			448			5	2		0	0		73.9	54.4	5.4	54.0	
May 15	1,786			468			2	0		0	0		69.8	28.5	5.4	54.0	
May 16	1,704			475			7	1		0	0		72.9	23.1	5.4	54.0	
May 17	2,000			571			6	0		0	2		88.9	61.0	5.4	54.0	
May 18	2,195			677			9	-1		0	0		100.1	72.6	5.4	54.0	
May 19	846			505			8	-3		0	0		116.7	86.7	5.4	54.0	
May 20	1,477			682			10	-1		0	0		126.0	82.3	5.8	54.0	
May 21	956			594			11	0		0	0		119.9	59.6	4.0	54.0	
May 22	932			560			16	1		0	1		105.3	37.2	4.0	54.0	
May 23	744			310			10	1		0	0		112.0	56.6	4.0	54.0	
May 24	857			289			13	1		1	0		128.4	79.7	4.0	55.0	
May 25	468			161			8	0		1	0		136.5	80.7	4.0	55.0	
May 26	328			127			7	0		0	0		148.7	80.6	4.0	55.0	
May 27	609			253			13	0		0	0		145.2	80.4	4.0	55.0	
May 28	816			281			16	2		0	0		142.9	72.4	4.0	55.0	
May 29	826			228			2	0		0	0		140.3	80.1	3.4	55.0	
May 30	558			219			11	0		1	0		137.0	78.9	3.8	55.0	
May 31	415			157			6	0		0	0		132.1	74.0	3.8	55.0	
TOTAL	65,486			9,575			366	83		3	5						
AVG.	2112			309			12	3					103.4	57.6	4.9	53.1	
RUN YEAR		CHINOOK ADULT	CHINOOK JACK				STEELHEAD	unclipped STEELHEAD		SHAD	LAMPREY						
TOTALS TO DATE		71,057	9,645				1,277	601		3	5						

TABLE 93

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL SOCKEYE	TOTAL unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL													
Jun 1	640			286			0	13	2	0	0		129.6	72.3	2.8	54.0
Jun 2	838			271			0	14	1	0	1		121.2	66.4	2.8	54.0
Jun 3	698			230			0	14	1	0	0		118.8	57.6	2.8	56.0
Jun 4	535			231			0	12	1	0	0		116.4	70.2	2.8	56.0
Jun 5	1,031			399			0	13	4	2	0		117.7	67.7	3.0	56.0
Jun 6	1,109			390			0	24	4	7	0		116.5	53.7	3.0	56.0
Jun 7	437			197			0	26	2	3	1		115.0	44.8	3.0	56.0
Jun 8	884			223			0	19	1	3	0		108.5	54.7	3.0	56.0
Jun 9	669			175			0	19	1	111	0		104.5	64.7	3.0	56.0
Jun 10	672			188			1	29	3	657	0		104.8	46.4	3.4	56.0
Jun 11	728			193			0	28	3	275	0		94.6	28.5	3.4	58.0
Jun 12		627		174			0	29	2	368	0		96.9	50.5	3.4	58.0
Jun 13		773		141			0	40	6	495	0		90.1	60.4	4.6	58.0
Jun 14		629		111			0	36	4	912	0		88.1	41.4	4.2	58.0
Jun 15		465		135			0	53	8	1,248	0		80.1	24.2	4.2	58.0
Jun 16		686		137			1	61	7	1,618	0		74.3	46.3	4.2	58.0
Jun 17		683		161			1	52	6	1,388	2		69.0	53.6	4.1	58.0
Jun 18		578		213			1	30	2	1,616	0		76.1	32.2	4.1	58.0
Jun 19		651		221			5	55	16	1,857	0		73.2	24.1	6.0	58.0
Jun 20		744		203			1	50	9	2,981	0		67.7	42.2	6.1	58.0
Jun 21		504		122			2	57	10	4,365	1		64.8	51.2	6.1	58.0
Jun 22		612		165			4	42	14	5,025	0		65.9	29.2	6.1	59.0
Jun 23		318		132			10	35	11	3,809	0		68.6	20.6	6.1	59.0
Jun 24		369		162			2	45	-1	2,507	0		69.5	44.2	6.4	59.0
Jun 25		398		154			8	44	7	3,118	1		66.0	48.8	6.4	59.0
Jun 26		461		121			23	69	11	5,069	1		68.8	30.8	6.8	59.0
Jun 27		255		73			16	57	12	2,621	0		65.1	19.4	6.7	59.0
Jun 28		306		84			19	59	9	1,503	0		67.1	42.4	6.7	59.0
Jun 29		410		121			49	101	11	2,167	0		79.1	62.1	5.9	60.0
Jun 30		584		156			44	152	31	3,168	0		80.5	52.7	5.6	60.0
TOTAL	8,241	10,053		5,569			187	1,278	198	46,893	7					
AVG.	749	529		186			6	43	7	1,563	0		88.6	46.8	4.6	57.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,298	12,428
SUMMER	10,053	2,786
TOTAL	89,351	15,214

unclipped			SHAD	LAMPREY
SOCKEYE	STEELHEAD	STEELHEAD		
187	2,555	799	46,896	12

TABLE 94

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped	PINK	STEELHEAD						KCFS	KCFS
Jul 1		407		136			74	138	40		3,937	1		70.7	21.3	6.0	60.0	
Jul 2		402		148			87	160	52		4,895	1		68.9	44.6	6.0	60.0	
Jul 3		422		96			97	178	67		6,423	3		67.8	53.6	6.7	60.0	
Jul 4		290		58			49	168	49		4,748	1		64.6	29.1	6.7	60.0	
Jul 5		279		49			78	229	62		4,603	1		64.1	19.2	6.7	63.0	
Jul 6		253		47			49	165	55		1,897	0		60.1	41.2	5.5	63.0	
Jul 7		362		50			74	154	67		2,316	2		59.3	44.2	5.4	63.0	
Jul 8		417		110			84	238	79		1,889	8		60.2	26.8	5.7	64.0	
Jul 9		339		101			102	206	70		1,184	6		57.8	18.6	5.9	64.0	
Jul 10		330		116			158	253	96		1,099	0		56.6	39.6	6.0	64.0	
Jul 11		288		67			170	326	125		1,515	5		54.3	44.4	6.0	65.0	
Jul 12		353		66			166	302	104		1,613	6		53.5	21.3	6.0	65.0	
Jul 13		341		53			145	393	166		1,209	6		48.6	14.5	6.0	65.0	
Jul 14		365		62			193	496	207		1,089	1		51.9	36.2	6.0	66.0	
Jul 15		190		38			69	374	159		1,067	2		45.4	35.6	6.0	66.0	
Jul 16		238		36			90	430	153		520	4		44.6	34.6	6.0	66.0	
Jul 17		187		52			81	534	203		811	8		42.8	32.9	6.0	66.0	
Jul 18		130		46			56	520	214		428	8		41.3	31.4	6.0	67.0	
Jul 19		117		48			48	402	158		240	7		42.0	32.4	6.0	68.0	
Jul 20		78		32			41	261	120		205	3		36.7	26.7	6.1	69.0	
Jul 21		122		19			29	387	144		164	18		40.2	30.2	6.2	69.0	
Jul 22		148		30			39	537	222		180	10		39.9	30.0	7.0	69.0	
Jul 23		149		28			29	505	212		173	8		33.2	23.6	7.2	69.0	
Jul 24		129		27			38	466	219		101	18		35.4	25.4	7.2	69.0	
Jul 25		73		14			19	362	172		274	22		37.8	28.1	7.0	69.0	
Jul 26		52		8			18	270	112		58	4		31.3	21.6	6.4	69.0	
Jul 27		42		17			15	234	77		125	12		34.7	25.0	6.5	69.0	
Jul 28		49		2			13	318	120		70	8		35.8	26.1	6.5	69.0	
Jul 29		42		14			4	306	104		33	3		36.4	26.5	6.5	69.0	
Jul 30		51		12			13	379	144		73	4		42.0	32.1	6.5	69.0	
Jul 31		37		12			6	339	127		50	14		33.3	23.3	6.4	69.0	
TOTAL		6,682		1,594			2,134	10,030	3,899		42,989	194						

AVG.	216	51	69	324	126	1,387	6	48.1	30.3	6.3	65.9
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,298	12,428
SUMMER	16,735	4,380
TOTAL	96,033	16,808

unclipped	
SOCKEYE	STEELHEAD
2,321	12,585

unclipped	
SHAD	LAMPREY
89,885	206

TABLE 95

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL			unclipped		SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK						SECCHI	DEG F
Aug 1		63		11	0	0	16	439	184		167	15		33.8	23.8	6.4	70.0
Aug 2		43		4	0	0	8	493	216		98	16		33.5	23.4	6.4	70.0
Aug 3		57		12	0	0	8	576	201		68	16		33.6	23.7	7.6	70.0
Aug 4		45		5	0	0	8	298	112		105	9		33.1	22.9	7.4	70.0
Aug 5		72		6	0	0	4	451	174		90	24		30.2	20.4	7.4	70.0
Aug 6		97		8	0	0	3	432	165		42	48		29.4	19.6	7.7	70.0
Aug 7		45		12	0	0	6	400	156		46	11		26.0	16.3	7.9	70.0
Aug 8		48		7	0	0	1	341	131		11	14		29.4	18.9	7.9	70.0
Aug 9		93		10	0	0	4	469	160		27	18		28.0	18.1	7.9	70.0
Aug 10		96		7	0	0	0	382	121		41	36		31.7	22.0	7.9	70.0
Aug 11		39		12	0	0	1	345	126		14	10		28.6	18.9	7.9	70.0
Aug 12			66	6	0	0	3	442	151		28	11		30.0	19.9	7.9	70.0
Aug 13			77	7	0	0	2	562	198		36	26		30.3	20.1	7.6	70.0
Aug 14			54	11	0	0	1	325	107		41	8		30.4	20.3	7.6	70.0
Aug 15			110	8	0	0	0	337	114		18	28		28.5	18.4	7.6	70.0
Aug 16			108	4	0	0	0	265	112		24	18		32.0	22.0	7.6	70.0
Aug 17			139	14	0	0	0	226	94		11	3		26.0	15.7	7.6	70.0
Aug 18			186	9	0	0	0	363	121		6	6		25.8	15.7	7.6	70.0
Aug 19			145	23	0	0	1	385	117		1	6		28.1	17.8	7.6	70.0
Aug 20			163	17	0	0	0	404	144		4	24		22.5	12.3	7.6	70.0
Aug 21			122	10	0	0	0	342	109		5	20		23.4	13.1	8.1	71.0
Aug 22			159	18	0	0	1	252	87		1	6		23.3	13.7	8.2	71.0
Aug 23			139	18	0	0	0	186	76		5	10		25.3	15.4	8.2	71.0
Aug 24			195	11	0	0	0	224	64		2	4		23.9	14.1	8.2	71.0
Aug 25			195	24	0	0	0	336	107		2	5		24.2	14.4	8.2	71.0
Aug 26			184	23	0	0	3	166	44		5	2		30.0	20.5	8.2	70.0
Aug 27			237	21	0	0	0	120	19		2	0		24.5	14.8	8.0	70.0
Aug 28			207	15	0	1	0	263	72		2	8		25.2	15.3	7.6	70.0
Aug 29			334	35	2	0	-1	287	81		1	2		26.4	16.0	7.6	70.0
Aug 30			270	29	-2	1	0	370	116		1	5		25.8	16.0	6.2	70.0
Aug 31			519	56	2	2	0	448	126		1	6		26.1	16.0	6.2	70.0
TOTAL		698	3,609	453	2	4	69	10,929	3,805		905	415					
AVG.		63	180	15	0		2	353	123		29	13		28.0	18.0	7.6	70.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,298	12,428
SUMMER	17,433	4,474
FALL	3,609	359
TOTAL	100,340	17,261

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
2	4	2,390	23,514	8,503	90,790	621

TABLE 96

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL			unclipped				DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Sep 1			554	75	6	2	0	516	156			27		26.1	15.9	6.2	70.0
Sep 2			614	87	0	0	0	346	107			15		11.7	0.0	6.9	70.0
Sep 3			1,032	125	4	0	0	441	142			13		19.0	0.0	6.9	70.0
Sep 4			967	117	3	2	0	397	111			7		19.6	0.0	6.9	70.0
Sep 5			1,029	146	10	1	0	659	190			1		20.8	0.0	8.2	70.0
Sep 6			1,062	169	13	6	0	760	204			1		24.1	0.0	8.2	69.0
Sep 7			1,275	175	13	8	0	812	252			0		20.8	0.0	8.2	69.0
Sep 8			2,175	322	18	10	0	1,262	376			1		20.8	0.0	8.2	68.0
Sep 9			2,490	430	51	19	0	1,787	565			1		23.1	0.0	8.2	68.0
Sep 10			2,575	463	52	14	0	2,172	711			1		29.1	0.0	8.2	68.0
Sep 11			1,603	310	98	28	0	2,780	863			1		21.2	0.0	8.2	68.0
Sep 12			2,498	451	178	27	0	3,377	917			-1		23.1	0.0	8.2	68.0
Sep 13			3,130	489	267	18	0	2,705	736			2		28.1	0.0	8.2	68.0
Sep 14			3,821	739	342	44	0	2,666	719			5		26.9	0.0	8.2	67.0
Sep 15			3,720	909	510	54	0	3,352	947			2		25.8	0.0	8.2	67.0
Sep 16			3,399	874	615	20	0	3,863	1,007			4		22.8	0.0	8.2	67.0
Sep 17			2,444	692	463	14	0	3,864	1,023			1		15.7	0.0	7.8	67.0
Sep 18			2,052	562	544	27	0	4,436	1,250			1		17.6	0.0	7.8	67.0
Sep 19			2,444	747	914	66	0	5,507	1,434			2		22.1	0.0	8.6	67.0
Sep 20			1,458	469	501	24	0	2,820	797			5		21.4	0.0	8.6	66.0
Sep 21			2,207	758	607	13	0	4,544	1,245			0		19.4	0.0	8.9	66.0
Sep 22			1,924	737	949	38	0	5,436	1,517			0		10.7	0.0	8.9	66.0
Sep 23			1,462	561	835	16	0	4,011	1,119			1		16.4	0.0	8.9	66.0
Sep 24			1,452	584	841	8	2	3,899	1,122			1		27.3	0.0	8.3	66.0
Sep 25			1,351	526	1,116	2	0	5,271	1,392			0		28.4	0.0	8.3	66.0
Sep 26			1,032	523	773	14	0	4,756	1,339			0		10.3	0.0	7.0	66.0
Sep 27			676	366	531	21	0	2,890	733			0		10.5	0.0	7.2	66.0
Sep 28			604	409	328	7	0	2,367	618			0		14.3	0.0	7.2	66.0
Sep 29			1,170	894	415	14	0	4,284	1,242			0		15.7	0.0	7.4	66.0
Sep 30			776	501	462	16	0	5,134	1,509			1		12.8	0.0	7.5	66.0
TOTAL			52,996	14,210	11,459	533	2	87,114	24,343			92					
AVG.			1767	474	382	18	0	2,904	811			3		20.2	0.5	7.9	67.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,298	12,428
SUMMER	17,433	4,474
FALL	56,605	14,569
TOTAL	153,336	31,471

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
11,461	537	2,392	110,628	32,846

SHAD	LAMPREY
90,790	713

TABLE 97

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped		SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				PINK	KCFS	KCFS	SECCHI
Oct 1			868	513	416	23		4,729	1,357		0		14.9	0.0	7.6	65.0
Oct 2			461	410	305	17		3,594	999		0		16.3	0.0	7.8	65.0
Oct 3			385	302	230	15		2,204	560		1		14.7	0.0	7.8	65.0
Oct 4			381	330	248	7		2,636	696		1		19.1	0.0	7.8	65.0
Oct 5			252	226	237	5		1,900	453		-1		15.6	0.0	7.8	64.0
Oct 6			241	172	204	12		1,650	438		0		17.8	0.0	7.9	64.0
Oct 7			331	149	187	2		1,726	388		0		23.7	0.0	7.2	64.0
Oct 8			263	176	145	8		1,904	440		-1		16.3	0.0	7.0	64.0
Oct 9			226	184	128	2		1,466	389		2		17.9	0.0	7.0	64.0
Oct 10			139	147	130	14		1,592	416		0		19.2	0.0	6.9	64.0
Oct 11			108	108	142	6		1,322	367		0		17.8	0.0	6.9	64.0
Oct 12			164	96	137	16		1,574	440		2		15.7	0.0	6.9	64.0
Oct 13			103	80	92	9		882	234		0		18.7	0.0	6.9	64.0
Oct 14			114	101	113	5		1,679	466		2		18.8	0.0	6.9	64.0
Oct 15			86	78	90	17		1,140	347		1		17.4	0.0	6.9	63.0
Oct 16			94	61	81	12		1,204	378		0		14.6	0.0	6.9	63.0
Oct 17			59	19	105	1		700	210		0		16.9	0.0	6.9	63.0
Oct 18			70	45	78	4		775	216		0		17.9	0.0	8.1	62.0
Oct 19			48	15	67	0		562	154		0		13.7	0.0	8.3	62.0
Oct 20			50	20	41	0		515	146		0		17.7	0.0	8.3	62.0
Oct 21			44	20	81	2		724	220		0		19.7	0.0	8.3	62.0
Oct 22			54	15	76	7		685	209		0		13.5	0.0	8.1	62.0
Oct 23			42	17	75	7		648	219		0		16.5	0.0	8.1	61.0
Oct 24			26	7	66	5		674	206		0		18.4	0.0	8.1	61.0
Oct 25			23	15	50	1		553	201		1		21.9	0.0	8.1	61.0
Oct 26			33	17	50	4		694	223		0		18.0	0.0	8.1	60.0
Oct 27			23	5	53	1		552	184		0		18.1	0.0	8.0	60.0
Oct 28			31	9	48	1		575	177		0		22.4	0.0	8.0	60.0
Oct 29			17	16	96	5		771	259		0		19.0	0.0	7.8	60.0
Oct 30			33	12	69	0		544	180		0		20.2	0.0	7.8	60.0
Oct 31			15	10	29	2		666	183		0		16.6	0.0	7.8	60.0
TOTAL			4,784	3,375	3,869	210		40,840	11,355		8					
AVG.			154	109	125	7		1,317	366		0		17.7	0.0	7.6	62.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,298	12,428
SUMMER	17,433	4,474
FALL	61,389	17,944
TOTAL	158,120	34,846

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
15,330	747	2,392	151,468	44,201	90,790	721

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 98

DISCHARGE AND WATER QUALITY DAT5

ICE HARBOR PROJECT - 2014

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F				SECCHI	DEG F
Nov 1	20.7	0.0	7.8	60.0	Dec 1	31.3	0.0	10.2	48.0
Nov 2	19.9	0.0	7.8	59.0	Dec 2	27.9	0.0	10.0	48.0
Nov 3	23.7	0.0	7.8	58.0	Dec 3	22.2	0.0	10.0	46.0
Nov 4	21.7	0.0	7.6	58.0	Dec 4	29.3	0.0	10.0	46.0
Nov 5	23.0	0.0	7.6	58.0	Dec 5	24.8	0.0	10.0	46.0
Nov 6	16.7	0.0	7.6	58.0	Dec 6	22.0	0.0	10.0	46.0
Nov 7	22.5	0.0	7.6	58.0	Dec 7	25.7	0.0	10.0	46.0
Nov 8	23.3	0.0	7.6	57.0	Dec 8	27.5	0.0	10.0	46.0
Nov 9	20.3	0.0	7.6	57.0	Dec 9	27.2	0.0	10.0	46.0
Nov 10	23.8	0.0	7.6	57.0	Dec 10	27.6	0.0	9.8	46.0
Nov 11	20.8	0.0	7.6	57.0	Dec 11	29.0	0.0	9.8	46.0
Nov 12	24.3	0.0	7.8	57.0	Dec 12	27.6	0.0	9.4	46.0
Nov 13	21.7	0.0	7.8	57.0	Dec 13	26.2	0.0	8.7	45.0
Nov 14	22.1	0.0	6.7	57.0	Dec 14	27.3	0.0	8.7	45.0
Nov 15	19.3	0.0	6.7	57.0	Dec 15	31.1	0.0	8.4	45.0
Nov 16	14.1	0.0	6.7	53.0	Dec 16	28.2	0.0	8.4	45.0
Nov 17	18.5	0.0	6.6	53.0	Dec 17	32.1	0.0	8.3	45.0
Nov 18	21.7	0.0	6.6	53.0	Dec 18	28.2	0.0	8.3	45.0
Nov 19	20.4	0.0	6.4	53.0	Dec 19	27.2	0.0	8.3	45.0
Nov 20	17.4	0.0	6.4	53.0	Dec 20	29.1	0.0	8.0	42.0
Nov 21	17.2	0.0	6.4	53.0	Dec 21	31.5	0.0	8.0	42.0
Nov 22	17.7	0.0	6.4	50.0	Dec 22	38.2	0.0	11.2	42.0
Nov 23	17.6	0.0	6.4	50.0	Dec 23	38.4	0.0	11.2	42.0
Nov 24	20.4	0.0	6.4	48.0	Dec 24	34.3	0.0	11.2	42.0
Nov 25	22.8	0.0	6.4	48.0	Dec 25	30.1	0.0	11.2	42.0
Nov 26	29.4	0.0	6.4	48.0	Dec 26	36.5	0.0	7.6	42.0
Nov 27	24.7	0.0	6.4	48.0	Dec 27	40.9	0.0	8.0	42.0
Nov 28	26.7	0.0	10.2	48.0	Dec 28	34.5	0.0	8.0	42.0
Nov 29	35.8	0.0	10.2	48.0	Dec 29	17.9	0.0	8.0	42.0
Nov 30	32.3	0.0	10.2	48.0	Dec 30	34.1	0.0	8.0	42.0
					Dec 31	26.5	0.0	8.0	42.0
AVG.	22.0	0.0	7.4	54.0	AVG.	29.5	0.0	9.2	44.4

TABLE 99
 YEARLY TOTALS OF SALMONIDS COUNTED OVER
 ICE HARBOR DAM
 1962 - 2014

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
Totals	3,798,098	5,528,253	18,495	95,356	9,440,202
10-Year Average	135,577	171,907	771	4,323	312,578

*Jacks included

These counts include the extended season videotaped counts that were made between 0600 and 1600 hours in November and December for the count seasons, 1996-2002.

TABLE 100
MONTHLY COUNT OF CHINOOK SALMON
ICE HARBOR DAM
1962 - 2014

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
TOTAL	1	352	517,876	1,396,756	675,995	281,541	91,144	680,209	150,451	3,681	92	3,798,098	2,140,914	750,984	905,621	
10-Year Average	5,169	50,714	24,985	5,877	5,028	38,325	5,446	135,577	65,344	21,944	48,255					

*Jacks included

The 1996 through 2002, 2013 count seasons were extended to include video counts made between 0600 and 1600 hours daily from November 1 through December 15.

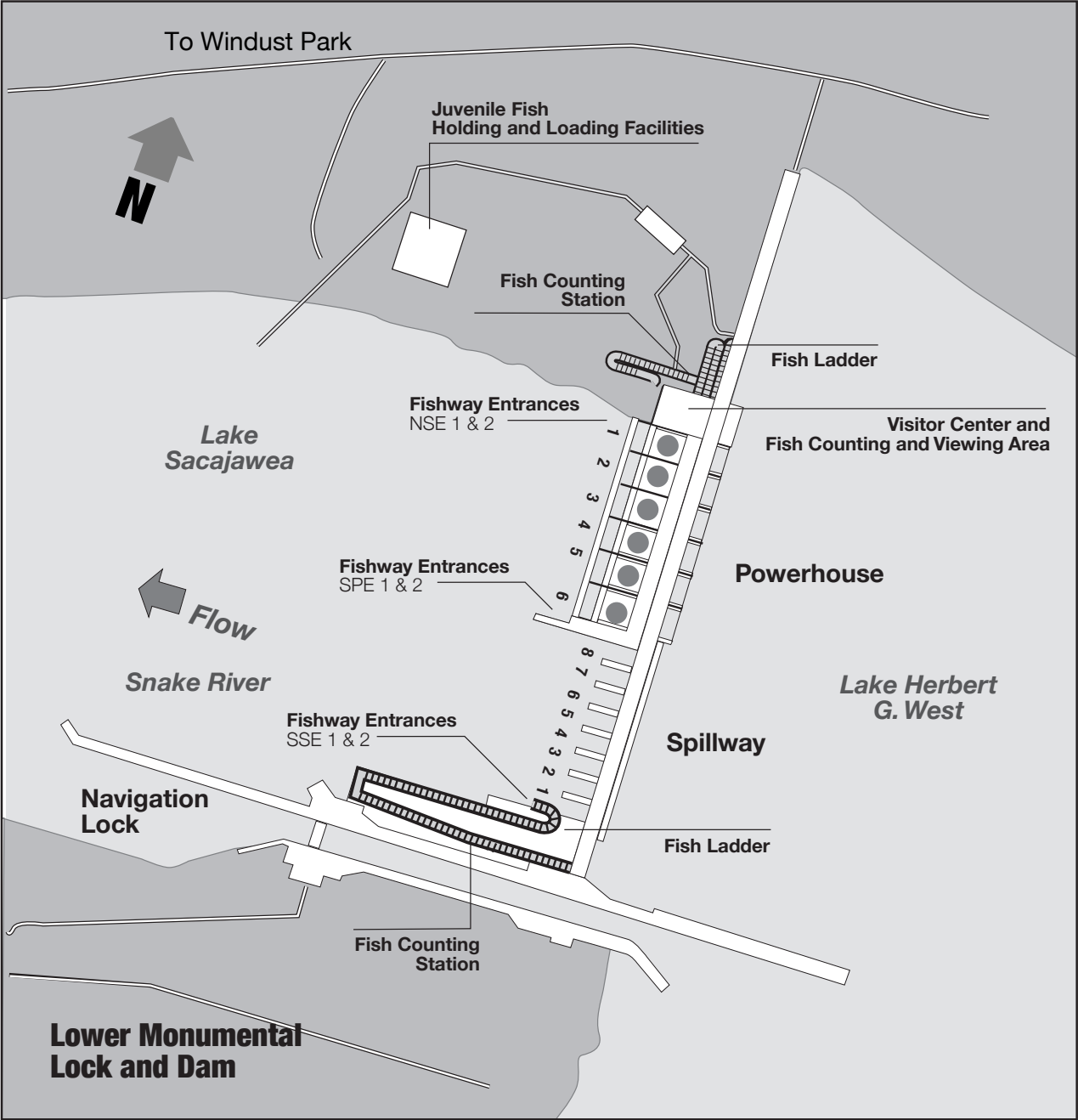
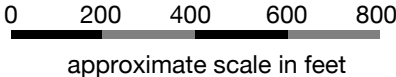
TABLE 101

**MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2014**

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
Totals	479	574	27,105	119,987	23,237	27,346	272,048	537,969	2,767,511	1,651,087	86,164	14,746	5,528,253
10-Year Average				2,251	214	933	9,822	20,983	88,439	47,873			171,907

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)
1 Nov – 31 Dec	Video counting daily (0400 – 2000 hours PST)

FISH LADDER OPERATING SCHEDULE

North Ladder

1 Jan – 5 Jan	Ladder in service.
6 Jan – 26 Jan	Ladder dewatered for annual maintenance.
27 Jan – 31 Dec	Ladder in service.

South Ladder

1 Jan – 5 Feb	Ladder in service.
6 Feb – 27 Feb	Ladder dewatered for annual maintenance.
28 Feb – 31 Dec	Ladder in service.

FISHWAY ACTIVITIES

Water temperatures were recorded hourly from north and south fish ladder exit pools and the downstream end of the primary dewaterer. Hourly readings were taken from June 11 to September 19. 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.

All fish pumps were out of service from 1 January through 26 February for annual maintenance.

PIT antennae were installed at the south count station during the winter maintenance period. Now both the north and south count stations have antennae installed. Fiber optic systems to the PIT data system are scheduled to be installed during the winter of 2014 – 2015.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 1 April to 17 December.

LoMo's RSW was in service as per requirements of 2014 operating year.

TABLE 102

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER MONUMENTAL DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				4,044	75,066	28,085	9,916	4,481	62,903	8,547	351	7	193,400
STEELHEAD			3,603	1,179	497	1,163	10,001	11,417	79,686	51,670	8,778	2,276	170,270
SOCKEYE				1		165	2,584	53	1	1			2,805
COHO*								1	12,286	7,124	436	8	19,855
PINK													0
TOTAL			3,603	5,224	75,563	29,413	22,501	15,952	154,876	67,342	9,565	2,291	386,330
LAMPREY					1	3	63	144	8	2	-1		220
STURGEON													0
BULL TROUT				10	6	5	2						23

*Jacks included

TABLE 103

DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2014

JANUARY					FEBRUARY				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Jan 1	17.5	0.0	10.0	36.5	Feb 1	20.4	0.0	4.0	37.0
Jan 2	18.2	0.0	10.0	36.0	Feb 2	18.6	0.0	4.0	37.0
Jan 3	21.2	0.0	10.0	36.0	Feb 3	22.2	0.0	4.0	37.0
Jan 4	22.5	0.0	10.0	36.0	Feb 4	20.4	0.0	4.0	37.0
Jan 5	22.5	0.0	10.0	36.0	Feb 5	18.1	0.0	4.0	37.0
Jan 6	20.8	0.0	10.0	36.0	Feb 6	29.0	0.0	6.0	36.0
Jan 7	27.1	0.0	9.5	36.0	Feb 7	15.4	0.0	6.0	36.0
Jan 8	20.2	0.0	9.5	36.0	Feb 8	19.9	0.0	6.0	35.0
Jan 9	19.4	0.0	9.5	36.0	Feb 9	16.8	0.0	6.0	35.0
Jan 10	15.4	0.0	9.5	36.0	Feb 10	21.8	0.0	6.0	35.0
Jan 11	18.5	0.0	9.5	36.0	Feb 11	25.9	0.0	5.5	35.0
Jan 12	21.8	0.0	9.5	36.0	Feb 12	17.8	0.0	4.0	35.0
Jan 13	25.5	0.0	9.0	37.0	Feb 13	32.5	0.0	4.0	35.0
Jan 14	24.2	0.0	9.0	37.0	Feb 14	32.6	0.0	4.0	36.0
Jan 15	23.6	0.0	9.0	37.0	Feb 15	42.8	0.0	4.0	36.0
Jan 16	22.2	0.0	9.0	37.0	Feb 16	31.0	0.0	4.0	36.0
Jan 17	22.6	0.0	9.0	37.5	Feb 17	41.6	0.0	4.0	36.0
Jan 18	21.7	0.0	4.0	37.5	Feb 18	35.8	0.0	2.0	36.0
Jan 19	20.4	0.0	4.0	38.0	Feb 19	35.5	0.0	2.0	37.0
Jan 20	19.5	0.0	2.0	37.5	Feb 20	37.3	0.0	2.0	37.0
Jan 21	20.2	0.0	2.0	37.5	Feb 21	30.8	0.0	1.5	36.0
Jan 22	18.2	0.0	2.0	37.0	Feb 22	34.6	0.0	1.5	36.0
Jan 23	21.0	0.0	3.0	37.0	Feb 23	30.8	0.0	2.0	37.0
Jan 24	20.8	0.0	3.0	37.0	Feb 24	32.3	0.0	1.5	37.0
Jan 25	19.9	0.0	3.0	37.0	Feb 25	29.1	0.0	1.5	37.0
Jan 26	17.5	0.0	3.0	37.0	Feb 26	26.2	0.0	1.5	35.0
Jan 27	21.4	0.0	3.5	37.0	Feb 27	34.6	0.0	1.5	37.0
Jan 28	20.7	0.0	3.5	37.0	Feb 28	40.8	0.0	1.5	37.0
Jan 29	13.8	0.0	3.5	37.0					
Jan 30	19.4	0.0	3.5	37.0					
Jan 31	18.4	0.0	4.0	37.0					
AVG	20.5	0.0	6.6	36.7	AVG	28.4	0.0	3.5	36.2

TABLE 104

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

LOWER MONUMENTAL PROJECT - FISH COUNTS										MARCH 2014						
DATE	CHINOOK ADULT		CHINOOK COHO		COHO		TOTAL unclipped		BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TEMP DEG F		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEY	STEELHEAD	STEELHEAD	PINK					STURGEON	TROUT
Mar 1					4		2					40.4	0.0	1.0	37.0	
Mar 2					31		12					47.0	0.0	1.0	37.0	
Mar 3					92		49					43.1	0.0	1.0	37.0	
Mar 4					65		18					66.1	0.0	1.0	37.0	
Mar 5					81		18					69.9	0.0	1.0	37.0	
Mar 6					107		16					87.9	0.0	1.0	38.0	
Mar 7					84		20					111.7	14.0	1.0	39.0	
Mar 8					71		10					95.5	0.4	1.0	40.0	
Mar 9					75		7					89.6	0.0	1.0	40.0	
Mar 10					94		13					121.8	28.0	1.0	42.0	
Mar 11					90		1					140.7	43.4	1.0	43.0	
Mar 12					44		1					118.3	20.5	1.0	43.0	
Mar 13					124		1					92.7	0.0	1.0	43.0	
Mar 14					217		20					85.5	0.0	1.0	43.0	
Mar 15					147		0					82.5	0.0	1.0	43.5	
Mar 16					109		0					74.2	0.0	1.0	43.5	
Mar 17					123		0					78.8	10.8	1.0	43.5	
Mar 18					151		16					70.7	11.1	1.0	43.0	
Mar 19					191		6					73.4	6.8	1.0	43.0	
Mar 20					208		0					71.6	0.0	1.0	43.0	
Mar 21					245		6					69.8	0.0	1.0	43.0	
Mar 22					169		32					58.5	0.0	1.0	44.0	
Mar 23					180		50					58.8	0.0	1.0	44.0	
Mar 24					155		68					55.0	0.0	1.0	44.0	
Mar 25					128		54					52.6	0.0	1.0	44.0	
Mar 26					123		12					55.7	0.0	1.0	44.0	
Mar 27					106		12					58.8	0.0	2.0	44.0	
Mar 28					147		76					75.5	0.0	1.0	44.0	
Mar 29					81		45					66.3	0.0	1.0	45.0	
Mar 30					91		50					92.4	0.0	1.0	45.0	
Mar 31					70		46					79.3	0.0	2.0	45.5	
TOTAL					3,603		661					76.9	4.4	1.1	42.0	
AVG.					116		21									

Note: Due to technical difficulties 15 hours of fish counts from the Oregon shore ladder are missing on March 20th.

TABLE 105

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

LOWER MONUMENTAL PROJECT - FISH COUNTS											APRIL 2014				
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL SOCKEYE	TOTAL STEELHEAD		BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
	SPRING	SUMMER	FALL					unclipped	PINK						
Apr 1	0			0			0	40	28	0		76.9	0.0	2.0	45.5
Apr 2	1			0			0	54	36	0		71.4	0.0	3.5	46.0
Apr 3	0			0			0	42	25	0		65.3	28.0	3.0	46.0
Apr 4	0			0			0	48	28	0		69.7	27.9	3.0	46.0
Apr 5	-2			0			0	46	28	1		71.3	27.9	3.0	47.0
Apr 6	0			0			0	36	24	0		67.6	28.0	3.0	47.0
Apr 7	1			0			0	66	41	0		74.9	27.9	3.0	47.0
Apr 8	1			0			0	51	38	0		74.1	27.9	3.0	47.0
Apr 9	1			0			0	48	33	0		69.9	28.0	3.5	47.0
Apr 10	6			0			0	34	25	1		85.0	29.1	3.5	48.0
Apr 11	10			0			0	43	27	0		80.0	29.4	3.5	48.0
Apr 12	10			0			0	38	23	1		85.9	27.0	3.5	48.0
Apr 13	14			0			0	47	28	1		84.9	26.0	3.5	49.0
Apr 14	16			0			1	53	36	1		83.4	26.8	4.0	49.0
Apr 15	25			1			0	49	31	0		79.9	28.0	4.0	49.0
Apr 16	35			0			0	48	25	0		70.0	28.0	4.0	50.0
Apr 17	29			0			0	39	24	2		72.1	28.6	4.0	49.5
Apr 18	53			0			0	46	34	2		74.9	29.6	4.0	49.5
Apr 19	38			2			0	35	26	0		69.1	29.6	4.0	50.0
Apr 20	51			0			0	41	27	1		71.6	29.6	4.0	50.0
Apr 21	84			0			0	35	26	0		70.6	29.6	4.5	50.0
Apr 22	106			1			0	38	28	0		82.5	29.6	4.5	50.0
Apr 23	156			1			0	20	11	0		73.0	29.9	4.5	49.0
Apr 24	142			2			0	28	19	0		75.9	29.9	4.5	49.0
Apr 25	268			5			0	27	20	0		83.0	29.1	4.5	49.0
Apr 26	292			4			0	26	19	0		78.4	28.0	4.5	49.0
Apr 27	178			2			0	35	24	0		63.8	28.9	4.5	49.0
Apr 28	355			4			0	35	21	0		79.4	30.0	4.5	50.0
Apr 29	1,080			16			0	19	12	0		79.4	30.0	4.5	50.0
Apr 30	1,045			11			0	12	10	0		68.8	30.0	4.5	50.0
TOTAL	3,995			49			1	1,179	777	10					
AVG.	133			2			0	39	26	0		75.1	26.7	3.8	48.5

Note: Official Spring Chinook run started April 1.

TABLE 106

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

LOWER MONUMENTAL PROJECT - FISH COUNTS												MAY 2014					
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
May 1	806			13				14	8			0	0	64.2	29.9	4.5	51.0
May 2	1,160			6				17	8			0	0	71.7	28.4	4.5	51.0
May 3	1,824			8				21	10			0	0	78.4	27.4	4.5	51.0
May 4	2,709			27				37	26			0	0	89.8	27.4	4.0	51.0
May 5	2,763			76				19	11			0	0	98.6	27.0	4.5	51.0
May 6	2,410			56				13	7			0	0	101.1	27.3	4.5	51.0
May 7	5,526			154				10	6			0	0	91.1	26.8	4.5	52.0
May 8	7,631			232				24	15			0	0	85.6	27.0	4.5	52.0
May 9	4,791			205				19	8			0	0	79.6	26.9	4.5	52.0
May 10	4,221			292				20	8			0	0	88.3	28.5	5.0	52.0
May 11	3,499			258				20	10			0	0	81.9	27.9	5.0	53.5
May 12	2,361			276				25	9			0	0	75.2	26.4	5.0	54.0
May 13	1,794			300				10	6			0	0	72.1	28.0	5.0	54.0
May 14	2,500			474				9	3			0	0	68.0	26.3	5.0	54.0
May 15	2,772			605				19	7			0	0	72.2	26.9	5.0	54.0
May 16	2,445			720				20	4			0	0	87.3	26.2	4.0	54.0
May 17	2,252			747				12	6			0	0	96.1	29.9	4.0	54.0
May 18	1,986			596				15	2			0	0	113.5	31.2	4.0	54.0
May 19	2,116			758				13	2			0	0	121.0	27.7	4.0	55.0
May 20	1,176			613				12	-1			2	0	114.0	25.2	3.5	56.0
May 21	1,341			564				21	1			0	0	104.1	24.4	3.0	56.0
May 22	1,108			557				14	0			0	1	107.2	23.5	4.0	56.0
May 23	1,005			548				16	5			2	0	123.1	26.8	4.0	57.0
May 24	622			324				8	0			0	0	131.8	32.8	3.5	58.0
May 25	514			256				8	0			0	0	140.9	33.1	3.5	58.0
May 26	851			312				13	1			1	0	139.6	33.1	2.5	55.0
May 27	545			212				15	1			0	0	139.2	37.3	2.5	55.0
May 28	534			242				12	0			0	0	134.2	37.2	2.5	54.0
May 29	449			258				13	2			0	0	130.7	35.5	3.0	54.0
May 30	640			241				15	0			1	0	127.8	36.3	2.5	54.0
May 31	595			190				13	2			0	0	123.0	38.0	2.5	55.0
TOTAL	64,946			10,120				497	167			6	1				
AVG.	2,095			326				16	5			0	0	101.7	29.4	4.0	53.8
RUN YEAR		CHINOOK	CHINOOK						unclipped			BULL					
TOTALS TO DATE		ADULT	JACK					STEELHEAD	STEELHEAD			TROUT	LAMPREY				
SPRING		68,941	10,169					1,676	944			16	1				

TABLE 107

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

JUNE 2014

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
Jun 1	379			178			0	8	1				2	0	117.9	36.1	2.5	55.0
Jun 2	669			213			0	12	0				3	1	112.6	35.9	2.5	55.0
Jun 3	845			358			0	20	1				0	0	113.3	35.7	2.5	56.0
Jun 4	1,198			445			0	23	2				0	0	114.2	35.9	2.5	56.0
Jun 5	1,121			352			0	23	1				0	0	112.1	29.3	2.5	57.0
Jun 6	1,176			422			0	17	3				0	0	112.0	26.0	2.0	58.0
Jun 7	1,022			443			0	27	2				0	1	104.8	25.9	2.0	58.0
Jun 8	805			281			0	17	2				0	0	101.1	25.8	2.0	58.0
Jun 9	773			232			0	21	0				0	0	100.9	24.1	2.0	58.0
Jun 10	935			259			0	25	-1				0	0	92.5	23.9	3.0	58.0
Jun 11	581			191			0	38	4				0	0	91.7	23.8	3.0	58.0
Jun 12	715			207			0	28	4				0	0	89.0	25.0	2.0	58.0
Jun 13	782			270			0	32	4				0	0	85.6	24.6	2.0	58.0
Jun 14		821		245			0	45	4				0	0	78.3	25.4	2.0	58.0
Jun 15		801		222			0	33	0				0	0	72.9	26.2	2.0	58.0
Jun 16		526		223			0	48	7				0	0	67.3	28.8	3.0	58.0
Jun 17		600		266			0	45	8				0	0	72.4	29.6	3.0	58.0
Jun 18		465		157			1	39	6				0	0	71.3	30.0	3.0	58.0
Jun 19		769		351			1	56	6				0	0	66.5	29.4	4.0	58.0
Jun 20		668		339			1	44	9				0	0	63.0	30.0	4.0	59.0
Jun 21		751		301			0	34	7				0	0	63.0	17.6	4.0	59.0
Jun 22		358		186			3	50	14				0	0	67.5	17.0	4.0	59.0
Jun 23		489		217			3	40	9				0	0	65.8	16.9	3.5	59.0
Jun 24		315		222			6	35	14				0	0	63.9	16.9	3.5	59.0
Jun 25		340		246			7	38	5				0	0	65.4	16.7	3.5	60.0
Jun 26		445		302			15	40	12				0	0	63.8	17.0	4.0	60.0
Jun 27		401		364			32	84	25				0	0	64.2	16.8	4.0	60.0
Jun 28		354		299			24	77	28				0	0	76.3	30.0	4.0	60.5
Jun 29		287		226			33	77	17				0	0	75.9	31.9	4.0	60.5
Jun 30		381		296			39	87	26				0	1	68.9	17.0	4.5	60.5

TOTAL	11,001	8,771		8,313			165	1,163	220				5	3				
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AVG.	846	516		277			6	39	7				0	0	83.8	25.6	3.0	58.3
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RUN YEAR	CHINOOK	CHINOOK
TOTALS TO DATE	ADULT	JACK
SPRING	79,942	14,020
SUMMER	8,771	4,462
TOTAL	88,713	18,482

	unclipped
SOCKEYE	STEELHEAD
165	2,839
	STEELHEAD
	1,164

	BULL
TROUT	LAMPREY
21	4

TABLE 108

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

JULY 2014

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		473		300			82	99	21		1	1	67.1	17.6	5.0	61.0
Jul 2		397		229			67	114	31		0	0	64.3	17.0	4.5	62.5
Jul 3		318		145			77	126	29		0	1	63.3	22.6	4.5	64.0
Jul 4		381		189			90	169	64		0	0	61.4	17.0	4.5	64.0
Jul 5		294		124			71	160	70		0	0	58.1	16.9	4.5	64.0
Jul 6		229		149			88	101	41		1	0	55.9	17.0	4.5	64.0
Jul 7		177		115			72	147	59		0	1	58.7	16.6	4.5	64.0
Jul 8		233		146			76	150	63		0	1	56.4	17.0	4.5	64.0
Jul 9		416		209			124	212	87		0	3	54.0	17.0	5.0	64.0
Jul 10		300		151			98	171	71		0	1	51.2	16.9	5.0	64.5
Jul 11		269		148			156	213	95		0	2	52.2	16.7	5.0	64.5
Jul 12		131		68			111	130	64		0	1	49.4	17.0	4.5	66.0
Jul 13		194		123			159	254	113		0	0	48.2	16.7	4.5	66.0
Jul 14		325		219			176	314	127		0	0	42.3	16.6	4.5	66.0
Jul 15		218		205			202	368	159		0	0	42.9	16.4	5.0	66.0
Jul 16		206		126			121	412	210		0	2	41.3	17.0	5.5	67.0
Jul 17		222		204			158	553	271		0	3	39.2	16.7	5.5	67.0
Jul 18		249		106			133	605	284		0	6	40.6	17.0	5.5	68.0
Jul 19		197		76			89	579	289		0	1	36.2	16.6	5.5	68.0
Jul 20		124		56			57	584	300		0	5	38.5	17.0	5.5	67.0
Jul 21		187		59			57	536	288		0	0	38.6	17.0	5.5	69.0
Jul 22		95		28			38	311	171		0	1	31.3	17.0	5.5	69.0
Jul 23		134		62			56	460	241		0	2	34.0	16.6	5.5	70.0
Jul 24		158		57			59	774	394		0	2	35.5	17.0	5.5	69.0
Jul 25		140		47			48	544	266		0	3	29.8	16.5	5.5	69.0
Jul 26		52		29			32	293	161		0	9	33.2	17.0	5.0	69.0
Jul 27		46		23			24	360	175		0	3	33.2	16.7	5.0	69.0
Jul 28		32		16			13	250	113		0	3	36.0	17.0	5.0	69.0
Jul 29		62		31			13	264	126		0	4	39.5	16.8	5.0	69.0
Jul 30		79		35			22	382	170		0	3	33.0	17.0	5.0	69.0
Jul 31		73		30			15	366	168		0	5	34.0	16.7	5.5	70.0
TOTAL		6,411		3,505			2,584	10,001	4,721		2	63				
AVG.		207		113			83	323	152		0	2	45.1	17.1	5.0	66.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,942	14,020
SUMMER	15,182	7,967
TOTAL	95,124	21,987

SOCKEYE	STEELHEAD	unclipped STEELHEAD
2,749	12,840	5,885

BULL TROUT	LAMPREY
23	67

TABLE 109

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	STURGEON	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TEMP DEG F
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD			TROUT	LAMPREY				
Aug 1		28		6	0	0	7	242	96				5	32.9	17.0	6.0	70.0
Aug 2		48		11	0	0	6	326	125				1	32.2	16.6	6.0	70.0
Aug 3		75		19	0	0	5	435	208				3	31.3	17.0	6.0	70.0
Aug 4		46		11	0	0	9	317	133				1	28.7	16.6	7.0	69.0
Aug 5		114		20	0	0	4	835	375				6	27.1	14.4	7.0	69.0
Aug 6		95		18	0	0	7	565	254				5	26.5	14.3	7.0	69.0
Aug 7		86		10	0	0	6	505	224				5	29.2	17.0	7.0	69.0
Aug 8		90		18	0	0	1	435	174				9	26.4	13.9	7.0	70.0
Aug 9		52		7	0	0	1	390	174				3	29.8	15.9	6.0	70.0
Aug 10		51		14	0	0	0	335	151				4	29.0	15.6	6.0	70.0
Aug 11		37		9	0	0	0	125	67				6	27.9	17.7	6.0	70.0
Aug 12		67		10	0	0	1	424	214				2	29.9	14.9	6.0	70.0
Aug 13		93		16	0	0	3	562	248				2	28.8	14.0	6.0	69.0
Aug 14			58	10	0	0	0	479	180				7	29.8	13.6	6.0	68.5
Aug 15			71	15	0	0	0	398	170				3	29.8	14.4	6.0	68.5
Aug 16			113	8	0	0	0	491	175				22	24.5	9.4	6.0	69.0
Aug 17			74	14	0	0	0	293	124				1	25.2	10.2	6.0	69.0
Aug 18			71	6	0	0	0	209	87				4	25.9	11.0	6.5	69.0
Aug 19			186	23	0	0	0	379	157				7	23.2	8.1	6.5	69.0
Aug 20			170	21	0	0	0	321	121				6	22.1	7.0	7.0	69.0
Aug 21			187	18	0	0	0	384	144				9	22.4	10.9	6.5	68.5
Aug 22			185	9	0	0	0	457	168				4	23.3	11.0	6.5	68.5
Aug 23			104	9	0	0	1	352	133				2	23.1	10.9	6.5	68.5
Aug 24			92	4	0	0	0	197	59				3	22.9	10.6	6.5	69.0
Aug 25			95	10	0	0	0	185	74				6	29.2	16.1	6.5	69.0
Aug 26			214	26	0	0	0	348	131				1	23.4	11.2	6.5	69.0
Aug 27			160	15	0	0	0	210	85				5	23.9	11.6	6.5	69.0
Aug 28			371	48	0	0	1	288	98				4	24.5	12.2	6.5	69.0
Aug 29			301	53	0	1	0	294	105				3	24.3	11.5	6.5	69.0
Aug 30			249	35	0	0	1	295	115				1	24.2	11.5	6.5	69.0
Aug 31			353	52	0	0	0	341	127				4	24.1	11.5	6.0	69.0
TOTAL		882	3,054	545	0	1	53	11,417	4,696				144				
AVG.		68	170	18	0	0	2	368	151				5	26.6	13.1	6.4	69.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,942	14,020
SUMMER	16,064	8,136
FALL	3,054	376
TOTAL	99,060	22,532

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
0	1	2,802	24,257	10,581

BULL TROUT	LAMPREY
23	211

TABLE 110

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

SEPTEMBER 2014

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			309	65	0	1	0	636	227				1	20.3	0.0	6.0	69.0
Sep 2			383	50	6	0	0	452	145				1	19.2	0.0	6.0	69.0
Sep 3			627	132	0	1	0	519	175				0	19.6	0.0	6.0	68.5
Sep 4			528	72	1	0	0	416	143				0	19.6	0.0	6.0	69.0
Sep 5			979	169	1	2	0	523	179				0	21.9	0.0	6.0	69.0
Sep 6			991	198	6	5	0	535	198				1	22.8	0.0	6.0	69.0
Sep 7			1,496	277	7	8	0	818	282				0	21.8	0.0	6.0	69.5
Sep 8			1,174	224	13	6	0	880	247				0	23.7	0.0	6.0	68.0
Sep 9			2,088	454	28	16	0	1,281	417				0	27.4	0.0	5.0	68.0
Sep 10			2,396	547	51	28	0	1,321	504				0	21.1	0.0	5.0	68.0
Sep 11			2,568	517	48	49	0	2,753	879				2	23.9	0.0	5.0	68.0
Sep 12			2,281	553	57	30	0	3,051	1,017				0	26.8	0.0	5.0	68.0
Sep 13			2,043	532	104	54	0	2,581	852				0	25.5	0.0	5.0	67.0
Sep 14			2,358	637	137	38	0	2,766	835				1	26.6	0.0	5.0	67.0
Sep 15			2,208	783	197	67	0	2,738	830				0	22.5	0.0	5.0	67.0
Sep 16			3,328	1,174	337	66	1	2,772	903				0	16.9	0.0	5.0	66.0
Sep 17			2,928	1,243	413	59	0	3,358	1,049				0	17.5	0.0	5.0	66.0
Sep 18			1,632	741	332	31	0	2,681	773				0	21.0	0.0	4.5	65.5
Sep 19			1,746	918	618	154	0	5,533	1,644				0	22.4	0.0	4.5	65.5
Sep 20			1,944	1,033	449	148	0	4,175	1,304				0	17.4	0.0	4.5	65.5
Sep 21			1,239	854	476	152	0	4,627	1,302				0	12.4	0.0	4.5	65.0
Sep 22			930	710	437	107	0	2,702	806				-1	17.7	0.0	4.5	66.0
Sep 23			1,459	1,067	438	132	0	3,585	1,112				0	23.9	0.0	4.5	66.5
Sep 24			1,052	805	491	123	0	3,725	1,080				0	25.2	0.0	4.5	66.0
Sep 25			967	728	322	113	0	3,402	935				1	12.2	0.0	4.0	64.0
Sep 26			1,216	991	1,085	49	0	4,670	1,398				1	12.2	0.0	4.0	64.0
Sep 27			1,002	908	1,176	70	0	5,329	1,563				0	15.0	0.0	4.0	64.0
Sep 28			543	542	629	24	0	3,875	1,100				1	15.6	0.0	3.5	64.0
Sep 29			480	448	981	60	0	3,215	896				0	13.9	0.0	3.5	64.0
Sep 30			1,348	1,288	1,505	348	0	4,767	1,432				0	13.7	0.0	3.5	64.0
TOTAL			44,243	18,660	10,345	1,941	1	79,686	24,227				8				
AVG.			1,475	622	345	65	0	2,656	808				0	20.0	0.0	4.9	66.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,942	14,020
SUMMER	16,064	8,136
FALL	47,297	19,036
TOTAL	143,303	41,192

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
TOTALS TO DATE				
	10,345	1,942	2,803	103,943
				34,808

BULL TROUT	LAMPREY
TOTALS TO DATE	
	23
	219

TABLE 111

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		PINK	STURGEON	TROUT	LAMPREY	DISCH	SPILL	TURBIDITY	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD									
Oct 1			562	595	572	123	0	4,286	1,326				-1	16.0	0.0	3.5	64.0
Oct 2			529	632	532	100	0	4,363	1,308				0	15.8	0.0	3.5	64.0
Oct 3			375	430	579	107	0	3,498	963				0	19.0	0.0	3.5	64.0
Oct 4			285	362	442	87	0	3,585	955				0	17.0	0.0	3.5	64.0
Oct 5			229	243	252	68	0	2,359	596				0	17.3	0.0	5.0	64.0
Oct 6			152	181	153	23	0	1,965	496				0	20.3	0.0	6.0	62.5
Oct 7			173	197	230	7	0	1,928	537				0	17.9	0.0	6.0	62.5
Oct 8			183	286	264	18	0	1,781	466				1	18.0	0.0	6.0	62.0
Oct 9			146	247	318	11	1	2,395	677				0	19.2	0.0	6.0	64.0
Oct 10			177	215	313	29	0	2,227	580				0	18.5	0.0	6.0	64.0
Oct 11			147	160	251	39	0	1,960	467				0	15.4	0.0	6.0	64.0
Oct 12			162	201	328	30	0	2,234	690				0	18.3	0.0	6.0	63.5
Oct 13			81	128	225	26	0	1,907	526				-1	18.6	0.0	6.0	63.0
Oct 14			92	98	136	20	0	1,680	469				0	17.3	0.0	6.0	63.0
Oct 15			78	89	111	9	0	1,275	396				0	13.7	0.0	5.5	62.5
Oct 16			77	101	157	22	0	1,407	385				2	15.9	0.0	5.5	62.0
Oct 17			95	100	174	3	0	1,667	525				0	17.5	0.0	5.5	62.0
Oct 18			37	56	106	7	0	969	293				0	16.0	0.0	6.5	62.0
Oct 19			21	32	63	3	0	594	173				0	17.0	0.0	7.0	62.0
Oct 20			13	23	67	5	0	641	184				0	18.9	0.0	7.0	62.0
Oct 21			13	35	92	14	0	907	264				0	13.1	0.0	7.0	62.0
Oct 22			28	37	69	8	0	642	233				0	15.9	0.0	5.0	62.0
Oct 23			51	33	79	12	0	783	243				0	18.1	0.0	5.0	61.0
Oct 24			34	28	58	18	0	566	190				0	20.9	0.0	5.0	61.0
Oct 25			18	8	79	19	0	740	277				0	18.2	0.0	5.0	60.5
Oct 26			14	13	124	13	0	1,129	417				0	18.4	0.0	5.0	60.5
Oct 27			27	25	87	15	0	774	252				0	21.2	0.0	5.0	60.0
Oct 28			39	20	109	10	0	1,069	428				0	18.1	0.0	5.0	59.5
Oct 29			23	24	71	1	0	692	277				1	22.0	0.0	6.0	59.5
Oct 30			16	19	138	7	0	814	300				0	20.0	0.0	6.0	59.5
Oct 31			34	18	75	16	0	833	317				0	18.5	0.0	5.5	59.0
TOTAL			3,911	4,636	6,254	870	1	51,670	15,210				2				

AVG.	126	150	202	28	1,667	491	0	17.8	0.0	5.5	62.1
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE									
SPRING	79,942	14,020	16,599	2,812	2,804	155,613	50,018	23	221
SUMMER	16,064	8,136							
FALL	51,208	23,672							
TOTAL	147,214	45,828							

TABLE 112

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

NOVEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		BULL		DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	ADULT	JACK		SOCKEYE	STEELHEAD	STEELHEAD	PINK				STURGEON	TROUT
Nov 1			5	11	48	0	428	156			0	19.1	0.0	6	59
Nov 2			18	18	61	1	706	237			0	19.7	0.0	6	59
Nov 3			23	12	69	0	1,248	450			0	23.0	0.0	6	58
Nov 4			16	5	44	0	724	258			0	21.1	0.0	5	58
Nov 5			3	10	30	0	504	186			-1	22.1	0.0	5	58
Nov 6			4	12	33	1	655	255			0	19.0	0.0	5	58
Nov 7			9	19	27	1	1,030	399			0	21.5	0.0	5	58
Nov 8			5	5	21	1	401	163			0	21.4	0.0	5	57
Nov 9			17	0	15	0	292	115			0	16.4	0.0	5	57
Nov 10			11	2	7	0	237	79			0	25.0	0.0	4	57
Nov 11			4	7	10	2	256	75			0	21.6	0.0	4	56
Nov 12			2	2	9	1	186	76			0	25.1	0.0	4	54
Nov 13			17	6	11	1	524	200			0	20.3	0.0	6	53
Nov 14			11	6	11	2	226	82			0	20.3	0.0	6	53
Nov 15			5	8	6	0	201	86			0	21.3	0.0	6	53
Nov 16			-2	4	2	0	128	39			0	19.8	0.0	6	53
Nov 17			4	9	2	0	171	54			0	14.9	0.0	6	52
Nov 18			4	4	3	0	102	27			0	17.9	0.0	5	51
Nov 19			7	4	1	1	44	18			0	21.6	0.0	5	50
Nov 20			-1	8	4	0	51	26			0	16.7	0.0	5	49
Nov 21			6	0	2	0	61	20			0	17.8	0.0	5	49
Nov 22			0	2	1	0	68	21			0	16.6	0.0	5	49
Nov 23			1	3	2	0	72	22			0	16.8	0.0	5	49
Nov 24			9	1	0	0	49	16			0	16.8	0.0	5	48
Nov 25			3	0	1	0	59	13			0	24.2	0.0	5	48
Nov 26			0	0	3	0	58	26			0	21.0	0.0	5	48
Nov 27			3	0	0	0	50	16			0	29.2	0.0	5	48
Nov 28			0	1	1	0	61	26			0	24.1	0.0	5	47
Nov 29			6	2	1	0	99	32			0	25.7	0.0	5	47
Nov 30			0	0	0	0	87	41			0	36.6	0.0	5	46
TOTAL			190	161	425	11	8,778	3,214			-1				
AVG			6	5	14	0	293	107			0	21.2	0.0	4.8	52.6

RUN YEAR	CHINOOK	CHINOOK	COHO		unclipped		BULL			
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	TROUT	LAMPREY
SPRING	79,942	14,020		17,024	2,823	2,804	164,391	53,232	23	220
SUMMER	16,064	8,136								
FALL	51,208	23,672								
TOTAL	147,214	45,828								

Official Fall Chinook run ended October 31. November and December counts were not added to fall totals

TABLE 113
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS											DECEMBER 2014						
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
Dec 1			5	0	1			84	50					32	0	5	46
Dec 2			-3	0	0			122	53					31	0	5	46
Dec 3			0	0	1			127	34					28	0	6	45
Dec 4			0	0	1			76	20					20	0	6	45
Dec 5			0	1	0			66	29					29	0	5	44
Dec 6			0	0	1			88	29					25	0	5	44
Dec 7			0	0	0			104	36					22	0	5	43
Dec 8			1	0	0			56	18					24	0	5	43
Dec 9			1	0	0			73	24					27	0	5	43
Dec 10			0	0	0			86	26					27	0	5	43
Dec 11			0	0	0			61	16					27	0	5	43
Dec 12			0	0	0			53	15					30	0	5	43
Dec 13			1	0	1			42	11					28	0	5	42
Dec 14			-1	0	2			84	32					25	0	5	42
Dec 15			0	0	0			35	8					28	0	5	42
Dec 16			0	0	0			58	17					29	0	5	42
Dec 17			-1	0	0			73	32					27	0	5	42
Dec 18			0	0	0			92	32					32	0	5	42
Dec 19			0	0	0			36	18					29	0	5	42
Dec 20			0	0	0			32	18					26	0	5	42
Dec 21			0	0	0			74	29					29	0	5	42
Dec 22			0	0	0			78	28					29	0	5	42
Dec 23			1	0	0			33	15					38	0	5	42
Dec 24			0	0	0			101	37					40	0	6	42
Dec 25			0	0	0			89	35					36	0	6	42
Dec 26			0	0	1			97	32					36	0	6	43
Dec 27			0	0	0			77	19					35	0	6	42
Dec 28			0	0	0			119	46					40	0	6	42
Dec 29			0	0	0			42	14					33	0	6	42
Dec 30			0	2	0			71	31					25	0	6	42
Dec 31			0	0	0			47	21					34	0	6	42
TOTAL			4	3	8			2,276	825								
AVG			0	0	0			73	27					29.7	0.0	5.3	42.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE	79,942	14,020	17,024	2,823	2,804	164,391	53,232	23	220
SPRING									
SUMMER	16,064	8,136							
FALL	51,208	23,672							
TOTAL	147,214	45,828							

Official Fall Chinook run ended October 31. November and December counts were not added to fall totals

TABLE 114
 YEARLY TOTALS OF SALMONIDS COUNTED OVER
 LOWER MONUMENTAL DAM
 1969 - 2014

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
Total	3,142,023	4,769,400	14,377	70,547	7,996,347
10-Year Average	135,515	172,632	932	4,715	313,793

*Jacks included

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

TABLE 115
MONTHLY COUNT OF CHINOOK SALMON
LOWER MONUMENTAL DAM
1969-2014

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
Total	2	0	60	368,360	1,216,483	633,434	216,425	62,396	520,161	121,834	1,838	30	3,141,023
10-Year Average				3,534	49,389	27,743	7,662	4,031	36,637	6,483			135,515

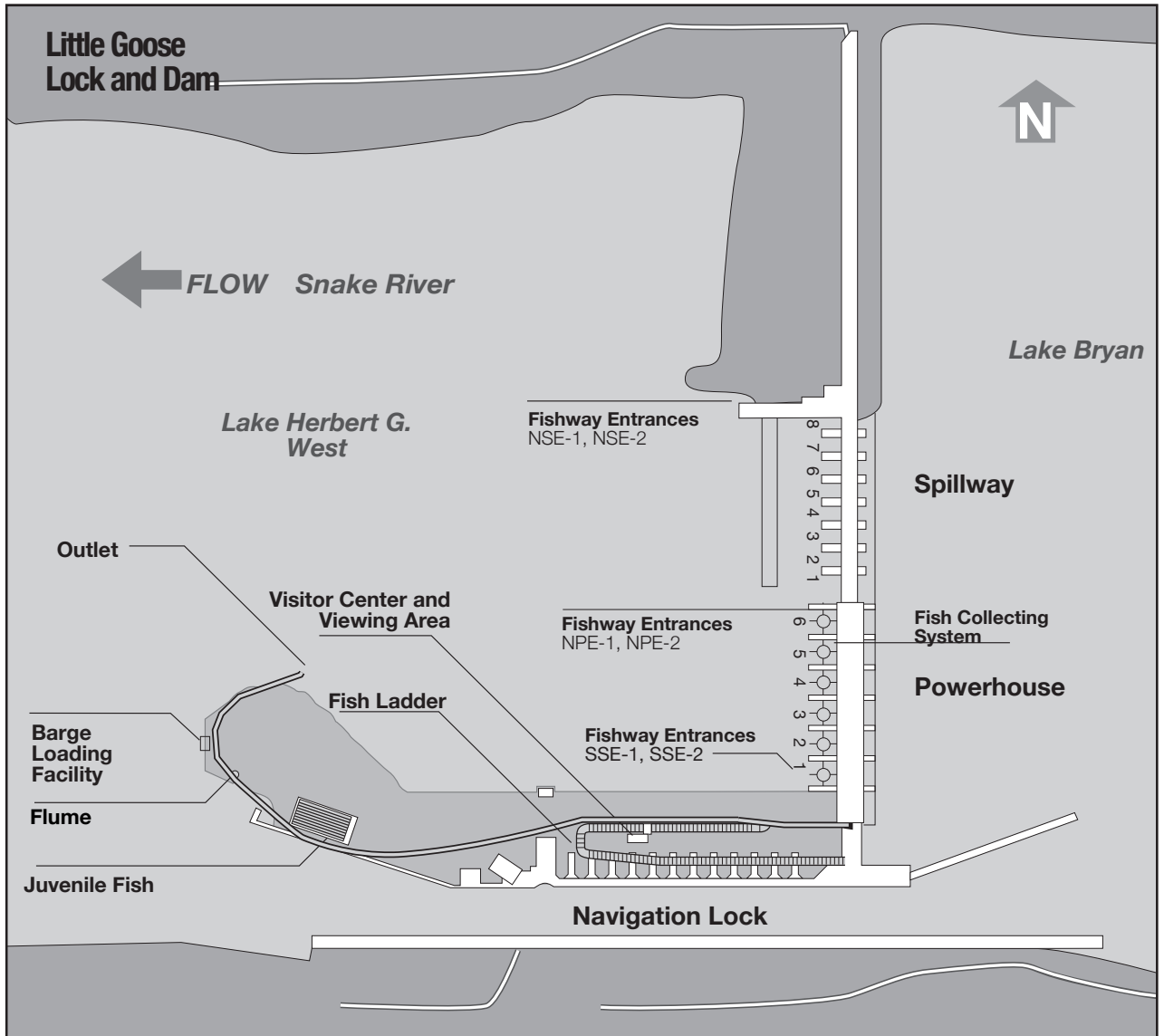
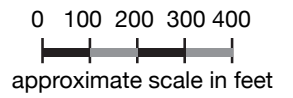
*Jacks included
2001-2004 and 2014 extended season video counts are included.

TABLE 116
MONTHLY COUNT OF STEELHEAD
LOWER MONUMENTAL DAM
1969 - 2014

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
Total	4,829	7,610	18,442	110,428	22,080	18,703	211,466	421,131	2,226,122	1,653,921	58,017	16,651	4,769,400
10-Year Average				2,716	351	813	8,364	16,987	85,053	56,882			172,632

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

Plate 8 Little Goose Lock and Dam



LITTLE GOOSE 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

1 January – 5 January	Ladder in service
6 January – 26 February	Ladder dewatered for annual maintenance
27 February – 31 December	Ladder in service

FISHWAY ACTIVITIES

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

As in previous years water temperature at the ladder exit was recorded on an hourly basis in an ongoing trend study in support of safe fish passage.

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

Auxiliary fish pump 1 failed on August 24 due to loss of oil. Fish Pumps 2 and 3 were operated at higher RPMs until Fish Pump 1 was returned to service on August 25.

Collection channel subsurface water velocities were measured monthly using a hydrologic current 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.

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. The fish ladder water supply is gravity fed from the forebay and is representative of river conditions.

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.

University of Idaho performed adult salmon, steelhead and lamprey passage studies using radio-telemetry to estimate passage and survival conversion rates.

TABLE 117

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LITTLE GOOSE DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				2,321	74,676	25,209	12,744	3,873	56,194	10,350			185,367
STEELHEAD				1,175	385	534	6,113	7,120	73,440	56,213			144,980
SOCKEYE						138	2,565	105	3	0			2,811
COHO								2	9,846	11,620			21,468
PINK													0
TOTAL				3,496	75,061	25,881	21,422	11,100	139,483	78,183			354,626
LAMPREY				0	0	1	41	79	-4	-2			115
STURGEON													0
BULL TROUT				3	9	25	4	0	0	0			41

*Jacks included

TABLE 118
DISCHARGE AND WATER QUALITY DATA
LITTLE GOOSE PROJECT 2014

JANUARY				
DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Jan 1	17.3	0.0		
Jan 2	19.2	0.0		
Jan 3	19.4	0.0		
Jan 4	22.1	0.0		
Jan 5	15.2	0.0		
Jan 6	19.4	0.0		
Jan 7	25.6	0.0		
Jan 8	19.6	0.0		
Jan 9	18.7	0.0		
Jan 10	15.2	0.0		
Jan 11	15.8	0.0		
Jan 12	20.6	0.0		
Jan 13	22.8	0.0		
Jan 14	22.9	0.0		
Jan 15	22.2	0.0		
Jan 16	21.8	0.0		
Jan 17	20.9	0.0		
Jan 18	20.4	0.0		
Jan 19	19.3	0.0		
Jan 20	18.9	0.0		
Jan 21	19.5	0.0		
Jan 22	16.0	0.0		
Jan 23	20.8	0.0		
Jan 24	19.1	0.0		
Jan 25	19.1	0.0		
Jan 26	16.7	0.0		
Jan 27	17.5	0.0		
Jan 28	20.5	0.0		
Jan 29	14.4	0.0		
Jan 30	14.8	0.0		
Jan 31	18.6	0.0		

AVG.

19.2	0.0
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FEBRUARY				
DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Feb 1	19.9	0.0		
Feb 2	16.3	0.0		
Feb 3	21.1	0.0		
Feb 4	18.0	0.0		
Feb 5	17.3	0.0		
Feb 6	26.4	0.0		
Feb 7	16.2	0.0		
Feb 8	18.8	0.0		
Feb 9	16.7	0.0		
Feb 10	21.0	0.0		
Feb 11	23.5	0.0		
Feb 12	17.4	0.0		
Feb 13	26.2	0.0		
Feb 14	30.2	0.0		
Feb 15	38.4	0.0		
Feb 16	28.0	0.0		
Feb 17	36.3	0.0		
Feb 18	31.8	0.0		
Feb 19	30.9	0.0		
Feb 20	34.2	0.0		
Feb 21	27.4	0.0		
Feb 22	30.9	0.0		
Feb 23	27.6	0.0		
Feb 24	29.5	0.0		
Feb 25	28.0	0.0		
Feb 26	26.4	0.0		
Feb 27	32.2	0.0		
Feb 28	38.2	0.0	3.1	

AVG.

26.0	0.0
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MARCH				
DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Mar 1	39.5	0.0		
Mar 2	43.0	0.0		
Mar 3	42.1	0.0		2.2
Mar 4	63.9	0.0		
Mar 5	66.1	0.0		2.5
Mar 6	82.8	0.0		3.8
Mar 7	101.6	0.0		
Mar 8	86.8	0.0		
Mar 9	82.7	0.0		
Mar 10	113.0	0.0		1.3
Mar 11	125.6	10.3		1.1
Mar 12	106.6	11.4		1.1
Mar 13	84.8	11.1		1.7
Mar 14	77.1	0.0		
Mar 15	78.4	0.0		
Mar 16	74.5	15.1		
Mar 17	72.6	17.0		1.3
Mar 18	72.5	11.1		1.5
Mar 19	67.8	8.8		
Mar 20	64.8	2.3		2.0
Mar 21	66.0	0.0		
Mar 22	55.0	0.0		
Mar 23	57.2	0.0		2.8
Mar 24	49.4	0.0		2.7
Mar 25	50.6	0.0		
Mar 26	54.2	0.0		3.6
Mar 27	58.3	0.0		
Mar 28	70.6	0.0		
Mar 29	65.7	0.0		3.6
Mar 30	87.4	0.0		
Mar 31	73.3	0.0		3.8

AVG.

72.1	2.8
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2.3

*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 2014

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				54	41		0		72.0	0.0		
Apr 2	0			0				76	44		0		66.6	4.4		
Apr 3	0			0				22	14		0		64.6	0.1		4.0
Apr 4	1			0				80	49		0		67.3	19.3		3.0
Apr 5	0			0				71	49		0		70.1	20.1		2.8
Apr 6	0			0				46	32		0		68.3	21.1		
Apr 7	1			0				47	29		0		73.4	20.5		
Apr 8	0			1				48	35		0		71.3	22.0		4.2
Apr 9	0			0				45	31		0		69.7	22.8		
Apr 10	0			0				33	25		1		83.7	20.9		4.0
Apr 11	1			0				46	34		0		80.7	25.1		
Apr 12	2			0				36	23		0		84.7	24.0		
Apr 13	7			0				44	24		0		83.5	26.6		3.4
Apr 14	6			0				54	38		0		83.5	25.1		
Apr 15	11			0				35	24		0		79.1	25.7		4.1
Apr 16	20			0				33	26		0		70.3	31.1		3.7
Apr 17	5			0				32	20		0		72.4	21.2		3.8
Apr 18	47			0				43	25		0		74.1	22.5		
Apr 19	8			0				33	23		0		68.4	22.9		
Apr 20	37			2				37	24		0		72.4	24.1		3.8
Apr 21	43			2				24	18		0		70.9	23.8		
Apr 22	28			2				34	26		0		80.3	21.3		4.2
Apr 23	114			0				33	25		0		73.4	24.0		
Apr 24	106			2				22	12		1		76.3	22.0		4.2
Apr 25	60			1				30	23		0		81.3	23.7		
Apr 26	160			6				20	12		0		78.7	25.6		
Apr 27	160			4				22	16		1		61.8	23.7		4.5
Apr 28	385			5				26	19		0		76.7	28.9		
Apr 29	215			4				22	17		0		79.4	26.2		3.7
Apr 30	856			19				27	17		0		67.2	23.8		4.5
TOTAL	2,273			48				1,175	795		3		74.1	21.4		3.9
AVG.	76			2				39	27		0		74.1	21.4		3.9

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

TABLE 120

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

LITTLE GOOSE PROJECT - FISH COUNTS

MAY 2014

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													
May 1	371			19				14	10		0		65.4	20.0		
May 2	372			16				13	8		1		72.9	19.6		
May 3	452			6				15	10		0		77.6	21.8		
May 4	2,188			47				16	10		1		87.7	28.9		3.8
May 5	2,783			55				35	22		0		100.2	26.4		
May 6	3,224			55				31	18		0		101.5	33.3		4.4
May 7	2,660			34				17	11		0		91.3	34.9		
May 8	2,309			47				24	22		0		86.2	27.5		3.6
May 9	3,185			138				16	11		0		79.7	25.8		
May 10	3,140			146				16	11		1		86.3	23.9		
May 11	9,002			365				12	6		0		81.4	25.9		
May 12	4,152			272				19	11		0		74.4	24.5		2.7
May 13	2,106			246				22	11		0		71.5	22.3		3.0
May 14	2,369			319				9	5		0		67.3	21.4		
May 15	2,786			463				6	5		0		70.1	20.2		4.0
May 16	3,252			506				12	11		0		84.0	20.9		
May 17	3,260			601				11	4		0		95.6	28.1		
May 18	3,547			887				13	7		0		113.8	33.0		
May 19	2,359			654				15	2		0		119.0	37.0		3.9
May 20	1,926			618				10	4		1		112.8	35.6		
May 21	1,255			552				2	0		0		104.1	33.6		4.4
May 22	1,271			538				10	5		0		108.4	31.2		3.4
May 23	517			353				2	0		0		121.9	32.3		
May 24	1,026			505				4	0		0		132.7	36.2		
May 25	1,500			560				8	2		0		140.0	34.6		2.7
May 26	876			364				7	0		1		139.1	34.6		
May 27	887			364				0	0		0		135.9	34.5		
May 28	678			220				7	1		1		132.9	34.6		1.8
May 29	395			208				7	0		0		130.0	34.7		2.0
May 30	504			308				10	4		2		127.2	34.6		
May 31	637			221				2	1		1		123.1	34.5		1.6
TOTAL	64,989			9,687				385	212		9					
AVG.	2,096			312				12	7		0		101.1	29.2		3.2
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	unclipped STEELHEAD		BULL TROUT					
TOTALS TO DATE																
SPRING		67,262	9,735					1,560	1,007		12					

TABLE 121

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

LITTLE GOOSE PROJECT - FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD		TROUT	LAMPREY				
Jun 1	744			248			0	4	0		0	0	116.2	34.5		
Jun 2	548			283			0	7	0		1	0	114.1	31.7		
Jun 3	649			253			0	8	0		0	0	110.8	29.0		2.4
Jun 4	955			337			0	13	1		0	0	113.3	28.9		
Jun 5	517			199			0	8	0		0	0	110.9	29.0		3.0
Jun 6	1,024			310			0	17	7		1	0	112.1	32.2		
Jun 7	769			284			0	18	4		3	0	105.0	32.8		
Jun 8	1,397			473			0	9	1		5	0	101.9	31.4		3.7
Jun 9	932			370			0	11	1		1	0	100.2	30.7		
Jun 10	848			263			0	12	5		1	0	93.8	29.9		3.2
Jun 11	802			230			0	12	2		0	0	91.0	28.1		
Jun 12	272			110			0	6	0		2	0	89.1	27.3		4.2
Jun 13	239			131			0	16	4		0	0	85.5	26.7		
Jun 14	311			140			0	14	2		0	0	78.4	25.6		3.0
Jun 15	697			283			0	12	2		0	0	72.0	23.4	58.0	
Jun 16		1,062		325			0	27	1		0	0	66.9	21.6	57.8	4.4
Jun 17		850		240			0	15	2		1	0	69.3	20.1	57.7	
Jun 18		673		216			0	16	4		0	0	71.5	20.8	57.7	
Jun 19		259		121			1	19	6		1	0	66.1	21.7	57.4	5.3
Jun 20		216		155			4	19	5		0	0	63.5	19.7	57.1	
Jun 21		623		296			7	16	4		1	0	63.9	19.1	57.4	
Jun 22		893		473			1	18	2		0	0	67.9	19.1	58.0	6.0
Jun 23		522		227			2	24	10		0	0	65.0	20.3	58.2	
Jun 24		278		133			5	24	7		0	0	66.5	19.4	57.8	5.2
Jun 25		514		258			5	38	8		0	0	64.1	19.9	59.5	
Jun 26		102		89			8	16	4		2	0	63.3	19.1	60.8	5.5
Jun 27		155		107			10	11	5		1	0	64.4	19.0	60.9	
Jun 28		444		290			31	36	16		4	0	77.0	19.3	61.4	
Jun 29		156		156			17	41	18		1	1	76.4	26.2	62.1	5.0
Jun 30		486		272			47	47	13		0	0	71.0	26.1	62.8	4.2
TOTAL	10,704	7,233		7,272			138	534	134		25	1				

AVG.	714	482		242			5	18	4		1	0	83.7	25.1	59.0	4.2
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	77,966	13,649
SUMMER	7,233	3,358
TOTALS	85,199	17,007

SOCKEYE	STEELHEAD	unclipped STEELHEAD
138	2,094	1,141

BULL TROUT	LAMPREY
37	1

TABLE 122

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

LITTLE GOOSE PROJECT - FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL								TROUT	LAMPREY				
Jul 1		472		233			58	43	17		0	0	65.3	21.1	63.7	
Jul 2		544		236			86	44	22		0	0	63.3	19.5	63.5	
Jul 3		337		196			72	55	23		0	0	63.3	18.9	61.9	5.2
Jul 4		341		238			89	84	32		0	0	60.4	23.4	62.2	
Jul 5		409		184			96	91	44		0	1	57.9	18.1	62.1	
Jul 6		310		130			72	80	30		1	0	56.6	17.3	62.5	6.0
Jul 7		469		202			79	83	46		0	0	58.2	16.9	63.4	
Jul 8		361		131			62	82	30		1	0	56.7	17.5	64.9	5.7
Jul 9		637		248			86	124	62		0	1	53.6	16.9	65.7	
Jul 10		722		293			116	138	65		0	0	49.9	16.0	65.9	5.7
Jul 11		374		175			85	116	62		0	0	50.7	14.9	67.0	
Jul 12		256		104			115	121	71		0	5	49.9	15.1	67.6	
Jul 13		137		74			95	57	31		0	1	48.4	14.9	67.7	5.5
Jul 14		312		124			128	138	70		0	0	41.9	14.5	67.7	
Jul 15		488		280			192	225	122		0	2	44.6	12.5	68.2	
Jul 16		402		180			156	164	92		0	0	40.6	13.3	68.2	5.8
Jul 17		302		101			134	246	128		0	1	39.6	12.1	67.2	6.0
Jul 18		228		120			148	266	152		0	0	39.5	11.8	67.6	
Jul 19		352		146			161	458	256		0	1	36.0	11.8	68.1	
Jul 20		138		73			98	384	224		0	1	38.0	10.8	68.3	
Jul 21		163		68			61	370	198		1	1	38.4	11.3	68.3	5.5
Jul 22		142		59			53	237	139		0	7	31.9	11.4	68.6	6+
Jul 23		162		46			42	372	197		0	0	33.3	9.5	68.7	6.5
Jul 24		136		72			59	411	235		0	1	36.0	10.0	68.2	
Jul 25		202		70			50	372	211		0	4	28.5	10.8	68.4	
Jul 26		132		32			56	378	210		0	1	32.3	10.8	68.4	
Jul 27		68		29			42	239	119		0	1	31.1	11.5	67.9	6.0
Jul 28		46		11			20	130	65		1	4	36.1	10.8	67.7	6+
Jul 29		55		13			23	216	116		0	1	36.2	10.8	67.6	
Jul 30		43		22			17	152	73		0	6	33.7	10.8	67.7	6.0
Jul 31		83		31			14	237	133		0	2	32.5	10.8	68.0	
TOTAL		8,823		3,921			2,565	6,113	3,275		4	41				
AVG.		285		126			83	197	106		0	1	44.7	14.1	66.5	~6.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	77,966	13,649
SUMMER	16,056	7,279
TOTAL	94,022	20,928

SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
2,703	8,207	4,416	41	42

TABLE 123

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

LITTLE GOOSE PROJECT - FISH COUNTS

AUGUST 2014

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
Aug 1		95		40	0	0	22	197	89			5	29.2	10.8	68.1	
Aug 2		18		4	0	0	14	112	60			0	31.0	10.1	68.1	6+
Aug 3		22		8	0	0	2	133	67			0	31.6	9.1	68.3	
Aug 4		50		10	0	0	12	154	60			6	29.2	9.0	67.8	
Aug 5		119		19	0	0	11	291	160			1	26.2	8.8	67.7	6+
Aug 6		119		34	0	0	4	326	160			1	26.3	8.8	67.6	
Aug 7		90		19	0	0	20	455	257			5	28.2	8.8	67.9	6+
Aug 8		82		8	0	0	2	418	218			5	27.0	8.7	68.0	
Aug 9		94		7	0	0	0	326	172			4	29.2	8.7	68.8	
Aug 10		41		8	0	0	7	292	150			2	29.7	8.7	69.2	
Aug 11		36		5	0	0	0	218	109			1	28.6	8.7	68.9	6+
Aug 12		13		5	0	0	0	39	14			4	29.9	8.8	68.3	6+
Aug 13		80		5	0	0	4	235	122			5	27.7	15.7	68.5	
Aug 14		49		8	0	0	1	150	80			1	30.1	9.0	68.8	6.0
Aug 15		94		18	0	0	0	234	125			2	28.8	9.0	69.1	
Aug 16			84	7	0	0	0	245	112			1	25.6	9.0	68.9	
Aug 17			97	6	0	0	0	289	150			1	25.5	9.0	68.6	
Aug 18			36	5	0	0	1	122	48			6	25.5	8.9	68.3	
Aug 19			65	10	0	0	1	159	70			5	23.7	8.9	67.9	6+
Aug 20			152	17	0	0	1	151	67			2	23.4	9.0	67.3	
Aug 21			236	13	0	0	1	340	178			1	23.5	9.0	67.6	6+
Aug 22			118	14	0	0	1	198	79			0	23.3	9.0	68.2	
Aug 23			174	16	0	0	0	365	154			4	23.2	8.0	68.2	
Aug 24			97	4	0	0	0	227	107			2	24.3	7.3	68.5	6.0
Aug 25			82	7	0	0	0	154	72			4	29.1	7.3	68.9	6.0
Aug 26			106	8	0	0	0	159	73			1	24.4	7.3	68.4	
Aug 27			127	11	0	0	1	162	66			1	24.5	7.3	68.5	
Aug 28			198	17	0	0	0	207	97			2	24.5	7.2	68.4	6+
Aug 29			358	24	0	0	0	213	80			5	24.0	7.2	68.7	
Aug 30			298	25	1	0	0	233	119			1	24.3	7.3	68.7	
Aug 31			233	28	0	1	0	316	140			1	24.1	7.3	68.6	
TOTAL		1,002	2,461	410	1	1	105	7,120	3,455			79				

AVG.	67	154	13	0			3	230	111			3	26.6	8.8	68.4	6+
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	77,966	13,649
SUMMER	17,058	7,477
FALL	2,461	212
TOTALS	97,485	21,338

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
1	1	2,808	15,327	7,871

BULL TROUT	LAMPREY
41	121

TABLE 124

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

LITTLE GOOSE PROJECT - FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped	BULL	LAMPREY	DISCH	SPILL	TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT		JACK							SOCKEYE	STEELHEAD	PINK
Sep 1			401	42	0	0	0	507	209			1	21.7	7.3	69.4	
Sep 2			301	42	1	0	0	344	148			0	23.7	0.0	69.3	6.0
Sep 3			330	43	1	0	1	519	190			4	19.8	0.0	68.2	
Sep 4			498	66	0	1	0	385	140			0	20.0	0.0	68.1	
Sep 5			649	59	6	4	0	489	157			1	20.7	0.0	68.0	
Sep 6			882	97	11	4	0	430	144			0	20.7	0.0	67.3	
Sep 7			894	118	7	6	0	558	198			-1	22.4	0.0	66.8	
Sep 8			1,502	230	38	7	0	607	218			0	24.0	0.0	66.4	
Sep 9			1,100	194	13	6	0	911	251			2	24.1	0.0	66.1	
Sep 10			1,937	305	29	7	0	1,096	334			0	21.6	0.0	66.5	
Sep 11			1,878	341	25	13	1	1,286	380			-1	22.5	0.0	66.8	6.0
Sep 12			2,466	418	42	28	0	2,532	791			-2	26.4	0.0	66.8	
Sep 13			2,286	499	49	34	0	2,128	635			-1	25.0	0.0	66.5	
Sep 14			2,106	482	71	30	1	2,310	608			0	26.6	0.0	66.0	
Sep 15			2,317	528	50	10	-1	2,121	626			-2	19.5	0.0	65.2	
Sep 16			2,075	467	90	35	1	2,640	751			-1	16.9	0.0		6.0
Sep 17			2,950	709	329	146	0	2,813	852			-1	16.9	0.0		5.5
Sep 18			2,750	623	450	163	0	2,656	808			1	20.4	0.0		5.7
Sep 19			2,700	832	475	71	0	4,284	1,258			0	20.2	0.0		
Sep 20			1,604	536	276	25	0	3,236	1,015			0	16.8	0.0		
Sep 21			2,255	835	486	58	0	4,274	1,210			0	13.1	0.0		5.3
Sep 22			714	341	326	95	0	3,181	852			1	19.1	0.0		6.0
Sep 23			890	509	337	90	0	3,513	1,013			0	21.0	0.0		
Sep 24			1,890	884	540	115	0	3,817	1,164			-1	21.7	0.0		
Sep 25			1,307	577	335	92	0	3,426	1,004			0	12.5	0.0		6+
Sep 26			1,310	557	529	80	0	3,880	1,072			-2	13.3	0.0		
Sep 27			1,340	601	616	107	0	4,365	1,249			-1	15.6	0.0		6.0
Sep 28			946	468	503	138	0	3,869	1,042			-1	15.7	0.0		
Sep 29			871	436	1122	229	0	4,375	1,267			1	14.0	0.0		
Sep 30			806	400	1271	224	0	6,888	1,795			-1	14.0	0.0		
TOTAL			43,955	12,239	8,028	1,818	3	73,440	21,381			-4				
AVG.			1,465	408	268	61	0	2,448	713			0	19.7	0.2	67.2	5.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	77,966	13,649
SUMMER	17,058	7,477
FALL	46,416	12,451
TOTALS	141,440	33,577

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
8,029	1,819	2,811	88,767	29,252

BULL TROUT	LAMPREY
41	117

TABLE 125

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

LITTLE GOOSE PROJECT - FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	TOTAL	unclipped	PINK	BULL	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		TROUT		KCFS	KCFS	SECCHI	DEG F
Oct 1			1,488	752	1,490	167	0	5,652	1,464			0	16.7	0.0		6.0
Oct 2			668	425	1,150	175	0	4,599	1,291			0	16.0	0.0		6+
Oct 3			268	230	517	100	0	3,596	1,014			2	18.6	0.0		
Oct 4			323	215	709	124	-1	3,432	947			0	18.1	0.0		6+
Oct 5			521	462	959	151	0	3,767	1,032			0	17.5	0.0		
Oct 6			216	224	439	78	0	2,390	606			0	20.3	0.0		
Oct 7			248	187	400	80	0	2,426	544			0	17.3	0.0		6+
Oct 8			185	113	318	74	0	2,066	456			0	17.4	0.0		
Oct 9			186	128	371	77	0	2,016	424			0	18.6	0.0		6+
Oct 10			146	156	181	19	0	1,917	419			-1	18.8	0.0		
Oct 11			146	119	338	54	0	2,147	396			0	15.7	0.0		
Oct 12			235	196	316	38	1	3,136	644			0	17.3	0.0		
Oct 13			235	162	242	36	0	1,928	338			0	18.5	0.0		
Oct 14			77	62	214	22	0	1,124	214			-1	16.6	0.0		
Oct 15			109	98	256	54	0	1,567	365			0	14.9	0.0		6+
Oct 16			197	101	236	50	0	1,808	427			-1	15.6	0.0		6+
Oct 17			109	89	306	62	0	1,619	391			-1	16.8	0.0		
Oct 18			100	70	175	34	0	1,133	222			0	16.4	0.0		
Oct 19			48	42	152	26	0	1,064	211			-1	16.7	0.0		
Oct 20			24	22	115	34	0	706	154			0	18.2	0.0		
Oct 21			54	32	103	17	0	1,029	169			0	13.2	0.0		
Oct 22			54	23	60	11	0	622	104			0	15.6	0.0		6.0
Oct 23			26	11	70	19	0	385	107			1	17.7	0.0		5.6
Oct 24			50	41	72	18	0	792	245			0	19.0	0.0		
Oct 25			40	36	80	28	0	740	217			0	19.5	0.0		
Oct 26			64	25	154	36	0	988	299			0	18.6	0.0		
Oct 27			73	58	118	38	0	808	221			0	19.3	0.0		
Oct 28			56	38	97	24	0	643	138			0	20.0	0.0		6.0
Oct 29			86	37	83	29	0	640	144			0	22.6	0.0		6+
Oct 30			80	23	91	37	0	694	170			0	19.3	0.0		6+
Oct 31			26	35	76	20	0	779	223			0	18.6	0.0		
TOTAL			6,138	4,212	9,888	1,732	0	56,213	13,596			-2				

AVG.			198	136	319	56	0	1,813	439			0	17.7	0.0		6+
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE									
SPRING	77,966	13,649	17,917	3,551	2,811	144,980	42,848	41	115
SUMMER	17,058	7,477							
FALL	52,554	16,663							
TOTALS	147,578	37,789							

TABLE 126

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2014

NOVEMBER				DECEMBER					
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1	19.0	0.0			Dec 1	27.7	0.0		
Nov 2	19.8	0.0			Dec 2	27.2	0.0		6.0
Nov 3	22.3	0.0		6.0	Dec 3	21.8	0.0		6.0
Nov 4	20.3	0.0			Dec 4	24.8	0.0		6+
Nov 5	21.9	0.0		5.0	Dec 5	22.7	0.0		
Nov 6	18.5	0.0		6+	Dec 6	22.5	0.0		
Nov 7	21.9	0.0			Dec 7	24.4	0.0		
Nov 8	21.4	0.0			Dec 8	27.8	0.0		
Nov 9	15.0	0.0			Dec 9	26.4	0.0		6+
Nov 10	24.5	0.0		6+	Dec 10	24.5	0.0		6+
Nov 11	22.3	0.0			Dec 11	28.0	0.0		6+
Nov 12	25.0	0.0		5.5	Dec 12	26.7	0.0		
Nov 13	19.5	0.0		6.0	Dec 13	24.3	0.0		
Nov 14	19.6	0.0			Dec 14	26.9	0.0		
Nov 15	21.5	0.0			Dec 15	29.0	0.0		
Nov 16	15.4	0.0			Dec 16	25.9	0.0		
Nov 17	16.6	0.0		6.0	Dec 17	29.1	0.0		6+
Nov 18	20.9	0.0			Dec 18	28.1	0.0		6+
Nov 19	16.9	1.0			Dec 19	25.2	0.0		
Nov 20	14.4	0.0		6.0	Dec 20	27.5	0.0		
Nov 21	17.9	0.0			Dec 21	27.0	0.0		
Nov 22	15.9	0.0			Dec 22	37.0	0.0		6+
Nov 23	15.8	0.0			Dec 23	36.6	0.0		6+
Nov 24	25.9	0.0		6.0	Dec 24	33.7	0.0		
Nov 25	20.2	0.0		5.8	Dec 25	33.7	0.0		
Nov 26	27.9	0.0		5.8	Dec 26	33.6	0.0		
Nov 27	23.5	0.0			Dec 27	34.8	0.0		
Nov 28	26.0	0.0			Dec 28	28.9	0.0		
Nov 29	35.9	0.0			Dec 29	24.0	0.0		
Nov 30	32.4	0.0			Dec 30	30.8	0.0		6+
					Dec 31	26.6	0.0		6+

AVG.	21.3	0.0	5.8	AVG.	28.0	0.0	6+
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Temperature collected at the primary dewater and recorded in °F .

TABLE 127
 YEARLY TOTALS OF SALMONIDS COUNTED OVER
 LITTLE GOOSE DAM
 1970 - 1981, 1991 - 2014

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
Total	2,587,271	3,627,450	13,423	63,033	6,291,177
10-Yr Avg	128,796	158,528	909	4,728	292,960

*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.

TABLE 128

**MONTHLY COUNT OF CHINOOK SALMON
LITTLE GOOSE DAM; 1970-1981, 1991-2014**

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
Total			3	250,722	983,911	564,536	204,278	45,572	421,909	114,580	1,732	28	2,587,271
10-Year Average				2,120	45,355	28,807	8,982	3,185	32,608	7,740			128,796

**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.

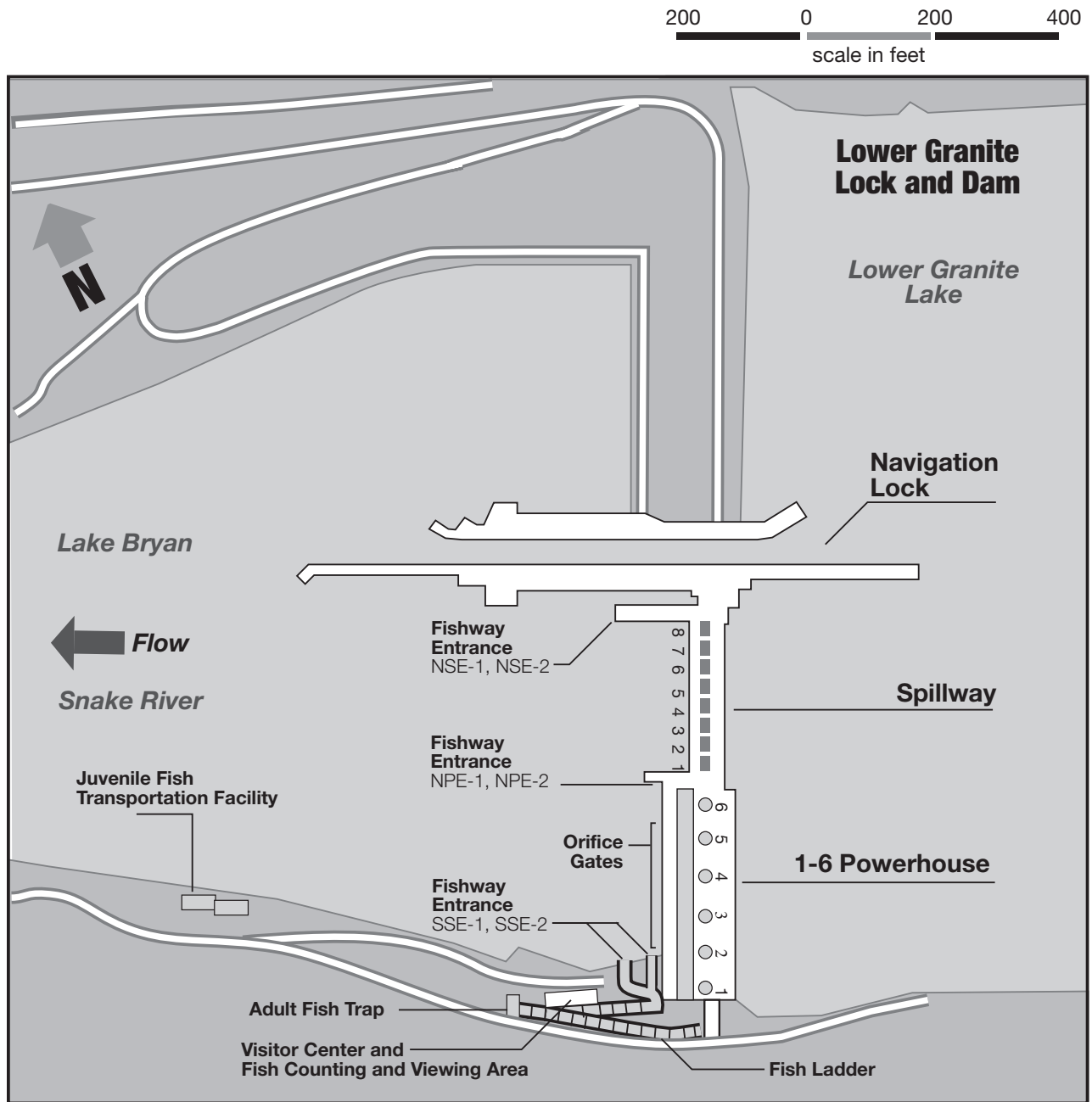
TABLE 129
MONTHLY COUNT OF STEELHEAD
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2014

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
Total	1,084	5,065	19,315	71,155	13,593	8,977	96,079	246,242	1,648,710	1,435,210	68,316	13,704	3,627,450

10-Year Average	2,740	363	342	3,975	10,871	78,846	61,392	158,528
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** 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.

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 0400 – 2000 hours PST.
1 April – 31 Oct	Visual counting daily 0400 – 2000 hours PST.
15 June – 30 Sept	Night video counts 2000-0400 hours PST.
1 Nov – 30 Dec	Video counting daily 0400 – 2000 hours PST.

FISH LADDER OPERATING SCHEDULE

1 Jan – 3 Jan	Ladder in service
4 Jan – 28 Feb	Ladder dewatered for annual maintenance
28 Feb – 31 Dec	Ladder in service

FISHWAY ACTIVITIES

Normal maintenance activities on the adult fish ladder complex took place during the January 3 – February 28, 2014 fishway outage. A visual inspection was conducted on all diffuser gratings, gate valves were checked and repaired, fish pumps were serviced, adult fish counting machinery was serviced, windows were cleaned and the viewing room window cleaning brush was checked. In addition the following work was also accomplished: 1) Replaced the north powerhouse entrance 3 (NPE3) bulkhead, 2) Installed new picketed leads, 3) Reattached loose sections of the fallback fence, 4) Performed maintenance on the AWS pumps, including installing a new lower guide bearing for fish pump 3, 5) Repaired the frame structure for the cleaning system at the public fish viewing window, 6) Working with divers, cleared debris from the south make-up water intake, 7) Repaired and cleaned all lights in the fishway channel, and 8) Removed debris from the ladder and the powerhouse channel.

Problems continued with the weir motor and cable control system on north shore fishway entrance number 1 (NSE-1) from May 31, 2011. Inspection in 2011 had revealed that the cable had broken and the weir gate had dropped to the sill. The weir motor was also burned up. A temporary adjustment was done on the weir gate by crane on June 7, 2011 and the gate was dogged off at 635.0 feet by cables. This setting was maintained until July 22, 2011 when an A-frame and chain hoist system was put in place to adjust the weir depth relative (at this point 630.0 feet) to the tailwater elevation. The gate remains in this state.

In 2013 a combination of warm water temperatures in the adult fish ladder (especially the substantial differential between the high temperatures at the ladder exit and up to six degrees F lower temperatures at the entrances) led to various auxiliary pump operational configurations in order to mitigate this temperature differential. During 2014 in order to proactively forestall the potential for similar ladder temperature issues a more extensive ladder temperature monitoring

regime was initiated. Water temperatures were monitored hourly by hobo data loggers deployed at the ladder exit, at diffuser 14, at the ladder turn pool (near the adult trap) and at the bottom junction pool (in the vicinity of SSE 1 and 2). The data from these loggers was uploaded and analyzed on at least a weekly basis. During 2014, hourly readings were taken continuously from June 8 to October 5. On July 9, noting an increasing temperature differential between the upper and lower sections of the fish ladder (up to 3.5°F) along with overall increasing water temperatures, the decision was made to begin operation of Auxiliary pumps 1 and 2. These pumps have intakes at approximately 705 feet above Mean Sea Level (MSL) or about 30 feet deep in the forebay and were designed to supply water to the fish ladder during the reservoir drawdown test in 1992. Auxiliary pump #1 pumps water to the top of the fish ladder and auxiliary pump #2 pumps water to diffuser 14. Diffuser 14 supplies water to the trap and there is not enough water to operate the trap because when auxiliary pump #2 is in operation diffuser 14 automatically closes too much. Once the trap was repaired it did not return to service immediately due to auxiliary pump #2 operations. The Corps of Engineers rented emergency ladder cooling pumps. On August 1 the new pumps were installed and they supplied more water to the diffuser 14 intake from a depth of about 60 feet which allowed for intermittent operation of the adult fish trap from August 7 to August 21. During this time period the emergency cooling pumps were operated 0500 to 1500 hours a day but on August 21 the contract was modified so the emergency pumps could be operated 24 hours a day. On August 29 water temperatures cooled enough so the adult trap began normal operations and auxiliary pump #2 was shut off. The emergency ladder cooling pumps were turned off September 11 and auxiliary pump #1 was shut off on September 17.

Substrate media at the ladder exit pool was examined monthly for zebra and quagga mussels from March through December.

The fish ladder AWS pumps were out of service for annual maintenance from January 3 – February 28, 2014. Additionally, fish pump 3 was out of service February 28-April 21 for lower guide bearing replacement.

Lower Granite adult fish trap was operated between March 10 and November 11. The fish trap was out of service from July 7 through July 23 due to the trap basket hoist failure. Trapping operations were dependant on acceptable water temperatures from July 23 through September 1 when twenty-four-hour trapping resumed.

The juvenile fish facility was operated for fish transport/bypass from March 20 to October 31 and for monitoring and bypass of adult fallbacks and juvenile PIT-tagged fish from November 1 to November 14 the juvenile collection gallery and the separator complex were dewatered early due to concerns over extreme cold weather.

TABLE 130

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER GRANITE DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				1,149	74,107	26,374	12,194	3,017	61,195	15,640	1,486	5	195,167
STEELHEAD			5,419	1,683	381	325	4,511	5,448	66,495	66,635	10,137	3,072	164,106
SOCKEYE						71	2,503	173	30	9			2,786
COHO*									5,382	12,443	816	10	18,651
PINK													
TOTAL			5,419	2,832	74,488	26,770	19,208	8,638	133,102	94,727	12,439	3,087	380,710
SHAD						30	644	532					1,206
LAMPREY						1	17	50	13	1			82
STURGEON													0
BULL TROUT				1	0	0	0	1					2

*Jacks included

These counts include the extended season video taped counts that were made between 0400 and 2000 hours in November and December.

TABLE 131
DISCHARGE AND WATER DATA
LOWER GRANITE PROJECT 2014

JANUARY				FEBRUARY					
	DISCH	SPILL	TURBIDITY			DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Jan 1	18.0	0.0			Feb 1	20.8	0.0		
Jan 2	18.5	0.0			Feb 2	20.8	0.0		
Jan 3	19.6	0.0			Feb 3	18.3	0.0		
Jan 4	19.0	0.0			Feb 4	21.0	0.0		
Jan 5	22.6	0.0			Feb 5	19.8	0.0		
Jan 6	17.7	0.0			Feb 6	18.3	0.0		
Jan 7	18.7	0.0			Feb 7	24.8	0.0		
Jan 8	22.2	0.0			Feb 8	20.8	0.0		
Jan 9	20.0	0.0			Feb 9	18.8	0.0		
Jan 10	19.3	0.0			Feb 10	17.9	0.0		
Jan 11	16.0	0.0			Feb 11	21.3	0.0		
Jan 12	18.7	0.0			Feb 12	22.8	0.0		
Jan 13	23.8	0.0			Feb 13	21.3	0.0		
Jan 14	23.1	0.0			Feb 14	27.2	0.0		
Jan 15	24.9	0.0			Feb 15	32.0	0.0		
Jan 16	22.5	0.0			Feb 16	39.6	0.0		
Jan 17	23.1	0.0			Feb 17	34.0	0.0		
Jan 18	21.2	0.0			Feb 18	38.6	0.0		
Jan 19	21.5	0.0			Feb 19	32.9	0.0		
Jan 20	20.5	0.0			Feb 20	34.2	0.0		
Jan 21	20.4	0.0			Feb 21	37.1	0.0		
Jan 22	19.7	0.0			Feb 22	31.4	0.0		
Jan 23	17.0	0.0			Feb 23	30.6	0.0		
Jan 24	21.3	0.0			Feb 24	29.7	0.0		
Jan 25	19.3	0.0			Feb 25	30.2	0.0		
Jan 26	19.0	0.0			Feb 26	30.5	0.0		
Jan 27	18.4	0.0			Feb 27	29.2	0.0		
Jan 28	18.2	0.0			Feb 28	33.9	0.0		
Jan 29	20.0	0.0							
Jan 30	16.1	0.0							
Jan 31	19.9	0.0							
AVG.	20.0	0.0			AVG.	27.1	0.0		

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

LOWER GRANITE PROJECT - FISH COUNTS

MARCH 2014

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								25	6				40.4	0.0			
Mar 2								59	21				41.6	0.0			
Mar 3								64	24				40.5	0.0			
Mar 4								160	42				47.7	0.0	2.9	42.7	
Mar 5								116	35				68.1	0.0			
Mar 6								197	64				69.5	0.0	3.5	43.0	
Mar 7								164	47				87.0	0.0			
Mar 8								256	71				105.3	4.7			
Mar 9								209	66				93.0	0.0			
Mar 10								257	73				91.1	0.0	1.0	43.8	
Mar 11								190	80				123.8	21.6	1.7	45.0	
Mar 12								72	23				129.4	22.8	0.8	45.4	
Mar 13								206	81				110.5	1.8			
Mar 14								216	68				93.8	0.0			
Mar 15								161	72				85.9	0.0			
Mar 16								179	75				81.4	15.2			
Mar 17								156	59				77.9	20.2	1.7	46.1	
Mar 18								187	85				74.1	9.8	1.9	45.2	
Mar 19								121	51				74.7	4.1	2.6	45.6	
Mar 20								215	94				69.1	1.9			
Mar 21								184	88				72.3	0.0	3.0	45.9	
Mar 22								259	112				68.0	0.0	3.4	45.8	
Mar 23								262	129				57.9	0.0	3.8	46.0	
Mar 24								145	67				57.7	0.0	5.0	46.2	
Mar 25								250	99				55.8	0.0			
Mar 26								173	73				57.0	0.0	4.6	46.5	
Mar 27								183	87				56.5	0.0	4.0		
Mar 28								144	65				61.2	0.0			
Mar 29								265	142				67.4	0.0	4.4	47.8	
Mar 30								186	96				74.4	0.0	4.6	47.8	
Mar 31								158	84				90.2	0.0	4.5	48.0	
TOTAL								5,419	2,179								
AVG.								175	70				74.9	3.3	3.1	45.7	

Note: March counts were from video tape. 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 2014

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			0				140	73			0	85.5	0.0	2.0	47.6
Apr 2	0			0				109	62			0	67.7	5.0		
Apr 3	0			0				94	47			0	68.5	0.0		
Apr 4	0			0				85	56			0	63.4	20.3	2.7	48.1
Apr 5	0			0				99	65			0	66.6	20.7	3.8	48.3
Apr 6	1			0				120	66			0	70.3	20.4	4.6	48.6
Apr 7	0			0				67	37			0	67.1	20.2	4.1	48.8
Apr 8	0			0				48	37			0	71.8	20.2	4.5	49.0
Apr 9	2			0				81	46			0	70.9	21.8	4.5	
Apr 10	0			0				75	47			0	71.0	20.5		
Apr 11	1			0				65	43			0	83.5	20.7	4.4	49.6
Apr 12	1			0				61	38			0	81.7	20.6	4.7	50.3
Apr 13	0			0				56	34			0	84.3	22.2	4.5	49.9
Apr 14	4			0				39	28			0	84.2	20.6	3.4	50.0
Apr 15	11			0				60	38			0	83.0	21.6		
Apr 16	6			0				60	42			0	78.7	31.3		
Apr 17	11			0				38	22			0	69.6	20.5		
Apr 18	12			0				39	25			0	71.4	21.6	3.5	49.3
Apr 19	19			0				37	26			0	72.4	21.6	3.7	49.1
Apr 20	31			0				48	31			0	70.2	24.8	4.2	50.1
Apr 21	12			0				22	10			1	70.6	22.9		
Apr 22	26			1				31	19			0	73.4	20.6	3.4	49.0
Apr 23	37			0				24	19			0	77.3	20.4	3.0	49.0
Apr 24	54			0				36	26			0	74.7	20.5		
Apr 25	62			0				28	18			0	77.7	21.4	3.2	50.3
Apr 26	116			2				25	18			0	83.1	22.8	3.7	49.5
Apr 27	116			2				31	19			0	82.0	20.6	4.8	49.3
Apr 28	97			2				23	17			0	79.5	30.8		
Apr 29	241			6				22	12			0	73.7	23.8	3.1	49.5
Apr 30	271			5				20	14			0	71.3	20.5	3.2	49.5
TOTAL	1,131			18				1,683	1,035			1				
AVG.	38			1				56	35			0	74.8	20.0	3.8	49.2
RUN YEAR TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	unclipped STEELHEAD			BULL TROUT				
		1,131	18					7,102	3,214			1				

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 2014

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	503			8				24	16				65.7	20.5			
May 2	366			10				22	14				66.4	20.4	3.0	50.8	
May 3	616			13				36	30				74.0	20.4	3.8	52.2	
May 4	269			4				24	18				78.8	28.8	3.8	50.2	
May 5	1,334			16				21	13				89.3	20.6	4.4	53.8	
May 6	2,993			34				15	10				102.0	26.2	3.2	51.0	
May 7	3,559			47				16	11				103.9	36.2			
May 8	2,612			26				12	7				93.4	20.6			
May 9	2,592			41				20	14				87.7	20.3	4.0	51.8	
May 10	3,212			71				16	11				83.3	20.3	3.0	52.2	
May 11	3,106			104				24	14				87.0	22.8			
May 12	7,408			276				17	13				83.4	20.2	3.8	52.2	
May 13	3,406			196				17	11				76.9	20.3	2.9	50.0	
May 14	2,047			155				5	4				72.5	20.4			
May 15	2,525			218				10	4				70.3	20.3			
May 16	3,479			396				15	8				73.6	20.7	4.8	53.8	
May 17	3,931			533				11	10				88.0	27.8	4.6	54.5	
May 18	3,634			596				10	8				99.5	28.8			
May 19	3,126			782				5	4				117.9	36.8	3.2	54.7	
May 20	2,303			659				9	4				124.4	33.6	3.1	52.0	
May 21	1,440			613				4	2				117.6	27.8			
May 22	1,882			666				7	5				108.1	20.6			
May 23	2,160			714				8	4				114.7	25.4	2.3	53.8	
May 24	776			476				11	4				128.2	38.6	2.6	54.5	
May 25	589			379				1	1				138.4	47.2	3.0	54.2	
May 26	768			409				3	2				148.9	57.8			
May 27	590			324				4	4				145.5	54.4	1.8	52.0	
May 28	880			342				2	0				142.9	51.6			
May 29	564			299				2	1				140.6	49.1			
May 30	954			282				2	0				136.6	45.6	1.9	53.2	
May 31	1,349			445				8	2				132.5	48.7	2.1	53.0	
TOTAL	64,973			9,134				381	249								
AVG.	2096			295				12	8				103.0	30.7	3.2	52.6	
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	unclipped STEELHEAD			BULL TROUT					
TOTALS TO DATE																	
SPRING		66,104	9,152					7,483	3,463			1					

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

LOWER GRANITE PROJECT - FISH COUNTS

JUNE 2014

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
Jun 1	1,042			386			0	7	2	0	0		128.6	38.2	2.3	55.3
Jun 2	624			209			0	8	4	0	0		121.5	34.2		
Jun 3	737			294			0	2	0	0	0		120.2	31.3		
Jun 4	500			266			0	5	0	0	0		116.5	31.0	2.7	55.0
Jun 5	875			335			0	10	0	0	0		118.6	33.1	3.4	55.4
Jun 6	721			234			0	1	0	0	0		116.2	29.6	3.5	57.2
Jun 7	1,050			250			0	12	0	0	1		116.5	26.8	4.3	57.1
Jun 8	985			318			0	10	4	0	0		109.8	20.5	5.0	57.5
Jun 9	1,187			400			0	9	2	0	0		105.7	23.3	5.0	57.7
Jun 10	869			373			0	12	4	0	0		103.5	20.4		
Jun 11	856			251			0	6	0	0	0		98.7	20.3	4.1	57.0
Jun 12	946			294			0	11	1	0	0		95.1	20.3		
Jun 13	386			164			0	12	2	0	0		92.4	20.4		
Jun 14	323			145			0	6	1	0	0		88.5	20.4	4.6	58.5
Jun 15	316			131			0	4	0	0	0		82.0	20.3	3.6	58.5
Jun 16	668			265			0	8	2	0	0		72.9	20.3	4.6	57.4
Jun 17	978			265			0	10	4	1	0		70.1	20.3		
Jun 18		944		238			0	6	0	0	0		72.2	20.4	3.3	56.9
Jun 19		763		230			0	6	0	0	0		74.9	20.3	4.5	57.4
Jun 20		377		133			0	9	2	0	0		68.6	20.3	4.7	56.2
Jun 21		148		104			0	5	1	0	0		67.0	20.5	4.7	57.0
Jun 22		457		198			6	14	6	2	0		64.3	19.8	5.0	58.5
Jun 23		961		394			1	17	4	2	0		67.8	18.8		
Jun 24		749		275			0	19	2	1	0		67.1	18.8		
Jun 25		348		186			4	17	5	0	0		68.2	18.8		
Jun 26		418		215			5	16	10	6	0		66.0	19.0	5.0	62.1
Jun 27		245		125			8	19	7	2	0		65.5	18.7		
Jun 28		150		122			5	23	7	4	0		65.9	18.6	5.0	62.0
Jun 29		407		216			14	24	12	10	0		77.9	30.9	5.0	61.6
Jun 30		194		134			28	17	4	2	0		78.5	27.2	5.0	60.8
TOTAL	13,063	6,161		7,150			71	325	86	30	1					
AVG.	768	474		238			2	11	3	1	0		88.7	23.4	4.3	58.1
RUN YEAR																
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT				
SPRING		79,167	13,732				71	7,808	3,549	30	1	1				
SUMMER		6,161	2,570													
TOTAL		85,328	16,302													

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

LOWER GRANITE PROJECT - FISH COUNTS

JULY 2014

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
Jul 1		389		217			34	28	4	2	0		71.6	18.6	5.0	62.5
Jul 2		413		206			44	35	13	2	0		68.1	18.6	5.0	62.5
Jul 3		466		226			76	42	24	10	0		65.5	18.5		
Jul 4		370		229			49	53	23	17	0		64.6	25.1	5.0	62.3
Jul 5		386		227			58	44	19	8	0		62.7	18.6	5.0	63.2
Jul 6		395		229			98	57	25	18	0		58.4	18.6		
Jul 7		275		162			71	81	46	16	0		58.1	18.6		
Jul 8		366		143			85	72	36	5	0		59.6	18.6	4.2	62.3
Jul 9		446		235			74	78	37	6	0		56.6	18.6	5.0	66.0
Jul 10		473		206			80	76	40	19	0		56.1	18.5		
Jul 11		469		248			76	57	29	12	0		53.0	18.5	5.0	66.3
Jul 12		512		342			108	122	66	7	2		52.7	18.6	5.0	66.0
Jul 13		187		133			101	63	38	4	0		50.8	18.5	5.0	66.2
Jul 14		122		114			100	59	31	24	0		48.7	18.4		
Jul 15		188		121			115	51	23	29	1		44.7	18.4	5.0	66.0
Jul 16		246		202			80	80	40	2	0		43.4	18.5		
Jul 17		344		162			150	114	71	31	1		41.5	18.6		
Jul 18		310		151			130	179	103	2	2		41.7	18.5		
Jul 19		246		144			154	217	126	1	1		39.7	18.5	5.0	66.7
Jul 20		215		133			144	268	146	29	0		36.3	18.5	5.0	67.0
Jul 21		149		92			145	354	211	42	1		38.5	18.5		
Jul 22		140		70			94	192	119	26	1		37.4	18.6		
Jul 23		56		42			59	176	92	6	1		33.3	18.6		
Jul 24		148		62			74	291	166	40	0		33.5	18.7		
Jul 25		187		62			60	285	164	40	2		34.9	18.7	5.0	65.9
Jul 26		119		44			68	302	180	20	0		31.8	18.7	5.0	66.0
Jul 27		54		40			58	283	169	18	1		33.1	18.7	5.0	66.1
Jul 28		38		30			44	239	143	70	2		33.7	18.7	5.0	66.4
Jul 29		100		23			25	255	131	70	0		35.9	18.5	5.0	66.0
Jul 30		43		23			30	244	130	42	0		36.6	18.5		
Jul 31		20		4			19	114	62	26	2		34.3	18.4		
TOTAL		7,872		4,322			2,503	4,511	2,507	644	17					
AVG.		254		139			81	146	81	21			47.0	18.8	5.0	65.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,167	13,732
SUMMER	14,033	6,892
TOTAL	93,200	20,624

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
2,574	12,319	6,056	674	18	1

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

LOWER GRANITE PROJECT - FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL													
Aug 1		6		13			16	97	55	32	2	0	33.3	18.5	5.0	64.6
Aug 2		43		2			8	99	49	6	0	0	31.2	18.4	5.0	64.8
Aug 3		23		14			12	112	59	6	0	0	31.2	18.4	5.0	64.4
Aug 4		53		17			11	133	73	52	0	0	31.2	18.4		
Aug 5		2		23			8	47	17	48	5	1	29.5	16.6	5.0	67.0
Aug 6		38		23			13	76	40	42	1	0	26.5	17.8		
Aug 7		49		29			16	91	50	25	0	0	26.2	18.2		
Aug 8		74		20			7	217	114	38	0	0	28.0	18.3	4.2	65.1
Aug 9		53		8			11	256	146	37	1	0	26.5	13.8	4.5	64.8
Aug 10		36		5			4	220	120	61	0	0	26.3	13.5		
Aug 11		23		4			4	128	64	78	4	0	29.3	16.7	5.0	
Aug 12		52		18			5	146	84	24	1	0	28.2	21.0	3.2	64.2
Aug 13		46		5			13	127	61	22	2	0	28.8	16.5		
Aug 14		36		10			5	118	62	10	4	0	27.0	19.3		
Aug 15		23		1			10	63	34	22	1	0	27.6	15.0	3.2	
Aug 16		47		8			4	201	134	17	1	0	26.5	18.7	4.4	63.7
Aug 17		31		14			1	153	94	6	0	0	26.0	13.6	5.0	
Aug 18			72	13			4	199	119	1	4	0	23.4	12.7	5.0	64.4
Aug 19			61	20			1	229	134	1	1	0	23.4	10.5		
Aug 20			138	16			1	211	116	2	2	0	23.1	10.4	3.9	64.0
Aug 21			154	17			2	292	154	0	7	0	23.2	10.5	4.1	64.6
Aug 22			191	34			5	276	142	1	1	0	22.4	9.5	4.4	65.6
Aug 23			108	16			1	251	113	1	1	0	21.7	8.9	4.8	66.1
Aug 24			62	12			0	142	66	1	4	0	21.8	8.9	4.5	65.8
Aug 25			139	20			2	183	79	-1	0	0	23.8	11.1		
Aug 26			72	14			2	174	90	0	4	0	25.8	13.0		
Aug 27			54	0			1	173	79	0	2	0	24.0	11.2		
Aug 28			113	12			0	177	73	0	1	0	23.9	11.2	3.7	65.0
Aug 29			110	24			1	220	104	0	1	0	23.9	11.1		
Aug 30			323	49			4	349	158	0	0	0	23.9	11.0	3.8	64.9
Aug 31			288	36			1	288	133	0	0	0	22.9	9.6	4.7	64.2
TOTAL		635	1,885	497			173	5,448	2,816	532	50	1				
AVG		37	135	16			6	176	91	17	2	0	26.1	14.3	4.4	64.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,167	13,732
SUMMER	14,668	7,106
FALL	1,885	283
TOTAL	95,720	21,121

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
2,747	17,767	8,872	1,206	68	2

TABLE 138

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER													
Sep 1			481	64	0	0	2	732	341		6	23.2	10.2		
Sep 2			388	35	0	0	1	360	157		0	24.0	0.0	3.9	66.3
Sep 3			475	74	0	0	1	507	239		1	26.0	0.0		
Sep 4			320	43	0	0	6	381	176		0	25.2	0.0		
Sep 5			328	37	0	0	0	292	120		0	24.3	0.0		
Sep 6			545	84	1	0	0	365	157		1	26.1	0.0		
Sep 7			656	98	0	0	1	322	114		0	24.7	0.0		
Sep 8			818	127	0	0	0	371	139		0	24.6	0.0	4.6	65.5
Sep 9			1,780	268	5	0	5	860	374		1	24.2	0.0	4.2	65.0
Sep 10			1,534	191	1	1	1	1,120	430		0	25.1	0.0		
Sep 11			1,201	221	2	0	1	937	367		-1	23.6	0.0	3.8	65.0
Sep 12			1,403	229	2	0	1	784	258		0	24.5	0.0	3.9	65.5
Sep 13			2,746	430	7	0	1	1,370	478		1	22.9	0.0		
Sep 14			2,920	552	16	1	1	2,176	749		1	22.6	0.0		
Sep 15			1,558	241	16	0	1	1,311	457		0	23.8	0.0		
Sep 16			1,882	262	40	4	1	1,605	527		0	22.6	0.0	4.1	64.0
Sep 17			2,040	362	46	1	0	1,661	497		0	21.1	0.0	4.4	63.5
Sep 18			1,940	490	60	6	0	1,612	462		0	21.6	0.0		
Sep 19			4,956	1,127	110	5	0	3,923	1,283		0	21.2	0.0	4.6	62.2
Sep 20			2,052	570	127	4	0	3,689	1,144		0	21.5	0.0	4.5	63.5
Sep 21			1,825	593	96	2	4	2,908	878		0	21.2	0.0	4.4	63.3
Sep 22			1,673	653	149	7	0	2,294	718		0	18.8	0.0		
Sep 23			1,642	814	235	13	1	3,438	1,026		0	20.2	0.0	3.3	64.0
Sep 24			132	103	14	1	0	728	205		1	18.4	0.0	4.2	60.0
Sep 25			4,345	1,612	978	23	0	8,503	2,486		0	13.9	6.6		
Sep 26			1,430	623	547	5	0	3,960	1,075		0	15.3	0.0	5.0	64.4
Sep 27			2,053	654	690	4	0	4,563	1,327		0	15.3	0.0	5.0	64.8
Sep 28			1,906	598	552	5	1	4,151	1,218		0	16.6	0.0	4.5	65.0
Sep 29			1,780	695	636	6	1	3,812	1,132		1	19.8	0.0		
Sep 30			1,709	827	942	22	0	7,760	2,203		1	15.9	0.0	5.0	66.0
TOTAL			48,518	12,677	5,272	110	30	66,495	20,737		13				
AVG.			1,617	423	176	4	1	2,217	691		0	21.6	0.6	4.3	64.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	79,167	13,732
SUMMER	14,668	7,106
FALL	50,403	12,960
TOTAL	144,238	33,798

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
5,272	110	2,777	84,262	29,609	1,206	81	2

TABLE 139

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

LOWER GRANITE PROJECT - FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT			CHINOOK ADULT	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL													
Oct 1			1,102	493	990	25	1	6,402	1,816		0		17.2	0.0		
Oct 2			1,710	676	1,382	26	0	5,413	1,556		0		18.4	0.0	4.3	65.5
Oct 3			990	608	1,354	23	0	4,472	1,220		0		19.3	0.0	4.1	65.4
Oct 4			648	389	1,272	25	4	4,215	1,160		1		19.3	0.0	4.5	65.1
Oct 5			587	388	683	28	0	3,261	866		0		19.0	0.0	5.0	65.4
Oct 6			638	492	608	14	0	3,042	818		0		18.0	0.0	5.0	65.0
Oct 7			230	281	415	31	1	2,955	781		0		20.7	0.0		
Oct 8			205	342	512	36	0	2,817	716		0		17.7	0.0	4.2	65.0
Oct 9			209	250	368	0	0	2,340	584		0		18.1	0.0		
Oct 10			316	226	382	6	0	2,424	620		0		18.6	0.0	4.7	64.8
Oct 11			307	292	388	19	0	2,921	767		0		18.0	0.0	4.9	64.0
Oct 12			277	232	521	34	0	3,456	881		0		23.1	0.0	5.0	64.0
Oct 13			245	142	365	11	0	2,364	592		0		20.3	0.0	4.6	63.0
Oct 14			247	215	328	7	1	1,425	340		0		18.8	0.0		
Oct 15			174	107	251	13	1	1,350	305		0		17.8	0.0	3.6	62.0
Oct 16			217	156	412	7	0	2,008	551		0		15.7	0.0	3.6	62.0
Oct 17			220	146	266	10	0	2,180	556		0		17.8	0.0	3.8	62.0
Oct 18			154	109	196	2	0	1,854	526		0		17.5	0.0	4.2	61.5
Oct 19			146	79	152	5	0	1,543	398		0		16.8	0.0		
Oct 20			94	73	179	2	0	1,087	276		0		17.0	0.0	4.8	62.0
Oct 21			72	74	139	1	1	1,252	348		0		18.5	0.0		
Oct 22			49	42	126	7	0	1,109	298		0		16.5	0.0	4.2	60.0
Oct 23			52	37	83	5	0	619	164		0		15.9	0.0		
Oct 24			46	44	82	5	0	660	176		0		18.5	0.0	3.9	60.5
Oct 25			74	59	90	2	0	820	222		0		19.9	0.0	4.3	60.0
Oct 26			42	65	125	5	0	1,073	329		0		21.4	0.0	5.0	59.0
Oct 27			68	56	101	13	0	994	320		0		20.9	0.0		
Oct 28			55	64	70	7	0	607	199		0		19.9	0.0	3.9	58.0
Oct 29			64	43	91	7	0	732	247		0		20.8	0.0		
Oct 30			56	66	64	2	0	655	221		0		20.6	0.0	3.9	57.0
Oct 31			56	44	66	4	0	585	164		0		18.6	0.0	4.2	59.0
TOTAL			9,350	6,290	12,061	382	9	66,635	18,017		1					
AVG.			302	203	389	12	0	2,150	581		0		18.7	0.0	4.4	62.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
	SPRING	79,167	13,732	17,333	492	2,786	150,897	47,626	1,206	82
SUMMER	14,668	7,106								
FALL	59,753	19,250								
TOTAL	153,588	40,088								

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 2014

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
Nov 1			43	53	79	14		521	172				19.0	0.0	5.0	58.0
Nov 2			31	29	103	13		962	302				19.8		3.8	56.5
Nov 3			36	48	89	10		592	193				22.3	0.0	5.0	56.0
Nov 4			35	48	60	4		562	184				20.3	0.0		
Nov 5			73	78	70	4		922	315				21.9	0.0		
Nov 6			57	49	80	3		668	197				18.5	0.0		
Nov 7			51	34	36	1		968	334				21.9	0.0	5.0	55.0
Nov 8			41	24	20	0		635	232				21.4	0.0	5.0	54.5
Nov 9			26	28	38	1		397	147				15.0	0.0	4.4	54.0
Nov 10			15	26	25	1		490	192				24.5	0.0	5.0	52.0
Nov 11			15	8	37	3		598	227				22.3	0.0		
Nov 12			32	22	17	1		423	156				25.0	0.0		
Nov 13			26	27	20	1		482	183				19.5	0.0		
Nov 14			16	9	8	0		223	80				19.6	0.0	5.0	51.0
Nov 15			25	14	14	0		267	91				21.5	0.0		
Nov 16			26	11	10	0		257	97				15.4	0.0		
Nov 17			14	5	13	2		124	44				16.6	0.0		
Nov 18			11	13	10	1		103	43				20.9	0.0	5.0	48.0
Nov 19			3	4	2	0		35	14				16.9	1.0	4.7	47.5
Nov 20			97	4	3	0		54	18				14.4	0.0		
Nov 21			131	5	2	0		76	20				17.9	0.0		
Nov 22			56	6	4	1		108	46				15.9	0.0		
Nov 23			49	8	4	0		143	50				15.8	0.0		
Nov 24			1	1	1	0		43	12				25.9	0.0	4.9	44.5
Nov 25			4	1	3	0		39	18				20.2	0.0	4.0	44.0
Nov 26			2	-1	2	0		65	16				27.9	0.0	5.0	43.5
Nov 27			4	0	5	0		95	32				23.5	0.0		
Nov 28			3	0	0	0		169	63				26.0	0.0		
Nov 29			6	1	1	0		85	20				35.9	0.0		
Nov 30			1	1	0	0		31	9				32.4	0.0		
TOTAL			930	556	756	60		10,137	3,507							
AVG.			31	19	25	2		338	117				21.3	0.0	4.8	51.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
	SPRING	79,167	13,732	18,089	552	2,786	161,034	51,133	1,206	82
SUMMER	14,668	7,106								
FALL	60,683	19,806								
TOTAL	154,518	40,644								

Note: From November 1 to December 31, counts were from video tape. 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 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		SHAD	LAMPREY	BULL	DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	JACK	ADULT	JACK		SOCKEYE	STEELHEAD			STEELHEAD			TROUT	KCFS	KCFS
Dec 1			0	0	0	0	26	7				27.7	0.0	5.0	45.6	
Dec 2			1	1	2	0	36	9				27.2	0.0	5.0	44.8	
Dec 3			1	0	0	0	50	16				21.8	0.0	5.0	44.4	
Dec 4			1	0	0	0	77	15				24.8	0.0			
Dec 5			0	0	1	0	57	14				22.7	0.0			
Dec 6			0	0	1	0	72	28				22.5	0.0			
Dec 7			0	0	0	1	121	45				24.4	0.0			
Dec 8			0	0	0	0	53	25				27.8	0.0	5.0	44.3	
Dec 9			0	0	0	0	43	12				26.4	0.0	5.0	42.9	
Dec 10			0	0	0	0	60	19				24.5	0.0	5.0	42.4	
Dec 11			0	0	1	0	72	26				28.0	0.0			
Dec 12			0	0	1	0	89	29				26.7	0.0			
Dec 13			0	0	0	0	161	56				24.3	0.0			
Dec 14			0	0	0	0	195	68				26.9	0.0			
Dec 15			0	0	0	0	110	32				29.0	0.0	5.0	44.5	
Dec 16			1	0	0	0	118	41				25.9	0.0	5.0	44.0	
Dec 17			0	0	0	0	79	31				29.1	0.0	5.0	45.3	
Dec 18			0	0	0	0	76	22				28.1	0.0			
Dec 19			0	0	0	0	93	31				25.2	0.0			
Dec 20			0	0	1	0	55	17				27.5	0.0			
Dec 21			0	0	0	0	135	47				27.0	0.0			
Dec 22			0	0	1	0	117	45				37.0	0.0	5.0	45.2	
Dec 23			0	0	0	0	106	48				36.6	0.0	5.0	45.6	
Dec 24			0	0	0	0	99	43				33.7	0.0			
Dec 25			0	0	0	0	104	46				33.7	0.0			
Dec 26			0	0	1	0	239	66				33.6	0.0			
Dec 27			0	0	0	0	183	27				34.8	0.0			
Dec 28			0	0	0	0	224	68				28.9	0.0			
Dec 29			0	0	0	0	74	36				24.0	0.0	5.0	44.2	
Dec 30			0	0	0	0	78	27				30.8	0.0			
Dec 31			0	0	0	0	70	32				26.6	0.0			
TOTAL			4	1	9	1	3,072	1,028								

AVG.	0	0	0	0		99	33					28.0	0.0	5.0	44.4
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RUN YEAR

TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
SPRING	79,167	13,732	18,095	553	2,786	162,256	51,534	1,206	82	2
SUMMER	14,668	7,106								
FALL	60,686	19,807								
TOTAL	154,521	40,645								

Note: From November 1 to December 31, counts were from video tape. 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 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	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	12			6			0	0	0		0
Jun 15	18			8			0	0	0		0
Jun 16	8			4			0	0	0		0
Jun 17	20			2			0	0	0		0
Jun 18		3		1			0	0	0		0
Jun 19		10		3			0	0	0		0
Jun 20		12		8			0	6	1		0
Jun 21		0		2			0	1	0		0
Jun 22		17		7			1	0	0		0
Jun 23		14		3			0	0	0		0
Jun 24		12		6			2	0	0		0
Jun 25		12		4			2	0	0		0
Jun 26		4		8			2	1	0		0
Jun 27		11		1			1	3	1		0
Jun 28		19		10			6	1	0		0
Jun 29		10		13			8	1	1		1
Jun 30		22		9			4	4	3		-1
TOTAL	58	146		95			26	17	6		0
AVG.	15	11		6			2	1	0		0

Note: Night counts are video counts from 2000-0400 PST. Video was lost on the 18th from 2000 to 0300 hours PST.

TABLE 143

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
Jul 1		7		7			8	1	0	0	0
Jul 2		9		8			11	0	0	0	0
Jul 3		4		5			12	1	0	0	0
Jul 4		29		7			14	2	1	0	0
Jul 5		18		9			18	6	2	0	0
Jul 6		11		5			22	4	3	0	0
Jul 7		8		3			13	2	0	3	0
Jul 8		12		8			17	6	4	-1	0
Jul 9		11		6			14	6	2	0	2
Jul 10		37		11			13	4	2	1	1
Jul 11		9		4			18	2	0	0	1
Jul 12		-3		9			13	4	1	2	2
Jul 13		7		-3			13	-1	-2	0	4
Jul 14		0		4			15	-1	-1	1	6
Jul 15		11		10			27	0	0	-1	5
Jul 16		4		3			15	4	2	2	5
Jul 17		15		18			29	12	6	-1	8
Jul 18		4		10			26	5	4	0	6
Jul 19		6		16			35	6	2	0	11
Jul 20		13		24			15	9	5	0	9
Jul 21		0		5			6	5	1	-1	11
Jul 22		2		1			8	0	2	0	3
Jul 23		7		6			4	3	3	-1	15
Jul 24		3		2			6	2	0	1	12
Jul 25		6		2			10	6	2	0	4
Jul 26		2		3			8	1	-2	0	4
Jul 27		2		1			5	4	2	-3	6
Jul 28		2		1			3	7	3	0	14
Jul 29		1		0			3	-3	0	-1	7
Jul 30		-1		-1			0	-2	-1	3	6
Jul 31		1		2			0	1	1	3	7
TOTAL		237		186			401	96	42	7	149
AVG.		8		6			13	3	1	0	5

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 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			LAMPREY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		SHAD
Aug 1		-2		0			0	-1	1	-1	7
Aug 2		-2		1			1	-2	-1	-1	6
Aug 3		1		-1			-1	-1	-2	-2	4
Aug 4		-4		-2			0	-1	-2	0	11
Aug 5		-1		-2			2	0	0	2	14
Aug 6		-1		1			-1	1	0	2	11
Aug 7		-2		0			0	1	2	4	3
Aug 8		-1		0			0	-1	0	-5	9
Aug 9		-6		-1			-1	-4	0	1	16
Aug 10		-3		0			2	-9	-7	1	9
Aug 11		-3		0			0	-3	0	4	12
Aug 12		-6		-2			1	-4	-2	3	19
Aug 13		-1		0			0	1	0	6	9
Aug 14		2		0			0	3	1	2	18
Aug 15		-6		0			0	2	1	1	11
Aug 16		-4		0			1	-3	-2	-1	13
Aug 17		-4		-2			0	-3	-4	1	15
Aug 18			-3	-1			0	-6	-4	1	17
Aug 19			-3	-3			0	-4	-1	1	15
Aug 20			-15	-1			0	-1	-2	0	22
Aug 21			-10	-1			0	-3	-3	0	22
Aug 22			-10	-1			0	-1	-2	0	20
Aug 23			-12	1			0	-18	-10	0	15
Aug 24			-10	2			0	-2	1	0	18
Aug 25			-8	-2			0	-4	1	0	23
Aug 26			-7	1			0	-2	-1	0	13
Aug 27			-9	-1			1	1	-1	2	21
Aug 28			-2	-2			0	2	4	0	18
Aug 29			-4	1			0	1	0	0	12
Aug 30			1	3			0	5	3	0	8
Aug 31			4	2			0	8	6	1	12
TOTAL		-43	-88	-10			5	-48	-24	22	423
AVG		-3	-6	0			0	-2	-1	1	14

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 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Sep 1			4	0	0	0	0	8	2		10
Sep 2			-5	-1	0	0	0	14	6		9
Sep 3			1	0	0	0	0	5	3		4
Sep 4			-1	0	0	0	1	9	3		7
Sep 5			-3	1	0	0	0	9	5		1
Sep 6			-2	2	0	0	0	7	3		3
Sep 7			-1	2	0	0	0	6	2		3
Sep 8			-1	6	0	0	0	16	8		3
Sep 9			1	1	0	0	0	32	9		2
Sep 10			-3	0	0	0	0	19	1		4
Sep 11			1	-1	0	0	0	50	14		2
Sep 12			0	3	0	0	0	39	13		0
Sep 13			0	4	0	0	0	82	30		2
Sep 14			2	2	0	0	0	46	18		4
Sep 15			-1	1	0	0	0	46	14		0
Sep 16			0	2	0	0	0	60	21		3
Sep 17			-2	1	0	0	0	13	4		2
Sep 18			6	3	2	0	0	38	17		1
Sep 19			5	1	0	0	0	78	29		-1
Sep 20			1	-2	4	1	0	85	29		1
Sep 21			-2	3	0	1	0	79	31		0
Sep 22			1	-2	2	0	0	106	49		0
Sep 23			-6	2	19	0	0	143	51		1
Sep 24			3	10	11	1	0	302	102		2
Sep 25			4	3	12	0	0	93	31		2
Sep 26			-1	4	14	1	0	153	50		0
Sep 27			0	1	11	0	0	152	48		0
Sep 28			8	5	26	0	0	197	78		0
Sep 29			6	7	24	1	0	336	124		1
Sep 30			4	6	46	0	0	334	109		2
TOTAL			19	64	171	5	1	2,557	904		68
AVG.			1	2	6	0	0	85	30		2

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

TABLE 146

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER GRANITE DAM
1975 - 2014

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
Total	2,546,035	4,483,172	12,664	57,604	7,099,475
10-Year Average	129,715	173,152	993	4,709	308,569

*Jacks included

TABLE 147

**MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 - 2014**

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
Total	17	204,679	967,893	581,033	196,948	33,486	418,176	134,411	9,304	88			2,546,035
10-Year Average		1,293	43,938	29,236	9,613	2,249	33,499	9,289	592				129,715

*Jacks included

TABLE 148

MONTHLY COUNT OF STEELHEAD
LOWER GRANITE DAM
1975 - 2014

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
Total	539	790	128,433	124,115	16,279	6,739	80,871	207,193	1,716,774	1,885,547	277,765	38,127	4,483,172
10-Yr Average			4,725	3,658	436	249	3,146	8,108	74,085	68,470	8,864	1,411	173,152

PRIEST RAPIDS AND WANAPUM DAMS

FISH COUNTING SCHEDULE – PRIEST RAPIDS DAM

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.

FISH COUNTING SCHEDULE – WANAPUM DAM

Jan. 1 – Dec. 31	No adult fish counting.
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FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – PRIEST RAPIDS DAM

Left Bank Ladder

01 Jan. – 15 Jan.	Out of criteria for annual inspection, maintenance and repairs.
15 Jan. – 30 Dec.	In service (within operational criteria).
30 Dec. – 31 Dec.	Out of criteria for annual inspection, maintenance, and repairs.

Right Bank Ladder

01 Jan. – 16 Jan.	In service (within operational criteria).
16 Jan. – 27 Feb.	Out of criteria for annual inspection, maintenance, and repairs.
27 Feb. – 01 Dec.	In service (within operational criteria).
01 Dec. – 22 Dec.	Out of criteria for annual inspection, maintenance, and repairs.
22 Dec. – 31 Dec.	In Service (within operational criteria).

FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – WANAPUM DAM

Left Bank Ladder

01 Jan. – 28 Jan.	In service (within operational criteria).
28 Jan. – 26 Feb.	Out of criteria for annual inspection, maintenance, and repairs.
26 Feb. – 12 Dec.	Interim Fish Passage Operations Plan.
12 Dec. – 31 Dec.	Out of criteria for annual inspection, maintenance, and repairs.

Right Bank Ladder

01 Jan. – 09 Jan.	In service (within operational criteria).
09 Jan. – 09 Jan.	Out of criteria for annual inspection.
09 Jan. – 26 Feb.	In service (within operational criteria).
26 Feb. – 12 Dec.	Interim Fish Passage Operations Plan.
12 Dec. – 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. “Ladder flow” are periods of reduced fishway flow that still allow fish passage.

FISHWAY ACTIVITIES

Wanapum Dam Fracture

Following discovery of a horizontal fracture in the spillway monolith No. 4 at Wanapum Dam, the Wanapum Reservoir was drawn down resulting in fish passage issues at Wanapum Dam. To address fish passage at Wanapum Dam, Grant PUD developed an Interim Fish Passage Operations Plan (IFPOP), originally intended to provide upstream passage for adult anadromous fish. Development of the IFPOP occurred in consultation with the NOAA Fisheries, USFWS and the Priest Rapids Coordinating Committee (PRCC). To restore adult fish passage at Wanapum Dam, Grant PUD installed Fishway Exit Passage Systems (FWEPS) at the left-bank (LB) and right-bank (RB) fishway exits of Wanapum Dam. The LB-FWEPS was placed in operation on April 15, 2014, while the right bank ladder was fully operational on April 26, 2014. Additional modifications to the FWEPS were made throughout the summer, including installation of jump curtains and Pacific lamprey ramps and perforated plating. The FWEPS proved effective for all species. For more information related to the IFPOP and ladder modifications installed at Wanapum Dam, please see <http://www.grantpud2.org/rc/supportingdocumentation.htm>

In preparation for a partial refill of the Wanapum Reservoir, demobilization activities began at the RB-WFEPS on November 17, 2014 and consisted of shutting down two of the four 90 hp pumps (to keep flow through fishway) and then removing the spiral chute and all supporting structures related to the spiral chute. After the work was completed, the RB fishway flow was restored to provide adult fish passage. On November 18, 2014, Grant PUD began the removal of the entire WFEPS from the LB Wanapum fishway and once all support structure was removed, the left bank ladder remained dewatered for annual operation and maintenance activities. On December 12, 2014, the Wanapum Reservoir elevation was raised to 558.0 – 562.0 where it remains to allow normal operations of both fishways at Wanapum Dam.

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 PCs from the fish-counting room at Wanapum Maintenance Center. The fish counting staff playback these images on a computer screen in a fast-forward mode until a fish is observed, then slowed for fish identification and count. During high fish passage playback is in real time or replayed. 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>. This site provides several years of fish counts and a historic fish count summary for Priest Rapids and Wanapum dam. Due to the Wanapum Spillway fracture and associated reservoir drawdown, fish counts for Wanapum Dam were temporarily suspended. While fish passage continued, equipment was not operational at the reduced levels. Therefore, adult fish counting only occurred at Priest Rapids Dam in 2014 from April 15 – November 15.

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. During the 2015 – 2016 winter outage period, the PIT tag readers will be upgraded with Biomark FS2020 transceivers, antenna improved and relocated. Another PIT tag monitoring site is located within the Off-Ladder Adult Fish Trap (OLAFT).

Off Ladder Adult Fish Trap (OLAFT)

The adult fish trap is located off the left bank fish ladder at Priest Rapids Dam. The trap was used by the (1) Yakama Nation to trap adult sockeye salmon for the Lake Cle Elum and Cooper Lake sockeye reintroduction program from June 27 – July 10, (2) Washington Department of Fish and Wildlife (WDFW) for its steelhead stock assessment from July 7 to October 31, and (3) WDFW for the Priest Rapids Hatchery broodstock collection feasibility program from September 10 to October 31. The facility was dewatered and winterized on November 12.

Adult Lamprey Passage Study

Grant County PUD continued the study to identify and address potential hydro project impacts to upstream migrating adult Pacific lamprey. The study utilized strategically placed installed aluminum plating and fish counting stations with HDX-PIT tag arrays for evaluation of passage success and travel times within the Priest Rapids and Wanapum dam fish ladders. In response to the spillway fracture and reservoir drawdown, Grant PUD implemented an adult Pacific lamprey trap and haul program between late June and late October, with 2,269 fish trapped and transported. Traps were operated at both Priest Rapids and Wanapum dams with tagged fish transported to the forebay of the dam with non-tagged fish transported above Rock Island Dam.

TABLE 149

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER PRIEST RAPIDS DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				593	19,771	32,192	50,691	12,281	93,465	31,525	2,237		242,755
STEELHEAD				63	50	160	2,623	5,112	9,741	1,917	177		19,843
SOCKEYE					27	86,269	517,727	4,094	25	0			608,142
COHO*								1	24,781	11,387	516		36,685
PINK													0
TOTAL				656	19,848	118,621	571,041	21,488	128,012	44,829	2,930		907,425
SHAD					0	2,122	5,253	770	38	-5	1		8,179
LAMPREY					3	62	1,484	3,973	1,731	318	15		7,586

*Jacks included

TABLE 150

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

PRIEST RAPIDS PROJECT- FISH COUNTS										APRIL 2014			
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK							
Apr 1											132.6	4.1	
Apr 2											127.6	0.0	
Apr 3											124.6	0.0	
Apr 4											134.5	19.5	
Apr 5											145.1	20.5	
Apr 6											133.1	17.6	
Apr 7											131.8	0.0	
Apr 8											131.1	4.6	
Apr 9											140.9	5.7	
Apr 10											141.7	0.0	
Apr 11											132.3	0.0	
Apr 12											121.2	0.0	
Apr 13											118.3	1.1	
Apr 14											145.4	4.0	
Apr 15	3							10			150.2	46.2	43.9
Apr 16	4							7			158.6	37.5	44.1
Apr 17	3							7			166.8	30.6	43.7
Apr 18	0							1			177.1	43.0	43.7
Apr 19	3							2			170.2	45.9	43.7
Apr 20	4							1			160.8	39.2	44.1
Apr 21	9							6			167.6	33.5	44.2
Apr 22	10							5			165.8	53.1	44.4
Apr 23	11							1			175.5	65.5	44.8
Apr 24	26							4			167.5	63.8	45.1
Apr 25	50							6			159.7	45.9	45.3
Apr 26	70							1			179.9	65.1	45.7
Apr 27	58							1			169.0	60.1	46.2
Apr 28	56							1			184.0	62.7	46.6
Apr 29	71							5			171.8	48.5	46.9
Apr 30	215							5			175.0	57.6	32.0
TOTAL	593							63					
AVG.	37							4			152.0	29.2	44.0

TABLE 151

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

MAY 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL										
May 1	323			1			0	5		0	188.0	70.5	48.0
May 2	477			0			0	3		0	173.6	43.1	48.7
May 3	324			0			0	6		0	189.9	76.7	49.3
May 4	565			1			0	4		0	190.8	80.1	49.3
May 5	484			1			0	0		0	204.0	79.5	49.5
May 6	667			1			0	2		0	189.6	60.9	49.6
May 7	1,302			7			0	2		0	171.3	47.3	50.0
May 8	1,448			10			0	7		0	197.5	85.2	50.2
May 9	1,524			10			0	3		0	177.8	49.3	49.8
May 10	962			23			0	1		0	173.9	55.1	49.6
May 11	780			15			2	0		0	190.2	75.6	50.0
May 12	958			43			0	2		0	183.3	50.1	50.5
May 13	1,022			68			0	2		0	186.2	56.2	50.9
May 14	802			63			0	0		0	182.6	59.4	51.3
May 15	882			108			0	1		0	199.6	76.9	51.6
May 16	690			94			0	5		0	198.1	102.6	52.0
May 17	424			61			0	3		0	221.8	118.9	52.0
May 18	333			81			0	0		0	214.6	118.8	52.0
May 19	575			129			0	0		0	205.6	88.2	52.0
May 20	320			120			0	1		1	216.7	98.4	52.2
May 21	473			182			0	0		0	201.7	96.2	52.5
May 22	297			105			0	0		0	214.8	91.3	53.1
May 23	396			145			0	0		0	213.5	84.3	53.4
May 24	182			89			1	0		0	224.3	95.8	53.4
May 25	223			115			9	0		0	212.2	96.8	53.6
May 26	267			101			7	1		0	224.8	96.8	53.6
May 27	205			119			0	0		0	220.7	103.4	53.6
May 28	262			71			4	0		0	199.9	76.8	53.4
May 29	176			77			4	0		1	224.7	104.7	
May 30	251			64			0	1		1	200.0	64.9	
May 31	187			86			0	1		0	192.6	91.7	
TOTAL	17,781			1,990			27	50		3			
AVG.	574			64			1	2		0	199.5	80.5	51.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	18,374	1990
SPRING		

SOCKEYE	STEELHEAD	LAMPREY
27	113	3

TABLE 152

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

PRIEST RAPIDS PROJECT- FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT		FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER											
Jun 1	223			74			3	1	0	0	237.0	110.3	55.2
Jun 2	327			91			2	0	0	0	228.2	93.9	55.8
Jun 3	445			73			2	2	0	0	205.2	104.6	56.3
Jun 4	273			89			0	1	0	0	214.6	105.5	56.7
Jun 5	210			34			0	0	0	0	213.2	100.2	56.8
Jun 6	188			32			1	0	0	0	212.0	80.9	56.8
Jun 7	279			38			2	1	0	1	182.3	40.2	57.0
Jun 8	218			25			1	4	0	3	182.8	43.8	57.6
Jun 9	611			45			9	0	1	1	193.5	71.4	57.7
Jun 10	328			27			14	2	0	2	181.7	39.7	57.7
Jun 11	313			33			10	1	0	0	171.7	22.5	57.7
Jun 12	548			28			16	0	1	0	157.9	21.5	57.7
Jun 13	1,405			70			28	0	2	1	142.1	19.5	57.7
Jun 14		771		25			50	1	2	1	138.4	20.9	57.4
Jun 15		861		44			130	0	0	0	123.0	21.4	57.6
Jun 16		976		29			280	0	0	0	135.7	23.8	57.2
Jun 17		454		20			329	3	9	0	165.6	24.8	56.8
Jun 18		806		58			512	1	13	0	167.5	25.9	57.0
Jun 19		1,134		31			1,417	5	22	2	203.4	78.8	57.6
Jun 20		1,580		65			2,007	5	83	7	191.0	73.9	57.9
Jun 21		1,449		13			2,282	8	31	4	208.5	84.2	58.1
Jun 22		1,868		53			2,225	1	49	4	204.9	80.0	58.8
Jun 23		2,168		34			3,790	9	96	1	213.7	81.9	59.4
Jun 24		2,065		71			4,716	10	153	8	204.3	76.1	60.1
Jun 25		2,085		113			5,999	7	261	8	198.0	72.8	60.1
Jun 26		1,607		19			6,590	11	469	7	205.9	75.4	59.9
Jun 27		1,985		23			7,064	8	312	2	203.7	70.0	59.7
Jun 28		1,918		24			12,760	10	192	6	196.7	83.1	60.3
Jun 29		2,230		108			18,299	55	186	2	223.1	104.3	60.3
Jun 30		1,421		57			17,731	14	240	2	197.1	65.0	
TOTAL	5,368	25,378		1,446			86,269	160	2,122	62			
AVG.		1493		48			2,876	5	71	2	190.1	63.9	57.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	23,742	2,649
SUMMER	25,378	787
TOTAL	49,120	3,436

SOCKEYE	STEELHEAD	SHAD	LAMPREY
86,296	273	2,122	65

TABLE 153

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

PRIEST RAPIDS PROJECT- FISH COUNTS

JULY 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL										
Jul 1		2,703		111			23,306	35	520	4	215.6	83.4	60.8
Jul 2		2,811		123			28,180	58	290	4	208.8	78.0	61.0
Jul 3		2,621		77			38,212	31	295	7	208.0	83.4	61.2
Jul 4		2,404		41			29,600	34	167	0	192.9	71.2	61.0
Jul 5		2,729		37			24,792	39	130	6	159.2	31.9	61.3
Jul 6		1,986		22			19,397	27	88	12	188.6	61.8	61.7
Jul 7		1,875		132			28,891	79	124	5	185.3	64.5	62.6
Jul 8		1,684		84			23,387	36	224	11	166.3	29.5	63.3
Jul 9		2,327		38			24,668	59	293	14	157.2	29.6	63.7
Jul 10		2,512		96			27,790	59	198	8	170.0	34.4	
Jul 11		3,175		274			35,176	177	217	10	164.3	30.4	
Jul 12		2,253		92			35,217	61	228	14	176.4	38.3	
Jul 13		1,902		116			31,516	106	353	17	155.9	27.4	
Jul 14		2,378		147			31,122	162	182	7	140.6	28.8	
Jul 15		1,609		36			22,108	63	216	21	168.8	39.7	
Jul 16		1,338		30			17,715	66	320	23	170.9	37.3	
Jul 17		1,513		39			14,165	101	165	27	151.4	29.5	
Jul 18		1,352		68			12,359	110	229	60	150.3	28.5	
Jul 19		1,032		72			8,006	80	178	42	144.2	28.6	
Jul 20		883		61			6,608	127	135	57	135.9	29.7	
Jul 21		987		74			6,098	86	68	46	152.9	27.9	
Jul 22		742		104			5,337	134	92	43	132.6	28.7	
Jul 23		740		69			4,784	95	67	68	152.9	30.5	
Jul 24		823		103			4,628	137	55	64	153.8	39.6	
Jul 25		569		45			2,679	39	102	93	180.5	48.9	
Jul 26		667		27			2,890	68	27	103	162.5	31.5	
Jul 27		576		39			2,171	79	72	85	154.8	27.8	
Jul 28		482		34			1,925	59	49	153	152.2	27.0	
Jul 29		516		34			1,945	95	97	172	146.3	26.9	
Jul 30		653		96			1,795	164	40	147	140.8	28.1	
Jul 31		498		30			1,260	157	32	161	141.2	29.9	
TOTAL		48,340		2,351			517,727	2,623	5,253	1,484			
AVG.		1,559		76			16,701	85	169	48	163.9	39.8	61.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	23,742	2,649
SUMMER	73,718	3,138
TOTAL	97,460	5,787

SOCKEYE	STEELHEAD	SHAD	LAMPREY
604,023	2,896	7,375	1,549

TABLE 154

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT								JACK
Aug 1		491		66	0		1,137	211	89	191	148.0	28.9	
Aug 2		266		28	0		683	131	75	111	128.4	28.4	
Aug 3		271		24	0		512	107	92	150	121.4	28.4	
Aug 4		398		76	0		446	237	29	105	118.3	27.9	
Aug 5		344		115	0		335	182	26	112	127.2	30.0	
Aug 6		530		165	0		200	250	15	110	141.3	26.9	
Aug 7		449		78	0		206	146	19	161	137.1	27.1	
Aug 8		601		312	0		124	278	88	140	129.6	24.3	
Aug 9		407		146	0		101	146	44	91	131.5	18.8	
Aug 10		201		227	0		83	195	14	99	126.7	22.9	
Aug 11		341		228	0		40	155	33	123	126.6	16.9	
Aug 12		178		191	0		35	169	14	121	112.9	16.4	
Aug 13		239		95	0		29	165	8	133	121.2	16.1	
Aug 14			182	95	0		34	123	3	156	116.3	19.5	
Aug 15			181	68	0		13	176	58	176	113.4	22.6	
Aug 16			179	126	0		7	179	5	230	91.8	25.4	
Aug 17			268	114	0		20	202	18	167	98.3	28.5	
Aug 18			209	156	0		15	181	11	136	116.6	25.6	
Aug 19			290	204	0		12	247	19	127	137.3	24.3	
Aug 20			288	176	0		8	208	2	73	114.0	21.3	
Aug 21			208	78	0		17	197	20	73	110.6	23.0	
Aug 22			272	95	0		9	105	7	86	111.4	22.6	
Aug 23			193	51	0		4	145	29	91	111.0	21.4	
Aug 24			186	79	0		12	128	2	72	91.2	23.7	
Aug 25			164	99	0		0	133	5	52	97.5	23.8	
Aug 26			136	114	0		1	93	1	124	128.9	24.2	
Aug 27			157	97	0		5	117	4	219	125.9	21.3	
Aug 28			257	129	0		3	171	3	163	115.4	12.4	
Aug 29			184	131	0		1	137	37	190	99.6	1.5	
Aug 30			213	105	1		1	109	1	95	99.8	1.5	
Aug 31			271	59	0		1	89	-1	96	95.5	1.5	
TOTAL		4,716	3,838	3,727	1		4,094	5,112	770	3,973			
AVG.		363	213	120			132	165	25	128	117.6	21.2	68.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	23,742	2,649
SUMMER	78,434	4,889
FALL	3,838	1,976
TOTAL	106,014	9,514

COHO ADULT	SOCKEYE	STEELHEAD	SHAD	LAMPREY
1	608,117	8,008	8,145	5,522

TABLE 155

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL		
	SPRING	SUMMER	JACK	ADULT	JACK						KCFS	DEG F	
Sep 1			196	78	2	0	4	110	0	82	75.5	1.5	66.9
Sep 2			272	60	1	0	1	99	6	86	94.4	2.1	66.9
Sep 3			394	108	1	0	0	95	2	76	79.6	1.6	66.7
Sep 4			366	94	4	1	3	108	-2	54	80.9	4.8	66.7
Sep 5			612	109	21	2	0	144	3	86	71.0	2.1	67.1
Sep 6			975	133	9	2	1	166	6	92	62.5	2.3	67.3
Sep 7			894	111	4	0	0	187	-1	82	51.5	2.4	
Sep 8			1,244	143	11	0	0	217	0	41	57.8	3.3	
Sep 9			1,714	145	50	8	1	275	0	56	56.9	7.8	
Sep 10			2,163	133	39	9	0	274	-7	68	72.9	10.1	66.7
Sep 11			2,629	136	118	11	0	294	5	82	62.1	3.2	66.6
Sep 12			2,292	121	131	8	0	188	0	68	76.8	2.4	66.6
Sep 13			2,133	174	239	27	0	372	2	75	62.8	2.0	66.0
Sep 14			2,888	193	290	44	0	429	2	68	48.3	1.8	66.0
Sep 15			4,626	203	456	50	4	526	-1	38	70.8	2.1	
Sep 16			4,979	235	916	68	1	450	2	57	79.1	2.2	66.0
Sep 17			5,082	343	728	36	1	572	-1	59	77.2	2.2	66.2
Sep 18			4,500	276	1,221	87	0	483	1	53	59.0	1.7	66.2
Sep 19			3,481	310	1,176	57	2	476	5	40	45.9	2.8	65.8
Sep 20			5,192	480	1,530	75	0	526	5	61	70.8	4.0	66.0
Sep 21			5,675	318	1,166	43	7	611	2	83	69.7	2.9	66.4
Sep 22			5,483	468	1,724	44	0	431	2	71	77.9	2.6	66.9
Sep 23			4,308	386	1,608	46	0	388	0	51	77.6	2.2	67.1
Sep 24			5,511	472	1,547	94	0	562	2	35	71.1	1.9	66.7
Sep 25			3,712	367	2,306	96	0	336	0	32	73.3	1.8	66.6
Sep 26			3,230	226	1,446	105	0	356	1	32	65.9	2.2	66.2
Sep 27			2,251	189	1,907	81	0	292	0	33	72.3	2.4	66.2
Sep 28			3,087	224	1,067	67	0	247	0	21	63.9	2.3	66.2
Sep 29			3,501	354	2,357	138	0	313	2	21	72.7	1.2	66.4
Sep 30			3,096	390	1,343	164	0	214	2	28	55.0	1.4	
TOTAL			86,486	6,979	23,418	1,363	25	9,741	38	1,731			

AVG.			2883	233	781	45	1	325	1	58	68.5	2.8	66.5
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	23,742	2,649
SUMMER	78,434	4,889
FALL	90,324	8,955
TOTAL	192,500	16,493

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
23,419	1,363	608,142	17,749	8,183	7,253

TABLE 156

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK							
Oct 1			1,953	180	1,211	77		170	0	28	53.7	1.9	64.6
Oct 2			1,809	237	909	104		146	0	24	73.8	2.6	64.0
Oct 3			1,835	215	1,151	56		160	0	15	82.2	2.5	64.4
Oct 4			1,553	145	1,420	119		153	1	20	57.8	2.4	64.6
Oct 5			1,889	248	618	37		151	0	23	71.5	2.8	64.8
Oct 6			996	260	368	33		57	0	14	86.7	2.0	64.9
Oct 7			1,508	257	513	36		104	0	20	89.2	2.0	65.1
Oct 8			1,428	90	718	53		107	0	19	72.6	1.5	65.1
Oct 9			757	153	332	19		58	2	16	80.2	2.0	64.9
Oct 10			976	112	277	14		56	-1	18	63.4	2.2	64.9
Oct 11			622	112	259	17		68	0	18	61.2	2.4	64.8
Oct 12			1,314	181	268	18		66	1	20	49.0	2.4	64.2
Oct 13			996	114	275	14		65	-1	8	84.1	2.4	63.7
Oct 14			813	108	193	15		46	0	6	76.3	2.0	63.7
Oct 15			647	78	147	16		37	0	4	77.0	1.7	63.5
Oct 16			523	91	142	24		44	-1	0	82.6	2.0	63.1
Oct 17			731	41	65	5		46	0	9	64.1	1.4	63.0
Oct 18			470	27	69	8		13	0	11	57.4	2.2	62.8
Oct 19			439	36	156	18		32	-1	7	50.6	2.5	62.6
Oct 20			682	49	146	11		36	0	12	72.2	3.9	62.6
Oct 21			618	76	134	5		73	0	6	82.8	2.0	62.2
Oct 22			769	82	47	3		27	0	5	58.1	1.8	61.9
Oct 23			519	63	73	5		26	0	2	73.3	12.2	61.5
Oct 24			593	52	124	5		9	0	2	57.6	2.2	61.2
Oct 25			439	53	92	5		21	0	3	82.5	2.5	60.8
Oct 26			524	14	215	2		25	0	0	59.3	1.7	60.3
Oct 27			456	28	80	5		17	-1	1	71.5	1.9	59.7
Oct 28			607	23	272	30		20	0	2	90.5	2.4	59.4
Oct 29			427	32	93	9		18	-1	1	78.8	1.8	59.4
Oct 30			719	72	108	5		32	0	2	96.8	2.5	
Oct 31			636	48	142	2		34	-3	2	91.0	2.1	
TOTALS			28,248	3,277	10,617	770		1,917	-5	318			

AVG.			911	106	342	25		62	0	10	72.5	2.5	63.0
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	23,742	2,649
SUMMER	78,434	4,889
FALL	118,572	12,232
TOTAL	220,748	19,770

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
34,036	2,133	608,142	19,666	8,178	7,571

TABLE 157

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

NOVEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT								JACK
Nov 1			649	37	115	2		39	1	5	84.2	2.6	58.8
Nov 2			251	9	89	2		10	0	1	56.2	1.5	57.9
Nov 3			265	17	41	0		5	0	0	64.0	1.5	57.6
Nov 4			170	10	97	6		16	0	2	94.7	2.5	57.6
Nov 5			192	16	39	5		17	0	2	89.4	2.7	57.9
Nov 6			154	10	33	4		19	0	2	91.3	2.4	57.9
Nov 7			107	3	10	0		10	0	0	98.2	2.1	58.1
Nov 8			98	8	11	0		13	0	0	91.3	2.2	57.6
Nov 9			55	6	20	1		12	0	2	95.3	2.2	57.4
Nov 10			26	0	15	0		5	0	1	90.5	2.0	57.0
Nov 11			29	1	5	0		7	0	0	88.7	2.2	56.5
Nov 12			20	6	4	0		3	0	0	93.1	10.6	55.0
Nov 13			24	1	12	0		6	0	0	124.7	34.1	54.0
Nov 14			28	2	3	0		8	0	0	123.0	21.7	53.8
Nov 15			42	1	2	0		7	0	0	105.7	11.7	62.1
Nov 16											124.0	25.8	63.1
Nov 17											115.7	12.8	
Nov 18											86.5	8.8	
Nov 19											127.6	26.1	51.8
Nov 20											110.8	7.8	51.7
Nov 21											107.0	2.4	52.0
Nov 22											101.4	4.8	52.1
Nov 23											73.9	0.0	51.9
Nov 24											98.5	0.0	51.8
Nov 25											99.5	0.0	52.0
Nov 26											89.7	0.0	
Nov 27											73.1	0.0	
Nov 28											73.4	0.0	
Nov 29											95.7	0.0	
Nov 30											124.0	0.0	
TOTALS			2,110	127	496	20		177	1	15			
AVG.			141	8	33	1		12	0	1	96.4	6.3	55.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	23,742	2,649
SUMMER	78,434	4,889
FALL	120,682	12,359
TOTAL	222,858	19,897

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
34,532	2,153	608,142	19,843	8,179	7,586

TABLE 158

**YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
1982 - 2014**

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
Totals	2,943,875	532,426	3,552,946	138,525	7,167,772
10-Year Average	147,407	19,420	215,782	11,141	393,750

*Jacks included

TABLE 159

MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2014

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
TOTAL	40	56	288	4,268	9,105	7,767	76,216	216,994	307,938	77,534	4,886	63	705,155
10-Year Average				31	36	151	2,324	6,639	8,338	1,791	111		19,357

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 2 – Jan 14	Fishway out of service for 2013/2014 annual maintenance period.
Jan 15 – Mar 23	Fishway in service.
Mar 24 – Apr 21	Fishway out of service to install denil extension for fish passage due to abnormally low tailwater elevations created by Wanapum Dam spillway repair.
Apr 22 – Dec 31	Fishway in service.

Middle Ladder

Jan 1 – Jan 14	Fishway in service.
Jan 15 – Jan 31	Fishway out of service for 2013/2014 annual maintenance period.
Feb 1 – Dec 31	Fishway in service.

Right Bank Ladder

Jan 1 – Jan 31	Fishway out of service for 2013/2014 annual maintenance period.
Feb 1 – Nov 30	Fishway in service.
Dec 1 – Dec 31	Fishway out of service for 2014/2015 annual maintenance period.

Fish Facility Activities

The Rock Island Bypass Trap was operated by Chelan County PUD Natural Resource Department employees from 1 April through 15 September 2014. Juvenile fish were sampled daily during that time period. The annual bypass (biological) evaluation included the collection of species composition and fish condition data. In 2014, as directed by the Habitat Conservation Plan (HCP), Chelan PUD conducted bypass operations outside of the normal operating period of 1 April through 31 August to assess achievement of bypass operations for 95% of the subyearling Chinook outmigration.

The adult fish PIT tag system was operational throughout the 2014 adult fish migration. PIT tag detections from all three fishways were uploaded daily to PTAGIS.

In 2014, denils were installed at two of the right bank fishway entrances (tailrace entrance and left powerhouse entrance) and one of the left bank fishway entrances (west entrance) to provide continued adult fish passage during low tailwater elevations created by the Wanapum Dam spillway repair and coincidental Wanapum pool drawdown. The Rock Island fishway attendants manually adjusted the three fishways and the three denil structures 24 hours a day/7 days a week from April through December to maintain safe and efficient fish passage during record runs of sockeye, Chinook, coho, and lamprey.

TABLE 160

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				62	19,229	26,540	56,079	13,722	18,986	9,573	913		145,104
STEELHEAD				195	81	98	1,193	3,777	7,092	2,389	212		15,037
SOCKEYE					2	33,540	539,264	8,218	82	14	1		581,121
COHO									15,785	30,233	1,569		47,587
PINK													0
TOTAL				257	19,312	60,178	596,536	25,717	41,945	42,209	2,695		788,849
LAMPREY						1	115	2,148	104	75	8		2,451
BULL TROUT				0	34	30	13	3	0	0	1		81

TABLE 161

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

ROCK ISLAND PROJECT- FISH COUNTS

APRIL 2014

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												136.8	14.9	39.0
Apr 2												121.4	27.1	39.1
Apr 3												120.0	38.1	39.5
Apr 4												127.8	37.7	39.8
Apr 5												137.4	40.7	39.7
Apr 6												113.7	28.2	40.1
Apr 7												119.8	29.6	40.5
Apr 8												124.2	25.5	41.2
Apr 9												125.9	25.4	41.4
Apr 10												135.5	31.9	41.5
Apr 11												116.3	21.7	41.7
Apr 12												117.3	24.3	42.1
Apr 13												120.6	21.6	42.4
Apr 14	0							3	2			131.8	17.0	41.0
Apr 15	0							4	1			132.7	21.5	40.8
Apr 16	0							2	2			150.2	23.1	41.5
Apr 17	0							21	14			156.9	40.6	41.4
Apr 18	0							11	8			147.3	32.2	41.9
Apr 19	0							29	20			161.8	24.2	42.1
Apr 20	0							11	8			159.8	23.5	42.4
Apr 21	2							23	10			155.6	20.9	43.0
Apr 22	0							20	12			159.1	24.5	43.3
Apr 23	1							7	4			164.5	41.8	43.5
Apr 24	3							9	3			157.9	44.6	43.9
Apr 25	3							9	5			155.2	44.7	45.1
Apr 26	4							13	2			166.4	24.6	45.3
Apr 27	5							9	4			162.5	24.2	45.7
Apr 28	9							8	4			170.1	26.2	45.9
Apr 29	12							9	4			168.1	25.4	46.0
Apr 30	23							7	5			165.6	28.1	46.6
TOTAL	62							195	108					
AVG.	4							11	6			142.7	28.4	42.2

TABLE 162

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

MAY 2014

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	21			0			0	4	4	0		171.5	28.0	46.8
May 2	38			0			0	4	2	0		154.5	26.8	47.1
May 3	40			0			0	5	5	0		182.0	32.8	47.7
May 4	64			0			0	4	1	0		184.2	33.3	48.6
May 5	33			0			0	5	2	0		187.0	37.1	48.6
May 6	118			0			0	6	2	0		177.7	33.3	48.6
May 7	223			0			0	9	3	0		169.4	27.0	48.6
May 8	452			0			0	5	1	0		187.3	39.7	48.7
May 9	1,113			6			0	5	2	0		162.2	23.3	48.9
May 10	883			3			0	3	2	0		170.4	30.5	49.5
May 11	392			0			0	2	1	1		176.6	31.9	49.5
May 12	826			7			0	1		1		176.3	32.0	49.8
May 13	479			8			0	2	1	0		176.6	32.4	50.2
May 14	490			16			0	2	2	2		180.2	37.2	50.4
May 15	690			24			0	5	3	0		188.1	40.4	50.0
May 16	757			37			0	2	0	0		193.8	47.4	50.4
May 17	1,405			60			1	2	2	2		197.8	44.5	50.5
May 18	2,754			143			0	1	0	1		197.9	29.3	50.7
May 19	761			73			0	1	1	0		191.5	33.3	51.1
May 20	399			69			0	1	1	4		196.4	31.7	51.4
May 21	840			105			0	2	1	2		200.2	34.4	51.6
May 22	561			93			1	2	1	4		204.0	30.0	51.8
May 23	499			124			0	2	0	1		208.4	27.2	52.0
May 24	837			210			0	2	1	1		206.3	42.1	52.0
May 25	744			171			0	2	1	4		204.2	42.2	52.2
May 26	349			108			0	1	0	2		205.7	42.8	52.3
May 27	250			163			0	0	0	4		205.9	45.1	52.5
May 28	345			122			0	0	0	4		177.9	59.4	52.9
May 29	244			123			0	1	1	0		193.5	128.2	53.1
May 30	329			148			0	0	0	0		183.4	83.1	53.6
May 31	332			148			0	0	0	1		195.9	65.9	53.6
TOTAL	17,268			1,961			2	81	40	34				
AVG.	557			63			0	3	1	1		187.3	41.0	50.5
RUN YEAR		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT				
TOTALS TO DATE														
SPRING		17,330	1,961				2	276	148	34				

TABLE 163

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JUNE 2014

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	371			120			0	1	0	1	0	220.5	76.3	54.0
Jun 2	289			101			0	0	0	4	0	197.5	50.4	54.7
Jun 3	277			127			0	3	3	0	0	205.5	46.7	54.9
Jun 4	217			62			0	2	2	2	0	198.0	43.1	55.0
Jun 5	386			61			0	1	1	0	0	207.2	43.6	55.2
Jun 6	267			97			0	1	1	3	0	188.9	43.7	55.6
Jun 7	216			67			1	1	0	2	0	174.2	43.0	55.9
Jun 8	165			66			0	1	1	1	0	174.6	41.1	56.1
Jun 9	225			10			2	2	1	1	0	183.6	39.5	56.3
Jun 10	223			50			0	0	0	0	0	166.9	38.4	56.1
Jun 11	255			45			0	2	0	0	0	165.3	36.2	56.5
Jun 12	222			19			0	1	0	1	0	138.8	25.6	56.5
Jun 13	214			8			1	2	1	0	0	142.9	29.9	55.9
Jun 14	78			20			1	3	1	0	0	123.2	28.8	55.8
Jun 15	138			19			6	2	1	0	0	117.8	26.2	56.1
Jun 16	1,139			54			26	4	1	1	0	144.3	29.2	56.3
Jun 17	1,235			47			37	1	0	0	0	153.5	29.1	56.1
Jun 18	980			47			76	7	5	0	0	166.1	34.1	56.5
Jun 19	295			8			107	3	1	3	0	194.4	37.4	56.7
Jun 20	1,131			25			220	5	4	0	0	191.0	36.8	56.8
Jun 21	1,053			22			560	0	0	1	0	198.6	36.9	57.4
Jun 22	1,419			19			825	0	0	0	0	196.4	36.9	57.7
Jun 23	2,270			43			1,786	4	4	0	0	196.9	36.7	57.6
Jun 24		1,659		38			2,075	4	4	2	0	190.6	38.3	57.4
Jun 25		2,061		26			2,692	8	7	2	0	196.5	37.8	57.9
Jun 26		2,195		15			3,489	7	5	1	1	195.9	38.9	58.3
Jun 27		1,127		27			3,768	9	7	3	0	192.9	38.0	59.0
Jun 28		1,536		54			3,840	8	3	0	0	191.5	39.1	59.5
Jun 29		1,719		31			5,962	6	5	2	0	202.3	38.7	59.5
Jun 30		1,819		31			8,066	10	7	0	0	189.2	38.5	59.5
TOTAL	13,065	12,116		1,359			33,540	98	65	30	1			
AVG.	568	1,731		45			1,118	3	2	1	0	180.2	38.6	56.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	30,395	3,098
SUMMER	12,116	222
TOTALS	42,511	3,320

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
33,542	374	213	64	1

TABLE 164

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

ROCK ISLAND PROJECT- FISH COUNTS

JULY 2014

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		2,634		47			11,688	8	7	0	0	205.5	37.9	59.5
Jul 2		1,858		17			15,286	11	10	1	0	196.2	37.8	59.5
Jul 3		2,527		31			19,270	22	16	0	0	195.9	40.2	59.7
Jul 4		2,169		66			21,022	11	9	1	0	179.1	32.3	60.1
Jul 5		2,172		66			23,259	25	13	0	0	158.9	30.8	60.3
Jul 6		1,977		68			17,477	11	6	0	2	176.6	30.7	60.4
Jul 7		4,079		119			34,545	16	11	3	0	180.1	34.3	60.4
Jul 8		2,502		118			32,402	14	10	2	2	158.6	34.8	60.4
Jul 9		2,111		110			28,631	20	13	1	1	156.3	33.9	61.2
Jul 10		2,140		96			26,852	21	10	0	0	162.5	33.1	61.7
Jul 11		2,523		117			24,101	26	19	1	2	157.4	31.9	61.5
Jul 12		2,612		129			26,284	35	24	1	1	163.6	30.8	61.7
Jul 13		2,724		139			26,534	31	16	0	0	143.5	30.8	61.9
Jul 14		2,282		90			34,290	35	24	0	0	146.4	31.8	61.7
Jul 15		1,880		173			33,117	34	18	0	0	165.8	31.6	62.2
Jul 16		1,689		212			29,699	45	31	0	1	162.3	30.5	62.4
Jul 17		1,734		209			25,426	48	30	0	3	144.5	29.4	61.9
Jul 18		1,314		114			18,299	52	26	0	7	141.9	28.2	62.1
Jul 19		1,684		175			18,242	52	35	0	4	141.7	27.2	62.2
Jul 20		1,507		143			13,646	45	21	1	2	133.5	27.0	62.2
Jul 21		923		200			11,407	46	22	0	4	141.3	27.9	62.2
Jul 22		1,174		222			9,989	52	30	1	2	137.0	27.8	62.2
Jul 23		570		68			6,808	45	26	1	8	147.4	28.9	62.1
Jul 24		703		146			6,089	49	29	0	4	154.6	28.4	62.2
Jul 25		950		185			5,698	70	37	0	5	171.9	28.5	61.9
Jul 26		730		201			5,046	66	37	0	9	152.3	27.3	62.6
Jul 27		545		101			3,683	53	25	0	3	141.5	27.0	63.1
Jul 28		903		136			3,522	56	25	0	8	150.4	27.3	63.3
Jul 29		762		157			2,949	63	37	0	19	145.1	27.3	63.5
Jul 30		340		83			2,505	81	52	0	11	130.2	28.5	63.7
Jul 31		502		121			1,498	50	26	0	17	143.8	28.4	64.0
TOTAL		52,220		3,859			539,264	1,193	695	13	115			
AVG.		1,685		124			17,396	38	22	0	4	157.6	30.7	61.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	30,395	3,098
SUMMER	64,336	4,081
TOTALS	94,731	7,179

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
572,806	1,567	908	77	116

TABLE 165

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

ROCK ISLAND PROJECT- FISH COUNTS

AUGUST 2014

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		543		130			1,265	70	37	0	13	137.7	25.4	64.2
Aug 2		968		172			2,171	82	53	0	19	123.8	25.1	64.8
Aug 3		493		97			1,002	104	53	0	19	114.2	25.3	65.3
Aug 4		367		85			804	91	49	1	8	120.7	27.0	65.5
Aug 5		320		86			698	103	52	0	25	122.4	27.0	65.5
Aug 6		352		102			501	113	60	0	32	135.3	26.6	65.7
Aug 7		429		147			421	106	49	2	59	136.2	25.0	65.7
Aug 8		254		121			234	113	58	0	39	124.4	24.1	65.5
Aug 9		441		164			184	97	51	0	61	126.5	24.0	65.7
Aug 10		403		184			167	129	68	0	49	120.1	21.6	66.4
Aug 11		464		231			107	123	57	0	35	127.3	21.5	66.6
Aug 12		357		137			66	126	63	0	43	120.0	21.8	66.4
Aug 13		247		133			112	142	66	0	29	110.6	21.0	66.6
Aug 14		239		133			87	55	31	0	129	115.9	24.8	65.8
Aug 15		92		96			56	58	31	0	89	105.9	25.0	66.6
Aug 16		231		109			40	107	56	0	41	98.9	21.5	66.0
Aug 17		298		122			30	136	67	0	24	88.9	18.2	66.4
Aug 18		221		103			84	193	90	0	17	121.3	26.5	66.6
Aug 19		191		131			27	132	57	0	76	121.9	32.5	66.4
Aug 20		140		85			17	128	49	0	59	106.9	22.5	66.6
Aug 21		359		206			23	150	81	0	45	99.7	22.1	66.9
Aug 22		367		223			33	216	112	0	16	106.5	22.0	66.6
Aug 23		278		172			15	120	67	0	83	107.4	19.5	66.4
Aug 24		260		133			18	106	45	0	210	90.9	27.9	67.1
Aug 25		157		114			3	150	65	0	133	100.1	13.0	66.9
Aug 26		131		151			10	108	38	0	408	115.0	0.0	66.4
Aug 27		217		128			14	103	53	0	188	120.7	0.1	67.3
Aug 28		127		107			10	127	48	0	95	116.4	0.0	67.1
Aug 29		59		94			4	92	45	0	77	95.2	0.3	67.3
Aug 30		275		170			9	183	95	0	14	93.9	0.5	66.4
Aug 31		264		112			6	214	121	0	13	90.0	0.6	66.7
TOTAL		9,544		4,178			8,218	3,777	1,867	3	2,148			
AVG.		308		135			265	122	60	0	69	113.4	19.1	66.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	30,395	3,098
SUMMER	73,880	8,259
TOTALS	104,275	11,357

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
581,024	5,344	2,775	80	2,264

TABLE 166

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

ROCK ISLAND PROJECT- FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER											
Sep 1		84	60	0	0	2	69	32		5	78.7	0.4	66.9
Sep 2			104	0	0	7	108	54		16	86.7	24.7	66.7
Sep 3			63	0	0	5	158	57		6	75.6	22.5	66.4
Sep 4			74	0	0	4	126	61		5	79.5	4.9	66.6
Sep 5			57	0	0	3	63	25		9	67.7	21.1	66.4
Sep 6			79	0	0	3	72	36		3	59.8	32.6	66.7
Sep 7			76	0	0	2	56	28		1	52.0	38.7	66.7
Sep 8			267	0	0	1	157	67		1	59.0	29.9	66.2
Sep 9			238	0	0	3	93	46		1	56.1	31.7	66.7
Sep 10			401	2	0	0	235	99		0	63.0	24.4	66.2
Sep 11			650	8	0	7	254	132		0	68.6	22.7	66.0
Sep 12			40	2	0	1	42	20		11	53.2	42.6	66.0
Sep 13			14	0	0	1	27	13		0	45.0	43.5	65.8
Sep 14			63	1	0	0	52	21		0	48.3	46.8	65.7
Sep 15			1,189	288	94	10	739	388		1	75.8	18.8	65.5
Sep 16			715	137	101	1	8	329		2	73.2	14.7	64.9
Sep 17			814	131	228	0	4	421		9	65.2	21.9	65.1
Sep 18			26	10	23	0	0	14		0	46.5	45.0	64.9
Sep 19			1,405	168	512	0	2	587		0	63.7	23.6	65.5
Sep 20			1,031	116	638	2	2	348		2	68.5	20.8	65.7
Sep 21			669	109	537	6	1	276		7	63.6	24.6	65.5
Sep 22			1,114	168	747	1	3	384		5	67.1	21.2	65.8
Sep 23			619	153	492	0	2	270		2	68.2	20.9	65.8
Sep 24			1,204	192	1,598	4	2	473		1	64.5	28.2	65.7
Sep 25			1,452	178	2,141	1	7	378		4	66.6	20.3	65.7
Sep 26			820	145	2,117	4	0	282		0	68.6	16.3	65.1
Sep 27			603	143	1,350	6	1	280		2	69.3	19.9	64.9
Sep 28			646	189	1,498	2	0	274		6	65.6	28.0	65.1
Sep 29			847	235	2,422	19	1	366		5	60.3	25.9	65.3
Sep 30			152	64	1,226	1	0	159		0	49.9	48.4	64.9
TOTAL		84	15,480	3,422	15,737	48	82	7,092	3,226	104			
AVG.			534	114	525	2	3	236	108	3	64.3	26.2	65.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	30,395	3,098
SUMMER	73,964	8,319
FALL	15,480	3,362
TOTALS	119,839	14,779

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
15,737	48	581,106	12,436	6,001	80	2,368

TABLE 167

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

ROCK ISLAND PROJECT- FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	STEELHEAD	BULL TROUT	LAMPREY	DISCH	SPILL	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT						JACK	KCFS		KCFS
Oct 1			783	149	2,164	8	0	428	163		0	64.4	30.0	64.9
Oct 2			1,473	138	4,532	1	1	291	124		8	72.1	18.2	64.6
Oct 3			292	113	2,769	27	0	134	49		10	74.1	15.3	64.2
Oct 4			155	90	1,177	3	0	132	76		9	60.4	32.2	64.4
Oct 5			169	78	727	15	1	91	46		3	71.3	36.1	64.2
Oct 6			213	79	1,363	10	0	111	30		8	75.3	16.7	64.0
Oct 7			217	118	2,106	4	3	130	80		4	77.4	15.6	64.2
Oct 8			289	65	1,425	16	0	118	51		4	73.8	12.4	64.4
Oct 9			229	104	1,211	3	4	79	29		1	73.7	14.2	64.0
Oct 10			256	107	990	5	1	79	34		3	70.4	16.8	64.2
Oct 11			48	24	237	4	0	30	10		3	46.9	45.4	64.2
Oct 12			257	49	556	13	0	93	33		1	59.4	36.5	63.9
Oct 13			769	89	1,389	15	1	117	31		3	77.2	12.6	63.1
Oct 14			381	97	1,043	1	0	59	29		2	71.6	14.7	63.0
Oct 15			298	78	848	4	0	47	24		6	71.1	12.3	63.1
Oct 16			172	54	609	3	1	46	15		2	67.1	17.9	63.0
Oct 17			162	44	561	8	0	31	12		1	66.5	23.9	62.6
Oct 18			119	43	364	1	0	53	35		0	57.4	37.6	62.2
Oct 19			32	14	151	1	0	8	3		0	49.4	47.9	62.1
Oct 20			85	72	651	7	0	44	12		0	71.0	17.5	61.9
Oct 21			90	37	718	1	1	43	23		0	66.0	23.2	62.1
Oct 22			68	28	513	2	1	33	16		0	55.1	37.7	61.5
Oct 23			48	37	632	1	0	51	33		0	67.1	25.0	61.5
Oct 24			77	26	535	14	0	14	5		1	76.6	16.5	61.0
Oct 25			61	19	365	1	0	19	11		5	64.9	21.2	60.8
Oct 26			43	2	166	1	0	17	4		0	48.2	46.7	60.3
Oct 27			101	15	676	6	0	24	10		0	81.1	21.6	60.3
Oct 28			74	13	557	2	0	17	10		1	83.7	13.4	60.4
Oct 29			311	10	324	5	0	21	5		0	78.2	17.3	60.1
Oct 30			255	26	412	2	0	14	7		0	96.2	0.0	60.3
Oct 31			220	8	278	1	0	15	6		0	85.2	0.0	59.7
TOTAL			7,747	1,826	30,049	184	14	2,389	1,016		75			
AVG.			250	59	969	6	0	77	33		2	69.4	22.5	62.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	30,395	3,098
SUMMER	73,964	8,319
FALL	23,227	5,188
TOTALS	127,586	16,605

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
45,786	232	581,120	14,825	7,017	80	2,443

TABLE 168

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

ROCK ISLAND PROJECT- FISH COUNTS

NOVEMBER 2014

DATE	CHINOOK ADULT		CHINOOK FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER												
Nov 1			125	13	291	1	0	17	13	0	5	78.0	0.5	59.0
Nov 2			96	8	47	0	1	11	4	0	0	45.1	43.6	58.6
Nov 3			137	9	333	2	0	33	13	0	0	80.0	15.0	58.6
Nov 4			183	14	250	1	0	21	11	0	0	88.5	12.5	58.9
Nov 5			51	5	177	0	0	11	5	0	0	83.7	0.0	58.7
Nov 6			68	3	126	1	0	20	13	0	1	93.1	0.0	58.5
Nov 7			39	9	90	0	0	14	4	0	1	85.3	0.0	58.3
Nov 8			37	2	59	3	0	8	4	1	0	95.0	0.0	58.2
Nov 9			30	0	45	0	0	13	3	0	1	86.1	0.0	57.9
Nov 10			13	1	29	0	0	13	3	0	0	87.9	0.0	57.7
Nov 11			14	2	30	0	0	12	4	0	0	89.1	0.0	57.1
Nov 12			5	3	35	1	0	8	3	0	0	101.2	0.0	56.5
Nov 13			14	3	23	0	0	22	13	0	0	119.4	0.0	55.7
Nov 14			18	3	15	0	0	5	3	0	0	110.9	0.0	55.2
Nov 15			7	1	9	1	0	4	3	0	0	107.4	0.0	54.4
Nov 16												117.9	0.0	54.2
Nov 17												106.0	0.0	53.9
Nov 18												117.3	0.0	53.7
Nov 19												119.4	0.0	53.7
Nov 20												101.0	0.0	53.7
Nov 21												108.1	0.0	53.8
Nov 22												88.5	0.0	53.7
Nov 23												85.0	0.0	53.5
Nov 24												106.0	0.0	53.3
Nov 25												114.4	0.0	53.2
Nov 26												105.9	0.0	52.5
Nov 27												82.8	0.0	52.3
Nov 28												83.8	0.0	52.0
Nov 29												121.4	0.0	51.0
Nov 30												118.1	0.0	50.1
TOTAL			837	76	1,559	10	1	212	99	1	8			
AVG.			56	5	104	1	0	14	7	0	1	97.5	2.4	55.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
	SPRING	30,395	3,098	47,345	242	581,121	15,037	7,116	81
SUMMER	73,964	8,319							
FALL	24,064	5,264							
TOTALS	128,423	16,681							

TABLE 169

**MONTHLY COUNT OF STEELHEAD
ROCK ISLAND DAM 1981 - 2014**

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
Total				2,331	2,435	3,932	47,760	147,045	220,745	63,151	5,989		493,388
10-Year Average				81	49	93	1,535	5,699	7,851	1,801	129		17,237

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	Video recording 24 hours per day/7 days a week to monitor adult steelhead passage; no fish counting during this period.

Fish Ladder Operating Schedule

Jan 2 to Mar 12	Fishway out of service for 2013/2014 annual maintenance period.
Mar 13 to Dec 31	Fishway in service.

Fish Facility Activities

The adult fish PIT tag system was operational throughout the 2014 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 to 15 September 2014. Juvenile fish sampling occurred over the same time frame. The annual bypass (biological) evaluation included the collection of species composition and fish condition data. In 2014, as directed by the Habitat Conservation Plan (HCP), Chelan PUD conducted bypass operations outside of the normal operating period of 1 April through 31 August to assess achievement of bypass operations for 95% of the subyearling Chinook outmigration.

TABLE 170

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				22	10,230	14,641	44,455	12,926	14,491	5,332	1,071		103,168
STEELHEAD				174	75	39	532	2,263	5,427	1,943	134		10,587
SOCKEYE					1	17,703	464,874	10,197	89	26	2		492,892
COHO									4,361	8,513	296		13,170
PINK													0
TOTAL				196	10,306	32,383	509,861	25,386	24,368	15,814	1,503		619,817
LAMPREY							109	2,536	1,075	78	1		3,799
BULL TROUT				1	56	70	12	5	0	1	13		158

TABLE 171

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

ROCKY REACH PROJECT- FISH COUNTS											APRIL 2014			
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												121.7	0.0	38.7
Apr 2												112.5	0.0	38.9
Apr 3												117.5	0.0	39.4
Apr 4												123.2	0.0	39.5
Apr 5												131.2	0.0	39.6
Apr 6												113.5	0.0	40.2
Apr 7												121.2	0.0	40.6
Apr 8												117.7	0.0	40.9
Apr 9												119.0	0.0	41.1
Apr 10												128.7	0.0	41.2
Apr 11												110.4	0.0	41.5
Apr 12												114.2	0.0	41.9
Apr 13												116.6	0.0	42.1
Apr 14	0							6	4	1		129.7	0.0	39.9
Apr 15	0							5	5	0		136.6	0.0	40.3
Apr 16	0							3	2	0		145.4	0.0	41.0
Apr 17	0							6	5	0		145.7	0.0	41.5
Apr 18	0							10	10	0		148.5	8.0	41.7
Apr 19	0							14	9	0		154.1	0.0	42.1
Apr 20	0							20	12	0		151.7	0.0	42.3
Apr 21	0							17	14	0		148.6	0.0	42.8
Apr 22	0							15	6	0		158.6	15.8	43.2
Apr 23	0							11	8	0		160.9	12.2	43.7
Apr 24	0							9	6	0		151.2	6.5	43.9
Apr 25	0							9	5	0		154.8	3.2	45.0
Apr 26	3							8	5	0		162.0	0.0	45.0
Apr 27	3							14	7	0		156.3	0.0	45.3
Apr 28	3							11	7	0		162.6	0.0	45.9
Apr 29	6							5	3	0		162.4	0.0	45.9
Apr 30	7							11	4	0		160.1	0.0	46.2
TOTAL	22							174	112	1				
AVG.	1							10	7	0		137.9	1.5	42.0

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

ROCKY REACH PROJECT- FISH COUNTS

MAY 2014

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	9			0			0	2	1	0		170.3	7.6	46.6
May 2	24			0			0	4	3	0		152.4	17.1	47.1
May 3	24			0			0	2	2	0		176.4	17.4	47.5
May 4	26			0			0	8	7	0		175.5	1.7	48.2
May 5	39			0			0	1	1	0		179.6	17.5	48.4
May 6	10			0			0	9	4	0		169.0	6.0	48.6
May 7	71			0			0	4	2	0		163.0	0.0	48.7
May 8	118			0			0	9	6	0		184.8	15.3	48.7
May 9	262			1			0	3	2	1		152.4	9.7	48.7
May 10	520			3			0	6	4	0		164.8	9.0	49.3
May 11	492			1			0	4	1	0		167.7	8.5	49.5
May 12	240			1			0	2	1	0		169.7	18.6	49.6
May 13	326			5			0	1	0	0		169.3	13.5	49.8
May 14	319			8			0	1	0	1		176.3	11.8	50.4
May 15	141			7			0	4	1	0		180.2	21.6	50.0
May 16	432			28			0	2	2	2		187.6	29.6	50.2
May 17	405			26			0	1	1	0		187.5	26.8	50.5
May 18	501			26			0	2	2	1		186.4	28.0	50.5
May 19	1,172			114			0	1	1	0		182.4	21.0	50.7
May 20	458			38			0	0	0	1		187.7	19.8	51.3
May 21	278			49			0	2	1	1		193.4	22.7	51.6
May 22	595			108			0	0	0	0		194.2	32.7	52.0
May 23	410			83			1	0	0	9		195.1	39.7	52.0
May 24	396			129			0	1	1	5		195.5	28.8	52.2
May 25	379			119			0	1	1	5		193.4	22.2	52.3
May 26	292			147			0	1	1	2		195.5	29.0	52.5
May 27	215			157			0	1	0	1		198.8	30.3	52.7
May 28	155			71			0	0	0	9		179.8	32.5	52.9
May 29	176			69			0	2	0	5		197.7	50.4	53.1
May 30	185			103			0	1	0	8		178.8	62.1	53.4
May 31	144			123			0	0	0	5		195.7	41.8	53.8
TOTAL	8,814			1,416			1	75	45	56				
AVG.	284			46			0	2	1	2		180.7	22.3	50.4
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT				
SPRING		8,836	1,416				1	249	157	57				

TABLE 173

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JUNE 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL		ADULT	JACK								
Jun 1	237			149			0	3	1	4		216.3	69.8	54.0
Jun 2	143			117			0	1	0	9		189.6	44.7	54.1
Jun 3	138			84			0	2	1	6		200.4	28.6	54.3
Jun 4	157			129			1	0	0	5		189.5	27.7	54.5
Jun 5	133			79			0	0	0	6		198.5	30.4	54.3
Jun 6	96			89			0	0	0	4		180.6	25.1	54.9
Jun 7	143			54			1	0	0	2		165.8	19.6	55.2
Jun 8	97			41			0	3	0	1		166.7	20.7	55.6
Jun 9	95			32			0	0	0	6		175.8	21.5	55.8
Jun 10	115			14			1	3	1	3		158.8	17.1	56.1
Jun 11	104			33			0	0	0	1		154.8	16.3	56.5
Jun 12	123			28			0	2	0	2		130.2	12.2	56.5
Jun 13	70			15			0	0	0	1		135.6	12.6	55.9
Jun 14	136			5			0	0	0	3		116.4	12.4	55.8
Jun 15	79			5			1	0	0	1		109.2	11.8	55.4
Jun 16	90			6			5	0	0	2		137.6	13.1	55.2
Jun 17	531			21			15	1	1	2		146.9	13.1	55.4
Jun 18	404			32			27	2	1	1		161.4	24.2	55.9
Jun 19	649			28			52	2	2	0		191.5	32.4	56.3
Jun 20	330			25			63	0	0	1		187.2	23.8	56.7
Jun 21	583			13			134	3	1	1		192.9	24.9	57.0
Jun 22	613			4			265	0	0	3		191.8	17.8	57.4
Jun 23	1,007			15			712	2	1	1		193.0	27.2	57.0
Jun 24		1,309		25			766	0	0	0		184.4	17.9	57.0
Jun 25		865		2			1,235	4	0	2		188.5	16.6	57.4
Jun 26		1,420		11			2,455	5	2	0		186.2	16.4	57.9
Jun 27		1,294		18			2,800	3	3	2		184.4	18.9	58.5
Jun 28		1,042		20			3,261	1	0	0		182.6	22.8	59.4
Jun 29		955		7			3,436	2	2	1		195.9	37.4	59.5
Jun 30		576		6			2,473	0	0	0		182.0	22.8	59.4
TOTAL	6,073	7,461		1,107			17,703	39	16	70				
AVG.	264	1066		37			590	1	1	2		173.1	23.3	56.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	14,909	2,434
SUMMER	7,461	89
TOTALS	22,370	2,523

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
17,704	288	173	127

TABLE 174

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JULY 2014

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		1,500		19			6,892	2	0	3	0	199.6	41.6	60.0
Jul 2		2,311		52			9,709	5	2	1	0	187.8	25.5	60.0
Jul 3		1,682		13			12,471	4	2	0	0	190.9	22.9	59.8
Jul 4		1,670		41			15,750	4	1	1	0	169.3	19.8	60.1
Jul 5		1,743		52			17,995	4	1	1	0	149.4	15.2	60.7
Jul 6		1,549		75			18,165	10	4	2	0	167.9	16.8	61.1
Jul 7		1,457		20			15,256	6	4	1	0	172.2	18.2	61.5
Jul 8		3,006		105			26,485	5	4	0	0	147.2	14.9	61.5
Jul 9		1,519		70			29,261	9	1	0	0	148.3	15.1	61.7
Jul 10		1,635		66			23,087	9	6	1	1	154.3	14.7	61.9
Jul 11		1,385		77			17,863	6	4	0	0	151.6	14.8	61.7
Jul 12		1,741		73			17,676	6	4	0	0	156.2	18.2	62.0
Jul 13		2,019		129			21,875	12	8	1	0	135.3	13.8	62.1
Jul 14		2,241		104			25,887	26	18	0	0	138.8	14.8	62.2
Jul 15		1,467		197			28,478	8	1	0	1	158.8	18.7	62.6
Jul 16		1,365		176			25,772	19	10	0	0	151.9	19.2	63.1
Jul 17		1,342		88			30,039	28	18	0	1	138.6	14.4	62.9
Jul 18		1,433		84			21,844	15	5	0	0	134.8	12.6	63.0
Jul 19		1,166		147			14,960	22	14	0	6	132.2	12.0	63.4
Jul 20		1,196		97			15,285	27	12	0	3	124.3	11.9	63.5
Jul 21		1,355		12			15,441	22	11	0	3	133.9	12.8	63.2
Jul 22		668		88			9,377	22	6	0	1	130.0	13.0	63.1
Jul 23		1,069		212			9,083	29	20	0	1	141.9	16.7	63.1
Jul 24		615		106			7,049	24	14	0	2	150.9	26.2	62.8
Jul 25		646		107			6,159	18	11	1	2	163.9	31.1	62.9
Jul 26		811		91			5,010	23	12	0	3	145.0	13.1	63.6
Jul 27		685		128			5,163	38	23	0	13	136.9	12.5	64.5
Jul 28		469		101			3,750	28	15	0	4	144.2	12.3	65.0
Jul 29		840		168			3,720	28	15	0	18	139.6	12.3	65.2
Jul 30		548		62			2,777	34	18	0	8	126.3	12.6	65.6
Jul 31		499		63			2,595	39	17	0	42	136.5	13.2	66.1
TOTALS		41,632		2,823			464,874	532	281	12	109			

AVG.	1343	91	14,996	17	9	0	4	150.3	17.1	62.6
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	14,909	2,434
SUMMER	49,093	2,912
TOTAL	64,002	5,346

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
482,578	820	454	139	109

TABLE 175

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

AUGUST 2014

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL		ADULT	JACK									
Aug 1		502		84				1539	39	22	0	22	129.6	12.3	64.0
Aug 2		440		121				1218	44	24	1	22	114.7	12.4	64.4
Aug 3		763		116				2217	52	30	0	26	107.7	12.3	64.9
Aug 4		515		39				1204	46	22	0	31	115.4	12.4	65.1
Aug 5		464		121				820	47	24	0	29	120.5	15.3	65.1
Aug 6		403		110				749	67	32	0	33	128.8	13.4	65.5
Aug 7		262		80				424	65	33	1	55	132.6	13.4	65.5
Aug 8		241		75				366	53	27	1	37	120.8	11.1	65.3
Aug 9		155		89				246	33	14	0	31	120.2	11.2	65.7
Aug 10		407		86				286	58	21	0	44	115.9	10.5	65.7
Aug 11		649		146				212	88	46	0	44	123.2	10.6	65.8
Aug 12		391		149				146	92	49	0	28	116.1	10.0	66.0
Aug 13		396		148				125	98	61	0	39	107.3	9.4	66.0
Aug 14		250		112				130	79	35	0	135	111.9	10.7	66.0
Aug 15		180		115				101	53	25	1	154	104.2	9.4	66.0
Aug 16		127		97				54	26	14	0	136	96.6	10.1	65.7
Aug 17		207		68				53	31	18	0	77	87.0	8.9	66.4
Aug 18		318		128				48	80	42	0	81	123.1	10.7	66.2
Aug 19		273		164				79	104	52	0	91	119.0	10.4	66.4
Aug 20		238		124				34	93	50	0	89	104.9	10.6	66.6
Aug 21		148		69				29	103	38	0	76	97.2	10.6	66.6
Aug 22		308		133				28	93	48	0	117	102.0	10.2	66.4
Aug 23		421		336				23	105	59	0	195	105.1	9.2	66.0
Aug 24		186		96				12	74	34	0	109	88.0	8.2	66.4
Aug 25		268		97				9	96	39	0	133	97.0	0.0	66.2
Aug 26		177		75				4	128	55	0	200	112.1	0.0	67.3
Aug 27		174		89				10	127	68	0	94	117.2	0.0	66.2
Aug 28		135		87				10	78	30	1	118	111.3	0.0	66.4
Aug 29		122		92				10	83	27	0	75	91.8	0.0	66.6
Aug 30		150		78				6	49	25	0	101	92.1	0.0	66.0
Aug 31		182		150				5	79	37	0	114	87.1	0.0	66.4
TOTAL		9,452		3,474				10,197	2,263	1,101	5	2,536			

AVG.	305	112	329	73	36	0	82	109.7	8.5	65.9
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	14,909	2,434
SUMMER	58,545	6,386
TOTALS	73,454	8,820

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
492,775	3,083	1,555	144	2,645

TABLE 176

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

SEPTEMBER 2014

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		145		64	0	0	9	86	38		198	74.8	0.0	67.2
Sep 2			123	63	0	0	2	95	51		88	87.1	0.0	67.1
Sep 3			66	74	0	0	6	68	31		75	70.5	0.0	67.2
Sep 4			126	49	0	0	1	39	19		42	74.9	0.0	67.0
Sep 5			81	68	0	0	11	94	44		30	64.7	0.0	66.8
Sep 6			62	54	0	0	2	39	22		74	61.3	0.0	66.9
Sep 7			59	39	0	0	1	54	20		116	50.3	0.0	66.9
Sep 8			37	40	0	0	1	72	26		37	56.4	0.0	66.9
Sep 9			144	66	0	0	2	54	26		66	53.7	0.0	67.0
Sep 10			175	86	0	0	2	76	38		30	62.6	0.0	66.7
Sep 11			211	65	0	0	2	86	36		35	67.8	0.0	66.3
Sep 12			573	137	10	0	2	132	65		25	54.8	0.0	66.1
Sep 13			125	30	1	0	0	83	44		7	47.1	0.0	65.6
Sep 14			40	7	3	0	1	51	16		9	48.0	0.0	65.5
Sep 15			53	5	1	0	0	55	18		23	75.0	0.0	65.6
Sep 16			754	154	4	0	3	299	144		34	68.5	0.0	65.8
Sep 17			668	138	13	0	11	324	164		22	64.1	0.0	66.0
Sep 18			600	96	54	0	5	320	155		30	47.1	0.0	66.2
Sep 19			119	22	62	0	2	161	84		21	60.5	0.0	66.3
Sep 20			1154	150	113	1	4	447	236		16	67.8	0.0	66.3
Sep 21			1047	105	100	0	3	352	136		18	62.4	0.0	66.4
Sep 22			500	86	221	7	2	193	75		13	64.6	0.0	66.5
Sep 23			520	163	231	1	2	304	143		14	67.6	0.0	66.7
Sep 24			558	110	319	0	1	236	96		16	60.6	0.0	66.7
Sep 25			1044	153	416	3	1	352	186		4	66.4	0.0	66.7
Sep 26			498	138	701	2	3	276	111		12	67.4	0.0	66.3
Sep 27			636	142	523	3	3	285	161		7	67.5	0.0	66.1
Sep 28			407	85	480	2	0	192	92		5	61.9	0.0	66.0
Sep 29			543	213	557	3	3	235	106		5	59.5	0.0	66.0
Sep 30			683	138	530	0	4	367	144		3	50.5	0.0	65.8
TOTAL		145	11,606	2,740	4,339	22	89	5,427	2,527		1,075			
AVG.			400	91	145	1	3	181	84		36	62.8	0.0	66.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	14,909	2,434
SUMMER	58,690	6,450
FALL	11,606	2,676
TOTALS	85,205	11,560

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
4,339	22	492,864	8,510	4,082	144	3,720

TABLE 177

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

ROCKY REACH PROJECT- FISH COUNTS

OCTOBER 2014

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			176	57	594	4	1	170	76	0	10	60.8	0.0	65.5
Oct 2			335	100	476	1	5	179	69	0	4	68.3	0.0	65.1
Oct 3			480	99	777	3	0	217	87	0	7	71.5	0.0	64.9
Oct 4			176	97	627	2	1	135	61	0	9	58.8	0.0	64.8
Oct 5			146	59	661	10	0	103	37	0	19	69.1	0.0	64.8
Oct 6			66	54	565	16	5	103	45	0	4	73.4	0.0	64.8
Oct 7			160	70	626	0	2	143	61	0	5	73.9	0.0	64.6
Oct 8			133	77	501	0	2	103	54	0	1	71.0	0.0	65.0
Oct 9			172	39	544	0	0	85	27	0	3	71.2	0.0	63.8
Oct 10			74	40	318	0	0	66	30	0	1	65.9	0.0	64.9
Oct 11			81	70	260	1	4	48	14	0	4	48.5	0.0	64.9
Oct 12			60	21	326	0	1	43	10	0	1	60.7	0.0	64.7
Oct 13			99	36	115	0	1	50	33	0	3	75.3	0.0	62.6
Oct 14			230	33	271	0	0	76	27	0	2	69.1	0.0	64.1
Oct 15			340	87	239	0	1	51	24	0	1	68.0	0.0	64.0
Oct 16			45	9	91	1	1	23	8	0	0	63.7	0.0	63.7
Oct 17			29	20	192	1	1	24	8	0	0	63.9	0.0	63.4
Oct 18			139	43	206	0	0	37	14	0	2	56.5	0.0	63.1
Oct 19			126	37	130	0	0	43	25	0	1	51.2	0.0	63.0
Oct 20			68	30	98	0	0	26	14	0	0	65.5	0.0	62.1
Oct 21			53	14	176	0	0	46	9	0	0	63.6	0.0	62.5
Oct 22			44	17	78	0	0	13	10	0	0	53.5	0.0	62.4
Oct 23			41	26	111	0	1	29	12	0	0	64.3	0.0	62.1
Oct 24			86	12	90	0	0	25	12	0	0	70.4	0.0	62.0
Oct 25			87	17	63	0	0	35	26	0	1	61.6	0.0	61.4
Oct 26			49	18	71	2	0	18	6	0	0	47.3	0.0	61.0
Oct 27			10	2	16	0	0	7	2	0	0	75.8	0.0	60.7
Oct 28			50	8	59	2	0	10	4	0	0	77.2	0.0	60.4
Oct 29			96	14	73	0	0	14	8	0	0	73.6	0.0	60.2
Oct 30			208	5	44	0	0	5	1	1	0	87.7	0.0	60.0
Oct 31			255	7	72	0	0	16	10	0	0	78.8	0.0	60.0
TOTAL			4,114	1,218	8,470	43	26	1,943	824	1	78			
AVG.			133	39	273	1	1	63	27	0	3	66.5	0.0	63.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	14,909	2,434
SUMMER	58,690	6,450
FALL	15,720	3,894
TOTALS	89,319	12,778

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
12,809	65	492,890	10,453	4,906	145	3,798

TABLE 178

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

ROCKY REACH PROJECT- FISH COUNTS

NOVEMBER 2014

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			203	16	46	0	0	11	6	0	0	66.9	0.0	60.0
Nov 2			137	7	61	1	0	9	3	1	1	42.4	0.0	59.8
Nov 3			116	3	18	1	0	12	6	1	0	72.5	0.0	59.6
Nov 4			141	22	13	1	0	15	11	0	0	82.8	0.0	59.5
Nov 5			117	12	43	0	0	17	12	1	0	76.2	0.0	59.3
Nov 6			53	7	29	0	0	9	3	1	0	85.3	0.0	58.9
Nov 7			77	6	32	0	0	5	3	0	0	77.1	0.0	59.3
Nov 8			33	3	12	1	1	7	1	0	0	85.7	0.0	59.0
Nov 9			34	2	5	0	0	10	4	1	0	77.6	0.0	58.8
Nov 10			21	1	5	0	0	9	5	0	0	81.4	0.0	58.5
Nov 11			8	0	7	0	0	2	1	2	0	81.7	0.0	58.1
Nov 12			14	2	10	0	0	7	4	0	0	95.9	0.0	57.3
Nov 13			8	5	4	0	0	7	1	1	0	112.0	0.0	56.1
Nov 14			10	1	4	0	1	13	6	5	0	105.0	0.0	55.7
Nov 15			12	0	3	0	0	1	1	0	0	102.8	0.0	55.3
Nov 16												111.3	0.0	54.9
Nov 17												100.9	0.0	54.4
Nov 18												109.3	0.0	54.4
Nov 19														
Nov 20														
Nov 21														
Nov 22														
Nov 23														
Nov 24														
Nov 25														
Nov 26														
Nov 27														
Nov 28														
Nov 29														
Nov 30														
TOTAL			984	87	292	4	2	134	67	13	1			
AVG.			66	6	19	0	0	9	4	1	0	87.0	0.0	57.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	14,909	2,434
SUMMER	58,690	6,450
FALL	16,704	3,981
TOTALS	90,303	12,865

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
13,101	69	492,892	10,587	4,973	158	3,799

TABLE 179

**MONTHLY COUNT OF STEELHEAD
ROCKY REACH DAM: 1981 - 2014**

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
Total				3,925	2,780	2,664	28,691	101,616	161,525	54,742	6,489		362,432
10-Year Average				250	122	72	924	4,115	6,176	1,864	221		13,744

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 ladder at a time), the two fishways at Wells Dam operated continuously during 2014.

East Ladder Maintenance

February 4-26, 2014 outage for inspection and maintenance, and December 8, 2014 through January 2015 outage for inspection, maintenance and installation of a passage structure for Pacific Lamprey in the unused low-level entrance, along with HDX/FDX PIT-tag detection and radio-telemetry antennas in that entrance.

West Ladder Maintenance

December 11, 2013 through January 29, 2014, outage for inspection and maintenance. The winter 2014/2015 maintenance outage for the west ladder will commence following completion of the winter outage for the east ladder.

JUVENILE PASSAGE FACILITIES

The juvenile bypass system at Wells Dam capitalizes on the hydrocombine design by using flow to the turbines to attract fish to bypass spillways located between turbine silos and above turbine intakes. During the juvenile outmigration, bypass baffles and barriers are installed in spillway intake slots to partially constrict the five even-numbered spillways. This configuration provides up to 11,000 cfs of bypass flow in addition to any involuntary spill through the six unmodified odd-numbered spillways.

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. To implement these compliance measures in 2014, Douglas PUD removed bypass barriers from Spillway 4 on May 22 and reinstalled them on June 9.

Douglas PUD operated the Wells bypass system in 2014 as guided by the Wells Habitat Conservation Plan (HCP) Coordinating Committee-approved *2014 Bypass Operating Plan*. The 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 98.03 percent of the yearling Chinook migration, 99.75 percent of the steelhead migration, 100 percent of the Sockeye migration, 99.99 percent of the Coho migration, and 96.80 percent of the sub-yearling Chinook migration passing Wells Dam in 2014.

TABLE 180

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER WELLS DAM
2014

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					8,189	11,763	42,337	11,445	6,316	2,775	681		83,506
STEELHEAD					122	35	337	1,776	3,390	1,890	185		7,735
SOCKEYE						10,634	464,092	15,868	190	18	2		490,804
COHO									1,899	6,928	322		9,149
TOTAL					8,311	22,432	506,766	29,089	11,795	11,611	1,190		591,194
LAMPREY								5	2				7
BULL TROUT					29	76	3	0	0	1	0		109

*Jacks included

TABLE 181

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

WELLS PROJECT- FISH COUNTS

MAY 2014

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	4			0				10	8	0		170.4	20.0	37.9
May 2	3			0				9	5	0		169.0	22.6	35.8
May 3	6			0				7	4	0		182.1	25.1	36.5
May 4	11			0				8	6	0		182.0	30.1	36.7
May 5	8			0				7	7	0		182.2	36.3	37.8
May 6	19			0				14	8	1		166.7	23.6	38.1
May 7	14			0				6	4	0		176.2	33.4	37.4
May 8	29			0				4	4	0		191.5	39.4	37.0
May 9	79			0				6	2	0		154.0	18.3	37.8
May 10	84			0				4	3	0		172.5	10.6	37.2
May 11	222			3				7	0	0		172.9	19.9	37.9
May 12	180			3				5	3	0		175.6	10.0	37.6
May 13	190			0				2	1	0		177.2	10.0	37.8
May 14	257			1				3	2	0		183.1	20.5	37.9
May 15	350			6				3	1	0		185.8	26.0	37.8
May 16	423			10				4	2	0		194.3	29.5	38.5
May 17	199			8				2	2	0		189.6	35.9	39.2
May 18	329			13				3	1	0		188.5	29.9	38.7
May 19	74			20				0	0	0		186.4	31.8	38.5
May 20	601			27				3	2	1		187.0	39.1	39.6
May 21	730			48				4	2	1		201.0	32.8	39.4
May 22	552			33				3	3	1		200.1	43.1	39.7
May 23	565			35				1	1	3		197.8	47.3	39.6
May 24	310			51				0	0	2		194.4	48.0	40.3
May 25	544			92				0	0	4		199.5	30.2	40.1
May 26	350			69				3	3	3		196.8	40.4	39.6
May 27	69			64				1	0	2		198.5	31.9	40.3
May 28	172			128				2	0	2		182.7	24.8	40.3
May 29	229			129				1	1	3		195.1	53.4	41.0
May 30	204			144				0	0	2		180.4	77.2	41.2
May 31	331			167				0	0	4		200.5	29.2	41.5
TOTAL	7,138			1,051				122	75	29		184.9	31.3	38.7
AVG.	230			34				4	2	1				
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD	BULL TROUT				
TOTALS TO DATE		7,138	1,051					122	75	29				
SPRING														

TABLE 182

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

WELLS PROJECT- FISH COUNTS

JUNE 2014

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	196			166			0	1	0	0		216.3	56.9	42.1
Jun 2	116			76			0	0	0	6		191.1	33.4	42.3
Jun 3	124			131			0	0	0	3		201.9	25.2	42.1
Jun 4	189			136			0	1	1	1		191.2	16.1	41.4
Jun 5	190			100			0	0	0	8		197.9	19.6	42.1
Jun 6	159			103			0	2	0	5		181.2	10.0	42.6
Jun 7	114			88			0	3	0	5		169.8	10.0	41.9
Jun 8	60			65			0	1	1	1		171.7	12.3	42.4
Jun 9	31			62			0	0	0	2		178.3	11.3	43.2
Jun 10	77			49			0	2	0	6		161.9	10.0	43.2
Jun 11	76			64			0	0	0	1		159.7	10.0	43.0
Jun 12	101			50			0	3	2	7		125.6	10.0	42.1
Jun 13	95			25			0	0	0	2		133.6	10.0	41.9
Jun 14	85			14			0	0	0	3		123.7	10.0	41.5
Jun 15	96			18			1	1	1	4		117.4	10.0	41.7
Jun 16	44			4			0	0	0	0		141.6	10.0	41.5
Jun 17	47			5			1	0	0	2		149.2	10.0	41.7
Jun 18	37			12			0	2	2	2		171.0	11.2	56.1
Jun 19	257			33			8	0	0	1		197.1	28.7	56.8
Jun 20	385			42			12	1	1	1		193.6	21.4	57.4
Jun 21	464			33			31	8	6	2		195.4	19.3	57.7
Jun 22	364			30			44	0	0	3		199.1	16.1	57.7
Jun 23	488			25			94	0	0	2		195.0	21.4	57.7
Jun 24	636			35			206	1	0	1		183.2	10.0	57.9
Jun 25	633			14			562	2	1	3		191.0	23.3	58.5
Jun 26	759			30			581	1	1	0		195.3	30.2	58.6
Jun 27	1,250			42			1,086	1	0	2		191.9	29.9	58.5
Jun 28	1,166			41			2,216	1	0	2		191.5	26.8	58.8
Jun 29		1,009		38			2,730	3	2	1		199.4	30.0	59.0
Jun 30		958		26			3,062	1	1	0		189.9	18.4	59.0
TOTAL	8,239	1,967		1,557			10,634	35	19	76				
AVG.	294	984		52			354	1	1	3		176.8	18.7	49.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	15,377	2,544
SUMMER	1,967	64
TOTAL	17,344	2,608

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
10,634	157	94	105

TABLE 183

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JULY 2014

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		504		28			3,182	1	1	0		205.9	35.3	59.0
Jul 2		791		23			2,960	1	0	0		191.9	25.1	58.8
Jul 3		1,565		61			6,565	1	1	0		195.6	30.3	59.4
Jul 4		1,927		71			10,579	0	0	0		168.4	12.7	59.7
Jul 5		1,646		68			14,602	2	1	0		157.9	10.3	60.1
Jul 6		1,592		80			17,125	2	2	0		173.5	14.6	60.4
Jul 7		1,390		63			18,909	7	3	1		173.4	14.1	60.4
Jul 8		1,876		81			17,382	4	2	0		151.3	10.0	60.6
Jul 9		2,453		93			18,855	2	0	0		155.1	10.0	60.6
Jul 10		2,386		139			29,811	6	5	1		158.3	10.0	60.6
Jul 11		1,307		109			24,769	5	1	0		158.6	10.0	61.0
Jul 12		1,456		104			23,583	10	4	0		155.3	16.5	61.0
Jul 13		1,762		128			21,281	4	3	0		142.1	10.0	61.2
Jul 14		1,747		157			22,341	9	1	1		144.0	10.2	61.5
Jul 15		1,641		108			19,603	3	3	0		157.7	13.2	61.5
Jul 16		1,814		135			27,894	6	3	0		151.0	12.3	61.5
Jul 17		1,579		125			26,935	11	7	0		142.4	10.0	62.2
Jul 18		1,036		166			24,308	15	9	0		137.6	10.0	62.2
Jul 19		1,662		176			28,712	17	11	0		135.7	10.0	62.2
Jul 20		1,086		144			18,022	24	13	0		124.9	9.4	62.1
Jul 21		797		136			15,378	19	12	0		133.3	9.4	62.2
Jul 22		1,168		127			12,976	16	7	0		137.2	10.0	62.4
Jul 23		785		89			9,840	17	11	0		146.9	10.0	62.1
Jul 24		787		106			8,464	11	3	0		154.4	12.8	62.4
Jul 25		529		117			8,700	14	5	0		163.4	16.6	63.0
Jul 26		512		99			7,443	24	16	0		149.5	10.0	64.0
Jul 27		926		121			6,590	26	14	0		140.5	10.0	64.2
Jul 28		761		73			5,532	14	8	0		147.5	10.0	64.2
Jul 29		577		93			5,000	25	13	0		141.7	10.0	64.9
Jul 30		668		95			3,242	27	11	0		140.0	10.0	65.1
Jul 31		416		76			3,509	14	9	0		146.2	10.0	65.3

TOTAL

39,146

3,191

464,092

337

179

3

AVG.

1263

103

14971

11

6

0

154.2

13.0

61.8

RUN YEAR

CHINOOK ADULT

CHINOOK JACK

SOCKEYE

STEELHEAD

WILD STEELHEAD

BULL TROUT

TOTALS TO DATE

SPRING

SUMMER

TOTAL

15,377

41,113

56,490

2,544

3,255

5,799

474,726

494

273

108

TABLE 184

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

AUGUST 2014

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		398		84			2,802	26	9		0	135.9	10.0	65.5
Aug 2		502		81			2,096	27	11		0	120.3	8.9	65.7
Aug 3		539		74			1,682	26	15		0	109.7	8.7	65.7
Aug 4		340		58			1,892	36	15		0	122.5	9.1	65.8
Aug 5		590		125			1,545	47	32		0	123.7	8.8	65.8
Aug 6		314		52			938	29	19		0	133.6	10.0	65.7
Aug 7		278		92			821	31	23		0	133.1	9.6	65.5
Aug 8		298		99			623	50	31		0	127.4	9.6	66.0
Aug 9		387		86			490	57	33		0	124.5	9.3	66.0
Aug 10		310		61			446	51	23		0	120.1	12.0	66.6
Aug 11		152		58			349	18	8		0	126.8	9.0	66.6
Aug 12		345		144			262	36	18		0	120.3	8.5	66.4
Aug 13		372		102			316	49	24		1	113.7	7.8	66.2
Aug 14		255		112			298	59	30		0	112.9	8.7	66.0
Aug 15		513		127			147	70	29		0	104.8	8.8	66.0
Aug 16		214		74			181	57	27		0	99.5	7.6	66.4
Aug 17		207		98			164	65	27		0	97.1	8.9	67.1
Aug 18		172		44			162	40	23		0	118.9	8.4	66.9
Aug 19		208		94			68	36	23		0	128.9	9.5	66.7
Aug 20		128		81			103	54	34		0	99.8		66.7
Aug 21		204		116			78	65	39		0	101.3	0.0	66.9
Aug 22		175		75			56	79	45		0	106.3	0.0	66.9
Aug 23		106		57			73	27	12		2	101.0	0.0	66.9
Aug 24		298		298			58	100	55		0	88.9	0.0	66.7
Aug 25		297		176			51	93	52		0	102.2	0.0	66.6
Aug 26		163		91			30	70	26		0	112.9	0.0	66.6
Aug 27		238		94			55	94	48		0	118.0	0.0	66.6
Aug 28		139		81			32	103	52		2	111.5	0.0	66.6
Aug 29			176	82			25	108	56		0	98.4	0.0	67.1
Aug 30			90	71			17	89	47		0	98.3	0.0	66.9
Aug 31			75	75			8	84	41		0	91.7	0.0	67.1
TOTAL		8,142	341	2,962			15,868	1,776	927		5			

AVG.	291	114	96				512	57	30		0	113.0	5.8	66.4
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	15,377	2,544
SUMMER	49,255	5,989
FALL	341	228
TOTAL	64,973	8,761

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
490,594	2,270	1,200	108	5

TABLE 185

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

SEPTEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD		TROUT	KCFS		KCFS
Sep 1			68	73	0	0	15	43	16		0	73.4	0.0	66.9
Sep 2			95	70	0	0	13	56	25		0	83.6	0.0	66.7
Sep 3			241	102	0	0	26	64	33		0	77.9	0.0	66.6
Sep 4			75	39	0	0	28	38	22		0	74.8	0.0	66.2
Sep 5			41	34	0	0	10	58	30		0	65.2	0.0	66.2
Sep 6			61	39	0	0	3	51	21		0	63.6	0.0	66.4
Sep 7			25	30	0	0	5	53	21		0	49.8	0.0	66.4
Sep 8			37	34	0	0	3	46	26		0	57.1	0.0	66.4
Sep 9			37	44	0	0	4	45	19		0	60.4	0.0	66.2
Sep 10			66	48	0	0	10	53	28		0	61.4	0.0	65.8
Sep 11			53	61	0	0	4	44	21		0	63.9	0.0	65.5
Sep 12			56	41	0	0	7	42	21		0	56.8	0.0	65.5
Sep 13			41	39	0	0	5	73	35		0	49.7	0.0	65.7
Sep 14			327	113	0	0	11	132	67		0	53.8	0.0	65.7
Sep 15			161	32	0	0	1	111	50		0	75.7	0.0	65.7
Sep 16			26	16	0	0	6	62	31		0	67.4	0.0	65.8
Sep 17			120	55	1	0	2	68	28		0	64.9	0.0	65.8
Sep 18			304	77	6	0	3	134	74		1	49.2	0.0	65.8
Sep 19			465	96	16	1	5	276	153		0	60.3	0.0	66.0
Sep 20			92	49	37	0	8	225	119		0	69.1	0.0	66.4
Sep 21			352	59	54	0	3	173	85		1	63.0	0.0	66.7
Sep 22			356	56	39	4	5	165	72		0	61.6	0.0	66.7
Sep 23			285	57	46	0	2	164	80		0	67.8	0.0	66.6
Sep 24			125	44	49	5	1	134	69		0	65.6	0.0	66.2
Sep 25			121	30	114	0	0	165	94		0	72.1	0.0	66.0
Sep 26			354	65	174	0	1	211	95		0	65.6	0.0	65.8
Sep 27			349	63	275	7	0	259	125		0	65.3	0.0	65.7
Sep 28			189	52	437	0	4	219	83		0	60.0	0.0	65.8
Sep 29			84	29	245	20	5	106	53		0	59.0	0.0	65.8
Sep 30			133	30	367	2	0	120	58		0	55.3	0.0	65.7
TOTAL			4,739	1,577	1,860	39	190	3,390	1,654		2			
AVG.			158	53	62		6	113	55		0	63.8	0.0	66.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	15,377	2,544
SUMMER	49,255	5,989
FALL	5,080	1,805
TOTAL	69,712	10,338

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
1,860	39	490,784	5,660	2,854	108	7

TABLE 186

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

OCTOBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD				
Oct 1			307	65	393	5	2	171	78	0	57.6	0.0	65.3
Oct 2			160	43	376	1	1	212	94	0	73.2	0.0	65.1
Oct 3			84	27	364	0	0	137	52	0	69.1	0.0	65.1
Oct 4			89	41	503	1	2	152	71	0	64.2	0.0	64.9
Oct 5			135	65	549	2	0	149	55	0	67.1	0.0	64.6
Oct 6			66	32	433	2	2	87	30	0	70.7	0.0	64.8
Oct 7			66	33	471	3	0	96	48	0	75.0	0.0	64.9
Oct 8			72	27	333	1	3	99	50	0	69.9	0.0	64.9
Oct 9			34	24	365	2	0	101	49	0	70.5	0.0	64.9
Oct 10			39	13	475	3	2	77	43	0	68.0	0.0	64.9
Oct 11			30	13	415	3	2	81	32	0	54.9	0.0	64.8
Oct 12			25	13	271	3	1	55	29	0	57.0	0.0	64.4
Oct 13			22	15	134	0	1	27	14	0	74.5	0.0	64.2
Oct 14			21	16	111	1	1	34	16	0	69.6	0.0	64.0
Oct 15			17	7	83	2	0	24	11	0	68.8	0.0	63.9
Oct 16			23	18	102	0	0	15	9	0	63.8	0.0	63.5
Oct 17			54	23	101	1	0	37	16	0	67.7	0.0	63.0
Oct 18			15	10	196	0	0	42	30	0	55.5	0.0	62.8
Oct 19			27	10	276	0	0	27	10	0	55.6	0.0	63.0
Oct 20			30	5	129	1	1	15	7	0	63.5	0.0	63.0
Oct 21			44	13	126	2	0	32	14	0	62.2	0.0	62.8
Oct 22			40	6	81	0	0	26	15	0	55.7	0.0	62.2
Oct 23			49	14	81	1	0	33	16	0	64.7	0.0	61.9
Oct 24			26	7	90	0	0	25	15	1	71.7	0.0	61.7
Oct 25			49	20	124	0	0	24	14	0	57.7	0.0	61.5
Oct 26			83	15	93	0	0	30	11	0	48.4	0.0	61.3
Oct 27			113	13	72	0	0	25	16	0	78.2	0.0	60.8
Oct 28			65	13	38	0	0	16	7	0	78.0	0.0	60.4
Oct 29			126	12	44	0	0	9	3	0	75.5	0.0	60.4
Oct 30			94	17	25	0	0	13	8	0	86.7	0.0	60.6
Oct 31			116	24	39	1	0	19	8	0	79.1	0.0	60.4

TOTAL

2,121	654	6,893	35	18	1,890	871	1
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AVG.

68	21	222	1	1	61	28	66.9	0.0	63.2
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RUN YEAR

TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,377	2,544
SUMMER	49,255	5,989
FALL	7,201	2,459
TOTAL	71,833	10,992

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
8,753	74	490,802	7,550	3,725	109	7

TABLE 187

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

NOVEMBER 2014

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD				
Nov 1			128	13	60	0	0	15	8		64.8	0.0	60.4
Nov 2			116	7	56	0	0	17	7		43.8	0.0	60.1
Nov 3			108	8	39	0	0	10	4		74.2	0.9	59.7
Nov 4			45	5	43	0	0	15	10		76.5	0.0	59.8
Nov 5			58	8	23	0	1	18	7		80.1	0.0	59.8
Nov 6			35	5	13	1	0	14	7		81.0	0.0	59.7
Nov 7			40	6	27	1	0	24	12		82.6	0.0	59.6
Nov 8			20	1	14	0	0	10	8		91.0	0.0	59.3
Nov 9			18	2	18	0	0	16	4		75.2	0.0	59.2
Nov 10			23	2	10	0	0	10	4		87.3	0.0	58.6
Nov 11			3	1	3	0	0	6	2		82.9	0.0	57.9
Nov 12			7	1	2	0	0	9	3		101.1	0.0	57.2
Nov 13			3	2	5	0	0	6	2		109.9	0.0	56.7
Nov 14			4	0	6	0	1	9	5		105.1	0.0	56.3
Nov 15			11	1	1	0	0	6	1		107.9	0.0	55.6
Nov 16											108.9	0.0	55.6
Nov 17											106.2	0.0	55.3
Nov 18											117.2	0.0	55.3
Nov 19											111.6	0.0	55.5
Nov 20											99.0	0.0	55.2
Nov 21											102.9	0.0	55.1
Nov 22											86.4	0.0	54.6
Nov 23											78.6	0.0	54.0
Nov 24											107.7	0.0	53.9
Nov 25											107.7	0.0	54.1
Nov 26											98.1	0.0	53.8
Nov 27											73.9	0.0	53.3
Nov 28											72.5	0.0	53.0
Nov 29											107.3	0.0	51.9
Nov 30											92.6	0.0	50.8
TOTALS			619	62	320	2	2	185	84				
AVG.			41	4	21	0	0	12	6		91.1	0.0	56.4

RUN YEAR	CHINOOK	CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY
	ADULT	JACK	ADULT	JACK			STEELHEAD	TROUT	
TOTALS TO DATE									
SPRING	15,377	2,544	9,073	76	490,804	7,735	3,809	109	7
SUMMER	49,255	5,989							
FALL	7,820	2,521							
TOTAL	72,452	11,054							

TABLE 188

**MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2014**

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
TOTAL					2,742	1,640	17,230	74,179	139,141	67,066	10,792		312,790
10-Year Average					86	41	459	2,673	5,163	1,961	254		10,636

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