



US Army Corps
of Engineers®
Portland District
Walla Walla District

Annual Fish Passage Report 2015



Columbia and Snake River Projects

2015

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

for

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

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

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

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

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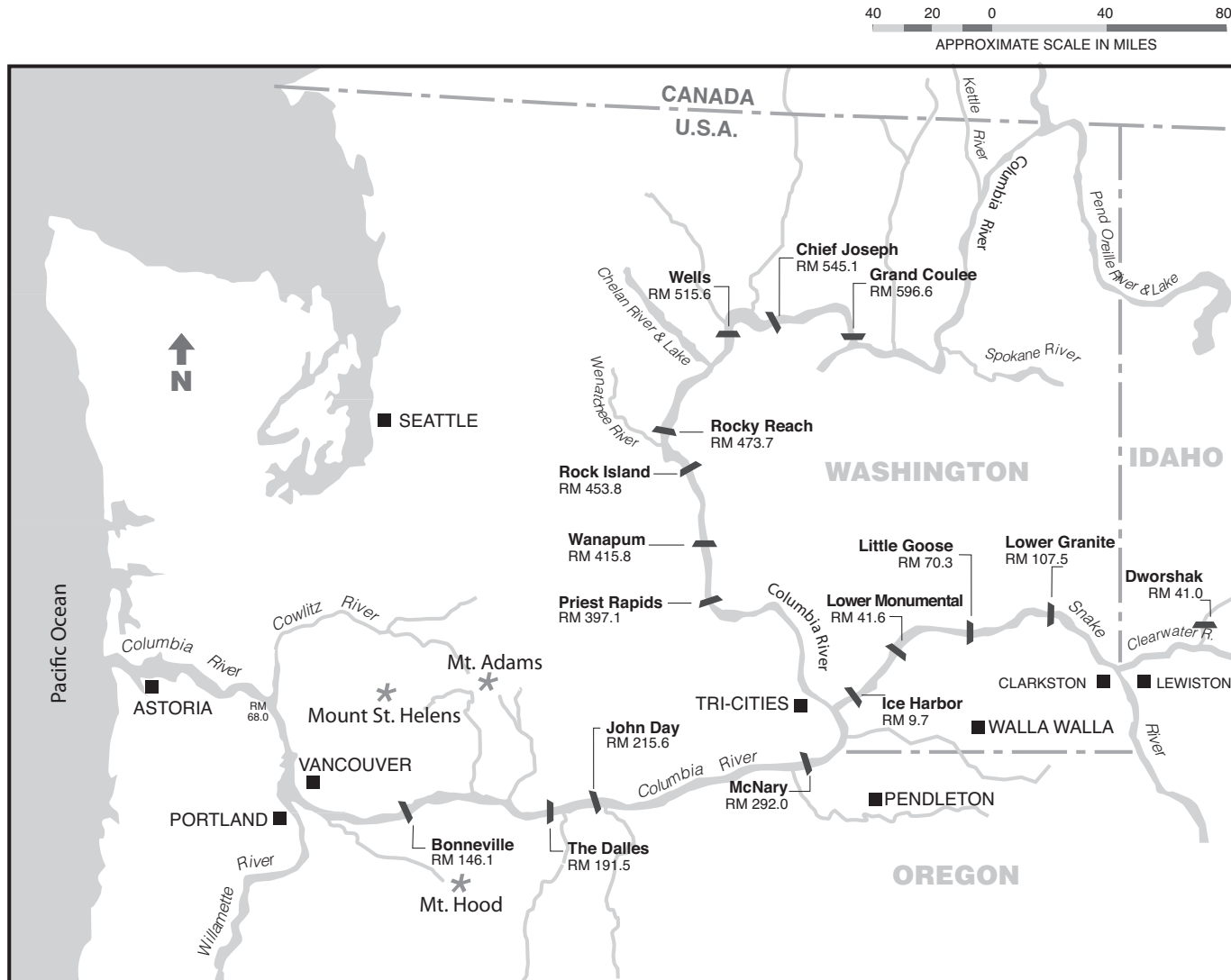


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS ON THE COLUMBIA AND SNAKE RIVERS: 2011-2015

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
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
2015								
CHINOOK*	1,449,612	1,068,378	891,578	822,516	219,408	213,045	202,671	203,258
Spring*	233,562	206,423	177,529	164,918	122,207	120,208	113,677	113,252
Summer*	179,465	139,373	119,756	105,010	24,215	22,599	19,958	19,180
Fall*	1,036,585	722,582	594,293	552,588	72,986	70,238	69,036	70,826
Jacks	113,487	115,226	82,816	71,109	18,560	29,376	23,579	24,126
STEELHEAD	264,696	217,018	179,506	177,137	128,521	129,813	126,271	139,383
SOCKEYE	510,705	429,797	366,364	279,744	1,052	888	587	440
COHO*	41,297	26,959	21,828	19,901	1,492	1,353	1,986	1,688
Adults	36,455	23,777	18,762	16,523	1,307	1,014	1,671	1,449
Jacks	4,842	3,182	3,066	3,378	185	339	315	239
SHAD	1,815,001	**	**	999,552	220,757	**	**	84,833
LAMPREY	38,636	12,400	8,370	1,748	764	264	58	50

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

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

*Includes Jack Counts.

TABLE 2

FISH ESCAPEMENT AT MID COLUMBIA RIVER DAMS: 2011 - 2015

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
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
2015				
CHINOOK*	206,103	168,005	131,102	103,358
Spring*	29,286	42,263	19,896	21,491
Summer*	81,689	88,426	79,053	65,440
Fall*	95,128	37,316	32,153	16,427
Jacks	10,947	6,551	4,685	5,732
STEELHEAD	14,316	14,051	10,894	9,143
SOCKEYE	301,272	264,678	216,389	187,055
COHO*	5,036	4,499	2,140	1,173
Adults	4,411	4,360	2,016	1,125
Jacks	625	139	124	48
SHAD	17,043	**	**	**
LAMPREY	6,749	2,165	2,134	0

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 1953-2015

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 - 2015

BY RUN-YEAR (JUNE 1 - MAY 31)

RUN-YEAR	THE DALLEs	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE**	LOWER GRANITE
1953-54			8,252 *				
1954-55			72,913				
1955-56			84,434				
1956-57	3,531 *		40,660				
1957-58	128,124		105,136				
1958-59	120,170		87,413				
1959-60	155,892		111,288				
1960-61	110,955		95,556				
1961-62	134,740		104,679	9,474 *			
1962-63	163,125		163,333	108,186			
1963-64	118,899		113,676	76,788			
1964-65	110,509		99,872	58,025			
1965-66	142,376		120,469	62,566			
1966-67	144,267		144,461	64,987			
1967-68	122,231	6,598	83,948	47,536			
1968-69	147,844	122,649	107,806	85,273	16,240 *		
1969-70	111,617	81,623	74,933	58,172	63,269	9,256 *	
1970-71	99,319	81,238	68,598	54,445	58,430	54,257	
1971-72	151,329	117,402	110,450	66,196	68,704	70,867	
1972-73	135,730	149,704	95,837	63,584	66,650	63,033	
1973-74	100,924	93,951	62,158	37,245	38,288	37,099	
1974-75	71,336	40,868	26,191	12,170	14,851	13,818	2,789 *
1975-76	57,695	33,640	25,150	15,895	17,236	15,177	16,592
1976-77	83,194	59,368	54,409	24,140	21,801	21,109	22,562
1977-78	133,096	102,193	86,962	54,911	48,160	47,617	57,029
1978-79	58,995	43,554	34,580	27,252	19,849	24,050	26,473
1979-80	86,317	59,825	54,213	26,790	20,073	23,816	28,758
1980-81	93,309	77,113	63,957	47,778	32,599	36,680	37,996
1981-82	112,265	96,663	62,955	43,274	37,755	36,896	42,420
1982-83	116,178	105,438	72,246	70,236	60,775	**	72,384
1983-84	172,033	157,602	126,706	90,030	82,555		88,760
1984-85	221,299	204,595	142,246	101,008	92,947		104,417
1985-86	274,826	245,087	181,635	123,187	104,400		116,147
1986-87	280,671	234,651	193,096	142,273	121,107		129,983
1987-88	219,822	172,290	151,587	77,565	64,717		71,280
1988-89	197,669	163,283	150,361	98,950	81,324		87,137
1989-90	236,584	193,951	170,014	149,361	131,050	**	131,420
1990-91	128,123	107,117	94,522	54,370	44,518	1,070	56,865
1991-92	199,244	158,790	168,156	122,874	97,454	96,421	99,052
1992-93	233,430	197,715	197,739	166,654	136,820	118,949	128,265
1993-94	123,449	94,080	90,359	68,568	65,883	58,747	59,768
1994-95	111,378	92,362	92,568	49,450	48,231	46,258	47,302
1995-96	146,152	123,319	114,813	91,938	89,953	77,417	79,126
1996-97	162,447	156,924	124,820	101,384	96,785	82,573	86,898
1997-98	164,657	159,442	129,772	104,220	85,959	74,845	86,617
1998-99	116,262	156,628	98,606	84,135	65,173	62,641	70,721
1999-00	157,062	165,239	84,413	84,253	73,135	65,505	73,811
2000-01	205,801	219,433	131,330	126,989	113,454	102,074	116,490
2001-02	504,704	489,215	401,881	286,874	298,042	270,031	269,281
2002-03	389,119	393,339	292,034	213,944	230,466	215,586	222,050
2003-04	281,586	298,452	242,677	189,143	181,005	170,582	172,487
2004-05	240,134	232,656	210,249	169,797	154,386	146,810	151,634
2005-06	244,295	231,858	224,369	158,099	155,682	145,202	158,511
2006-07	250,603	233,841	210,672	127,216	135,029	124,052	148,982
2007-08	244,996	234,667	215,873	154,512	155,817	135,730	154,534
2008-09	277,551	276,971	221,319	172,330	186,748	170,865	178,491
2009-10	516,214	581,067	408,091	328,107	316,665	303,183	323,378
2010-11	332,002	284,018	262,773	206,948	213,580	196,969	208,713
2011-12	299,396	256,475	248,202	198,131	187,003	173,052	180,285
2012-13	200,660	161,100	153,728	106,738	100,419	96,572	109,187
2013-14	190,819	157,974	143,740	114,091	109,422	95,223	107,954
2014-15	255,224	200,671	209,654	151,336	168,423	144,911	165,803
Total	10,592,179	8,306,639	8,240,592	5,529,398	4,772,832	3,628,943	4,492,352
10-Year Average	281,176	261,864	229,842	171,751	172,879	158,576	173,584

*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, 2012-15.

TABLE 4

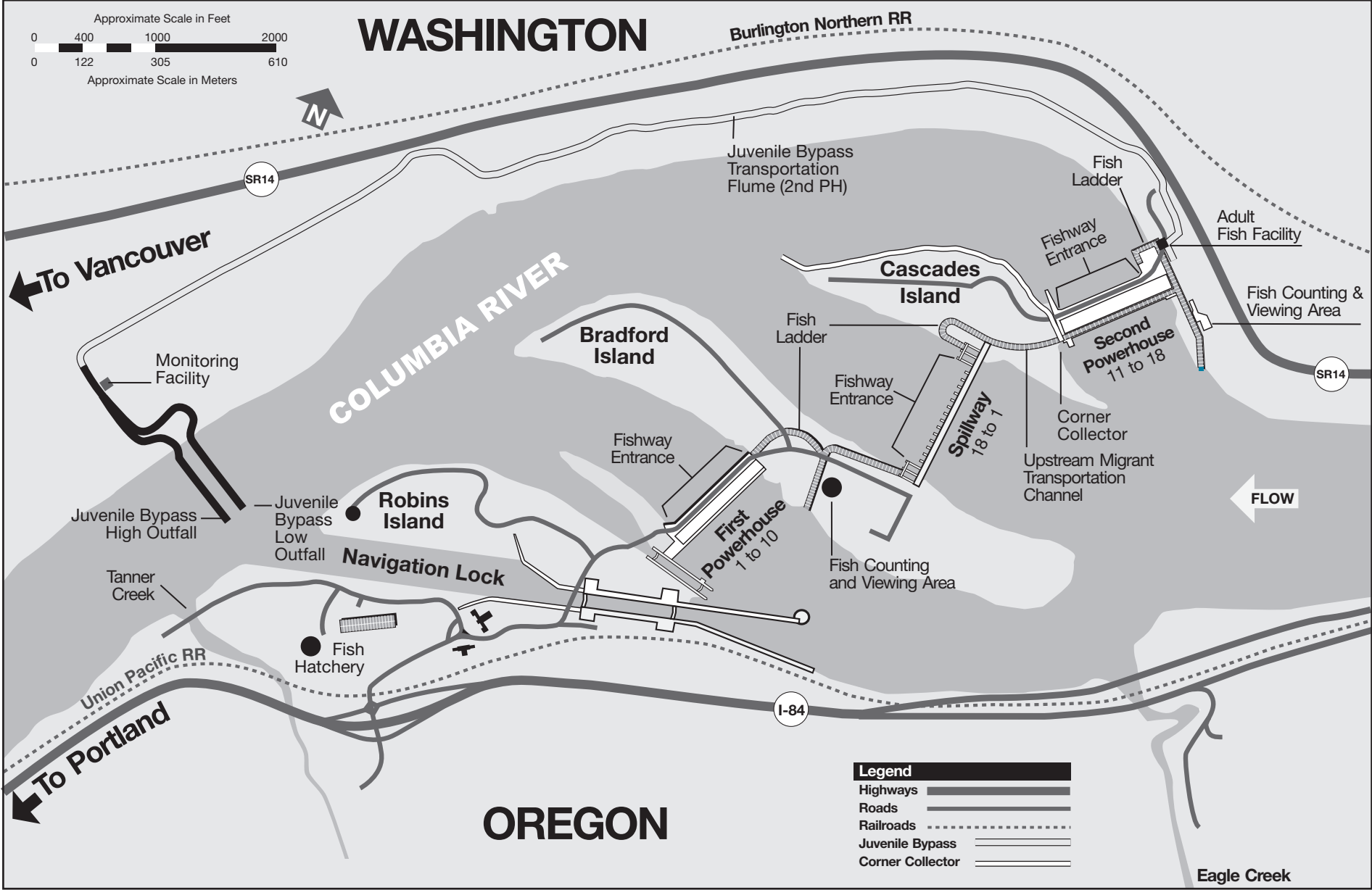
STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2015

BY RUN-YEAR (JUNE 1 - MAY 31)

RUN-YEAR	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
1959-60	810 *			
1960-61	7,277			
1961-62	8,970			
1962-63	9,408			
1963-64	8,808			
1964-65	6,137			
1965-66	9,055			
1966-67	13,159			
1967-68	8,402			
1968-69	9,672			
1969-70	6,140			
1970-71	5,764			
1971-72	11,331			
1972-73	6,006			
1973-74	6,881			
1974-75	2,955			
1975-76	2,558			44 *
1976-77	9,490			4,636
1977-78	9,632			5,464
1978-79	4,479			1,475
1979-80	8,704			3,771
1980-81	8,308			3,363
1981-82	9,122	7,607	5,567	4,107
1982-83	10,948	9,737	6,037	7,805
1983-84	32,103	29,885	19,864	19,540
1984-85	26,566	25,287	17,349	16,663
1985-86	34,007	31,813	22,621	19,712
1986-87	22,332	22,766	15,060	13,251
1987-88	14,054	12,887	7,243	5,565
1988-89	10,138	9,100	5,573	4,358
1989-90	10,720	9,244	5,991	4,577
1990-91	7,858	6,926	5,023	3,842
1991-92	14,047	11,125	7,788	7,823
1992-93	13,596	12,382	7,429	7,029
1993-94	5,405	4,689	2,738	2,359
1994-95	6,710	5,633	2,825	2,181
1995-96	4,357	4,168	1,777	951
1996-97	8,323	7,295	5,780	4,154
1997-98	8,942	7,718	6,756	4,074
1998-99	5,846	4,968	4,404	2,676
1999-00	8,267	6,346	4,848	3,514
2000-01	11,341	10,565	8,307	6,287
2001-02	30,102	28,614	22,114	18,519
2002-03	15,867	15,243	11,718	9,430
2003-04	17,729	17,633	13,919	10,016
2004-05	18,655	19,448	14,624	9,306
2005-06	12,502	12,413	9,498	7,168
2006-07	10,415	9,371	8,141	6,691
2007-08	15,257	13,516	10,487	7,600
2008-09	16,658	16,119	13,798	9,733
2009-10	40,121	37,821	29,481	25,468
2010-11	26,431	22,129	18,091	12,957
2011-12	20,806	19,123	15,418	12,047
2012-13	17,192	15,387	12,529	9,741
2013-14	15,072	11,671	9,296	7,280
2014-15	19,766	14,893	10,450	7,650
Total	705,201	493,522	362,544	312,827
10-Year Average	19,422	17,244	13,719	10,634

*Partial year

Plate 2 Bonneville Lock and Dam



BONNEVILLE DAM

FISH COUNTING SCHEDULE

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

1. In 2015, daylight saving time (DST) is in effect from March 08–November 01 and hours are adjusted forward one hour from Pacific Standard Time (PST). DST = PST+1.

FISH FACILITIES OPERATION SCHEDULE

Fish Facility	OOS Date 2014	In Service Date 2015	OOS Date 2015	Reason for Outage
BI Lamprey Passage Structure	20 OCT 14	31 MAR 15	29 OCT 15	Winter Maintenance
CI Lamprey Passage Structure	30 OCT 14	06 APR 15	30 SEP 15	Winter Maintenance, pump issues, low passage numbers.
WS Lamprey Passage Structure	29 OCT 14	31 MAR 15	29 OCT 15	Winter Maintenance
NDE Lamprey Flume System	02 OCT 14	06 MAY 15	31 AUG 15	Winter Maintenance, entrained air issues, low passage numbers.
Bradford Island Ladder	N/A	N/A	08 DEC 15	Winter Maintenance
A-branch Ladder	N/A	N/A	08 DEC 15	Winter Maintenance
B-branch Ladder	N/A	N/A	08 DEC 15	Winter Maintenance
Cascades Island ladder	03 DEC 14	26 FEB 15	19 OCT-25 NOV 15	Winter Maintenance, FV5-3 and 5-4 repairs.
UMT	03 DEC 14	26 FEB 15	N/A	Winter Maintenance
WA Shore Ladder	08 DEC 14	25 FEB 15	N/A	Winter Maintenance
DSM 2	06 DEC 14	26 JAN 15	23 DEC 15	Winter Maintenance
B2CC	01 SEP 14	10 MAR 15	01 SEP 15	Opened 14-24 FEB for excess flows. Closed for end of spill season (FPP).
AFF	19 NOV 14	14 APR 15	03 DEC 15	Winter Maintenance
SMF	31 OCT 14	02 MAR 15	30 OCT 15	Winter Maintenance

FISHWAY ACTIVITIES

The following are fishway modifications for the 2014/2015 passage year:

- Picket lead spacing reduced and side gaps amended to block lamprey access to the AWS and ladder exit area above the lower pickets at Cascades Island.
- Modifications to the AFF to improve water velocity and sampling conditions.

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.

UMT and Cascades Island fish ladder (12/3/14): ~20 adult salmonids, 1 Pacific Lamprey, 3 White Sturgeon.

Upper WA shore fish ladder (12/8/14): ~50 adult salmonids, 2 Pacific Lamprey, 4 White Sturgeon.

UMT fishway (12/11/14): ~10 adult salmonids.

Cascades Island diffuser pits FG6-6 and -7 (12/16/14): 15 Pacific Lamprey.

Cascades Island AWS channel (12/17/14): ~250 suckers, pikeminnow, and peamouth.

WA Shore serpentine section (1/6/15): ~60 suckers, pikeminnow, and peamouth.

Unit 15 tail logs (3/26/15): 10 sculpin, 1 crayfish.

Cascades Island fish valve pit (4/21/15): 12 juvenile salmonids.

Unit 14 draft tube (6/9/15): 6 juvenile salmonids, 6 sculpin.

Unit 14 tail logs (6/24/15): 1 smallmouth bass, 1 bluegill, ~15 sculpin.

Unit 18 draft tube (8/3/15): 10 White Sturgeon, 2 Pacific Lamprey, 1 sculpin.

Unit 11 draft tube (9/1/15): 1 White Sturgeon.

Unit 8 tail logs (9/2/15): 1 bluegill, 2 sculpin.

Unit 7 tail logs (9/30/15): 1 White Sturgeon.

Cascade Island fish ladder (10/19/15): 8 Pacific Lamprey, 7 Steelhead, 1 Chinook jack.

Cascade Island entrance (10/20/15): 1 Steelhead, 1 Chinook, ~2000 suckers and resident fish.

Cascade Island exit section (10/21/15): 4 Pacific Lamprey.

Cascade Island upper fish ladder (10/22/15): 1 Pacific Lamprey, ~300 suckers and resident fish (~20 in poor condition).

Unit 11 tail logs (10/28/2015): ~25 sculpin, 1 catfish, ~ 6 sunfish.

Unit 9 draft tube (11/18/2015): 4 Pacific Lamprey.

Fish Unit trash racks (11/20/2015): 1 White Sturgeon in poor condition.

AFF Dewatering (12/03/15): 4 Steelhead, 2 sculpin, 1 catfish, 10 Pacific Lamprey, ~1000 shad, ~1000 suckers (some pikeminnow).

TABLE 5

MONTHLY TOTALS OF SALMONID, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER BONNEVILLE DAM.
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*		9	1,679	139,344	92,762	113,020	66,445	153,178	770,647	108,532	4,889	178	1,450,683
STEELHEAD	611	809	1,780	939	1,078	6,114	60,690	113,906	64,735	13,899	2,905	1,264	268,730
SOCKEYE		1			314	357,048	151,589	1,685	67	3	-1		510,706
COHO*							1	3,029	27,481	8,122	3,431	203	42,267
CHUM									2	28	146	0	176
PINK						1	1	11	39	3			55
TOTAL	611	819	3,459	140,283	94,154	476,183	278,726	271,809	862,971	130,587	11,370	1,645	2,272,617
SHAD					192,809	1,450,924	169,229	2,039					1,815,001
LAMPREY				0	936	11,478	15,814	9,280	927	111	168	2	38,716
STURGEON									3	16	2		21
BULL TROUT													0

*Jacks included

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

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

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

BONNEVILLE PROJECT - FISH COUNTS														JANUARY 2015				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped							DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Jan 1					15			9						198.4	0.5	5.0	43.0	
Jan 2					24			11						190.8	0.5	7.0	42.0	
Jan 3					23			10						193.0	0.5	7.0	42.0	
Jan 4					17			7						203.6	0.5	6.0	42.0	
Jan 5					35			20						178.4	0.5	7.0	42.0	
Jan 6					54			24						178.7	0.5	7.0	42.0	
Jan 7					26			13						191.3	0.5	7.0	41.0	
Jan 8					22			8						188.7	0.5	6.0	41.0	
Jan 9					13			6						184.7	0.5	7.0	41.0	
Jan 10					9			7						196.9	0.5	7.0	41.0	
Jan 11					19			11						214.7	0.5	7.0	41.0	
Jan 12					12			4						199.3	0.5	7.0	40.0	
Jan 13					20			10						197.3	0.5	7.0	40.0	
Jan 14					25			9						194.8	0.5	7.0	40.0	
Jan 15					16			6						200.0	0.5	7.0	40.0	
Jan 16					13			9						182.5	0.5	7.0	40.0	
Jan 17					29			12						207.1	0.5	5.0	40.0	
Jan 18					41			18						184.4	0.5	5.0	40.0	
Jan 19					36			12						218.3	0.5	2.5	40.0	
Jan 20					38			22						210.9	0.5	4.5	40.0	
Jan 21					15			8						240.2	0.5	5.0	40.0	
Jan 22					12			7						220.9	0.5	6.0	40.0	
Jan 23					14			7						208.7	0.5	7.0	40.0	
Jan 24					13			3						190.2	0.5	7.0	41.0	
Jan 25					11			4						181.5	1.2	7.0	41.0	
Jan 26					18			12						198.3	0.5	7.0	41.0	
Jan 27					9			6						203.0	0.5	7.0	41.0	
Jan 28					16			9						198.3	0.5	6.0	41.0	
Jan 29					9			9						209.7	0.5	6.0	41.0	
Jan 30					7			2						205.8	0.5	6.0	41.0	
Jan 31					0			1						209.0	0.5	7.0	41.0	
TOTAL					611			296										
AVG					20			10						199.3	0.5	6.3	40.8	

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

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

BONNEVILLE PROJECT - FISH COUNTS													FEBRUARY 2015			
DATE	CHINOOK ADULT			CHINOOK	COHO	unclipped			SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD								STEELHEAD
Feb 1	0					0	4	2				228.3	0.5	7.0	39.0	
Feb 2	0					0	6	3				228.4	0.6	2.0	40.0	
Feb 3	0					1	8	5				201.3	0.5	7.0	40.0	
Feb 4	0					0	18	14				231.8	0.5	7.0	40.0	
Feb 5	0					0	1	2				231.8	0.5	7.0	39.0	
Feb 6	0					0	9	1				221.6	0.5	6.0	39.0	
Feb 7	0					0	13	11				245.1	0.5	5.0	40.0	
Feb 8	1					0	41	28				260.4	0.5	4.0	40.0	
Feb 9	0					0	34	19				237.7	0.6	5.0	40.0	
Feb 10	0					0	27	9				247.5	7.9	6.0	41.0	
Feb 11	0					0	28	18				267.0	26.0	6.0	41.0	
Feb 12	0					0	19	8				272.0	27.2	4.0	41.0	
Feb 13	0					0	30	15				257.1	11.8	6.0	41.0	
Feb 14	0					0	24	9				251.2	2.6	5.0	41.0	
Feb 15	0					0	29	15				259.5	9.1	5.0	41.0	
Feb 16	0					0	15	4				265.7	13.8	5.0	41.0	
Feb 17	0					0	15	7				257.1	91.9	4.5	41.0	
Feb 18	0					0	13	8				258.4	125.5	5.0	41.0	
Feb 19	0					0	7	6				232.7	98.8	4.5	42.0	
Feb 20	0					0	45	21				253.1	127.2	4.0	42.0	
Feb 21	0					0	42	21				242.3	107.7	4.0	42.0	
Feb 22	0					0	33	23				231.7	99.8	4.0	42.0	
Feb 23	0					0	18	10				238.5	106.3	4.0	42.0	
Feb 24	0					0	26	18				236.8	95.7	4.0	42.0	
Feb 25	0					0	63	34				220.5	0.6	4.0	42.0	
Feb 26	1					0	70	33				199.8	1.0	5.0	42.0	
Feb 27	6					0	106	55				213.7	1.1	6.0	42.0	
Feb 28	1					0	65	22				218.3	1.1	5.5	42.0	
TOTAL	9					1	809	421								
AVG	0					0	29	15				239.6	34.3	5.1	40.9	

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

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

BONNEVILLE PROJECT - FISH COUNTS														MARCH 2015			
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
Mar 1	3			0				68	30					210.0	1.1	6.5	42.0
Mar 2	10			0				59	31					195.6	1.1	5.5	42.0
Mar 3	19			0				32	19					183.7	1.3	5.0	42.0
Mar 4	10			0				35	15					193.9	1.2	5.0	42.0
Mar 5	14			0				23	13					197.8	1.2	5.0	42.0
Mar 6	9			0				30	24					215.9	1.2	6.0	42.0
Mar 7	11			1				8	6					214.6	1.2	5.0	42.0
Mar 8	5			0				21	14					204.1	1.3	6.0	42.0
Mar 9	13			1				56	26					191.0	1.2	4.5	42.0
Mar 10	35			0				52	31					174.0	1.2	6.0	42.0
Mar 11	32			0				27	14					181.5	1.2	6.0	43.0
Mar 12	33			0				64	35					187.3	1.2	5.0	43.0
Mar 13	13			0				56	36					189.7	1.2	6.0	44.0
Mar 14	14			0				49	26					156.6	1.2	6.0	44.0
Mar 15	17			0				149	88					145.9	1.2	6.0	44.0
Mar 16	38			0				140	80					190.3	1.2	5.0	44.0
Mar 17	8			0				88	47					194.3	1.2	5.0	45.0
Mar 18	36			0				71	47					180.7	1.2	6.0	45.0
Mar 19	37			1				67	38					212.0	1.2	7.0	45.0
Mar 20	48			0				51	22					206.5	1.3	6.0	45.0
Mar 21	58			0				98	58					195.6	1.2	6.5	46.0
Mar 22	30			0				54	33					216.3	1.3	6.5	46.0
Mar 23	34			0				58	29					221.1	1.2	6.0	46.0
Mar 24	56			0				72	39					203.8	1.2	6.0	47.0
Mar 25	50			0				55	31					207.7	1.3	6.0	47.0
Mar 26	73			0				70	38					221.2	1.3	6.0	47.0
Mar 27	100			0				50	25					241.0	1.2	7.0	47.0
Mar 28	185			0				63	37					217.9	4.0	6.0	47.0
Mar 29	259			1				40	26					230.7	1.2	7.0	48.0
Mar 30	155			0				48	35					243.4	1.2	6.0	48.0
Mar 31	270			0				26	18					239.2	1.3	5.0	49.0
TOTAL	1,675			4				1,780	1,011								
AVG	54			0				57	33					202.0	1.3	5.8	44.5

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

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

BONNEVILLE PROJECT - FISH COUNTS													APRIL 2015				
DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped					DISCH	SPILL	TURBIDITY	DEG F		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM					SHAD	LAMPREY
Apr 1	270			0				58	29					220.4	1.2	5.0	49.0
Apr 2	291			0				45	29					224.3	1.2	5.0	49.0
Apr 3	265			0				26	19					224.3	1.4	5.0	49.0
Apr 4	178			1				28	13					232.1	1.4	6.0	49.0
Apr 5	165			0				15	14					233.8	1.4	5.0	49.0
Apr 6	112			1				22	9					232.6	1.4	6.0	49.0
Apr 7	387			1				25	15					216.8	1.4	5.0	49.0
Apr 8	523			4				25	21					208.4	1.4	5.0	49.0
Apr 9	836			0				59	35					181.2	1.4	6.0	49.0
Apr 10	1,238			0				28	20					192.9	99.5	5.5	50.0
Apr 11	1,269			2				26	12					180.6	99.9	6.0	50.0
Apr 12	2,028			6				26	15					166.4	100.6	6.5	50.0
Apr 13	796			3				19	15					196.1	100.0	5.0	50.0
Apr 14	587			1				16	15					187.2	99.0	5.0	50.0
Apr 15	2,972			16				47	27					154.8	99.1	5.0	50.0
Apr 16	2,952			12				30	16					162.8	99.8	6.0	50.0
Apr 17	5,417			23				38	21					148.8	99.7	6.0	50.0
Apr 18	7,926			61				37	15					146.7	100.5	6.0	50.0
Apr 19	11,327			68				44	29					158.4	100.2	5.0	50.0
Apr 20	13,190			113				33	15					185.2	99.5	6.0	51.0
Apr 21	5,987			52				27	8					174.8	99.6	5.0	52.0
Apr 22	7,976			58				23	5					155.7	99.9	5.0	52.0
Apr 23	4,565			39				18	11					164.0	100.6	5.0	52.0
Apr 24	4,462			44				26	14					146.3	100.3	5.0	52.0
Apr 25	4,581			47				19	11					154.7	100.1	6.0	52.0
Apr 26	5,401			79				19	5					158.5	100.2	6.0	52.0
Apr 27	9,733			143				42	17					186.7	99.7	5.0	52.0
Apr 28	17,045			307				44	19					161.1	99.0	5.0	52.0
Apr 29	11,303			301				35	19					155.9	99.4	6.0	53.0
Apr 30	13,676			504				39	22					146.5	99.2	6.5	54.0
TOTAL	137,458			1,886				939	515								
AVG	4,582			63				31	17					181.9	70.3	5.5	50.5
RUN YEAR		CHINOOK	CHINOOK						unclipped								
TOTALS TO DATE		ADULT	JACK					STEELHEAD	STEELHEAD								
SPRING		138,912	1,888					2,139	1,206								

TABLE 10
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS														MAY 2015				
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
May 1	6,140			293			0	32	17			0	1		163.4	100.4	6.0	54.0
May 2	2,940			146			0	46	27			0	0		174.3	100.1	6.0	55.0
May 3	2,613			164			0	38	22			0	0		188.1	99.3	6.0	55.0
May 4	3,198			170			0	32	27			0	0		191.5	99.3	6.0	55.0
May 5	3,199			224			0	15	10			0	0		175.2	99.1	6.0	55.0
May 6	3,013			262			0	25	18			0	0		171.9	99.2	6.0	56.0
May 7	2,694			370			0	21	13			1	0		172.1	99.4	6.0	56.0
May 8	3,065			382			0	21	16			14	0		172.6	99.9	6.0	56.0
May 9	3,468			536			0	14	10			23	1		157.3	99.9	7.0	56.0
May 10	3,792			555			0	13	10			14	4		146.4	100.3	6.0	56.0
May 11	2,743			449			0	19	11			8	9		145.8	100.4	6.0	57.0
May 12	2,196			343			0	19	19			1	2		176.6	99.7	6.0	57.0
May 13	1,597			302			0	34	25			51	6		184.0	99.3	6.0	57.0
May 14	2,181			576			0	32	28			136	4		192.9	99.3	6.5	57.0
May 15	1,392			333			0	15	10			1,173	2		205.1	99.4	5.0	58.0
May 16	1,865			347			0	18	15			1,099	1		172.6	100.1	5.5	57.0
May 17	2,122			476			0	28	24			791	0		171.1	100.5	4.5	58.0
May 18	2,168			639			0	48	37			914	2		208.8	99.5	5.0	58.0
May 19	2,316			522			0	52	35			922	10		205.9	99.2	5.5	59.0
May 20	2,209			376			0	38	24			2,827	1		198.4	99.2	5.0	59.0
May 21	2,527			364			1	57	33			2,620	16		210.2	99.0	5.0	60.0
May 22	1,615			242			0	31	35			5,853	15		202.1	99.2	5.0	60.0
May 23	1,450			244			0	44	28			4,867	16		200.0	99.7	6.0	60.0
May 24	1,575			270			1	44	36			3,063	8		213.2	100.2	5.0	60.0
May 25	2,148			403			6	35	23			1,723	35		218.5	100.3	6.0	60.0
May 26	3,077			416			5	42	21			2,774	47		213.7	99.9	5.0	60.0
May 27	3,079			570			19	45	29			7,252	26		218.5	100.1	5.0	60.0
May 28	2,295			373			11	38	23			21,758	65		215.1	99.5	7.0	61.0
May 29	2,584			390			50	52	38			42,325	219		204.9	99.2	5.0	62.0
May 30	3,131			406			89	58	37			43,002	180		173.4	99.9	5.5	63.0
May 31	2,946			281			132	72	60			49,598	266		176.0	100.4	6.0	63.0
TOTAL	81,338			11,424			314	1,078	761			192,809	936					
AVG	2,624			369			10	35	25			6,220	30		187.7	99.7	5.7	58.1
RUN YEAR	CHINOOK	CHINOOK																
TOTALS TO DATE	ADULT	JACK																
	SPRING	220,250	13,312				314	3,217	1,967			192,809	936					

TABLE 11

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

BONNEVILLE PROJECT - FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK								CHUM
Jun 1		2,528		267			128	65	21	0		53,208	126		201.2	100.0	4.5	64.0
Jun 2		2,607		230			152	56	18	0		34,780	132		217.4	99.1	5.0	64.0
Jun 3		2,867		267			239	66	23	0		18,845	206		178.7	99.6	6.0	63.0
Jun 4		2,590		261			429	61	20	0		31,561	139		183.8	100.0	5.5	64.0
Jun 5		1,864		237			686	56	21	0		63,891	259		185.6	99.6	7.0	64.0
Jun 6		2,708		262			861	68	23	0		63,690	165		185.9	99.4	7.0	65.0
Jun 7		3,310		270			1,096	90	31	0		54,284	216		177.8	99.6	7.0	65.0
Jun 8		3,120		263			1,156	101	36	1		46,556	401		187.0	99.0	6.0	66.0
Jun 9		3,238		308			1,812	112	41	0		82,464	376		197.0	99.6	7.0	66.0
Jun 10		4,121		412			2,815	106	35	0		45,926	458		173.5	99.7	6.0	67.0
Jun 11		3,810		458			4,792	108	49	0		24,077	267		167.6	99.8	6.0	67.0
Jun 12		3,106		388			4,296	128	39	0		23,222	228		157.4	100.0	6.0	66.0
Jun 13		2,980		394			5,951	135	41	0		34,792	246		154.7	101.1	5.5	66.0
Jun 14		3,364		441			6,737	121	46	0		62,398	185		147.9	99.5	5.0	66.0
Jun 15		2,865		366			7,532	140	57	0		67,309	455		173.1	99.3	7.0	66.0
Jun 16		3,937		387			10,134	181	67	0		83,111	698		172.3	95.4	6.0	67.0
Jun 17		3,945		384			13,867	179	74	0		51,509	557		157.3	94.5	7.0	67.0
Jun 18		2,980		439			13,504	263	107	0		64,847	630		132.6	87.4	6.0	68.0
Jun 19		2,878		394			13,692	263	120	0		61,336	721		126.9	82.6	7.0	68.0
Jun 20		2,605		387			18,917	214	108	0		53,904	565		119.8	75.5	7.0	68.0
Jun 21		3,603		552			29,764	221	116	0		82,440	339		117.6	73.2	7.0	68.0
Jun 22		4,174		623			31,880	257	132	0		51,673	598		112.2	68.2	7.0	68.0
Jun 23		4,446		597			27,720	320	144	0		38,677	373		119.4	75.3	6.0	68.0
Jun 24		4,649		487			25,749	312	105	0		54,290	345		131.3	86.7	6.0	68.0
Jun 25		4,330		368			20,120	263	125	0		34,971	311		140.5	93.9	6.0	69.0
Jun 26		3,528		460			22,847	322	160	0		34,714	317		139.5	89.3	7.0	69.0
Jun 27		3,806		418			23,891	409	229	0		30,520	455		157.5	93.4	7.0	70.0
Jun 28		4,863		544			25,160	465	265	0		47,080	298		155.2	100.3	7.0	71.0
Jun 29		3,453		433			23,574	563	302	0		25,576	753		157.3	95.4	6.5	71.0
Jun 30		3,021		427			17,547	469	277	0		29,273	659		150.6	91.5	6.0	71.0
TOTAL		101,296		11,724			357,048	6,114	2,832	1		1,450,924	11,478					
AVG		3,377		391			11,902	204	94			48,364	383		159.3	93.3	6.3	67.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	220,250	13,312
SUMMER	101,296	11,724
TOTAL	321,546	25,036

unclipped			
SOCKEYE	STEELHEAD	STEELHEAD	
357,362	9,331	4,799	1
SHAD		LAMPREY	
1,643,733		12,414	

TABLE 12

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

BONNEVILLE PROJECT - FISH COUNTS

JULY 2015

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
Jul 1		2,267		337	0		18,423	467	271	0		28,700	464		142.4	90.3	7.0	72.0
Jul 2		3,510		343	0		14,949	426	240	0		21,957	305		155.8	99.9	7.0	72.0
Jul 3		3,199		257	0		11,900	530	317	0		20,974	347		151.9	95.0	7.0	72.0
Jul 4		2,939		300	0		11,600	560	314	0		14,872	519		137.3	88.4	5.0	73.0
Jul 5		2,581		226	0		11,064	589	326	0		16,494	418		135.2	89.9	7.0	73.0
Jul 6		1,652		140	0		8,791	532	315	1		12,436	409		150.1	96.9	7.0	73.0
Jul 7		1,798		168	0		9,740	660	422	0		10,971	442		152.2	95.1	7.0	74.0
Jul 8		1,930		246	0		8,301	787	456	0		12,756	201		134.5	85.8	7.0	74.0
Jul 9		2,143		225	0		8,543	843	500	0		9,030	456		133.1	87.7	7.0	74.0
Jul 10		2,382		262	0		6,585	940	605	0		6,061	566		124.3	79.1	7.0	74.0
Jul 11		1,428		189	0		5,519	858	541	0		3,611	407		113.4	68.5	6.0	74.0
Jul 12		902		120	0		4,272	636	377	0		1,508	325		109.8	65.3	6.0	74.0
Jul 13		2,418		173	0		5,060	699	436	0		1,262	613		130.6	83.4	7.0	74.0
Jul 14		3,994		227	0		4,015	931	606	0		1,310	770		147.4	91.5	7.0	74.0
Jul 15		4,587		364	0		2,898	1,775	1,167	0		892	510		142.3	94.3	7.0	74.0
Jul 16		2,482		223	0		2,760	2,188	1,325	0		949	820		132.6	87.7	7.0	73.0
Jul 17		1,741		200	0		2,363	2,004	1,205	0		840	509		132.6	87.6	7.0	73.0
Jul 18		1,183		136	0		2,128	1,624	940	0		820	660		141.6	91.7	7.0	73.0
Jul 19		1,393		136	0		1,813	1,420	808	0		187	514		141.3	94.2	7.0	73.0
Jul 20		1,306		103	0		1,756	1,891	1,079	0		462	1,051		134.3	88.9	7.0	73.0
Jul 21		1,071		182	0		1,777	2,401	1,363	0		457	985		138.3	90.8	7.0	73.0
Jul 22		1,103		132	0		1,541	1,903	1,087	0		610	659		140.2	95.1	7.0	73.0
Jul 23		907		128	0		1,191	1,736	1,029	0		371	594		119.3	74.8	7.0	73.0
Jul 24		995		99	0		892	1,803	1,006	0		360	575		126.1	81.5	7.0	72.0
Jul 25		1,517		132	0		957	2,650	1,612	0		230	363		135.3	87.5	7.0	72.0
Jul 26		1,784		170	0		779	4,486	2,610	0		217	323		128.3	83.3	5.0	72.0
Jul 27		791		108	0		522	4,282	2,112	0		172	402		126.7	81.5	6.5	71.0
Jul 28		1,270		125	0		486	3,848	1,881	0		222	306		131.7	86.7	7.0	71.0
Jul 29		2,083		205	0		401	4,004	1,992	0		134	417		137.5	90.5	7.0	71.0
Jul 30		1,804		200	0		345	5,509	2,665	0		189	456		157.5	99.8	7.0	72.0
Jul 31		1,279		150	1		218	7,708	3,418	0		175	428		145.6	94.6	7.0	72.0
TOTAL		60,439		6,006	1		151,589	60,690	33,025	1		169,229	15,814					
AVG		1,950		194	0		4,890	1,958	1,065	0		5,459	510		136.4	88.0	6.8	72.8

RUN YEAR	CHINOOK	CHINOOK	COHO	unclipped				SHAD	LAMPREY
TOTALS TO DATE	ADULT	JACK	ADULT	SOCKEYE	STEELHEAD	STEELHEAD	PINK		
SPRING	220,250	13,312	1	508,951	70,021	37,824	2	1,812,962	28,228
SUMMER	161,735	17,730							
TOTAL	381,985	31,042							

TABLE 13

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

BONNEVILLE PROJECT - FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped			PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F	
	SPRING	SUMMER	FALL						STEELHEAD	PINK	CHUM										
Aug 1			947	126	1	0	181	7,319	2,867	1			127	1,047		133.7	88.8	7.0	73.0		
Aug 2			716	102	5	1	111	6,790	2,505	1			262	876		133.6	88.6	7.0	73.0		
Aug 3			511	48	-4	1	119	4,432	1,502	0			261	120		129.4	85.1	7.0	72.0		
Aug 4			460	40	0	5	159	2,871	992	1			91	616		128.7	85.4	7.0	72.0		
Aug 5			707	60	1	0	184	2,540	1,011	0			79	503		129.9	86.9	7.0	72.0		
Aug 6			1,496	97	0	0	122	2,879	1,200	0			51	433		132.1	87.8	7.0	71.0		
Aug 7			1,443	127	11	4	116	3,976	1,610	0			179	332		150.0	95.9	7.0	71.0		
Aug 8			1,284	114	12	2	99	4,746	1,643	0			117	513		154.2	95.2	7.0	71.0		
Aug 9			1,454	100	3	0	85	5,487	1,830	1			61	1,043		135.4	89.9	7.0	71.0		
Aug 10			1,735	108	6	1	76	5,841	1,878	0			84	190		138.6	93.1	7.0	71.0		
Aug 11			1,052	121	1	0	41	6,834	2,099	0			79	483		136.0	91.8	7.0	72.0		
Aug 12			1,603	122	6	1	54	5,978	1,791	0			70	432		130.4	86.5	7.0	72.0		
Aug 13			1,912	135	4	9	18	5,795	1,872	0			43	401		140.9	89.2	7.0	73.0		
Aug 14			1,380	120	16	7	22	4,773	1,376	0			68	252		135.0	90.3	7.0	73.0		
Aug 15			1,264	122	17	7	14	4,313	1,172	0			57	292		139.6	93.2	7.0	72.0		
Aug 16			1,431	116	29	3	16	3,645	1,078	0			77	186		147.2	95.2	7.0	72.0		
Aug 17			1,349	123	16	8	17	2,340	625	0			8	155		147.8	93.0	7.0	77.0		
Aug 18			3,721	332	67	20	21	2,315	586	0			22	171		138.9	94.0	7.0	72.0		
Aug 19			6,076	480	108	18	46	2,664	803	1			44	128		149.5	97.7	7.0	72.0		
Aug 20			4,711	455	119	20	24	3,753	1,105	1			29	136		140.7	95.0	7.0	72.0		
Aug 21			2,695	275	85	24	14	3,363	810	0			30	246		133.7	89.8	7.0	72.0		
Aug 22			1,342	161	66	9	12	2,002	470	0			21	32		143.3	90.8	6.5	72.0		
Aug 23			1,647	186	47	11	11	1,446	355	0			26	89		144.0	96.2	7.0	71.0		
Aug 24			4,475	395	96	25	13	1,591	454	0			19	116		150.1	95.2	7.0	71.0		
Aug 25			7,123	515	147	29	25	1,484	491	1			9	85		152.7	89.2	7.0	70.0		
Aug 26			7,167	436	123	26	21	1,541	493	0			19	132		139.9	91.3	7.0	71.0		
Aug 27			6,480	521	113	27	12	1,788	527	1			41	105		141.9	94.1	7.0	71.0		
Aug 28			14,268	904	220	56	9	1,919	557	1			18	30		142.2	95.7	7.0	71.0		
Aug 29			22,449	1,317	292	60	9	2,759	870	0			11	52		116.0	72.3	7.0	71.0		
Aug 30			20,345	938	307	41	24	3,030	864	2			17	70		104.0	61.1	7.0	71.0		
Aug 31			20,107	1,132	620	80	10	3,692	1,071	0			19	14		111.8	68.4	7.0	71.0		
TOTAL			143,350	9,828	2,534	495	1,685	113,906	36,507	11			2,039	9,280							
AVG			4,624	317	82	16	54	3,674	1,178				66	299		137.1	89.2	7.0	71.8		
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK			COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK			SHAD	LAMPREY							
SPRING	220,250	13,312			2,535	495	510,636	183,927	74,331	13			1,815,001	37,508							
SUMMER	161,735	17,730																			
FALL	143,350	9,828																			
TOTAL	525,335	40,870																			

TABLE 14

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

BONNEVILLE PROJECT - FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped			SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL						STEELHEAD	PINK	CHUM							
Sep 1			19,495	1,404	773	97	14	4,762	1,170	0	0		78	0	100.5	2.7	6.0	71.0
Sep 2			22,799	1,837	960	96	7	3,806	917	0	0		80	0	97.7	1.4	7.0	70.0
Sep 3			26,974	1,971	1,875	197	7	3,360	788	1	0		76	0	109.6	1.3	7.0	70.0
Sep 4			20,196	1,284	1,309	154	4	2,939	665	0	0		66	0	110.8	1.4	6.0	70.0
Sep 5			22,880	1,572	1,177	172	2	2,369	577	0	0		63	0	85.6	1.3	7.0	69.0
Sep 6			21,594	1,834	1,292	134	0	2,560	719	0	0		114	1	83.3	1.3	7.0	69.0
Sep 7			35,276	2,272	1,416	167	2	2,769	598	0	0		39	0	82.8	1.3	7.0	68.0
Sep 8			33,022	2,504	1,532	190	8	2,673	628	2	0		22	1	102.1	1.3	7.0	68.0
Sep 9			38,575	2,421	1,556	178	4	2,588	681	3	0		16	0	100.4	1.3	7.0	68.0
Sep 10			44,534	2,963	1,235	99	2	2,811	709	3	1		38	0	110.4	1.4	7.0	68.0
Sep 11			43,016	3,981	1,108	103	1	3,126	838	2	0		52	0	108.5	1.3	7.0	68.0
Sep 12			31,330	3,045	700	99	2	2,597	721	2	0		53	0	103.1	1.3	7.0	68.0
Sep 13			31,254	2,821	619	106	3	2,400	646	3	0		67	0	87.5	1.3	7.0	68.0
Sep 14			28,088	2,723	608	85	1	2,233	657	1	0		11	0	91.2	1.4	7.0	69.0
Sep 15			24,959	1,685	451	66	0	1,896	530	5	0		35	0	100.2	1.4	7.0	68.0
Sep 16			23,316	1,674	453	75	1	1,846	567	2	0		-7	0	111.9	1.5	7.0	67.0
Sep 17			23,956	1,875	414	61	0	2,074	569	2	1		15	0	85.7	1.2	7.0	67.0
Sep 18			23,564	2,138	441	117	2	1,923	512	4	0		7	0	95.4	1.2	7.0	67.0
Sep 19			19,856	1,741	496	64	1	1,492	439	0	0		13	0	99.9	1.3	7.0	67.0
Sep 20			25,499	2,228	781	101	0	2,161	583	0	0		4	0	79.3	1.2	7.0	67.0
Sep 21			27,106	2,547	724	97	4	1,759	458	0	0		25	0	86.5	1.3	7.0	67.0
Sep 22			24,816	3,232	780	120	1	1,890	533	2	0		4	0	95.9	1.5	7.0	67.0
Sep 23			14,386	2,025	529	84	-1	1,511	443	1	0		19	0	105.6	1.3	7.0	67.0
Sep 24			15,682	1,847	627	96	2	1,579	468	1	0		-4	1	120.8	1.3	7.0	66.0
Sep 25			12,518	1,567	479	73	0	1,339	413	0	0		11	0	104.5	1.3	7.0	66.0
Sep 26			12,905	1,314	492	51	0	961	255	2	0		12	0	92.8	1.3	7.0	66.0
Sep 27			11,249	1,080	492	59	0	875	261	0	0		12	0	79.0	1.3	7.0	65.0
Sep 28			13,457	1,322	404	55	0	882	210	1	0		0	0	96.7	1.2	7.0	65.0
Sep 29			8,667	1,221	364	46	0	751	186	1	0		1	0	121.1	1.2	7.0	65.0
Sep 30			8,409	1,141	295	57	0	803	207	1	0		5	0	106.9	1.2	7.0	65.0
TOTAL			709,378	61,269	24,382	3,099	67	64,735	16,948	39	2		927	3				
AVG			23,646	2,042	813	103	2	2,158	565	1	0		31	0	98.5	1.4	6.9	67.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
TOTALS TO DATE	220,250	13,312	26,917	3,594	510,703	248,662	91,279	52	2	1,815,001	38,435	3
SPRING	220,250	13,312	26,917	3,594	510,703	248,662	91,279	52	2	1,815,001	38,435	3
SUMMER	161,735	17,730										
FALL	852,728	71,097										
TOTAL	1,234,713	102,139										

TABLE 15

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

BONNEVILLE PROJECT - FISH COUNTS

OCTOBER 2015

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
Oct 1			8,772	1,123	317	54	0	811	199	1	0		6	0	94.9	1.2	7.0	65.0
Oct 2			3,886	621	183	42	1	689	203	0	0		-7	1	80.9	1.2	6.0	65.0
Oct 3			9,420	1,083	297	69	2	911	233	0	0		4	0	81.5	1.3	7.0	65.0
Oct 4			6,267	718	186	34	0	843	238	0	0		-2	0	88.3	1.2	7.0	65.0
Oct 5			6,083	662	170	40	0	814	205	0	0		1	0	91.4	1.1	7.0	65.0
Oct 6			6,983	851	250	40	0	884	245	0	0		3	0	110.1	1.2	7.0	65.0
Oct 7			3,588	408	137	30	0	704	190	0	0		6	0	106.6	1.1	7.0	65.0
Oct 8			6,030	577	176	25	0	841	259	2	0		4	0	97.3	0.9	7.0	65.0
Oct 9			6,929	710	235	32	0	880	252	0	0		3	0	88.6	0.6	7.0	65.0
Oct 10			3,706	522	179	28	0	565	157	0	1		20	0	83.0	0.6	7.0	65.0
Oct 11			5,035	534	321	65	0	693	211	0	0		8	0	81.9	0.6	7.0	65.0
Oct 12			2,281	226	167	37	0	548	167	0	0		10	0	76.1	0.6	7.0	65.0
Oct 13			3,507	370	193	42	0	685	234	0	0		10	2	84.9	0.7	7.0	65.0
Oct 14			4,042	416	277	37	0	731	276	0	0		1	0	107.9	0.6	7.0	65.0
Oct 15			2,257	301	268	53	0	345	109	0	1		3	1	132.0	0.6	5.5	64.0
Oct 16			1,547	156	263	33	0	308	94	0	0		5	0	108.4	0.6	7.0	64.0
Oct 17			662	88	180	38	0	272	70	0	0		8	1	97.2	0.6	7.0	64.0
Oct 18			1,889	150	374	73	0	325	119	0	0		-4	0	81.4	0.6	7.0	63.0
Oct 19			693	69	136	23	0	296	132	0	0		5	0	92.1	0.6	7.0	64.0
Oct 20			2,459	240	323	58	0	348	123	0	0		-1	0	89.7	0.6	7.0	64.0
Oct 21			913	100	155	14	0	168	66	-1	0		-11	0	101.9	0.6	7.0	63.0
Oct 22			1,323	145	308	44	0	209	80	0	0		6	5	101.4	0.6	7.0	63.0
Oct 23			2,118	208	335	42	0	188	48	0	1		-1	0	111.0	0.6	7.0	63.0
Oct 24			1,460	131	151	26	0	122	42	0	2		3	0	108.5	0.5	7.0	62.0
Oct 25			1,549	144	156	20	0	127	50	0	2		1	2	107.7	0.6	7.0	62.0
Oct 26			767	88	241	32	0	102	33	0	0		2	1	96.5	0.5	7.0	61.0
Oct 27			1,342	140	384	40	0	87	20	1	0		0	0	107.5	0.6	7.0	61.0
Oct 28			461	65	140	6	0	72	33	0	6		4	0	109.7	0.5	7.0	61.0
Oct 29			518	56	144	11	0	128	80	0	2		1	3	91.5	0.5	7.0	61.0
Oct 30			415	39	109	14	0	91	42	0	4		-1	0	84.1	0.5	7.0	61.0
Oct 31			620	69	237	28	0	112	48	0	9		24	0	105.6	0.5	6.5	61.0
TOTAL			97,522	11,010	6,992	1,130	3	13,899	4,258	3	28		111	16				

AVG			3,146	355	226	36	0	448	137	0	1		4	1	96.8	0.7	6.9	63.6
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RUN YEAR	CHINOOK		COHO	COHO	unclipped					SHAD	LAMPREY	STURGEON	
	TOTALS TO DATE	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM			
SPRING	220,250	13,312		33,909	4,724	510,706	262,561	95,537	55	30	1,815,001	38,546	19
SUMMER	161,735	17,730											
FALL	950,250	82,107											
TOTAL	1,332,235	113,149											

TABLE 16

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

BONNEVILLE PROJECT - FISH COUNTS														NOVEMBER 2015				
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL														SECCHI	DEG F
Nov 1			506	45	427	29	0	149	95		12		32	0	109.4	0.5	7.0	61.0
Nov 2			258	23	226	11	0	144	103		2		21	0	111.9	0.6	3.0	61.0
Nov 3			334	32	173	12	0	224	116		7		16	2	109.4	0.5	4.0	60.0
Nov 4			223	25	147	10	0	185	99		4		9	0	119.1	0.5	5.0	60.0
Nov 5			302	23	157	7	0	238	120		2		6	0	110.8	0.5	5.0	58.0
Nov 6			647	36	167	9	0	258	149		5		2	0	116.6	0.5	4.0	57.0
Nov 7			193	10	118	4	0	189	120		6		5	0	129.2	0.5	5.0	57.0
Nov 8			185	25	92	3	0	162	73		4		2	0	125.0	0.5	7.0	57.0
Nov 9			317	28	151	6	0	140	86		8		0	0	123.9	0.5	7.0	57.0
Nov 10			152	18	94	2	0	113	74		2		-1	0	125.4	0.5	7.0	57.0
Nov 11			174	24	191	5	0	84	48		14		-1	0	123.4	0.5	7.0	56.0
Nov 12			165	15	128	3	0	70	41		13		0	0	127.4	0.5	7.0	56.0
Nov 13			126	20	202	9	0	59	37		8		0	0	119.9	0.5	7.0	56.0
Nov 14			229	8	184	7	0	73	35		18		0	0	116.0	0.5	7.0	56.0
Nov 15			79	6	89	1	-1	47	28		9		-1	0	115.2	0.5	7.0	55.0
Nov 16			68	12	155	2	0	59	42		2		0	0	125.3	0.5	7.0	54.0
Nov 17			92	5	82	1	0	45	20		14		60	0	135.3	0.5	7.0	53.0
Nov 18			76	14	153	3	0	55	35		7		6	0	149.8	10.4	4.0	53.0
Nov 19			48	-1	56	1	0	27	14		3		7	0	161.7	18.2	4.0	53.0
Nov 20			46	1	65	7	0	54	28		2		-1	0	146.7	2.4	3.0	52.0
Nov 21			22	4	46	0	0	61	35		1		0	0	133.6	0.5	5.0	52.0
Nov 22			20	3	36	2	0	28	18		1		0	0	134.8	0.5	5.0	52.0
Nov 23			35	2	32	0	0	66	47		0		0	0	140.0	4.0	6.0	49.0
Nov 24			49	9	27	0	0	63	38		2		2	0	144.7	2.1	6.0	50.0
Nov 25			55	1	28	0	0	61	36		0		0	0	124.7	0.9	7.0	50.0
Nov 26			30	5	23	1	0	72	50		0		0	0	121.3	1.0	7.0	50.0
Nov 27			21	4	14	1	0	41	28		0		0	0	127.3	1.0	7.0	49.0
Nov 28			3	3	24	0	0	58	33		0		0	0	130.7	1.0	7.0	48.0
Nov 29			22	2	2	1	0	40	26		0		0	0	148.1	1.0	7.0	47.0
Nov 30			10	0	5	0	0	40	25		0		4	0	148.7	1.0	6.0	47.0
TOTAL			4,487	402	3,294	137	-1	2,905	1,699		146		168	2				
AVG			150	13	110	5	0	97	57		5		6	0	128.5	1.8	5.9	54.1

RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
	TOTALS TO DATE	ADULT										
SPRING	220,250	13,312	36,455	4,842	510,705	264,696	96,761	55	176	1,815,001	38,636	21
SUMMER	161,735	17,730										
FALL	954,140	82,445										
TOTAL	1,336,125	113,487										

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

TABLE 17

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

DECEMBER 2015

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			16	1	4	0		43	23				0		133.9	1.0	7.0	47.0
Dec 2			9	3	15	0		57	39				0		130.5	1.0	7.0	46.0
Dec 3			12	0	12	0		41	27				-1		127.1	1.0	7.0	45.0
Dec 4			16	3	2	0		29	20				0		119.1	1.0	7.0	46.0
Dec 5			0	1	11	0		38	23				0		123.3	0.5	7.0	45.0
Dec 6			16	0	26	1		36	25				0		119.1	0.5	7.0	45.0
Dec 7			9	3	48	1		85	58				1		147.2	0.5	6.5	45.0
Dec 8			8	1	34	2		50	32				5		170.5	0.5	3.0	45.0
Dec 9			2	0	4	0		11	10				3		165.0	5.8	1.5	45.0
Dec 10			3	1	6	0		8	5				-6		173.0	1.4	3.0	46.0
Dec 11			4	0	3	0		22	13				0		188.3	0.5	3.0	45.0
Dec 12			12	3	15	0		60	37				0		195.7	0.5	2.0	45.0
Dec 13			14	1	-2	0		69	40				0		156.7	0.5	3.0	43.0
Dec 14			5	3	4	0		71	35				0		146.5	0.5	6.0	43.0
Dec 15			3	2	6	0		77	45				0		149.6	0.5	5.0	43.0
Dec 16			0	3	1	0		40	28				0		158.6	0.5	6.0	43.0
Dec 17			2	0	2	0		32	19				0		167.5	0.5	5.0	44.0
Dec 18			2	0	1	0		31	18				0		150.0	0.5	4.0	43.0
Dec 19			2	0	0	0		33	22				0		158.8	0.5	7.0	44.0
Dec 20			2	0	1	0		40	26				0		142.8	0.5	7.0	45.0
Dec 21			2	0	2	0		26	19				0		163.0	0.5	6.0	45.0
Dec 22			0	0	7	0		56	40				0		138.7	0.5	5.0	45.0
Dec 23			1	0	-2	0		46	36				0		130.6	0.5	6.0	44.0
Dec 24			1	1	-1	0		35	25				0		117.0	0.5	7.0	45.0
Dec 25			4	1	1	0		44	20				0		112.0	0.5	7.0	45.0
Dec 26			0	0	0	0		43	33				0		126.6	0.5	7.0	44.0
Dec 27			0	2	0	0		30	23				0		129.9	0.5	5.0	44.0
Dec 28			1	0	-1	0		26	20				0		131.4	0.5	4.0	44.0
Dec 29			1	0	0	0		15	5				0		137.2	0.5	4.0	43.0
Dec 30			1	0	0	0		30	22				0		135.5	0.5	4.0	43.0
Dec 31			1	0	0	0		40	30				0		149.9	0.5	4.0	42.0
TOTAL			149	29	199	4		1,264	818				2					
AVG			5	1	6	0		41	26				0		145.0	0.8	5.3	44.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
TOTALS TO DATE												
SPRING	220,250	13,312	36,455	4,842	510,705	264,696	96,761	55	176	1,815,001	38,636	21
SUMMER	161,735	17,730										
FALL	954,140	82,445										
TOTAL	1,336,125	113,487										

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

TABLE 18

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

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Jun-15

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD			
Jun 1		13		-2			6	0	0			-286
Jun 2		12		-1			9	0	1			60
Jun 3		16		-1			15	1	0			-171
Jun 4		23		0			28	2	3			269
Jun 5		48		2			44	11	6			543
Jun 6		57		0			69	8	4			-275
Jun 7		45		4			70	4	1			-1,942
Jun 8		54		3			77	0	2			-1,461
Jun 9		77		1			167	6	1			-1,811
Jun 10		63		2			256	0	0			935
Jun 11		45		3			314	7	3			361
Jun 12		67		0			214	9	1			-1,494
Jun 13		64		4			312	10	5			-1,856
Jun 14		77		4			461	2	2			-1,011
Jun 15		73		9			394	12	3			-3,066
Jun 16		92		9			353	4	0			-5,987
Jun 17		54		12			640	9	3			-4,250
Jun 18		59		22			690	26	3			-6,606
Jun 19		55		9			893	15	7			-1,931
Jun 20		39		7			1,324	8	3			-3,459
Jun 21		80		4			1,147	18	6			-1,485
Jun 22		101		2			1,342	15	10			-820
Jun 23		91		3			1,347	37	15			-1,988
Jun 24		164		14			910	17	8			-1,843
Jun 25		100		12			1,655	19	8			-1,821
Jun 26		162		11			1,778	14	9			-3,151
Jun 27		158		56			1,905	35	15			-1,718
Jun 28		184		43			1,437	39	15			-2,024
Jun 29		134		36			1,955	28	18			-2,149
Jun 30		125		15			1,544	39	23			-2,511
TOTAL		2,332		283	0	0	21,356	395	175	0	0	-52,948
AVG		78		9			712	13	6			-1,765

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

TABLE 19

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

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Jul-15

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped			PINK	CHUM	LAMPREY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD				STEELHEAD
Jul 1		141		24			1,423	37	17			-857
Jul 2		157		11			1,218	37	24			-720
Jul 3		134		39			1,237	18	13			-714
Jul 4		177		16			1,193	51	36			-1,630
Jul 5		94		30			804	41	26			-957
Jul 6		104		27			762	51	28			-1,729
Jul 7		77		21			788	44	42			-1,997
Jul 8		122		17			901	42	22			-1,059
Jul 9		109		18			509	44	29			-4,196
Jul 10		64		15			444	74	54			-1,959
Jul 11		37		9			406	46	33			-1,447
Jul 12		67		-3			278	31	20			-1,155
Jul 13		238		12			410	55	48			-2,568
Jul 14		335		30			381	85	55			-3,900
Jul 15		129		20			207	201	129			-3,120
Jul 16		75		9			264	123	75			-5,513
Jul 17		72		18			280	61	48			-2,144
Jul 18		68		19			263	69	73			-4,341
Jul 19		86		13			299	125	106			-397
Jul 20		26		14			148	133	92			-4,995
Jul 21		14		3			127	92	57			-1,748
Jul 22		24		9			94	50	50			-7,534
Jul 23		25		4			83	55	54			-4,816
Jul 24		54		3			82	123	72			-2,098
Jul 25		34		2			38	131	81			-1,277
Jul 26		21		1			37	196	92			-1,768
Jul 27		20		2			49	229	139			-231
Jul 28		49		4			28	99	66			-1,242
Jul 29		56		4			55	151	104			-1,127
Jul 30		36		3			50	238	137			-2,017
Jul 31		32		4			27	213	126			1,505
TOTAL		2,677		398	0	0	12,885	2,945	1,948	0	0	-67,751
AVG		86		13			416	95	63			-2,186

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

TABLE 20

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

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Aug-15

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK						
Aug 1			13	0	0	0	15	122	56			-4,273
Aug 2			11	1	0	0	11	70	59			-3,812
Aug 3			5	0	0	0	20	77	41			-42
Aug 4			22	2	0	0	12	95	59			-494
Aug 5			23	-3	0	0	21	69	39			969
Aug 6			19	2	0	0	18	114	79			380
Aug 7			28	7	0	0	26	134	50			215
Aug 8			32	2	0	0	24	50	33			-1,396
Aug 9			19	5	0	0	20	64	17			-1,007
Aug 10			52	3	0	0	13	66	28			-658
Aug 11			25	4	0	0	7	56	37			-619
Aug 12			44	5	0	0	8	108	36			327
Aug 13			41	6	1	0	3	86	43			-643
Aug 14			19	0	0	0	2	43	18			637
Aug 15			4	-1	0	0	4	24	20			681
Aug 16			32	0	0	0	2	54	21			401
Aug 17			15	0	0	0	3	15	7			571
Aug 18			151	25	0	0	-1	37	19			1,050
Aug 19			131	10	0	0	1	88	37			583
Aug 20			29	3	0	-1	2	70	36			346
Aug 21			18	5	0	0	3	30	17			772
Aug 22			0	1	0	0	0	33	7			734
Aug 23			15	-3	0	0	2	25	10			737
Aug 24			23	3	1	1	2	12	-1			435
Aug 25			24	0	2	0	2	10	10			757
Aug 26			42	1	1	0	1	31	18			-46
Aug 27			210	20	0	0	0	75	27			-124
Aug 28			163	18	0	0	3	63	40			458
Aug 29			223	37	8	0	4	128	56			-107
Aug 30			215	19	9	1	2	108	48			414
Aug 31			178	13	16	-2	2	110	40			126
TOTAL			1,826	185	38	-1	232	2,067	1,007	0	0	-2,628
AVG			59	6	1	0	7	67	32			-85

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

TABLE 21

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

BONNEVILLE PROJECT - NIGHT FISH COUNTS

Sep-15

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK						
Sep 1			311	10	16	2	3	144	43			154
Sep 2			1,507	22	70	2	4	175	60			1,027
Sep 3			986	86	37	4	1	57	13			-398
Sep 4			171	9	17	3	1	55	19			-46
Sep 5			864	47	23	2	0	64	21			-268
Sep 6			572	37	21	5	1	104	38			484
Sep 7			982	42	52	6	0	56	18			152
Sep 8			1,047	33	49	-3	2	55	22			301
Sep 9			1,461	36	61	3	2	68	26			-115
Sep 10			896	21	37	0	0	65	25			-88
Sep 11			746	32	83	8	0	116	35			214
Sep 12			861	29	20	-4	0	96	27			148
Sep 13			539	32	10	1	0	78	32			66
Sep 14			630	14	7	0	2	77	27			131
Sep 15			92	-7	1	0	1	63	22			63
Sep 16			110	17	7	5	0	76	23			23
Sep 17			518	12	6	0	0	88	27			27
Sep 18			636	41	1	0	0	82	29			34
Sep 19			437	116	18	5	0	101	41			-3
Sep 20			763	60	13	4	0	117	23			-31
Sep 21			1,151	61	37	1	0	87	28			-32
Sep 22			396	39	4	12	0	76	18			-35
Sep 23			260	12	35	3	0	53	20			-20
Sep 24			444	9	10	2	0	69	23			30
Sep 25			242	15	27	6	0	61	17			-2
Sep 26			179	18	9	8	0	52	15			-1
Sep 27			161	14	8	3	0	46	16			-8
Sep 28			258	15	32	9	0	38	7			16
Sep 29			65	10	6	9	0	31	9			6
Sep 30			65	-2	7	4	0	35	10			21
TOTAL			17,350	880	724	100	17	2,285	734	0	0	1,850
AVG			578	29	24	3	1	76	24			62

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

TABLE 22a

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1938 - 2015

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 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
1981	285,650	159,270	56,037	30,510	4	20	531,491
1982	322,809	157,640	50,219	73,832	12	0	604,512
1983	244,346	218,439	100,545	15,173	50	52	578,605
1984	324,425	315,560	152,541	29,487	64	8	822,085
1985	463,873	343,987	166,340	56,857	97	147	1,031,301
1986	570,881	379,891	58,123	130,853	77	23	1,139,848
1987	547,494	303,081	116,993	27,635	147	20	995,370
1988	494,025	279,072	79,714	39,620	60	6	892,497
1989	416,117	287,798	41,884	39,281	16	12	785,108
1990	340,990	183,027	49,581	24,845	26	0	598,469
1991	274,622	274,545	76,481	64,057	5	550	690,260
1992	256,299	314,975	84,992	18,126	39	24	674,455
1993	277,657	188,386	80,178	11,732	17	15	557,985
1994	244,320	163,124	13,154	22,794	26	5	443,423
1995	245,250	209,071	9,135	12,572	30	36	476,094
1996	299,962	212,475	31,093	19,077	22	1	562,630
1997	399,784	274,536	48,342	27,919	47	64	750,692
1998	290,292	197,501	13,613	49,488	21	13	550,928
1999	347,486	212,118	18,304	45,805	43	28	623,784
2000	501,012	282,935	97,541	99,660	17	0	981,165
2001	1,037,440	676,793	123,416	277,934	29	-4	2,115,608
2002	965,356	510,680	51,200	100,835	72	0	1,628,143
2003	996,660	365,821	39,291	133,874	411	637	1,536,694
2004	906,197	313,378	123,291	119,851	80	1	1,462,798
2005	600,415	315,650	72,971	88,791	139	22	1,077,988
2006	526,538	339,301	37,066	110,054	165	6	1,013,130
2007	359,867	325,450	24,376	100,725	142	27	810,587
2008	587,428	357,845	213,607	146,059	75	60	1,305,074
2009	699,121	604,970	177,823	234,669	109	95	1,716,787
2010	902,439	416,603	386,524	127,644	124	4	1,833,338
2011	863,201	369,365	185,796	149,883	50	3,828	1,572,123
2012	733,930	235,303	515,673	60,023	65	1	1,544,995
2013	1,327,783	240,110	197,826	68,651	167	520	1,835,057
2014	1,363,284	338,533	656,103	302,559	122	1	2,660,602
2015	1,497,536	276,422	545,196	43,128	176	55	2,362,513
Total	35,888,912	16,705,137	8,527,650	4,098,082	40,926	7,520	65,268,227
10-Year Average	886,113	350,390	293,999	134,340	120	460	1,665,421

*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 2013-15 include nighttime video counts.

TABLE 22b

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM -- DAYTIME COUNTS
1938 - 2015

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 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTAL SALMONID
1981	285,650	159,270	56,037	30,510	4	20	531,491
1982	322,809	157,640	50,219	73,832	12	0	604,512
1983	244,346	218,439	100,545	15,173	50	52	578,605
1984	324,425	315,560	152,541	29,487	64	8	822,085
1985	463,873	343,987	166,340	56,857	97	147	1,031,301
1986	570,881	379,891	58,123	130,853	77	23	1,139,848
1987	547,494	303,081	116,993	27,635	147	20	995,370
1988	494,025	279,072	79,714	39,620	60	6	892,497
1989	416,117	287,798	41,884	39,281	16	12	785,108
1990	340,990	183,027	49,581	24,845	26	0	598,469
1991	274,622	274,545	76,481	64,057	5	550	690,260
1992	256,299	314,975	84,992	18,126	39	24	674,455
1993	277,657	188,386	80,178	11,732	17	15	557,985
1994	243,450	161,978	12,678	22,794	26	5	440,931
1995	240,050	202,448	8,774	12,034	30	36	463,372
1996	296,635	205,213	30,252	18,747	22	1	550,870
1997	387,088	258,385	47,008	27,267	47	64	719,859
1998	280,944	185,094	13,218	49,920	21	13	529,210
1999	343,176	206,488	17,877	45,152	43	28	612,764
2000	491,905	275,178	93,398	97,032	17	0	957,530
2001	971,119	633,073	114,934	266,314	29	-4	1,985,465
2002	924,679	480,309	49,610	94,901	72	0	1,549,571
2003	996,660	365,821	39,291	133,874	411	637	1,536,694
2004	906,197	313,378	123,291	119,851	80	1	1,462,798
2005	600,415	315,650	72,971	88,791	139	22	1,077,988
2006	526,538	339,301	37,066	110,054	165	6	1,013,130
2007	359,867	325,450	24,376	100,725	142	27	810,587
2008	587,428	357,845	213,607	146,059	75	60	1,305,074
2009	699,121	604,970	177,823	234,669	109	95	1,716,787
2010	902,439	416,603	386,524	127,644	124	4	1,833,338
2011	863,201	369,365	185,796	149,883	50	3,828	1,572,123
2012	733,930	235,303	515,673	60,023	65	1	1,544,995
2013	1,300,711	234,047	185,505	66,758	167	508	1,787,696
2014	1,339,659	326,001	614,179	294,534	122	1	2,574,496
2015	1,450,683	268,730	510,706	42,267	176	55	2,272,617
Total	35,639,506	16,547,783	8,420,866	4,065,380	40,926	7,508	64,721,969
10-Year Average	851,272	344,842	265,839	129,219	121	419	1,591,712

*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

YEAR	BONNEVILLE DAM - 1938 - 2015												TOTAL*	SPRING	SUMMER	FALL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		Jan 1- May 31	Jun 1- Jul 31	Aug 1- Dec 31
1938					22,371	8,221	6,556	34,765	197,294	2,302	263	27	271,799	22,371	14,777	234,651
1939	6	12	121	51,410	25,159	5,602	17,828	32,909	150,851	2,197	78	16	286,189	76,708	23,430	186,051
1940			504	37,253	28,621	7,027	14,938	58,643	240,515	3,765	287	34	391,587	66,378	21,965	303,244
1941	4		1,360	51,486	19,445	7,013	9,395	12,590	351,967	7,179	866	138	461,443	72,295	16,408	372,740
1942	1	15	34	9,506	30,915	11,816	12,821	27,581	303,995	4,485	639	190	401,998	40,471	24,637	336,890
1943	11	6	43	12,172	53,268	5,440	8,044	28,985	201,414	3,354	365	21	313,123	65,500	13,484	234,139
1944	1	2	65	15,671	15,127	4,363	8,241	55,468	139,254	2,388	164	20	240,764	30,866	12,604	197,294
1945	6	4	81	17,148	26,276	11,293	16,317	32,254	189,675	4,281	137	6	297,478	43,515	27,610	226,353
1946	1	2	25	14,196	53,313	30,253	20,967	45,422	277,152	4,523	173	25	446,052	67,537	51,220	327,295
1947		2	141	83,520	49,899	25,502	13,358	43,062	260,385	3,945	526	37	480,377	133,562	38,860	307,955
1948	10		251	21,205	20,262	44,137	23,100	35,934	270,238	3,928	467	23	419,555	41,728	67,237	310,590
1949			5	5,765	44,304	24,232	22,500	41,500	137,599	1,571	215	6	277,697	50,074	46,732	180,891
1950			21	6,630	50,638	16,667	32,937	40,462	205,521	4,356	143		357,375	57,289	49,604	250,482
1951			32	28,801	86,055	54,889	24,394	33,785	97,131	6,489	212		331,788	114,888	79,283	137,617
1952			255	8,130	107,807	62,491	21,800	82,290	135,053	2,576	477		420,879	116,192	84,291	220,396
1953			1,254	126,450	42,583	27,228	30,593	27,398	75,145	1,495	333		332,479	170,287	57,821	104,371
1954		2	657	82,877	51,230	46,801	32,596	24,969	80,426	1,189	200		320,947	134,766	79,397	106,784
1955			1,391	84,436	85,769	45,502	37,437	32,833	70,558	1,803	124		359,853	171,596	82,939	105,318
1956			161	8,850	54,438	64,262	36,938	42,203	92,030	1,854	179	2	300,917	63,449	101,200	136,268
1957			328	90,984	45,128	104,243	30,790	34,829	95,457	1,352	175		403,286	136,440	135,033	131,813
1958			468	15,361	59,377	74,375	27,524	19,735	227,504	1,948	127		426,419	75,206	101,899	249,314
1959			182	26,944	34,007	39,581	49,371	24,945	168,187	1,643	168		345,028	61,133	88,952	194,943
1960			184	37,064	32,349	65,247	19,923	22,719	76,327	2,012	224		256,049	69,597	85,170	101,282
1961			476	72,526	25,693	41,302	25,159	22,675	90,688	3,108	353		281,980	98,695	66,461	116,824
1962			1,278	56,201	33,637	52,392	25,093	23,526	91,320	2,759	419		286,625	91,116	77,485	118,024
1963			2,802	43,859	28,810	36,836	27,178	28,586	104,415	5,571	503		278,560	75,471	64,014	139,075
1964			2,418	69,031	19,979	35,814	44,717	26,546	141,525	4,157	235		344,422	91,428	80,531	172,463
1965			1,238	47,083	35,945	38,482	37,515	38,727	112,664	6,074	229		317,957	84,266	75,997	157,694
1966			2,168	92,637	17,864	40,233	31,764	20,608	128,421	6,052	364		340,111	112,669	71,997	155,445
1967			1,620	71,957	11,358	41,847	53,812	25,760	154,323	5,405	155		366,237	84,935	95,659	185,643
1968			1,342	69,420	28,425	46,793	36,126	27,779	126,994	4,010	265		341,154	99,187	82,919	159,048
1969			1,910	65,371	106,281	59,177	42,976	38,456	187,502	5,511	359		507,543	173,562	102,153	231,828
1970			2,020	78,605	30,351	35,091	29,811	44,559	159,710	4,364	269		384,780	110,976	64,902	208,902
1971			683	60,849	63,985	37,757	40,154	26,749	166,346	8,820	359		405,702	125,517	77,911	202,274
1972			426	154,443	31,271	36,758	34,072	23,577	109,820	3,939	150		394,456	186,140	70,830	137,486
1973			1,585	128,495	12,068	24,164	21,196	31,513	170,895	8,457	262		398,635	142,148	45,360	211,127
1974			434	57,516	76,585	13,424	32,472	15,554	156,543	13,923	308		366,759	134,535	45,896	186,328
1975			162	48,295	55,647	16,989	27,362	37,907	234,145	4,847	212		425,566	104,104	44,351	277,111
1976			587	58,978	53,883	39,130	29,883	48,776	262,615	13,395	526		507,773	113,448	69,013	325,312
1977			3,569	98,710	17,229	21,790	19,233	21,992	171,303	11,805	1,026		366,657	119,508	41,023	206,126
1978			4,291	100,712	44,860	27,125	17,198	23,513	165,411	11,104	386		394,600	149,863	44,323	200,414
1979			790	29,751	20,921	15,924	18,293	41,273	142,241	6,865	248		276,306	51,462	34,217	190,627
1980			535	30,732	29,720	15,384	15,681	26,106	118,669	8,404	287		245,518	60,987	31,065	153,466

TABLE 23

(Continued)

MONTHLY COUNT OF CHINOOK SALMON												SPRING	SUMMER	FALL		
BONNEVILLE DAM - 1938-2015												TOTAL*	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*	Jan 1- May 31	Jun 1- Jul 31	Aug 1- Dec 31
1981			1,853	41,917	21,239	13,262	13,667	32,519	154,696	6,288	209		285,650	65,009	26,929	193,712
1982			312	30,282	45,450	15,439	11,175	34,058	174,348	11,487	258		322,809	76,044	26,614	220,151
1983			144	25,423	31,154	12,793	10,665	26,147	116,879	20,458	683		244,346	56,721	23,458	164,167
1984			351	27,185	23,509	13,060	15,447	41,909	180,867	21,673	424		324,425	51,045	28,507	244,873
1985			2,036	52,145	36,780	16,763	13,107	64,899	255,020	22,099	1,024		463,873	90,961	29,870	343,042
1986			2,292	82,356	38,395	18,365	12,676	38,737	337,721	39,511	828		570,881	123,043	31,041	416,797
1987			2,727	68,866	30,214	22,728	14,979	82,500	298,865	25,614	1,001		547,494	101,807	37,707	407,980
1988			2,663	69,689	22,394	18,191	18,333	111,905	236,662	13,656	532		494,025	94,746	36,524	362,755
1989			36	56,583	30,640	15,659	17,316	102,573	181,691	11,218	401		416,117	87,259	32,975	295,883
1990			677	67,536	28,039	16,990	11,031	59,066	149,404	8,015	232		340,990	96,252	28,021	216,717
1991			601	41,431	19,196	12,755	9,198	21,959	159,068	10,116	298		274,622	61,228	21,953	191,441
1992			2,188	68,073	20,321	11,871	7,374	28,537	107,620	10,043	272		256,299	90,582	19,245	146,472
1993			226	77,174	34,772	15,968	7,648	37,893	97,693	6,036	247		277,657	112,172	23,616	141,869
1994			505	13,499	6,562	9,743	10,458	47,787	145,801	9,669	296		244,320	20,566	20,201	203,553
1995			206	7,144	5,511	8,565	9,226	47,145	150,990	15,614	835	14	245,250	12,861	17,791	214,598
1996	4		110	20,923	35,571	11,136	7,768	58,909	154,420	10,451	647	23	299,962	56,608	18,904	224,450
1997			466	67,577	49,921	20,162	10,943	82,123	158,589	9,488	516	-1	399,784	117,964	31,105	250,715
1998	0	1	695	24,549	14,587	14,500	10,396	58,135	155,716	11,308	398	7	290,292	39,832	24,896	225,564
1999		2	251	19,016	28,831	14,830	16,121	66,546	186,880	14,624	378	7	347,486	48,100	30,951	268,435
2000		4	3,166	130,193	71,222	25,864	19,209	100,658	139,073	11,380	227	16	501,012	204,585	45,073	251,354
2001	0	25	16,653	324,800	98,080	53,860	45,825	116,981	351,892	25,875	3,379	70	1,037,440	439,558	99,685	498,197
2002	74	207	4,160	156,379	128,894	91,120	47,111	152,200	358,941	20,509	5,506	255	965,356	289,714	138,231	537,411
2003	6	93	19,283	120,626	70,020	81,333	46,833	90,884	533,913	30,440	2,827	402	996,660	210,028	128,166	658,466
2004		17	593	104,978	73,605	69,622	35,410	111,550	473,727	34,858	1,760	77	906,197	179,193	105,032	621,972
2005	-1	2	43	31,504	46,793	52,917	30,786	47,880	363,426	25,199	1,855	11	600,415	78,341	83,703	438,371
2006	0	1	35	7,030	92,300	71,473	30,401	55,410	236,605	28,653	4,536	94	526,538	99,366	101,874	325,298
2007	1	1	75	31,919	51,256	39,619	21,949	53,174	136,977	23,968	893	35	359,867	83,252	61,568	215,047
2008		3	170	40,547	102,419	67,117	22,775	115,815	222,385	15,479	710	8	587,428	143,139	89,892	354,397
2009	-5	0	164	23,526	157,489	88,523	30,829	148,358	231,702	17,823	697	15	699,121	181,174	119,352	398,595
2010	3	2	482	134,447	122,101	82,577	30,630	102,676	395,450	32,845	1,184	42	902,439	257,035	113,207	532,197
2011	0	13	161	35,139	182,779	107,352	52,378	68,563	372,184	43,169	1,408	55	863,201	218,092	159,730	485,379
2012	2	-1	39	23,702	141,939	62,450	31,448	86,278	355,800	31,073	1,169	31	733,930	165,681	93,898	474,351
2013		6	282	30,709	86,168	79,375	39,908	233,202	752,978	74,597	3,452	34	1,300,711	117,165	119,283	1,064,263
2014	5		539	79,330	134,303	86,196	48,880	94,236	824,408	69,438	2,275	49	1,339,659	214,177	135,076	990,406
2015		9	1,679	139,344	92,762	113,020	66,445	153,178	770,647	108,532	4,889	178	1,450,683	233,794	179,465	1,037,424
TOTAL	129	430	103,760	4,546,571	3,958,069	2,917,795	1,956,408	4,203,853	16,962,266	1,080,411	59,703	1,967	35,791,362	8,608,959	4,874,203	22,308,200
10-Year Average			363	54,569	116,352	79,770	37,564	111,089	429,914	44,558	2,121		876,358	171,288	117,335	587,736

*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.

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

TABLE 24

MONTHLY COUNT OF SOCKEYE SALMON
BONNEVILLE DAM 1938 - 2015

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 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981					1	36,931	19,001	100	4				56,037
1982					12	20,731	29,207	264	4	1			50,219
1983						52,134	48,004	400	5	2			100,545
1984					6	106,892	45,141	494	7	1			152,541
1985				3	13	112,054	53,842	422	4	2			166,340
1986					2	27,303	30,279	475	63	1			58,123
1987					1	75,674	40,930	383	5				116,993
1988					11	44,409	35,168	121	5				79,714
1989					3	24,638	17,000	231	11	1			41,884
1990						26,141	23,244	195	1				49,581
1991						22,318	53,699	457	7				76,481
1992					20	54,292	30,409	271					84,992
1993					7	49,667	30,377	127					80,178
1994					2	9,835	3,306	11					13,154
1995					1	5,924	3,151	59					9,135
1996					3	23,005	8,044	41					31,093
1997					9	23,559	24,392	381	1				48,342
1998					1	7,796	5,723	93					13,613
1999						8,613	9,629	61	1				18,304
2000					146	83,479	13,847	69	0				97,541
2001					32	102,570	20,496	317	1				123,416
2002					3	32,760	18,349	85	3				51,200
2003					2	26,432	12,714	139	4				39,291
2004					134	100,702	22,253	194	3		5		123,291
2005					16	47,093	25,724	118	20				72,971
2006					9	27,398	9,518	129	12				37,066
2007					36	18,742	5,487	107	4				24,376
2008					53	188,756	24,735	46	17				213,607
2009					57	141,543	36,117	104	2				177,823
2010				1	169	297,778	88,415	156	5				386,524
2011				1	8	87,794	97,798	195					185,796
2012					80	382,529	132,889	170	5				515,673
2013					60	114,293	70,593	554	5				185,505
2014	2			2	50	316,243	296,595	1,276	11				614,179
2015		1		0	314	357,048	151,589	1,685	67	3	-1		510,706
TOTAL	2	1	76	545	9,107	4,350,917	4,026,684	48,624	2,782	140	36	1	8,438,915
10-Year Average					84	193,212	91,374	442	14				285,126

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.

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

TABLE 25

MONTHLY COUNT OF COHO SALMON
BONNEVILLE DAM 1938 - 2015

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 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
1981							4	3,162	23,962	3,108	274		30,510	8,575
1982							79	3,687	55,743	13,182	1,141		73,832	18,016
1983							44	319	7,237	5,020	2,553		15,173	6,775
1984							41	1,394	20,174	6,229	1,649		29,487	12,728
1985			1			7	92	3,977	46,749	5,670	361		56,857	18,307
1986							181	2,502	110,714	14,436	3,020		130,853	22,204
1987							464	2,364	21,002	3,556	249		27,635	9,713
1988							78	3,377	26,303	8,614	1,248		39,620	12,566
1989							60	2,353	24,089	9,543	3,236		39,281	11,863
1990							9	587	18,202	5,230	817		24,845	13,218
1991							5	941	46,331	13,713	3,067		64,057	5,189
1992							19	222	10,304	5,953	1,628		18,126	3,757
1993							15	448	8,191	2,786	292		11,732	1,090
1994							5	1,608	12,521	8,239	421		22,794	2,503
1995							118	978	7,049	3,969	458		12,572	1,639
1996							66	431	10,413	7,775	392		19,077	3,010
1997							22	1,441	19,412	6,755	289		27,919	3,206
1998							13	896	35,245	13,047	282	5	49,488	3,630
1999		19				1	3	951	34,901	9,673	252	5	45,805	4,468
2000							3	13,348	55,550	29,698	949	112	99,660	11,383
2001	15					2	145	34,112	205,352	34,401	3,907		277,934	6,781
2002							6	4,742	54,917	38,184	2,803	183	100,835	6,817
2003							10	11,389	86,621	35,516	334	4	133,874	8,127
2004	1						0	11,171	78,512	29,544	622	1	119,851	4,809
2005							0	3,487	64,253	20,414	637	0	88,791	5,486
2006							1	12,771	58,048	35,014	4,192	28	110,054	7,943
2007	-2						6	8,888	55,968	32,607	3,200	58	100,725	12,531
2008	-1						2	8,335	84,639	51,771	1,309	4	146,059	68,486
2009	-4						7	37,438	104,294	89,979	2,936	19	234,669	9,776
2010	-11	0					1	7,365	53,947	62,961	3,255	126	127,644	6,933
2011		0					6	12,870	108,156	28,202	644	5	149,883	4,572
2012							3	6,162	37,556	15,345	951	6	60,023	5,039
2013							0	5,871	31,618	25,345	3,758	166	66,758	7,097
2014	3						0	6,085	185,680	85,640	16,840	286	294,534	14,803
2015							1	3,029	27,481	8,122	3,431	203	42,267	4,865
TOTAL	22	31	6	1	0	179	5,544	350,815	2,765,671	876,298	87,459	1,277	4,087,303	712,822
10 Year Average							2	10,209	73,785	41,400	3,741		129,219	13,412

*Jacks included

Notes:

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

24 hour counts November 16 through December 31.

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

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

2003-14 counts include 16 hour video counts between 0400-2000 PST January 1 through March 31

and November 1 through December 31.

Correction to 2014 total Jacks.

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

and December 1-31.

TABLE 26

MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 -2015

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 - 2015

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
2015	611	809	1,780	939	1,078	6,114	60,690	113,906	64,735	13,899	2,905	1,264	268,730	171,198	97,532
TOTAL	11,414	11,304	84,454	202,448	186,518	570,307	4,735,615	6,119,654	4,228,083	440,983	69,070	19,000	16,678,850	10,842,708	5,839,194
10-Year Average		1,479	1,361	1,781	9,502	87,842	154,124	76,994	11,011	1,947			347,762	233,341	114,420

1994 counts include nighttime video counts during the hours of 2100-0500 PST June 1 through August 16.
1995 counts include nighttime video counts during the hours of 2000 and 0400 PST April 1 through November 15.
24 hour counts November 16 through December 31.
1996 - 2002 counts includes 24 hour video counts January 1 through March 15 and November 16 through Dec 31.
2003 - 2014 counts include 16 hour video counts between 0400-2000 PST January 1 through March 31 and November 1 through December 31.
2015 visual fish counting extended to November 30. Video counts between 0400-2000 PST January 1 through March 31.

TABLE 27

MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2015

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 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981				2	20,976	708,295	150,730	1,080	79	17			881,179
1982				1	6,888	655,037	117,325	914	37	9	1		780,212
1983					78,105	1,224,342	118,975	1,103	112	37			1,422,674
1984					553	950,406	320,526	4,097	153	55	1		1,275,791
1985					101,770	816,288	55,233	1,410	206	39	5		974,951
1986					104,724	722,443	29,622	1,164	166	47	4		858,170
1987				28	254,326	678,850	10,254	379	32	5	1		943,875
1988				20	408,822	734,635	20,146	697					1,164,320
1989				1	199,327	1,651,338	24,697	2,041					1,877,404
1990				4	532,617	2,296,098	116,799	2,347					2,947,865
1991				1	37,677	1,566,933	307,835	1,971					1,914,417
1992				256	685,939	1,767,696	93,446	4,102					2,551,439
1993			11	10	111,459	1,883,831	167,900	3,463					2,166,674
1994				53	136,547	1,223,421	195,894	1,640					1,557,555
1995				1	231,973	1,289,390	193,091	1,724					1,716,179
1996					24,653	1,676,695	221,795	1,514					1,924,657
1997					97,507	1,760,507	312,779	768					2,171,561
1998				1	185,810	1,660,405	44,656	120					1,890,992
1999					132,782	1,374,822	129,625	1,043					1,638,272
2000				6	229,344	961,587	52,558	822					1,244,317
2001				9	704,104	1,550,639	41,596	1,611					2,297,959
2002				0	382,611	2,670,772	110,780	393					3,164,556
2003					420,265	4,025,864	108,226	4,195					4,558,550
2004					662,249	4,544,400	142,236	6,792					5,355,677
2005					288,233	3,768,400	182,603	2,893					4,242,129
2006					205,664	3,555,887	197,303	6,400					3,965,254
2007				56	695,605	1,763,670	112,508	3,438					2,575,277
2008					67,013	1,856,442	217,538	3,763					2,144,756
2009					313,849	1,028,718	30,571	600					1,373,738
2010					45,038	943,332	53,049	1,052					1,042,471
2011					1,857	766,135	177,334	2,744					948,070
2012					18,446	2,331,533	79,282	3,133					2,432,394
2013					381,393	3,298,348	68,417	3,217					3,751,375
2014					487,086	2,084,362	31,012	809					2,603,269
2015					192,809	1,450,924	169,229	2,039					1,815,001
TOTAL			14	457	8,619,640	65,848,537	8,586,784	156,821	4,136	593	36		83,217,018
10 Year - Average					240,876	1,907,935	113,624	2,720					2,265,161

TABLE 28
MONTHLY COUNT OF LAMPREY at
BONNEVILLE DAM 1939¹ - 1969, 1997 - 2015

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.

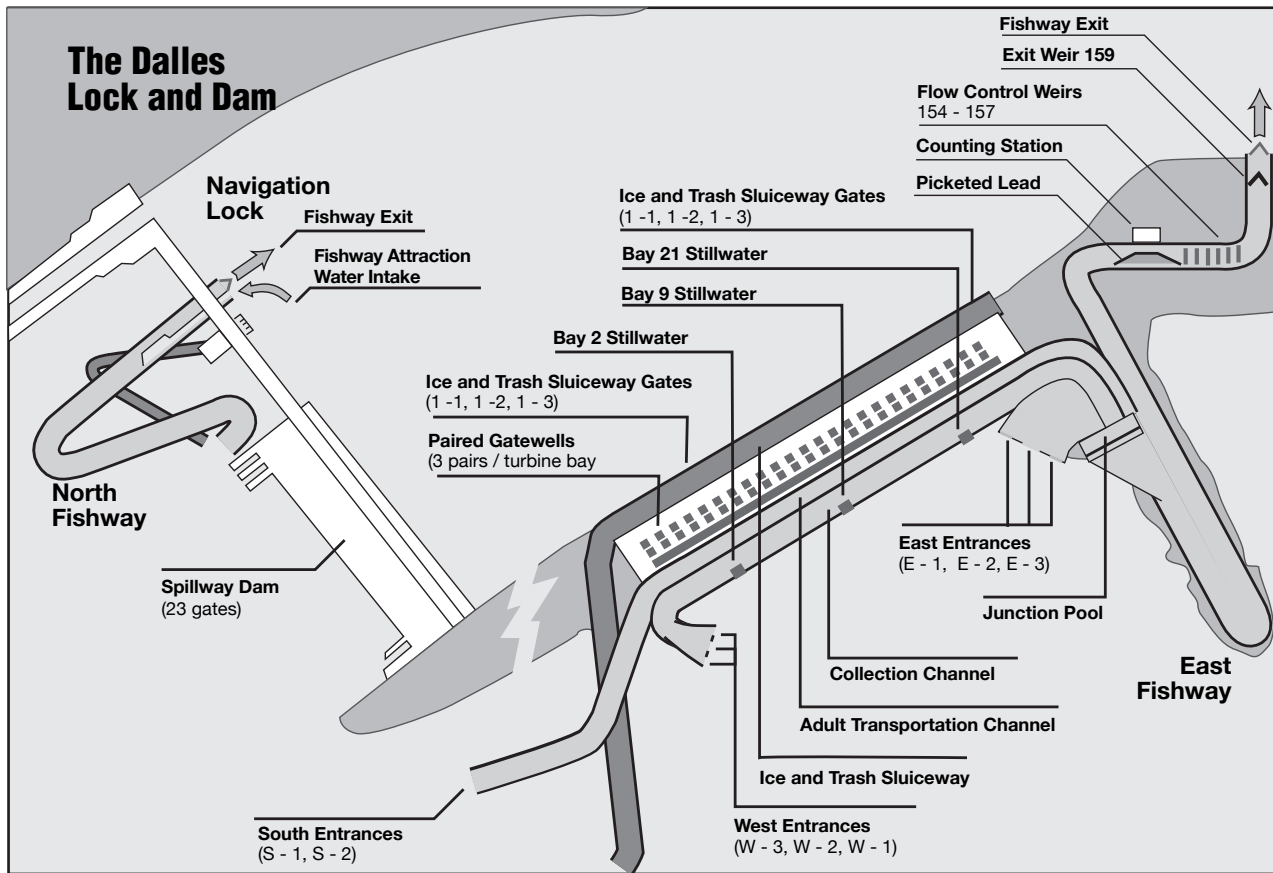
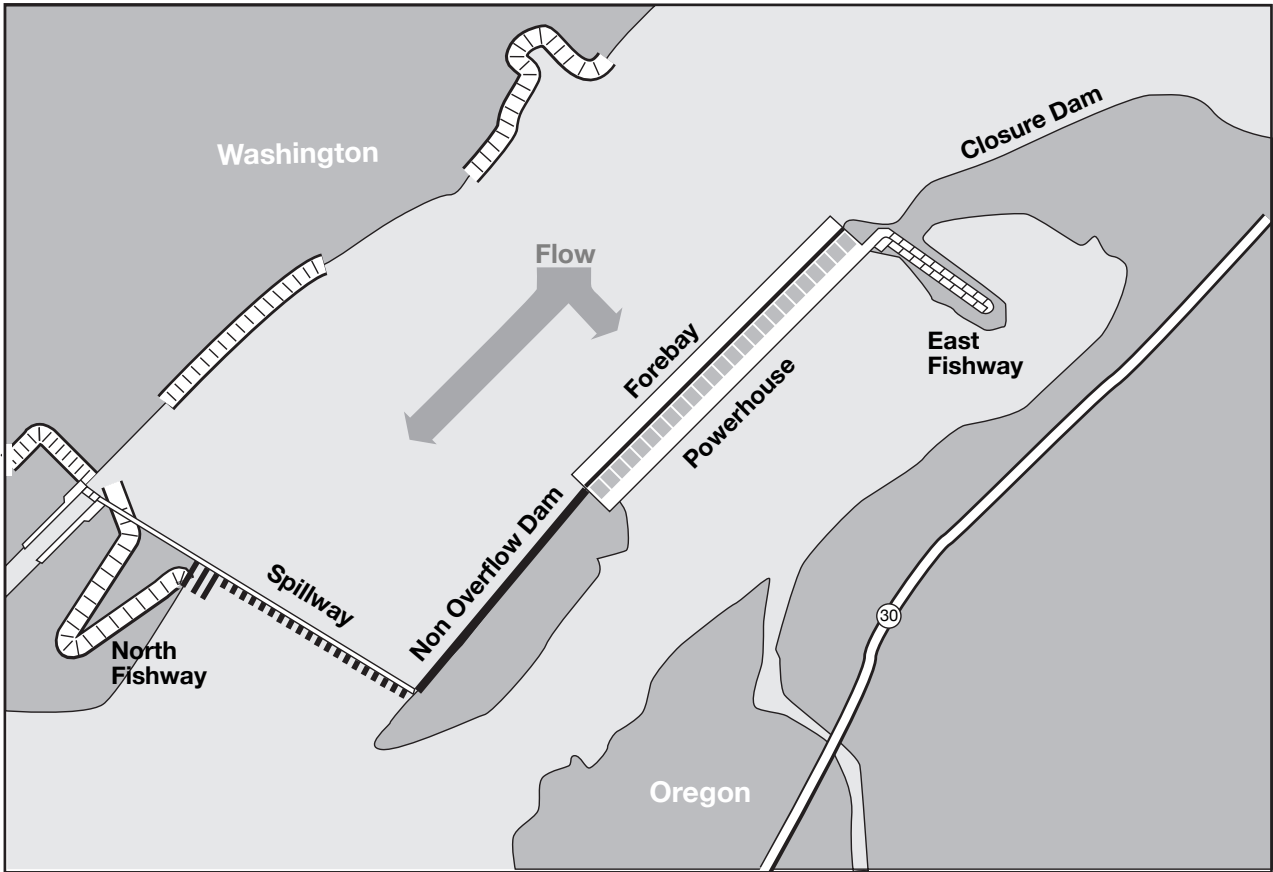
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939				732	9,027	95,814	103,726	14,403	3,349	71	0		227,122
1940				338	24,551	40,642	67,760	20,554	2,217	40	0		156,102
1941				1,428	7,449	6,960	34,952	12,801	1,305	57	2		64,954
1942				13	1,302	3,457	28,641	16,270	2,619	40	19		52,361
1943				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			2	8	2,575	17,796	39,223	41,214	3,167	347	5		104,337
1965				54	6,674	8,886	71,027	16,949	4,617	772	8		108,987
1966				168	6,562	11,772	25,813	20,543	2,207	844	5		67,914
1967				211	4,416	6,348	38,591	14,792	1,570	225	18		66,171
1968				92	14,698	18,389	57,011	17,611	949	275	4		109,029
1969				44	24,386	230,096	87,769	32,908	4,126	170	10		379,509
*** Counting lamprey was stopped after 1969. It was resumed again in 1997. ***													
1997				4	1,691	³ #####	1,939	9,783	8,643	770	0		22,830
1998				103	2,213	12,851	14,548	5,304	2,211	285	0		37,515
1999				65	4,780	8,801	12,047	7,584	3,717	302	0		37,296
2000				91	2,204	7,953	4,184	3,408	1,038	123	1		19,002
2001				1	2,075	11,143	9,895	4,141	620	72			27,947
2002				0	1,280	34,070	39,405	17,380	7,977	364			100,476
2003				6	2,874	50,875	45,863	13,230	3,843	336			117,027
2004				0	1,670	27,515	23,607	6,644	2,170	174			61,780
2005				-1	774	10,706	12,271	2,320	498	96			26,664
2006				1	446	8,874	18,603	6,868	4,013	122	13		38,940
2007				0	297	2,397	12,948	2,884	818	-26	-9		19,309
2008				0	444	3,942	6,276	3,159	680	59	2		14,562
2009				0	818	2,740	3,819	1,057	203	-14	2	-3	8,622
2010				0	11	1,285	2,793	1,646	460	44	-6	1	6,234
2011	1				281	1,210	9,408	5,987	1,314	112	-5	7	18,315
2012				20	1,141	8,073	10,780	6,555	2,583	81	-10	1	29,224
2013					1,294	6,329	11,095	3,795	1,352	102	1	3	23,971
2014				2	2,599	7,944	15,598	4,802	943	62	4	-1	31,953
2015				0	936	11,478	15,814	9,280	927	111	168	2	38,716
TOTAL				3	4,107	172,451	807,787	1,839,913	904,655	151,883	12,543	1,418	3,894,790
10-Year Average				2	822	5,907	10,855	4,396	1,254	68			23,319

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 2015. 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 31	In full operation with attraction water
Aug 4	Attraction water off half day for required ROV grating inspection
Dec 2	FU1 off for a dive, FU2 OOS for maintenance

North Adult Fishway

Jan 1 – Feb 1	In full operation with attraction water
Feb 2 – Feb 26	Dewatered for winter maintenance
Feb 27 – Nov 30	In full operation with attraction water
Aug 4	Attraction water off half day for required ROV grating inspection
Dec 1 – Dec 31	Set to orifice flow for maintenance

Ice/Trash Sluiceway (Juvenile)

Jan 1- Mar 1	OOS, end gate closed
Mar 2 – Mar 31	In service with 4 sluice gates open
Apr 1 – Dec 9	In service with 6 sluice gates open
Dec 10 – 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

Date	Event	Chinook	Steelhead	Lamprey	Sturgeon	Other	Comments	Morts
02/03/15	N. Upper	2 Juv	0	4	0	0	None	0
12/03/15	N. Upper	15	2	20	5	0	1*	1 Chinook

1* North ladder dewatering was cut short due to a large sturgeon in a upper section of the ladder. The location of the sturgeon made removal unfeasible therefore the ladder was immediately re-watered.

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	Steelhead	Sturgeon	Other	Comments	Mort's
1/20/15	MU13sc	0	0	0	0	none	0
1/21/15	MU13dt	0	0	0	0	none	0
2/2/15	MU8sc	0	0	1	0	none	0
2/3/15	MU8dt	0	0	1	0	none	0
3/31/15	MU6sc	0	0	0	0	none	0
3/31/15	MU6sc	0	0	0	0	none	0
8/19/15	MU19sc	0	4j	0	0	none	1*
8/19/15	MU19dt	0	0	51	1 ca	none	0

1* Five Juvenile Steelhead and 1 Juvenile Sockeye

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 October, in conjunction with ODFW and PSMFC. Anglers caught a total of 4,566 northern pikeminnow.

Zebra/Qqagga Mussel Monitoring

One Zebra mussel veliger sample was taken in August via plankton tow. Sample sent to Portland State University's Center for Lakes and Reservoirs for analysis. No mussels found to date. Program will continue in 2016.

Research

The following are a list of fish related research and contract personnel that were on site during the 2015 passage season.

Confederated Tribes of the Umatilla Indian Reservation – Captured adult Pacific lamprey as part of the on-going project to restore lamprey to various tributaries. CTUIR worked with the Nez Perce and Yakama Nation to help with lamprey collection efforts. CTUIR captured 450 lamprey.

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

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

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

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

Pixel Heavy Industries – Requested video counts of the north ladder in order to create a computer generated fish count.

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

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

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 2015. They also installed, downloaded and maintained receivers and antennas.

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.

Yakama Nation - Captured adult Pacific lamprey as part of the on-going project to restore lamprey to various tributaries. Yakama Nation worked with the Nez Perce and CTUIR to help with lamprey collection efforts. Yakama Nation captured 450 lamprey.

TABLE 29

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

2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				103,729	95,758	89,752	53,573	78,324	524,977	122,265			1,068,378
STEELHEAD				280	181	2,399	21,871	51,038	110,344	30,905			217,018
SOCKEYE					113	290,869	136,068	2,448	273	26			429,797
COHO*								510	22,447	4,002			26,959
CHUM													0
PINK								14	118	5			137
TOTAL				104,009	96,052	383,020	211,512	132,334	658,159	157,203			1,742,289
LAMPREY					70	5,115	4,055	2,385	703	72			12,400
STURGEON					3	17	26	32	9	8			95
BULL TROUT													0

*Jacks included

Shad no longer counted at The Dalles Dam.

TABLE 30

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2015

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Jan 1	190.7	0.0	42.9	4.0
Jan 2	188.0	0.0	42.4	5.0
Jan 3	177.1	0.0	42.0	4.0
Jan 4	170.5	0.0	41.5	5.0
Jan 5	194.9	0.0	40.9	4.0
Jan 6	165.7	0.0	40.7	4.5
Jan 7	150.6	0.0	40.4	5.0
Jan 8	179.5	0.0	40.0	5.0
Jan 9	182.1	0.0	39.7	5.0
Jan 10	185.3	0.0	39.7	5.0
Jan 11	182.1	0.0	39.8	5.0
Jan 12	190.5	0.0	39.8	5.0
Jan 13	185.9	0.0	40.0	5.0
Jan 14	190.6	0.0	40.2	5.0
Jan 15	182.5	0.0	40.3	5.0
Jan 16	185.7	0.0	40.5	5.0
Jan 17	169.9	0.0	40.6	5.0
Jan 18	194.9	0.0	41.0	5.0
Jan 19	158.5	0.0	40.7	5.0
Jan 20	189.1	0.0	40.5	5.0
Jan 21	187.0	0.0	40.6	5.0
Jan 22	212.1	0.0	40.3	5.0
Jan 23	201.7	0.0	40.1	5.0
Jan 24	189.2	0.0	39.9	5.0
Jan 25	173.8	0.0	41.0	5.0
Jan 26	173.3	0.0	40.7	5.0
Jan 27	178.6	0.0	40.5	5.0
Jan 28	189.9	0.0	40.6	5.0
Jan 29	189.4	0.0	40.3	5.0
Jan 30	192.1	0.0	40.1	5.0
Jan 31	200.3	0.0	39.9	5.0
AVG.	183.9	0.0	40.6	4.9

FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCH	*DEG F
Feb 1	198.6	0.0	39.8	5.0
Feb 2	205.4	0.0	39.8	5.0
Feb 3	210.2	0.0	39.9	3.5
Feb 4	197.3	0.0	39.9	5.0
Feb 5	207.6	0.0	40.0	5.0
Feb 6	216.8	0.0	40.1	5.0
Feb 7	208.6	0.0	40.3	5.0
Feb 8	222.0	0.0	40.5	5.0
Feb 9	233.1	0.0	40.6	4.0
Feb 10	209.6	0.0	40.9	4.0
Feb 11	228.9	0.0	41.1	4.0
Feb 12	244.4	0.0	41.3	4.0
Feb 13	247.2	0.0	41.4	4.5
Feb 14	240.1	0.0	41.9	3.0
Feb 15	234.3	0.0	42.1	3.0
Feb 16	246.1	0.0	42.0	3.0
Feb 17	242.8	0.0	42.0	3.0
Feb 18	232.5	0.0	42.0	3.5
Feb 19	240.4	27.1	42.2	3.5
Feb 20	227.0	10.4	42.4	3.0
Feb 21	235.4	0.0	42.3	3.0
Feb 22	220.9	0.0	42.1	2.5
Feb 23	223.6	0.0	41.9	2.5
Feb 24	226.4	0.0	41.9	3.0
Feb 25	218.6	0.0	42.1	3.0
Feb 26	198.3	0.0	42.1	3.0
Feb 27	181.9	0.0	42.1	3.0
Feb 28	213.0	0.0	41.9	3.0
AVG.	221.8	1.3	41.3	3.7

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Mar 1	196.7	0.0	41.9	3.0
Mar 2	187.4	0.0	42.0	3.0
Mar 3	182.7	0.0	42.0	3.5
Mar 4	173.4	0.0	41.9	4.0
Mar 5	180.6	0.0	41.9	3.5
Mar 6	201.4	0.0	42.0	3.5
Mar 7	212.4	0.0	42.3	4.5
Mar 8	190.0	0.0	42.6	5.0
Mar 9	182.8	0.0	42.7	4.0
Mar 10	176.9	0.0	42.9	3.5
Mar 11	177.3	0.0	43.0	4.0
Mar 12	167.3	0.0	43.3	4.0
Mar 13	173.4	0.0	43.6	4.5
Mar 14	166.7	0.0	43.9	5.0
Mar 15	147.8	0.0	44.4	5.0
Mar 16	132.3	0.0	44.6	5.0
Mar 17	169.8	0.0	44.9	4.5
Mar 18	176.2	0.0	45.4	5.0
Mar 19	171.6	0.0	45.8	5.0
Mar 20	202.4	0.0	46.2	5.0
Mar 21	188.7	0.0	46.5	5.0
Mar 22	184.9	0.0	46.9	5.0
Mar 23	209.0	0.0	47.0	5.0
Mar 24	193.5	0.0	47.1	5.0
Mar 25	188.8	0.0	47.2	5.0
Mar 26	204.9	0.0	47.3	5.0
Mar 27	204.8	0.0	47.7	5.0
Mar 28	211.9	0.0	48.0	4.5
Mar 29	200.0	0.0	47.8	5.0
Mar 30	221.6	0.0	47.8	5.0
Mar 31	223.9	21.4	48.1	5.0
AVG.	187.1	0.7	44.8	4.5

TABLE 31

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

THE DALLES PROJECT - FISH COUNTS

APRIL 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL unclipped		PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD							SECCHI	DEG F
Apr 1	49			0				14	8					220.5	4.8	48.1	4.0
Apr 2	91			2				12	7					192.4	38.5	48.1	4.0
Apr 3	63			0				15	12					218.6	15.7	48.3	4.5
Apr 4	91			1				12	7					216.7	0.0	48.6	4.3
Apr 5	138			0				12	10					223.2	0.0	48.8	4.5
Apr 6	143			6				2	0					215.8	0.0	49.0	4.0
Apr 7	179			5				6	0					207.9	0.0	49.2	5.0
Apr 8	200			1				13	8					208.3	0.0	49.2	5.0
Apr 9	358			13				8	3					192.8	0.0	49.4	4.0
Apr 10	294			0				12	8					175.4	66.4	49.5	4.0
Apr 11	579			12				17	8					166.7	61.5	49.6	5.0
Apr 12	563			10				6	4					153.5	65.9	49.4	5.0
Apr 13	959			18				9	3					164.7	73.6	49.4	4.0
Apr 14	936			3				13	6					184.7	64.3	49.3	5.0
Apr 15	899			6				7	5					160.7	55.0	49.2	4.5
Apr 16	1,129			9				6	4					137.4	59.7	49.6	4.5
Apr 17	3,612			10				5	1					149.6	52.3	50.0	4.0
Apr 18	2,928			17				12	6					130.0	52.8	50.5	4.0
Apr 19	6,657			17				9	8					131.8	55.2	50.6	4.0
Apr 20	7,404			32				11	9					137.9	61.5	51.0	4.0
Apr 21	7,812			80				13	7					154.1	59.2	51.3	4.0
Apr 22	10,678			116				15	9					148.4	56.7	51.2	4.5
Apr 23	4,030			38				2	1					141.9	61.5	50.9	4.5
Apr 24	6,481			57				2	1					153.6	57.4	51.2	4.0
Apr 25	3,878			39				0	0					143.4	55.8	51.6	4.0
Apr 26	4,111			35				4	2					139.4	56.6	52.0	5.0
Apr 27	4,506			34				8	2					141.4	67.0	52.7	4.0
Apr 28	7,834			117				12	1					166.8	58.6	53.4	4.0
Apr 29	10,083			104				13	6					146.9	54.5	53.8	5.0
Apr 30	15,947			315				10	4					136.3	48.1	53.5	4.5
TOTAL	102,632			1,097				280	150								
AVG.	3,421			37				9	5					168.7	43.4	50.3	4.4

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

TABLE 32

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

THE DALLES PROJECT - FISH COUNTS

MAY 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD							STEELHEAD	SECCHI	DEG F
May 1	8,822			259			0	3	3			0	0	119.8	59.9	54.0	4.0
May 2	8,837			457			0	3	1			0	0	150.2	67.0	54.5	4.5
May 3	4,649			283			0	7	1			0	0	167.4	65.6	54.9	4.5
May 4	3,176			173			0	15	2			0	0	164.3	65.4	55.5	5.0
May 5	2,728			174			0	5	2			0	0	163.6	59.3	55.5	5.0
May 6	3,410			164			0	2	2			0	0	148.2	63.2	55.3	5.0
May 7	3,461			248			0	4	0			0	0	157.6	63.3	55.4	4.0
May 8	3,770			300			0	6	1			0	0	158.3	61.2	56.2	5.0
May 9	3,610			371			0	4	1			0	1	153.3	58.2	56.8	5.0
May 10	3,227			438			0	3	1			0	0	145.4	53.3	57.4	4.0
May 11	3,654			473			0	4	-1			0	1	133.5	51.2	57.4	4.5
May 12	2,834			381			0	-2	1			0	0	127.9	60.5	56.8	3.5
May 13	1,530			296			0	3	2			0	0	151.1	68.3	56.9	4.0
May 14	1,164			195			0	2	0			0	0	170.6	70.3	57.1	4.0
May 15	1,755			402			0	1	1			1	0	175.9	74.0	57.8	4.0
May 16	1,807			447			0	2	0			1	0	185.8	65.1	57.9	4.0
May 17	1,809			326			0	6	0			1	0	162.6	61.0	58.1	4.5
May 18	1,989			322			0	8	2			0	0	152.5	76.4	58.3	4.0
May 19	1,962			428			0	5	1			0	0	190.7	73.7	58.7	4.5
May 20	1,506			469			0	6	1			0	0	184.5	71.2	58.8	4.5
May 21	1,421			399			0	5	0			1	0	177.9	78.1	59.2	4.5
May 22	1,787			564			2	8	0			0	0	194.0	74.7	59.3	3.0
May 23	1,344			395			1	4	-1			1	0	187.1	75.4	59.0	3.0
May 24	1,542			254			0	11	2			1	0	188.9	82.6	59.4	3.0
May 25	1,217			177			2	2	0			2	0	207.1	77.8	60.1	3.5
May 26	1,931			352			2	6	1			6	0	194.2	78.4	60.8	4.5
May 27	2,068			275			0	5	0			0	0	196.7	81.0	61.2	5.0
May 28	1,826			428			4	12	5			4	1	201.4	79.1	61.6	4.5
May 29	2,226			462			13	16	4			10	0	197.9	74.8	62.1	4.5
May 30	1,745			332			23	16	2			26	0	186.8	66.7	62.7	4.0
May 31	2,439			268			66	9	1			16	0	166.2	71.7	62.9	4.2
TOTAL	85,246			10,512			113	181	35			70	3				
AVG.	2,750			339			4	6	1			2	0	169.7	68.7	58.1	4.2
RUN YEAR		CHINOOK	CHINOOK					TOTAL	unclipped								
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD			LAMPREY	STURGEON				
SPRING		187,878	11,609				113	461	185			70	3				

TABLE 33

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD	STEELHEAD								
Jun 1	2,570			299			84	26	10				36	0	179.0	72.7	63.3	4.5
Jun 2	1,905			171			69	31	9				69	1	182.3	72.6	63.6	5.0
Jun 3	1,763			228			87	10	-4				82	0	181.4	64.7	63.8	5.0
Jun 4		1,674		161			137	14	3				66	1	161.8	67.9	63.8	4.5
Jun 5		1,844		189			214	22	6				62	1	170.1	68.0	64.2	4.5
Jun 6		1,812		193			423	20	2				75	2	169.8	64.1	64.6	4.5
Jun 7		1,866		205			578	22	6				164	0	159.9	65.2	65.0	5.0
Jun 8		2,508		243			740	22	4				129	0	162.4	67.0	65.2	5.0
Jun 9		3,116		306			981	26	10				182	0	166.7	74.9	65.4	4.5
Jun 10		2,050		192			1,077	6	-17				206	1	187.3	61.2	65.5	4.0
Jun 11		2,176		285			1,898	31	7				223	1	152.7	61.7	65.5	5.0
Jun 12		2,417		258			3,356	32	8				252	2	154.5	56.5	66.2	5.0
Jun 13		2,876		281			3,713	24	-3				314	0	141.3	57.0	66.0	5.0
Jun 14		2,770		276			4,538	39	14				308	0	143.2	53.9	66.7	5.0
Jun 15		3,129		439			5,667	54	30				198	0	135.4	61.4	67.1	5.0
Jun 16		3,118		414			7,205	73	15				209	0	153.2	61.9	67.6	5.0
Jun 17		2,367		286			8,365	55	21				174	0	154.9	54.0	67.3	5.0
Jun 18		2,430		308			10,528	75	40				123	0	135.1	44.5	67.4	5.0
Jun 19		2,684		342			12,913	112	47				250	0	111.3	43.2	67.5	5.0
Jun 20		2,761		370			12,481	126	72				124	1	107.7	40.4	67.5	5.0
Jun 21		2,508		308			16,165	136	78				153	0	101.6	41.4	67.9	5.0
Jun 22		3,084		453			26,735	143	55				229	0	103.8	40.4	68.1	5.0
Jun 23		2,580		390			23,679	74	36				195	1	101.2	41.2	68.2	5.0
Jun 24		2,971		432			24,447	123	54				120	2	103.2	48.2	68.3	5.0
Jun 25		3,147		432			24,297	185	84				195	0	120.4	49.5	68.6	6.0
Jun 26		4,085		528			18,762	152	65				166	0	123.5	53.3	69.3	5.0
Jun 27		3,767		408			21,491	178	76				142	1	133.2	54.9	69.8	5.3
Jun 28		3,876		464			22,865	179	94				227	1	137.3	55.3	70.0	5.0
Jun 29		3,646		362			18,426	176	91				309	0	138.9	57.3	70.2	5.0
Jun 30		2,556		473			18,948	233	137				133	2	143.7	55.2	70.2	5.0
TOTAL	6,238	73,818		9,696			290,869	2,399	1,050				5,115	17				
AVG.	2,079	2734		323			9,696	80	35				171	1	143.9	57.0	66.8	4.9

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	194,116	12,307
SUMMER	73,818	8,998
TOTAL	267,934	21,305

	TOTAL SOCKEYE	unclipped STEELHEAD	unclipped STEELHEAD
	290,982	2,860	1,235

LAMPREY	STURGEON
5,185	20

TABLE 34

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL unclipped					DISCH	SPILL	TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Jul 1		2,280		281			16,120	285	162			202	1	137.8	51.2	71.0	5.0
Jul 2		2,140		286			16,432	307	169			132	1	127.9	57.6	71.7	5.0
Jul 3		2,676		281			13,512	223	140			197	0	144.5	51.1	72.2	4.0
Jul 4		2,834		390			11,307	211	115			142	1	127.3	48.3	72.2	5.0
Jul 5		2,591		240			8,874	225	144			126	1	120.9	47.6	72.1	5.0
Jul 6		2,088		265			7,126	262	175			114	2	118.5	51.3	72.6	5.0
Jul 7		1,132		191			6,332	181	123			125	1	128.3	55.3	73.0	5.0
Jul 8		895		111			5,172	171	101			172	0	137.7	46.2	72.7	5.0
Jul 9		1,046		136			4,135	309	198			102	0	115.3	52.0	73.5	5.0
Jul 10		1,411		230			4,576	388	252			234	1	129.8	41.0	73.8	4.0
Jul 11		1,886		266			3,781	354	244			181	2	101.9	38.0	73.1	5.0
Jul 12		1,393		186			2,521	325	229			120	1	94.9	39.4	72.7	5.0
Jul 13		1,124		159			5,327	361	227			127	1	98.3	46.1	73.3	5.0
Jul 14		792		122			3,826	248	157			181	2	115.2	44.7	73.5	5.0
Jul 15		1,852		258			3,127	378	268			133	1	117.8	48.3	73.4	5.0
Jul 16		2,762		331			3,054	485	340			201	0	121.0	46.2	72.7	5.0
Jul 17		2,738		420			2,523	777	517			203	0	115.6	49.8	72.4	5.0
Jul 18		1,885		262			2,629	855	540			144	1	124.7	52.2	72.9	5.0
Jul 19		1,100		160			2,431	781	456			121	0	130.8	48.5	73.1	5.0
Jul 20		1,183		134			2,176	655	456			201	1	120.8	50.7	73.0	5.0
Jul 21		969		160			1,283	515	326			193	2	127.0	50.1	72.5	5.0
Jul 22		829		84			1,249	731	473			62	1	125.4	46.6	72.1	5.0
Jul 23		888		118			1,306	899	533			99	2	116.3	41.5	71.7	5.0
Jul 24		954		127			1,584	1,007	631			68	0	103.9	45.7	71.6	5.0
Jul 25		942		124			1,594	973	627			54	0	113.9	46.5	71.8	5.5
Jul 26		1,280		79			960	1,101	718			38	0	115.7	44.3	71.5	5.0
Jul 27		1,421		172			842	1,481	907			51	0	110.1	45.0	71.2	5.0
Jul 28		971		122			849	1,916	1,201			88	0	112.7	48.0	71.1	5.0
Jul 29		705		100			506	1,513	843			52	1	120.5	49.2	71.5	6.0
Jul 30		1,318		151			494	1,949	1,101			78	0	123.7	57.1	71.5	6.0
Jul 31		1,386		156			420	2,005	1,091			114	3	142.2	52.1	71.7	5.0
TOTAL		47,471		6,102			136,068	21,871	13,464			4,055	26				
AVG		1,531		197			4,389	706	434			131	1	120.7	48.1	72.3	5.0
RUN YEAR																	
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	STEELHEAD			LAMPREY	STURGEON				
SPRING		194,116	12,307				427,050	24,731	14,699			9,240	46				
SUMMER		121,289	15,100														
TOTAL		315,405	27,407														

TABLE 35

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

THE DALLES PROJECT - FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL unclipped				CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK				KCFS	KCFS	SECCHI	DEG F
Aug 1		1283		198	0	0	273	2,125	1,162	0		73	1	130.3	52.7	71.7	5.0
Aug 2		813		89	0	0	280	2,063	1,128	0		106	1	131.6	42.6	71.5	5.0
Aug 3		530		71	1	0	171	1,704	869	0		73	0	106.9	44.4	71.2	5.0
Aug 4			474	75	0	0	112	1,183	589	1		54	0	110.9	49.2	70.8	5.0
Aug 5			584	83	0	0	227	1,734	790	0		47	1	123.4	45.5	70.8	5.0
Aug 6			695	57	1	0	235	1,597	746	0		90	3	113.5	47.4	70.9	5.0
Aug 7			868	74	5	0	112	1,670	715	0		147	0	118.7	56.0	71.5	5.0
Aug 8			1,206	127	0	0	132	1,776	834	-2		117	0	139.6	53.0	71.8	5.0
Aug 9			1,094	153	0	0	102	1,639	680	1		100	3	132.7	44.1	71.6	5.0
Aug 10			1,099	129	0	0	103	1,564	745	0		149	0	110.8	49.3	71.5	5.0
Aug 11			1,053	111	0	0	71	976	400	0		76	0	123.4	45.1	71.5	5.0
Aug 12			1,117	86	0	0	73	1,554	757	0		96	2	112.8	50.3	71.8	5.0
Aug 13			837	101	1	0	60	1,465	594	0		111	3	125.9	50.6	72.1	5.0
Aug 14			1,144	77	0	0	62	1,596	663	0		108	1	126.9	48.0	71.9	5.0
Aug 15			1,036	99	0	0	41	1,541	647	1		62	2	120.3	51.0	71.5	5.0
Aug 16			1,408	109	0	1	48	2,108	808	1		104	0	127.2	53.8	71.5	5.0
Aug 17			1,072	124	1	0	48	2,248	850	0		81	0	134.0	53.2	71.8	5.0
Aug 18			819	84	0	0	16	1,570	518	0		67	0	133.3	48.3	72.2	5.0
Aug 19			850	135	0	0	18	1,164	378	0		89	2	120.8	56.2	72.2	6.0
Aug 20			1,914	153	4	1	17	907	258	0		108	2	140.5	47.5	72.0	5.0
Aug 21			2,844	279	18	2	21	1,008	378	1		76	0	122.8	49.3	70.8	5.0
Aug 22			3,383	429	20	2	32	2,498	928	4		80	2	123.2	51.5	70.3	5.5
Aug 23			2,345	284	23	1	48	2,091	769	4		75	2	128.9	53.8	70.5	5.5
Aug 24			2,001	201	10	4	32	2,185	736	2		45	0	134.1	54.3	70.7	5.0
Aug 25			1,673	169	24	14	29	1,653	516	0		53	0	136.4	55.2	70.8	5.0
Aug 26			2,807	289	39	15	22	1,781	641	2		42	0	138.1	51.4	70.8	5.0
Aug 27			4,353	351	39	21	15	1,302	406	0		25	0	128.4	51.4	70.8	5.0
Aug 28			4,285	413	32	11	17	1,365	446	-1		39	1	128.8	51.6	70.6	5.0
Aug 29			5,327	450	29	6	7	1,333	394	0		20	0	129.4	38.7	70.3	5.0
Aug 30			10,647	851	64	22	14	1,397	394	0		42	6	96.9	37.0	70.1	5.0
Aug 31			12,025	887	80	19	10	2,241	749	0		30	0	93.2	40.4	69.8	5.0
TOTAL		2,626	68,960	6,738	391	119	2,448	51,038	20,488	14		2,385	32				
AVG.		875	2,463	217	13	4	79	1646	661	0		77	1	124.0	49.1	71.2	5.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	194,116	12,307
SUMMER	123,915	15,458
FALL	68,960	6,380
TOTAL	386,991	34,145

COHO ADULTS	COHO JACKS	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK
391	119	429,498	75,769	35,187	14

LAMPREY	STURGEON
11,625	78

TABLE 36

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

THE DALLES PROJECT - FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL unclipped				CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD				PINK	KCFS	KCFS	SECCHI	DEG F
Sep 1			11,127	1,331	98	55	16	3,255	887	4		85	1	101.6	0.0	69.8	5.0
Sep 2			11,203	1,004	240	46	5	3,718	1,030	1		56	3	91.0	0.0	69.6	5.0
Sep 3			11,953	2,225	196	130	17	2,764	682	12		36	0	93.0	0.0	69.1	5.0
Sep 4			16,962	2,067	446	24	37	4,656	1,243	3		25	0	105.3	0.0	68.7	5.0
Sep 5			14,407	2,152	530	191	22	3,860	921	13		44	2	98.8	0.0	68.5	5.0
Sep 6			16,590	1,730	950	39	43	7,690	2,006	1		56	0	77.6	0.0	67.8	5.0
Sep 7			16,793	2,352	621	167	13	6,059	1,554	2		18	0	74.5	0.0	67.4	5.0
Sep 8			16,669	1,291	931	84	13	5,142	1,524	3		35	0	75.8	0.0	67.8	5.0
Sep 9			16,963	2,506	708	288	12	2,818	681	8		24	-1	93.4	0.0	68.2	5.0
Sep 10			20,322	1,943	1,206	97	9	4,249	1,183	1		27	0	96.0	0.0	68.3	5.0
Sep 11			21,387	2,184	835	162	6	2,743	587	12		46	0	100.1	0.0	68.2	5.0
Sep 12			22,818	2,877	912	187	7	3,378	974	12		49	0	99.3	0.0	68.2	5.0
Sep 13			23,516	2,143	1,056	63	7	3,960	977	7		40	0	98.3	0.0	68.2	5.0
Sep 14			20,731	2,722	649	47	16	5,768	1,875	1		18	0	75.2	0.0	67.3	5.0
Sep 15			18,470	4,522	724	97	5	5,927	1,639	5		7	0	81.4	0.0	66.0	5.0
Sep 16			16,592	2,032	653	76	2	4,316	1,186	0		16	0	96.0	0.0	65.9	5.0
Sep 17			17,698	3,266	637	81	5	3,581	1,013	2		12	0	101.7	0.0	66.4	5.0
Sep 18			12,175	1,382	474	47	4	2,491	643	0		9	0	78.7	0.0	66.5	5.0
Sep 19			15,756	3,242	686	30	5	4,004	1,027	0		8	0	89.2	0.0	66.4	5.0
Sep 20			16,606	2,289	536	129	8	3,377	905	1		9	2	86.6	0.0	66.6	5.0
Sep 21			17,779	1,818	537	17	7	3,475	912	4		11	-2	67.3	0.0	66.7	5.0
Sep 22			15,508	2,863	875	162	3	3,324	756	5		11	1	76.7	0.0	66.4	5.0
Sep 23			15,626	1,406	582	41	4	3,281	969	11		8	0	91.2	0.0	65.9	5.0
Sep 24			15,564	2,790	651	94	1	3,031	906	8		7	2	96.2	0.0	65.8	5.0
Sep 25			10,481	1,205	665	32	2	2,481	728	0		11	0	114.7	0.0	66.0	5.0
Sep 26			10,947	3,028	1,066	144	1	2,389	660	1		15	0	96.6	0.0	65.9	5.0
Sep 27			10,626	1,230	741	37	1	2,986	849	0		10	0	88.0	0.0	65.5	5.0
Sep 28			8,489	2,020	748	63	0	2,260	598	1		4	1	73.1	0.0	65.2	5.0
Sep 29			8,185	941	304	24	2	1,872	592	0		4	0	89.8	0.0	65.3	5.0
Sep 30			7,969	2,504	464	72	0	1,489	422	0		2	0	114.9	0.0	65.6	5.0
TOTAL			459,912	65,065	19,721	2,726	273	110,344	29,929	118		703	9				
AVG.			15,330	2,169	657	91	9	3,678	998	4		23	0	90.7	0.0	67.1	5.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	194,116	12,307
SUMMER	123,915	15,458
FALL	528,872	71,445
TOTAL	846,903	99,210

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
20,112	2,845	429,771	186,113	65,116	132	12,328	87

TABLE 37

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

THE DALLES PROJECT - FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL				CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK						SECCHI	DEG F
Oct 1			9,266	1133	285	21	2	1,747	556	0		8	1	99.5	0.0	65.8	5.0
Oct 2			7,526	1196	249	20	6	1,758	514	1		5	1	86.5	0.0	65.6	5.0
Oct 3			6,803	1079	352	23	1	2,166	715	0		9	0	71.4	0.0	65.0	5.0
Oct 4			4,978	665	145	7	2	2,203	805	2		3	0	75.5	0.0	64.5	5.0
Oct 5			7,261	867	204	25	0	1,513	502	0		1	0	80.1	0.0	64.6	5.0
Oct 6			7,123	920	267	23	0	1,557	494	0		8	0	82.1	0.0	64.6	5.0
Oct 7			6,150	1106	309	19	0	1,407	399	0		7	0	100.4	0.0	64.6	5.0
Oct 8			4,696	486	203	16	0	1,045	315	0		6	0	99.7	0.0	64.7	5.0
Oct 9			3,599	947	65	20	5	1,160	347	0		5	0	87.3	0.0	64.7	5.0
Oct 10			5,343	1077	86	12	4	1,505	510	0		0	0	79.2	0.0	64.8	5.0
Oct 11			5,687	1038	67	18	0	1,293	399	0		0	0	75.8	0.0	64.6	5.0
Oct 12			4,020	588	170	7	2	1,907	762	0		2	1	72.5	0.0	64.3	5.0
Oct 13			3,842	947	220	47	1	1,682	578	1		3	3	64.3	0.0	64.0	5.0
Oct 14			3,376	373	114	12	2	1,322	501	0		2	0	77.6	0.0	63.8	5.0
Oct 15			2,571	438	95	5	0	1,090	359	0		6	0	94.6	0.0	63.8	5.0
Oct 16			3,565	317	97	11	0	1,033	427	1		0	0	100.5	0.0	63.7	5.0
Oct 17			2,069	384	127	0	-1	691	257	0		1	0	97.4	0.0	63.5	5.0
Oct 18			1,698	201	118	4	1	677	279	0		0	0	89.3	0.0	63.3	5.0
Oct 19			1,124	163	45	2	0	600	246	0		1	0	71.5	0.0	63.2	5.0
Oct 20			1,625	181	49	3	0	710	320	0		2	0	81.9	0.0	63.0	5.0
Oct 21			1,290	226	44	5	1	477	191	0		2	0	82.2	0.0	62.8	5.0
Oct 22			2,203	211	29	1	0	550	238	0		1	2	92.3	0.0	62.7	5.0
Oct 23			1,704	252	28	6	0	391	154	0		0	0	93.5	0.0	62.3	5.0
Oct 24			1,643	214	50	8	0	372	159	0		0	0	100.7	0.0	62.1	5.0
Oct 25			1,715	296	29	4	0	306	130	0		0	-1	98.9	0.0	61.7	5.0
Oct 26			1,352	200	23	4	0	248	109	0		0	0	95.2	0.0	61.4	5.0
Oct 27			979	103	58	2	0	299	132	0		0	0	89.1	0.0	61.2	5.0
Oct 28			1,058	154	58	5	0	447	192	0		0	0	100.5	0.0	61.1	5.0
Oct 29			932	90	22	0	0	158	63	0		0	0	99.5	0.0	61.0	5.0
Oct 30			465	66	20	1	0	252	132	0		0	1	79.3	0.0	60.9	5.0
Oct 31			586	98	37	6	0	339	172	0		0	0	78.9	0.0	60.9	5.0
TOTAL			106,249	16,016	3,665	337	26	30,905	10,957	5		72	8				
AVG.			3,427	517	118	11	1	997	353	0		2	0	87.0	0.0	63.4	5.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	194,116	12,307
SUMMER	123,915	15,458
FALL	635,121	87,461
TOTAL	953,152	115,226

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON
23,777	3,182	429,797	217,018	76,073	137	0	12,400	95

Note: Visual counts ended October 31.

TABLE 38

DISCHARGE AND WATER QUALITY DATA
THE DALLES PROJECT 2015

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCH	DEG F
Nov 1	87.6	0.0	60.6	5.0	Dec 1	149.6	0.0	46.9	5.0
Nov 2	84.5	0.0	60.0	5.0	Dec 2	113.4	0.0	46.3	5.0
Nov 3	92.1	0.0	59.2	2.0	Dec 3	127.4	0.0	46.0	5.0
Nov 4	106.1	0.0	58.4	3.0	Dec 4	122.0	0.0	45.7	5.0
Nov 5	104.8	0.0	58.0	5.0	Dec 5	108.7	0.0	45.4	5.0
Nov 6	97.4	0.0	57.8	4.0	Dec 6	109.5	0.0	45.1	5.0
Nov 7	109.0	0.0	57.8	5.0	Dec 7	108.7	0.0	45.0	5.0
Nov 8	115.5	0.0	57.5	3.0	Dec 8	122.2	0.0	45.0	5.0
Nov 9	111.2	0.0	57.1	6.0	Dec 9	120.9	0.0	45.0	4.0
Nov 10	114.8	0.0	56.4	5.0	Dec 10	104.5	0.0	44.9	4.0
Nov 11	118.3	0.0	55.8	5.0	Dec 11	142.7	0.0	44.3	4.0
Nov 12	109.4	0.0	55.3	5.0	Dec 12	167.1	0.0	44.3	5.0
Nov 13	116.9	0.0	55.1	5.0	Dec 13	169.8	0.0	44.6	5.0
Nov 14	105.0	0.0	55.1	5.0	Dec 14	120.9	0.0	44.6	5.0
Nov 15	104.9	0.0	54.9	5.0	Dec 15	127.9	0.0	44.5	5.0
Nov 16	101.0	0.0	54.0	5.0	Dec 16	135.8	0.0	44.7	5.0
Nov 17	123.2	0.0	53.7	5.0	Dec 17	137.6	0.0	44.8	5.0
Nov 18	114.6	0.0	53.6	4.5	Dec 18	153.2	0.0	44.9	5.0
Nov 19	125.3	0.0	52.8	4.0	Dec 19	141.8	0.0	45.2	5.0
Nov 20	135.6	0.0	52.4	4.5	Dec 20	141.4	0.0	45.2	5.0
Nov 21	124.3	0.0	51.9	5.0	Dec 21	116.4	0.0	45.1	5.0
Nov 22	133.0	0.0	51.3	5.0	Dec 22	149.5	0.0	45.0	5.0
Nov 23	119.2	0.0	50.9	4.0	Dec 23	128.2	0.0	44.8	5.0
Nov 24	135.2	0.0	50.5	5.0	Dec 24	111.0	0.0	44.5	5.0
Nov 25	141.5	0.0	50.1	4.0	Dec 25	92.8	0.0	44.1	5.0
Nov 26	135.0	0.0	59.5	5.0	Dec 26	95.8	0.0	43.6	5.0
Nov 27	105.5	0.0	49.0	5.0	Dec 27	111.9	0.0	43.2	5.0
Nov 28	121.1	0.0	48.5	5.0	Dec 28	120.7	0.0	43.0	5.0
Nov 29	133.3	0.0	48.0	5.0	Dec 29	124.9	0.0	42.9	5.0
Nov 30	132.4	0.0	47.5	5.0	Dec 30	136.2	0.0	42.6	5.0
					Dec 31	118.6	0.0	42.3	5.0
AVG.	115.3	0.0	54.4	4.6	AVG.	126.8	0.0	44.6	4.9

TABLE 39

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

THE DALLES PROJECT - NIGHT FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL		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		13		2		66	0	0				285
Jun 15		167		54		491	10	1				157
Jun 16		71		2		335	1	1				229
Jun 17		45		2		395	6	0				181
Jun 18		92		6		937	4	3				227
Jun 19		60		11		580	12	5				250
Jun 20		81		13		1,072	6	4				142
Jun 21		57		7		974	5	2				272
Jun 22		123		27		1,498	12	3				85
Jun 23		108		10		1,896	13	1				109
Jun 24		86		11		1,388	12	5				246
Jun 25		121		9		1,454	9	6				276
Jun 26		142		6		1,100	28	7				315
Jun 27		108		11		1,222	6	2				232
Jun 28		128		13		1,676	25	9				251
Jun 29		138		10		1,253	12	8				273
Jun 30		104		17		2,322	14	4				267
TOTAL		1,644		211		18,659	175	61				3,797
AVG.		97		12		1,098	10	4				223

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 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Jul 1		149		18			1,782	15	10			315
Jul 2		84		10			1,366	23	11			343
Jul 3		145		15			1,093	16	8			284
Jul 4		204		16			1,266	20	13			350
Jul 5		175		37			1,263	22	8			215
Jul 6		79		5			669	11	8			254
Jul 7		58		4			379	13	7			262
Jul 8		121		22			562	24	13			334
Jul 9		91		4			272	23	19			380
Jul 10		75		4			577	21	14			331
Jul 11		80		3			294	18	9			227
Jul 12		123		18			1,030	29	14			273
Jul 13		69		7			424	10	7			396
Jul 14		81		4			216	21	12			406
Jul 15		130		9			241	21	18			348
Jul 16		135		47			295	55	32			478
Jul 17		94		31			288	31	17			375
Jul 18		130		50			332	90	66			258
Jul 19		51		9			193	19	12			375
Jul 20		54		0			158	19	16			437
Jul 21		49		7			147	24	17			374
Jul 22		39		4			251	57	37			427
Jul 23		33		1			276	61	33			325
Jul 24		25		3			183	26	15			303
Jul 25		27		1			129	26	20			230
Jul 26		34		4			150	29	19			144
Jul 27		49		2			85	70	43			168
Jul 28		43		6			90	52	33			189
Jul 29		60		20			154	79	47			304
Jul 30		87		21			95	57	37			342
Jul 31		43		1			46	35	20			268
TOTAL		2,617		383			14,306	1,017	635			9,715
AVG		84		12			461	33	20			313

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 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT		JACK	SOCKEYE			
Aug 1		29		3	0		57	41	28		279
Aug 2		41		2	0		21	40	24		223
Aug 3		15		2	0		34	32	19		156
Aug 4			36	2	0		39	34	24		276
Aug 5			21	4	0		40	45	22		244
Aug 6			21	0	0		25	25	15		270
Aug 7			50	1	0		48	39	23		373
Aug 8			38	1	0		52	20	11		438
Aug 9			42	0	0		14	21	11		354
Aug 10			32	7	0		15	43	27		386
Aug 11			46	4	0		15	37	26		497
Aug 12			19	-1	0		15	14	2		285
Aug 13			36	0	0		16	26	9		387
Aug 14			21	2	0		14	22	9		301
Aug 15			21	0	0		8	37	21		218
Aug 16			28	7	0		13	38	18		269
Aug 17			44	1	0		6	51	23		350
Aug 18			23	0	0		2	33	10		160
Aug 19			42	-1	0		7	38	13		345
Aug 20			55	6	0		5	37	16		303
Aug 21			44	2	0		14	45	14		156
Aug 22			47	2	2		7	73	36		160
Aug 23			54	4	0		7	61	20		161
Aug 24			56	9	0		12	76	30		197
Aug 25			93	7	2		2	99	41		189
Aug 26			96	1	0		10	104	30		138
Aug 27			59	1	1		6	59	21		131
Aug 28			120	14	0		2	97	35		153
Aug 29			178	10	3		3	105	28		162
Aug 30			222	5	2		4	72	24		50
Aug 31			151	19	11		0	107	24		162
TOTAL		85	1,695	114	21		513	1,571	654		7,773
AVG.		28	61	4	1		17	51	21		251

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 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	CHUM	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			
Sep 1			168	3	6	0	2	297	75			137
Sep 2			111	16	20	0	0	207	75			180
Sep 3			82	6	16	0	0	167	54			118
Sep 4			163	9	10	0	3	360	107			72
Sep 5			134	19	18	0	2	273	89			79
Sep 6			88	5	12	1	2	379	97			76
Sep 7			196	19	39	2	2	319	115			154
Sep 8			178	0	14	0	2	228	74			56
Sep 9			501	33	61	3	0	274	86			159
Sep 10			236	19	40	3	0	264	78			128
Sep 11			88	6	14	0	0	175	46			87
Sep 12			139	4	14	0	0	148	35			81
Sep 13			174	8	29	0	0	283	86			117
Sep 14			29	2	2	0	0	230	96			29
Sep 15			91	25	26	1	0	267	95			41
Sep 16			56	4	18	1	0	133	50			76
Sep 17			102	4	34	0	3	169	42			66
Sep 18			101	9	35	0	1	163	40			61
Sep 19			103	20	62	0	0	130	34			65
Sep 20			74	5	4	0	1	130	51			35
Sep 21			63	4	10	0	2	165	51			76
Sep 22			86	2	17	0	0	172	62			45
Sep 23			56	1	11	0	0	203	79			17
Sep 24			36	1	9	1	0	140	48			14
Sep 25			42	6	13	1	0	148	33			11
Sep 26			49	7	16	0	1	206	75			13
Sep 27			28	2	9	0	0	139	55			17
Sep 28			120	7	31	0	0	183	40			30
Sep 29			37	4	11	0	0	185	73			11
Sep 30			24	4	11	1	0	111	34			13
TOTAL			3,355	254	612	14	21	6,248	1,975			2,064

AVG.

112

8

20

0

1

208

66

69

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

TABLE 43

YEARLY TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	TOTALS
1957	312,678	129,361	90,201	6,793	75	4	539,112
1958	301,960	121,420	111,039	2,395	31	5	536,850
1959	207,461	156,090	86,259	2,709	25	9	452,553
1960	196,962	111,189	59,441	3,000	35	5	370,632
1961	201,335	134,572	16,689	2,139		4	354,739
1962	187,132	163,301	27,127	3,696		5	381,261
1963	180,969	118,957	56,931	3,716	23	3	360,599
1964	183,842	110,033	79,042	5,978		5	378,900
1965	195,049	141,052	44,279	17,468	1	3	397,852
1966	240,671	146,172	147,886	32,279		1	567,009
1967	280,112	121,614	120,589	32,015	1	4	554,335
1968	262,975	147,481	116,897	42,687		1	570,041
1969	314,258	112,529	37,226	17,054		1	481,068
1970	261,457	99,187	77,678	23,219		4	461,545
1971	250,528	151,348	76,103	29,061		3	507,043
1972	268,628	135,303	44,671	16,562			465,164
1973	280,945	100,082	52,303	11,152		1	444,483
1974	217,181	70,875	28,827	14,655			331,538
1975	217,283	57,675	43,198	13,976			332,132
1976	216,163	82,568	27,747	19,392			345,870
1977	224,950	133,882	86,252	10,021			455,105
1978	199,228	60,485	11,845	18,877			290,435
1979	150,647	83,364	32,791	8,726		4	275,532
1980	113,951	93,963	42,088	6,326			256,328
1981	135,176	113,268	35,447	6,941		1	290,833
1982	172,682	117,434	33,331	7,383			330,830
1983	156,190	171,055	84,204	3,459	1		414,909
1984	203,920	219,123	101,177	3,142		1	527,363
1985	370,982	276,025	117,254	4,625		5	768,891
1986	443,013	281,953	48,477	4,842	3	4	778,292
1987	421,190	217,768	87,599	3,310	1	2	729,870
1988	378,080	198,499	55,802	9,226			641,607
1989	282,168	235,639	39,672	12,611			570,090
1990	207,556	129,271	40,230	4,645			381,702
1991	153,023	199,853	63,405	9,601		103	425,985
1992	168,507	232,179	66,384	3,825		3	470,898
1993	184,953	124,829	62,252	4,360			376,394
1994	161,758	112,254	9,356	4,376			287,744
1995	141,793	145,844	7,166	3,269			298,072
1996	167,911	162,456	25,055	4,583			360,005
1997	223,801	164,756	32,430	4,729			425,716
1998	154,132	116,682	8,826	8,970			288,610
1999	199,491	156,874	13,715	15,041		19	385,140
2000	316,836	205,241	73,383	29,536		1	624,997
2001	629,334	503,327	102,562	64,557			1,299,780
2002	583,155	387,920	40,554	12,786			1,024,415
2003	618,472	282,574	34,180	46,101	29	128	981,484
2004	562,737	241,123	107,466	41,645	5	0	952,976
2005	389,905	244,213	65,273	36,129	0	23	735,543
2006	341,371	249,223	30,026	34,339	3	3	654,965
2007	253,613	246,960	19,124	32,961	11	1	552,670
2008	397,766	277,640	177,984	42,682	0	12	896,084
2009	525,837	515,111	155,591	77,492	7	28	1,274,066
2010	618,699	333,033	325,133	31,374	0	1	1,308,240
2011	591,869	299,007	138,293	76,753	3	1,158	1,107,083
2012	539,930	201,640	410,099	34,019	7	2	1,185,697
2013	898,424	190,750	161,896	26,682	4	87	1,277,843
2014	905,449	255,691	586,188	157,646	0	2	1,904,976
2015	1,068,378	217,018	429,797	26,959	0	137	1,742,289
Totals	19,034,466	10,808,736	5,306,440	1,234,495	265	1,783	36,386,185
10-Year Average	614,134	278,607	243,413	54,091			1,190,391

*Jacks included

TABLE 44

MONTHLY COUNT OF CHINOOK SALMON
THE DALLES DAM 1957 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL	JACKS	
														1 JAN- 3 JUN	4 JUN- 3 AUG	4 AUG- 31 DEC		
1957			22	42,161	59,410	86,096	35,643	28,828	56,753	3,564	201		312,678	109,723	116,661	86,294	37,374	
1958			114	8,268	47,862	59,955	24,381	17,211	141,262	2,788	119		301,960	61,747	80,139	160,074	19,747	
1959			8	16,771	32,634	27,799	42,817	20,142	65,229	2,022	39		207,461	50,874	71,362	85,225	39,857	
1960				17,073	40,091	52,577	22,549	15,225	46,453	2,720	274		196,962	58,406	75,315	63,241	30,847	
1961				43,822	35,059	24,478	24,596	16,866	53,371	3,143			201,335	79,183	50,824	71,328	35,409	
1962				33,069	35,629	34,488	21,515	13,461	46,135	2,835			187,132	69,139	57,007	60,986	17,835	
1963				19,119	33,207	25,063	20,414	21,865	57,248	4,053			180,969	52,937	47,333	80,699	54,749	
1964			340	35,551	24,447	16,801	37,697	17,452	49,811	1,743			183,842	60,691	56,360	66,791	30,900	
1965			190	17,870	24,930	17,900	31,072	25,119	74,904	3,064			195,049	43,617	50,527	100,905	67,552	
1966		1,068		72,267	22,837	25,530	33,712	14,978	65,380	4,899			240,671	96,628	61,062	82,981	36,482	
1967				48,744	22,817	24,718	45,346	23,927	107,427	7,133			280,112	71,976	72,582	135,554	98,817	
1968			100	52,144	45,057	32,827	33,272	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	131,511	79,840	
1975				18,526	32,869	12,155	26,447	28,973	90,193	8,120			217,283	52,483	39,062	125,738	74,418	
1976				20,266	35,434	17,828	20,129	17,278	90,933	14,295			216,163	56,570	38,733	120,860	74,275	
1977				72,726	16,672	22,084	22,059	12,266	69,927	9,216			224,950	90,373	44,378	90,199	55,067	
1978				52,425	30,472	19,477	15,978	11,251	57,786	11,839			199,228	84,924	34,396	79,908	32,503	
1979				13,993	12,569	14,310	17,687	20,458	61,757	9,516	357		150,647	27,297	32,298	91,052	42,886	
1980				12,434	15,441	7,948	12,832	12,881	43,675	8,740			113,951	28,237	21,133	64,581	20,016	
1981				24,227	16,335	8,491	10,779	15,802	53,840	5,702			135,176	41,160	19,676	74,340	33,919	
1982				10,569	33,296	10,058	9,554	17,466	79,487	12,252			172,682	44,750	19,342	108,590	60,165	
1983				13,270	22,893	8,766	8,430	12,501	73,942	16,388			156,190	36,856	17,051	102,283	41,335	
1984				9,326	23,784	9,992	12,332	23,495	105,786	19,205			203,920	33,848	22,472	147,600	70,798	
1985				36,035	39,173	15,785	10,332	37,806	203,470	27,058	1,323		370,982	76,514	25,385	269,083	145,007	
1986			175	48,892	36,928	14,175	10,452	22,684	264,091	45,616			443,013	87,004	24,826	331,183	176,461	
1987				48,812	27,586	17,923	12,145	50,680	236,216	27,828			421,190	77,453	30,804	312,933	65,115	
1988				51,680	20,756	16,644	13,494	66,509	193,490	15,507			378,080	73,663	29,892	274,525	69,631	
1989				24,474	27,477	15,539	13,899	58,674	130,931	10,438	736		282,168	53,014	30,555	198,599	28,671	
1990			115	36,062	20,749	13,390	9,099	22,152	96,538	9,451			207,556	57,424	22,615	127,517	32,794	
1991				14,513	17,313	10,949	7,638	8,384	84,861	9,365			153,023	32,359	18,467	102,197	36,820	
1992				38,141	19,414	9,595	5,797	14,589	71,281	9,690			168,507	58,451	14,976	95,080	27,160	
1993				42,391	25,824	14,165	6,481	19,297	71,395	5,400			184,953	69,356	20,063	95,534	12,298	
1994				6,573	4,938	7,376	8,360	22,910	98,997	12,604			161,758	11,798	15,997	133,963	25,470	
1995				3,008	4,244	6,176	7,111	23,094	82,723	15,437			141,793	7,553	13,558	120,682	32,813	
1996				5,631	20,896	8,018	6,718	26,505	90,762	9,381			167,911	27,127	14,488	126,296	5,851	
1997				25,639	42,467	14,718	8,011	23,666	100,652	8,648			223,801	69,740	21,134	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	51	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			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	2,088	20	898,424	101,513	106,389	690,522	141,021
2014					34,797	123,507	73,974	45,718	45,707	513,377	68,369			905,449	164,222	115,659	625,568	133,342
2015					103,729	95,758	89,752	53,573	78,324	524,977	122,265			1,068,378	206,423	139,373	722,582	115,226
Total				9,818	2,181,669	2,636,826	1,863,270	1,363,639	1,785,333	8,144,552	1,034,295	14,868		19,034,466	4,841,906	3,068,123	10,809,397	3,607,795
10-Year Average				30,868	99,516	66,981	34,222	51,822	284,399	45,756				614,134	135,317	97,780	381,037	107,654

*Jacks included

**No fish count data for March in 2013

TABLE 45

**MONTHLY COUNT OF SOCKEYE SALMON
THE DALLES DAM
1957 - 2015**

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
2015				0	113	290,869	136,068	2,448	273	26			429,797
Total				3	1,816	2,763,789	2,511,295	28,071	1,406	55	1	4	5,306,440
10-Year Average				26	149,589	93,226	534	36					243,413

TABLE 46
MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
1957							220	605	5,615	342	11		6,793	
1958								96	2,132	161	6		2,395	
1959								46	2,428	234	1		2,709	
1960								475	2,288	227	10		3,000	
1961							4	5	1,898	232			2,139	
1962							5	258	3,194	239			3,696	
1963							2	361	2,931	422			3,716	
1964								506	4,723	749			5,978	
1965							7	200	13,064	4,197			17,468	
1966							225	3,850	25,476	2,728			32,279	
1967							192	494	27,860	3,469			32,015	20,456
1968							372	3,319	36,568	2,346	82		42,687	13,035
1969							412	970	13,179	2,493			17,054	11,218
1970							96	2,064	19,983	1,076			23,219	11,327
1971							1	1,589	26,066	1,405			29,061	11,174
1972							3	1,090	14,564	905			16,562	10,272
1973								793	9,443	916			11,152	5,256
1974								522	10,715	3,418			14,655	9,054
1975								465	10,356	3,155			13,976	8,534
1976								608	14,609	4,175			19,392	13,083
1977							1	91	8,131	1,798			10,021	6,096
1978								355	13,069	5,453			18,877	13,533
1979								211	7,109	1,367	39		8,726	4,836
1980								287	5,064	975			6,326	2,970
1981								295	6,061	585			6,941	4,405
1982								336	5,792	1,255			7,383	3,047
1983								65	2,343	1,051			3,459	2,256
1984								24	2,521	597			3,142	1,282
1985							4	208	3,537	828	48		4,625	1,555
1986							2	1	3,772	1,067			4,842	1,458
1987							12	91	2,409	798			3,310	1,953
1988								232	7,082	1,912			9,226	2,701
1989								283	9,027	3,173	128		12,611	4,781
1990								60	3,229	1,356			4,645	2,340
1991								30	7,714	1,857			9,601	1,053
1992								11	3,119	695			3,825	1,239
1993								18	3,256	1,086			4,360	3,416
1994							1	121	2,922	1,332			4,376	590
1995							6	204	2,013	1,046			3,269	483
1996							3	73	3,795	712			4,583	967
1997								35	3,649	1,045			4,729	662
1998								7	3,520	5,443			8,970	774
1999								37	11,456	3,548			15,041	1,226
2000								2,248	20,526	6,762			29,536	4,570
2001								1,351	36,099	27,107			64,557	2,179
2002								275	8,286	4,225			12,786	3,021
2003								1,084	29,129	15,161	713	14	46,101	2,853
2004			-1					565	29,591	10,408	1,072	10	41,645	1,919
2005							1	438	20,376	13,814	1,500	0	36,129	2,187
2006							1	1,541	18,080	12,574	2,142	1	34,339	2,468
2007								596	17,545	14,608	198	14	32,961	2,095
2008								1,369	26,714	14,599			42,682	4,700
2009							4	8,214	29,912	39,362			77,492	8,552
2010							0	1,082	20,090	10,202			31,374	2,283
2011							2	3,172	52,196	21,383			76,753	4,633
2012							8	2,262	28,707	2,921	119	2	34,019	2,861
2013								840	17,205	8,637			26,682	2,572
2014							0	711	134,991	21,944			157,646	10,843
2015							0	510	22,447	4,002			26,959	3,182
Total							1,584	47,649	879,576	299,577	6,069	41	1,234,495	237,950
10-Year Average							2,030	36,789	15,023				54,091	4,419

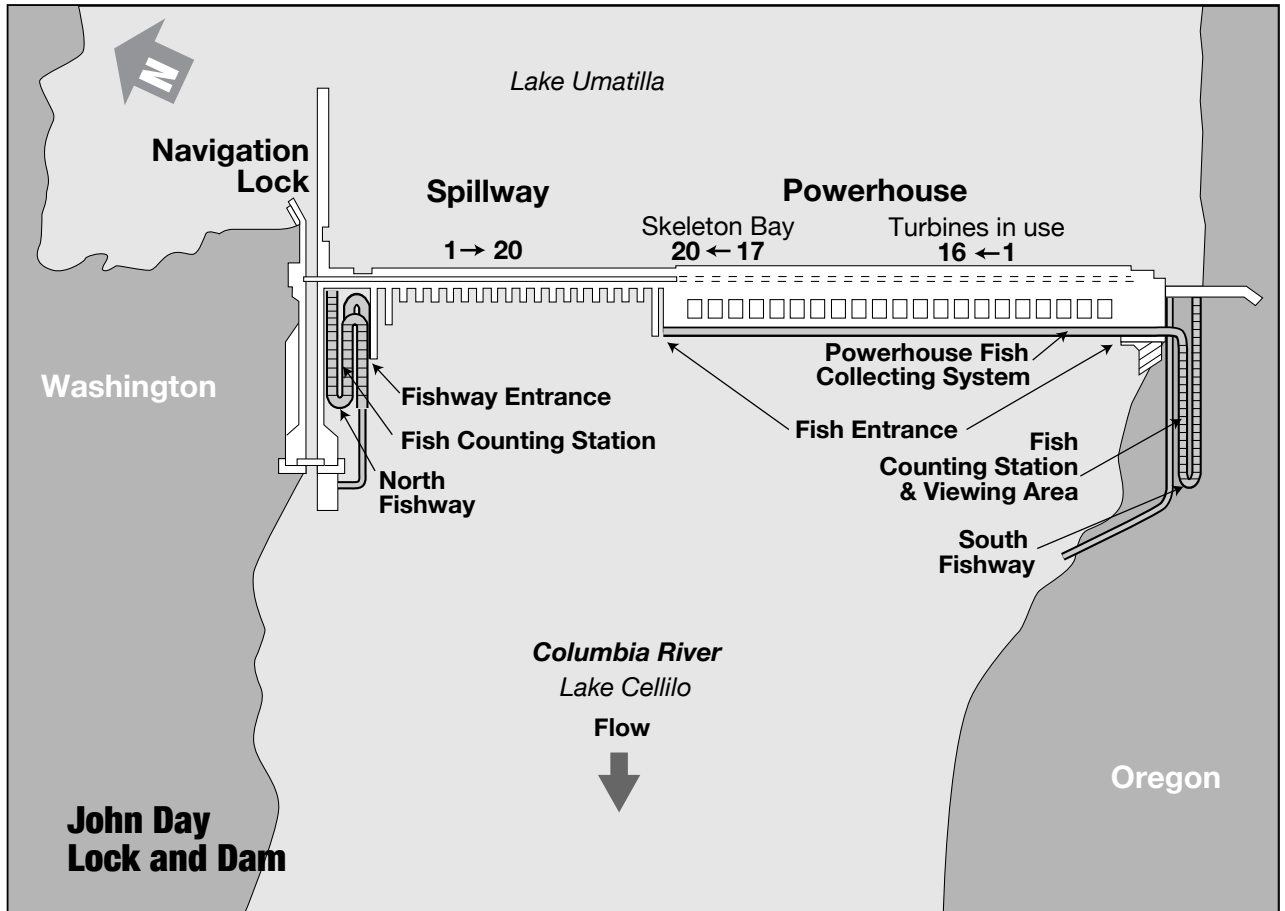
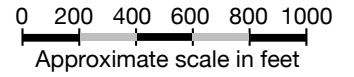
*Includes Jacks

TABLE 47

**MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1957			1,603	951	977	4,782	45,445	33,319	35,396	6,545	343		129,361
1958			122	274	1,898	4,906	20,384	11,442	75,036	6,846	512		121,420
1959			1	541	502	2,227	46,271	60,841	41,026	4,502	179		156,090
1960				289	557	2,591	28,218	32,667	42,447	4,021	399		111,189
1961				305	307	1,396	21,906	17,850	87,344	5,464			134,572
1962				528	252	1,068	36,609	31,507	87,463	5,874			163,301
1963				153	451	1,361	30,485	25,360	48,066	13,081			118,957
1964			50	369	127	493	36,773	31,742	38,197	2,282			110,033
1965			36	502	484	896	60,522	21,132	53,389	4,091			141,052
1966		25	788	933	600	3,816	52,975	26,382	53,721	6,932			146,172
1967				258	183	435	27,914	22,746	56,082	13,996			121,614
1968			23	691	344	973	20,974	58,866	57,666	7,456	488		147,481
1969			54	953	414	1,442	33,952	22,963	44,146	8,605			112,529
1970				337	172	733	15,905	32,752	44,823	4,465			99,187
1971				408	233	821	40,712	31,812	69,602	7,760			151,348
1972				463	159	604	35,569	30,631	63,748	4,129			135,303
1973				723	326	1,981	29,067	25,437	38,017	4,531			100,082
1974				529	1,362	1,859	24,779	21,835	15,059	5,452			70,875
1975				1,018	1,334	1,973	18,046	20,531	11,519	3,254			57,675
1976				768	1,604	3,357	22,021	30,386	21,586	2,846			82,568
1977				1,666	1,332	5,038	42,859	13,022	61,678	8,287			133,882
1978				834	1,378	3,459	13,493	11,457	26,189	3,675			60,485
1979				478	244	1,942	23,054	21,974	20,961	14,079	632		83,364
1980				2,885	790	2,134	15,114	30,755	34,447	7,838			93,963
1981				1,389	1,632	3,768	34,242	36,537	26,837	8,863			113,268
1982				729	1,289	2,710	22,607	31,410	49,050	9,639			117,434
1983				438	324	1,492	37,029	47,521	75,210	9,041			171,055
1984				846	894	3,715	52,825	36,859	107,377	16,607			219,123
1985				2,405	1,511	5,679	41,534	102,866	107,574	13,337	1,119		276,025
1986			1,395	610	712	4,492	78,494	60,458	111,066	24,726			281,953
1987				1,069	366	3,280	55,395	58,850	76,461	22,347			217,768
1988				2,520	969	3,984	34,612	54,986	85,061	16,367			198,499
1989				1,810	849	3,950	35,167	45,694	119,322	25,880	2,967		235,639
1990			1,169	1,515	920	3,078	17,942	17,772	58,805	28,070			129,271
1991				1,826	630	1,755	25,686	37,560	104,833	27,563			199,853
1992				1,104	743	3,494	18,753	37,269	157,216	13,600			232,179
1993				2,367	731	3,847	17,962	20,194	61,600	18,128			124,829
1994				1,327	391	2,263	11,434	11,703	55,247	29,889			112,254
1995				435	407	2,329	11,953	46,428	59,604	24,688			145,844
1996				669	481	1,981	20,317	61,136	65,400	12,472			162,456
1997				658	483	2,187	18,916	34,055	84,006	24,451			164,756
1998				609	433	2,433	9,911	12,180	62,331	28,785			116,682
1999				279	343	1,625	25,277	56,665	60,762	11,923			156,874
2000				491	319	6,467	37,760	48,697	96,040	15,467			205,241
2001				788	582	13,063	100,501	95,859	226,711	65,823			503,327
2002				2,308	439	7,027	67,132	84,140	170,382	56,492			387,920
2003		485	2,389	801	271	4,882	36,960	35,275	158,525	36,458	6,004	524	282,574
2004		140	1,072	1,066	680	7,116	23,581	30,398	152,302	23,099	1,647	22	241,123
2005		107	688	558	616	4,483	33,476	33,332	126,710	41,174	3,020	49	244,213
2006		16	811	972	252	2,241	15,892	43,884	138,845	33,537	12,641	132	249,223
2007		195	1,948	1,033	255	2,155	25,008	66,310	121,058	26,079	2,776	143	246,960
2008				1,084	383	4,847	69,771	47,273	131,616	22,666			277,640
2009				986	392	4,181	51,667	165,723	233,187	58,975			515,111
2010				1,901	580	10,348	104,984	55,209	128,816	31,195			333,033
2011				1,098	352	1,611	56,247	127,161	91,517	21,021			299,007
2012			950	631	258	2,809	49,514	54,567	71,995	18,065	2,631	220	201,640
2013		6	73	560	220	1,723	32,103	41,629	93,711	20,725			190,750
2014				361	567	4,214	48,455	38,611	134,160	29,323			255,691
2015				280	181	2,399	21,871	51,038	110,344	30,905			217,018
Total				13,099	54,379	36,485	187,915	2,088,025	2,496,658	4,841,289	1,053,391	35,358	10,808,736
10-Year Average				891	344	3,653	47,551	69,141	125,525	29,249			278,607

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 2015. Total length of time for annual fishway outages can be determined by referring to the 2014 annual report.

North Adult Fishway

Nov 29 – Dec 23	Dewatered for winter maintenance
Jan 1 – Nov 29	In service with attraction water
Aug 3	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 3	Attraction water off half day for required ROV grating inspection

Smolt Monitoring Facility

Jan 1- March 24	Dewatered
Mar 31 – Jun 27	In full operation with juvenile sampling
Jun 28 – Sep 5	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.
Nov 24 – Dec 31	System dewatered for winter maintenance.

Juvenile Bypass System

Jan 1- Mar 24	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 2015 Fish Ladder Dewatering Results

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

Fish Ladder 2015 Dewatering Results									
Date	Event	Chinook	Steelhead	Lamprey	Shad	Other	Comments	Morts	Cause
12-Jan	SFL-Upper	-	1a 26j	40a	-	2A-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 2015 Dewatering Results

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

Smolt Monitoring Facility 2015 Dewatering Results									
Date	Event	Chinook	Steelhead	Lamprey	Shad	Other	Comments	Morts	Cause
20-Jan	JBS CONDUIT	-	9a	-	-	-	REC Forebay	0	N/A
24-Nov	PDS- SMF	-	153a	35a	-	12st 25ct	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 2015 Turbine Dewatering Results

Key: scroll case=sc, draft tube=dt, gatewell=gw, catfish=ct, steelhead=sh,shad=sd, carp=cc, sucker species=su, bass=ba, crappie=cp; sturgeon=st; walleye=we; Chinook=ch

Date	Event	Chinook	Steelhead	Lamprey	Shad	Other	Comments
2/6/15	MU14 SC	0	0	0	0	1 A cr	Released in excellent condition
2/10/15	MU14 DT	0	0	0	0	0	NO FISH FOUND
3/18/15	MU14 SC	0	0	0	0	0	NO FISH FOUND
3/19/15	MU 9 SC	0	0	0	0	0	NO FISH FOUND
3/23/15	MU 9 DT	1 J	0	0	0	0	Released in excellent condition
6/1/15	MU13 SC	0	0	0	0	1 cp	Released in excellent condition
6/1/15	MU13 DT	0	0	0	0	8st & 9 ct	Released in excellent condition
6/3/15	MU4C GW	5	5	0	0	0	5-Clip year sh, 2-unclip year ch, 3-clip subyear ch
7/27/15	MU12 SC	0	0	0	0	0	NO FISH FOUND
7/28/15	MU15 GW	0	0	0	0	1 st	6' st transported/released into forebay
7/29/15	MU12 DT	0	0	0	0	6 cats, 1 baby st	Released in excellent condition
8/6/15	MU 15 GW A/B	0	0	0	0	1 st	4 feet, released into forebay
8/10/15	MU 15 GW A, B	0	0	0	0	2 st	(2 X) 3 feet st on roller gate, released into forebay
8/14/15	MU15 SC	0	0	0	0	34 st, 1ct	2-4 foot. ct: 2'
8/26/15	MU 3 SC	0	0	0	0	1 ct	released into tailrace in excellent condition
8/27/15	MU 3 DT	0	0	0	0	70ct, 1st, 1we	1 sucker; released in excellent condition
9/16/15	MU16 SC	0	0	0	0	50 st	st 2-4 feet length, 2 ba
10/31/15	MU1 SC	1 J	0	0	0	50 st, 5 ct	2-4 feet length st
11/3/15	MU 12 SC	0	0	0	0	3 ct	3 ct large
11/4/15	MU 12 DT	0	0	0	0	18 ct, 1 st	ct varied in size (8" - 20") st: approx 1.5'

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.

RESEARCH

University of Idaho – Maintenance and weekly downloading of half-duplex Lamprey PIT receivers located at the fishways' exits during the 2015 fish passage season. Also, tagged adult Pacific Lamprey (Steve Lee) trapped in the JD North and South fishways. This was part of a study for the Snake River dams on adult lamprey passage.

Oregon Dept. of Fish and Wildlife – Ongoing BPA funded research associated with the Northern Pikeminnow Management Program. The pikeminnow sampler worked closely with the WDFW/PSMFC northern pikeminnow angling crew that fished the John Day tailrace in order to collect diet sampling and biological data from harvested pikeminnow.

Oregon Department of Fish and Wildlife and Fish Passage Center- Continued to perform the monthly fishway inspections of adult and juvenile fish passage systems.

Washington Department of Fish and Wildlife- Performed dam angling from the PH tailrace deck to remove northern pikeminnow.

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

Fisheries Field Unit – Operated and evaluated the JD North LPS; collected, monitored and released lamprey into forebay.

U.S. Dept. of Agriculture- Performed intensive avian hazing April 16 to July 31 via pyrotechnics from a boat.

Confederate Tribes of the Umatilla Indian Reservation- Captured adult Pacific lamprey as part of the on-going project to restore lamprey to various tributaries. CTUIR cooperated with the Nez Perce, Warm Springs, and Yakama Nation to help their lamprey re- planting programs.

Pacific State Marine Fisheries Commission – Performed daily sampling to obtain the smolt condition, passage index and run timing at JD SMF 1 April through 15 September. Also, their PIT tags brethren operated and maintained the SMF PIT tag detectors 1 April through 24 November 2015.

TABLE 48

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER JOHN DAY DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				73,181	94,629	77,299	46,700	53,294	429,186	117,289			891,578
STEELHEAD				421	197	1,924	8,535	27,537	106,510	34,382			179,506
SOCKEYE					60	252,165	109,674	3,917	510	38			366,364
COHO*								287	17,531	4,010			21,828
CHUM													0
PINK									1	9			10
TOTAL				73,602	94,886	331,388	164,909	85,035	553,738	155,728			1,459,286
LAMPREY				7	103	2,849	3,041	1,465	788	117			8,370
STURGEON								2	7	2			11
BULL TROUT													0

*Jacks Included

TABLE 49

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2015

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	186.2	0.0	6.0	43.2
Jan 2	176.0	0.0	6.0	42.6
Jan 3	171.5	0.0	6.0	41.9
Jan 4	192.9	0.0	6.0	41.0
Jan 5	165.7	0.0	6.0	40.4
Jan 6	149.5	0.0	6.0	40.2
Jan 7	178.5	0.0	5.5	39.9
Jan 8	182.0	0.0	5.5	39.7
Jan 9	185.7	0.0	5.5	39.6
Jan 10	185.1	0.0	5.5	39.7
Jan 11	191.1	0.0	5.5	39.8
Jan 12	185.8	0.0	5.5	40.1
Jan 13	191.5	0.0	5.5	40.3
Jan 14	183.8	0.0	6.0	40.3
Jan 15	186.9	0.0	6.0	40.3
Jan 16	171.3	0.0	6.0	40.4
Jan 17	196.9	0.0	6.0	40.4
Jan 18	153.4	0.0	6.0	40.5
Jan 19	187.2	0.0	6.0	40.5
Jan 20	188.2	0.0	6.0	40.7
Jan 21	211.4	0.0	6.0	40.7
Jan 22	201.8	0.0	5.5	40.5
Jan 23	187.6	0.0	5.5	40.5
Jan 24	173.2	0.0	5.5	40.4
Jan 25	173.7	0.0	5.5	40.3
Jan 26	178.3	0.0	5.5	40.1
Jan 27	190.4	0.0	5.5	40.1
Jan 28	188.3	0.0	6.0	40.0
Jan 29	193.8	0.0	6.0	39.8
Jan 30	200.9	0.0	6.0	39.6
Jan 31	202.2	0.0	6.0	39.5

AVG. 184.2 0.0 5.8 40.4

FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	208.4	0.0	6.0	39.5
Feb 2	213.4	0.0	6.0	39.5
Feb 3	198.5	0.0	6.0	39.5
Feb 4	207.6	0.0	5.5	39.5
Feb 5	218.2	0.0	5.5	39.6
Feb 6	212.9	0.0	5.5	39.7
Feb 7	220.5	0.0	5.5	39.9
Feb 8	231.0	0.0	5.5	40.1
Feb 9	213.4	0.0	5.5	40.2
Feb 10	227.7	8.2	5.0	40.4
Feb 11	246.2	0.1	6.0	40.6
Feb 12	247.1	0.0	6.0	40.8
Feb 13	238.4	0.0	6.0	41.2
Feb 14	235.2	0.0	6.0	41.6
Feb 15	244.2	0.0	6.0	40.7
Feb 16	246.7	0.0	6.0	40.7
Feb 17	229.2	0.0	6.0	40.7
Feb 18	240.8	0.0	6.0	40.7
Feb 19	236.0	8.2	6.0	41.8
Feb 20	237.5	2.5	6.0	41.8
Feb 21	222.1	0.0	6.0	41.9
Feb 22	226.7	0.0	6.0	41.7
Feb 23	228.0	0.0	6.0	41.7
Feb 24	221.3	0.0	6.0	41.6
Feb 25	202.1	0.0	6.0	41.6
Feb 26	182.8	0.0	6.0	41.5
Feb 27	212.0	0.0	6.0	41.5
Feb 28	199.6	0.0	6.0	41.6

AVG. 223.1 0.7 5.9 40.8

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	190.2	0.0	6.0	41.6
Mar 2	183.8	0.0	6.0	41.6
Mar 3	176.2	0.0	6.0	41.5
Mar 4	183.2	0.0	6.0	41.6
Mar 5	204.0	0.0	6.0	41.7
Mar 6	212.8	0.0	6.0	41.8
Mar 7	193.0	0.0	6.0	42.0
Mar 8	188.3	0.0	6.0	42.2
Mar 9	170.3	0.0	6.0	42.2
Mar 10	187.4	0.0	6.0	42.3
Mar 11	172.8	0.0	6.0	42.6
Mar 12	172.4	0.0	6.0	42.8
Mar 13	167.4	0.0	6.0	43.3
Mar 14	151.2	0.0	6.0	43.5
Mar 15	135.1	0.0	6.0	43.9
Mar 16	171.6	0.0	6.0	44.2
Mar 17	175.9	0.0	6.0	44.8
Mar 18	174.2	0.0	5.5	45.2
Mar 19	206.4	0.0	6.0	45.7
Mar 20	190.0	0.0	6.0	46.1
Mar 21	187.5	0.0	6.0	46.3
Mar 22	212.0	0.0	6.0	46.5
Mar 23	194.4	0.0	6.0	46.6
Mar 24	193.0	0.0	6.0	46.6
Mar 25	210.0	0.0	6.0	46.7
Mar 26	203.1	0.0	6.0	46.9
Mar 27	216.0	0.0	6.0	47.1
Mar 28	202.7	0.0	6.0	47.1
Mar 29	220.7	0.0	6.0	47.5
Mar 30	226.8	11.2	6.0	47.7
Mar 31	226.6	11.2	6.0	47.6

AVG. 190.3 0.7 6.0 44.4

TABLE 50

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

JOHN DAY PROJECT - FISH COUNTS

APRIL 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	unclipped					DISCH	SPILL	TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	KCFS	KCFS	SECCHI	DEG F
Apr 1	66			2				22	16				0	195.2	8.0	6.0	47.7
Apr 2	16			1				13	11				0	234.7	43.2	6.0	47.9
Apr 3	79			2				16	12				0	225.2	19.1	6.0	48.2
Apr 4	66			0				27	22				0	224.1	0.0	6.0	48.3
Apr 5	87			0				15	15				0	221.0	0.0	6.0	48.7
Apr 6	95			0				22	20				0	213.0	0.0	5.0	48.7
Apr 7	76			0				20	11				0	212.3	0.0	5.0	48.9
Apr 8	183			0				20	12				0	194.6	0.0	6.0	48.7
Apr 9	86			0				7	7				0	177.9	0.0	6.0	49.0
Apr 10	117			3				8	9				0	178.6	53.4	6.0	49.1
Apr 11	157			2				13	9				0	172.6	51.8	6.0	48.9
Apr 12	406			1				22	15				0	177.4	53.4	6.0	49.0
Apr 13	398			1				7	7				0	199.3	59.6	6.0	49.0
Apr 14	538			12				12	7				0	172.8	51.9	6.0	48.8
Apr 15	821			1				11	8				1	153.4	46.1	6.0	49.0
Apr 16	645			7				12	9				0	159.2	47.9	6.0	49.3
Apr 17	716			0				22	15				0	146.3	43.8	5.5	49.5
Apr 18	2,269			16				20	10				0	145.6	43.7	5.5	49.8
Apr 19	2,779			17				13	8				0	153.0	45.7	5.5	50.4
Apr 20	4,818			21				21	11				1	166.5	50.0	6.0	50.7
Apr 21	6,191			50				18	3				0	158.6	47.4	6.0	50.5
Apr 22	7,365			72				14	14				0	159.0	47.8	6.0	50.6
Apr 23	8,765			64				11	5				0	168.6	50.6	6.0	50.9
Apr 24	4,511			48				8	8				0	157.9	47.4	6.0	51.2
Apr 25	5,475			72				12	9				0	150.7	45.2	6.0	51.5
Apr 26	3,786			46				10	7				0	156.3	46.9	6.0	52.0
Apr 27	3,282			54				2	2				1	179.7	53.7	6.0	52.6
Apr 28	4,182			44				9	5				0	160.4	48.1	6.0	52.9
Apr 29	6,467			78				9	4				0	150.1	47.4	6.0	52.8
Apr 30	8,012			113				5	-1				4	135.0	54.1	6.0	53.2
TOTAL	72,454			727				421	290				7				
AVG.	2415			24				14	10				0	176.6	36.9	5.9	49.9

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 51

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS												MAY 2015					
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped				CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK							
May 1	12,110			387			0	20	10			5		165.0	63.3	6.0	53.7
May 2	9,620			291			0	5	3			-1		185.0	55.4	6.0	54.1
May 3	8,189			352			0	12	6			4		177.0	56.4	5.0	55.0
May 4	4,540			233			0	5	3			-1		185.1	73.9	4.5	55.0
May 5	2,996			187			0	9	4			0		165.4	62.8	5.0	54.9
May 6	2,439			164			0	6	1			1		170.0	51.3	6.0	55.1
May 7	2,749			201			0	-2	-3			19		171.6	54.6	6.0	55.6
May 8	2,761			201			0	5	0			1		169.0	67.5	6.0	56.3
May 9	2,981			276			0	2	1			5		159.4	61.4	6.0	56.9
May 10	2,881			361			0	6	1			1		143.2	42.9	6.0	57.0
May 11	2,527			332			0	6	1			2		141.9	45.0	6.0	56.6
May 12	3,218			546			0	6	2			0		166.2	65.8	5.5	56.7
May 13	2,174			367			0	8	2			2		186.2	71.1	5.5	56.7
May 14	1,465			268			0	2	1			5		193.3	57.9	5.5	57.2
May 15	1,272			207			1	-1	-1			-1		198.1	62.3	5.5	57.5
May 16	1,255			329			1	4	1			-1		179.5	71.4	5.5	57.5
May 17	1,568			410			0	4	0			8		168.7	64.5	5.5	57.6
May 18	1,343			283			0	5	-1			0		205.7	61.5	5.5	58.2
May 19	1,757			379			1	10	1			4		200.6	63.4	5.5	58.3
May 20	1,339			412			0	3	-1			4		194.1	77.3	6.0	58.6
May 21	1,163			350			0	1	-1			4		212.4	80.6	6.0	58.7
May 22	1,244			430			0	13	3			2		201.8	60.6	6.0	58.5
May 23	1,373			439			0	5	1			-1		203.0	64.0	6.0	58.9
May 24	1,401			352			4	4	1			0		223.8	89.0	6.0	59.5
May 25	1,358			263			0	11	6			1		210.4	81.1	6.0	60.3
May 26	1,197			199			0	10	1			-1		211.9	63.4	6.0	60.6
May 27	1,586			291			0	11	5			14		219.6	69.3	5.0	60.8
May 28	1,515			312			2	3	1			7		212.0	84.5	5.0	61.4
May 29	1,616			316			5	3	2			3		205.0	78.3	5.0	62.3
May 30	1,795			402			20	11	2			8		181.4	54.5	5.0	62.2
May 31	1,406			251			26	10	2			9		195.6	61.8	5.0	63.1
TOTAL	84,838			9,791			60	197	54			103					
AVG.	2737			316			2	6	2			3		187.2	65.1	5.6	57.9
RUN YEAR																	
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	unclipped STEELHEAD			LAMPREY					
SPRING		157,292	10,518				60	618	344			110					

TABLE 52

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

JOHN DAY PROJECT - FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	unclipped			PINK	CHUM	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					KCFS	KCFS	SECCHI	DEG F
Jun 1	2,088			304			69	16	6			3	196.0	78.5	5.5	63.6	
Jun 2	2,340			265			97	11	4			2	195.2	74.9	6.0	63.6	
Jun 3	1,724			152			119	17	6			9	176.3	53.1	6.0	63.6	
Jun 4	1,212			138			86	16	3			6	187.0	59.4	6.0	63.6	
Jun 5	1,359			137			195	24	7			9	185.1	74.1	6.0	64.0	
Jun 6		1,430		179			289	10	6			25	175.1	67.1	6.0	64.3	
Jun 7		1,381		195			541	31	7			44	177.5	53.3	6.0	64.4	
Jun 8		1,658		148			784	22	9			89	182.3	57.8	6.0	64.7	
Jun 9		2,272		262			1,189	25	0			122	201.1	80.4	6.0	65.4	
Jun 10		2,485		228			1,123	27	6			117	169.3	65.2	6.0	65.5	
Jun 11		2,321		160			1,123	18	6			122	170.5	51.1	6.0	66.0	
Jun 12		2,290		184			1,882	30	14			84	154.5	49.3	6.0	66.1	
Jun 13		2,242		134			3,107	21	7			126	160.2	63.9	6.0	66.3	
Jun 14		2,280		232			3,658	37	8			108	151.4	58.0	6.0	66.8	
Jun 15		2,922		197			4,724	41	18			124	167.6	50.2	6.0	67.3	
Jun 16		2,933		388			6,653	31	14			175	167.2	53.1	6.0	67.1	
Jun 17		2,807		326			7,243	67	30			174	149.8	59.9	6.0	67.1	
Jun 18		2,013		270			6,560	49	24			103	124.3	47.6	6.0	67.2	
Jun 19		2,404		304			11,051	78	24			119	123.6	37.2	6.0	67.3	
Jun 20		2,574		149			11,004	89	42			88	111.8	35.4	6.0	67.5	
Jun 21		2,178		225			11,387	106	47			152	116.2	46.2	6.0	67.8	
Jun 22		2,448		184			16,492	82	44			88	111.9	42.7	6.0	67.9	
Jun 23		2,237		329			22,004	93	49			122	114.8	34.6	6.0	68.0	
Jun 24		2,340		179			22,307	102	54			83	133.3	39.9	5.0	68.1	
Jun 25		2,418		339			23,574	97	46			90	136.6	40.7	5.0	68.4	
Jun 26		1,988		223			16,678	101	61			97	144.3	43.5	6.0	68.9	
Jun 27		2,325		292			15,139	105	62			85	151.7	45.5	6.0	69.4	
Jun 28		2,892		320			19,110	162	76			151	149.4	44.9	6.0	69.7	
Jun 29		5,097		425			22,131	216	120			208	161.8	48.6	6.0	69.7	
Jun 30		3,364		409			21,846	200	128			124	148.8	47.1	6.0	70.5	
TOTAL	8,723	61,299		7,277			252,165	1,924	928			2,849					
AVG.	1745	2,452		243			8,406	64	31			95	156.5	53.4	5.9	66.7	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	166,015	11,514
SUMMER	61,299	6,281
TOTAL	227,314	17,795

SOCKEYE	STEELHEAD	unclipped STEELHEAD
252,225	2,542	1,272

LAMPREY
2,959

TABLE 53

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

JOHN DAY PROJECT - FISH COUNTS

JULY 2015

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		2,376		184			16,324	175	86				162	143.1	57.3	6.0	71.2
Jul 2		943		159			8,435	154	94				165	158.3	63.2	6.0	71.9
Jul 3		2,288		192			11,874	214	125				258	142.4	56.7	6.0	71.7
Jul 4		3,445		249			14,526	291	186				182	135.1	53.9	6.0	71.7
Jul 5		2,385		127			7,582	205	131				123	132.6	53.1	6.0	72.3
Jul 6		2,369		175			5,585	234	145				145	140.7	56.1	6.0	72.7
Jul 7		2,700		175			6,433	232	145				115	152.1	60.6	6.0	72.6
Jul 8		837		84			3,190	154	101				147	128.3	48.8	6.0	73.4
Jul 9		498		61			1,866	137	97				198	143.8	43.2	6.0	73.8
Jul 10		1,021		114			2,693	188	103				127	111.8	35.0	6.0	73.4
Jul 11		1,324		164			2,741	242	151				168	103.2	41.3	6.0	73.6
Jul 12		1,243		93			1,875	214	134				101	103.9	39.9	6.0	73.7
Jul 13		988		100			1,903	174	119				74	128.7	38.5	6.0	73.6
Jul 14		735		87			2,604	118	80				75			6.0	73.5
Jul 15		533		73			1,681	103	64				80	133.0	53.1	6.0	73.4
Jul 16		1,356		150			1,844	170	106				86	131.1	50.1	6.0	73.1
Jul 17		1,794		305			1,713	212	126				98	136.4	40.6	6.0	72.7
Jul 18		2,642		251			2,037	325	208				67	144.4	45.4	6.0	72.6
Jul 19		1,688		186			1,458	325	215				55	137.2	54.7	6.0	72.9
Jul 20		1,491		156			2,265	404	238				82	141.1	54.2	6.0	72.8
Jul 21		1,186		98			1,558	217	120				86	138.8	41.4	6.0	73.0
Jul 22		716		68			977	192	131				61	129.7	38.9	6.0	72.7
Jul 23		497		56			712	195	126				72	113.6	34.1	6.0	72.4
Jul 24		581		96			1,035	238	129				47	127.1	37.9	6.0	72.3
Jul 25		732		92			1,207	357	201				47	124.5	37.5	6.0	72.3
Jul 26		1,098		66			1,611	462	280				38	125.2	37.4	6.0	72.0
Jul 27		1,150		78			906	423	246				52	126.0	37.7	6.0	71.5
Jul 28		1,126		170			965	571	354				19	129.8	38.8	6.0	71.1
Jul 29		907		81			671	481	277				43	136.8	40.8	6.0	71.0
Jul 30		1,003		160			846	540	334				25	154.6	46.1	6.0	71.4
Jul 31		916		82			557	588	318				43	144.5	43.3	6.0	71.3
TOTAL		42,568		4,132			109,674	8,535	5,170				3,041				

AVG	1,373	133	3,538	275	167	98	133.3	46.0	6.0	72.5
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	166,015	11,514
SUMMER	103,867	10,413
TOTAL	269,882	21,927

SOCKEYE	STEELHEAD	unclipped STEELHEAD	LAMPREY
361,899	11,077	6,442	6,000

TABLE 54

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

JOHN DAY PROJECT - FISH COUNTS

AUGUST 2015

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
Aug 1		1,284		170	0	0	565	887	497			40	0	144.7	43.2	6.0	71.2
Aug 2		1,066		145	0	0	349	936	498			37	0	117.7	35.5	6.0	71.3
Aug 3		1,479		134	0	0	446	980	535			49	0	119.6	35.9	6.0	71.1
Aug 4		605		71	0	0	218	747	411			55	0	135.9	40.8	6.0	71.6
Aug 5		467		55	0	0	168	582	311			41	0	124.6	37.4	6.0	71.7
Aug 6			397	70	0	0	218	637	294			43	0	133.8	40.2	6.0	71.7
Aug 7			589	62	0	0	264	842	396			80	0	151.8	45.4	6.0	71.7
Aug 8			665	60	0	0	228	798	396			64	0	144.7	43.7	6.0	71.5
Aug 9			1,135	122	0	0	227	957	462			52	0	120.1	35.9	6.0	71.4
Aug 10			922	89	0	0	168	710	328			69	0	138.4	41.5	6.0	71.4
Aug 11			767	86	0	0	93	547	288			44	0	122.2	36.7	6.0	71.5
Aug 12			785	84	1	0	87	490	229			52	0	139.3	41.7	6.0	71.7
Aug 13			870	70	4	0	104	708	331			35	0	139.6	41.9	6.0	72.0
Aug 14			898	82	7	0	107	868	398			103	0	132.9	40.0	6.0	72.2
Aug 15			721	68	1	1	76	863	353			81	0	139.4	41.6	6.0	72.0
Aug 16			843	57	2	0	40	865	405			52	0	150.3	45.1	6.0	71.9
Aug 17			812	85	0	0	22	539	246			28	0	144.4	43.3	6.0	72.0
Aug 18			569	77	1	0	37	609	252			46	0	136.3	40.8	6.0	72.1
Aug 19			552	72	0	0	33	574	238			48	1	152.0	45.5	6.0	72.0
Aug 20			593	72	7	1	38	563	200			69	0	138.4	41.5	6.0	71.5
Aug 21			1,454	124	9	0	37	536	216			55	0	136.4	40.9	6.0	71.1
Aug 22			2,105	238	8	3	24	765	265			43	0	139.5	42.0	6.0	70.8
Aug 23			2,501	205	25	6	34	1,456	608			34	0	148.2	44.6	6.0	71.0
Aug 24			1,537	141	6	3	31	1,322	480			37	0	148.7	44.6	6.0	71.2
Aug 25			1,548	125	20	10	39	1,222	482			28	1	149.9	45.0	6.0	71.0
Aug 26			1,262	126	10	7	66	1,168	471			15	0	140.6	42.1	6.0	70.8
Aug 27			2,576	131	7	7	50	1,328	525			48	0	140.2	42.1	6.0	70.5
Aug 28			3,633	313	12	4	56	1,135	419			25	0	143.6	43.0	6.0	70.5
Aug 29			3,741	326	22	0	37	1,263	449			23	0	101.7	30.4	6.0	70.7
Aug 30			4,421	304	48	7	35	1,258	455			49	0	100.0	30.0	6.0	70.6
Aug 31			8,118	615	37	11	20	1,382	500			20	0	111.7	33.6	6.0	70.5
TOTAL		4,901	44,014	4,379	227	60	3,917	27,537	11,938			1,465	2				
AVG.		980	1,693	141	7	2	126	888	385			47	0	135.1	40.5	6.0	71.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	166,015	11,514
SUMMER	108,768	10,988
FALL	44,014	3,804
TOTAL	318,797	26,306

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
227	60	365,816	38,614	18,380

LAMPREY	STURGEON
7,465	2

TABLE 55

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

JOHN DAY PROJECT - FISH COUNTS

SEPTEMBER 2015

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
Sep 1			8,212	362	66	22	21	1,440	472	0		51	0	95.3	1.0	6.0	70.2
Sep 2			9,389	795	85	21	25	2,353	785	0		51	0	92.8	1.0	6.0	69.9
Sep 3			8,634	516	113	29	9	2,881	882	0		50	0	107.6	1.0	6.0	69.6
Sep 4			9,576	988	190	44	26	2,729	798	0		35	0	98.7	0.9	6.0	69.2
Sep 5			15,184	1,001	271	44	11	3,397	1,069	0		39	0	78.9	1.2	6.0	68.7
Sep 6			12,546	1,273	462	69	55	3,934	1,093	0		26	0	74.3	0.9	6.0	68.4
Sep 7			12,820	885	515	93	32	5,675	1,659	0		33	1	78.5	1.0	6.0	68.2
Sep 8			13,514	1,079	747	156	62	4,970	1,352	0		25	0	93.6	0.9	6.0	68.0
Sep 9			12,553	1,499	577	93	18	4,684	1,365	0		46	0	98.0	0.9	6.0	67.8
Sep 10			16,123	1,589	1,008	233	52	5,867	1,706	0		33	0	100.6	1.2	6.0	67.7
Sep 11			15,748	1,987	751	118	20	4,568	1,276	0		11	0	100.6	0.9	6.0	67.8
Sep 12			14,987	1,291	620	93	13	3,724	1,032	0		15	0	99.0	1.0	6.0	67.8
Sep 13			23,913	2,339	1,189	160	31	5,378	1,288	0		29	0	77.6	0.9	6.0	67.3
Sep 14			20,717	1,775	836	138	16	4,522	1,177	0		39	0	83.1	2.0	6.0	67.2
Sep 15			16,332	1,808	846	149	17	3,965	1,117	1		29	0	97.6	0.9	6.0	67.1
Sep 16			11,457	1,243	491	49	6	3,547	1,096	0		36	0	102.5	0.9	6.0	66.9
Sep 17			15,329	2,133	599	107	18	4,452	1,610	0		18	0	82.8	0.9	6.0	66.8
Sep 18			9,980	1,808	388	44	4	3,198	1,026	0		20	1	89.4	0.9	6.0	66.7
Sep 19			11,937	1,686	397	86	18	3,348	1,123	0		20	2	86.6	0.9	6.0	66.7
Sep 20			14,524	2,577	537	100	12	4,817	1,457	0		28	2	68.5	0.9	6.0	66.7
Sep 21			13,756	2,284	537	137	10	4,264	1,385	0		41	0	77.5	1.4	6.0	66.6
Sep 22			13,060	2,463	406	88	1	3,150	933	0		18	0	92.9	0.9	6.0	66.5
Sep 23			12,197	1,275	429	78	6	2,713	785	0		12	0	98.2	0.9	6.0	66.3
Sep 24			12,032	1,479	386	54	1	2,506	741	0		25	0	116.1	0.9	6.0	66.2
Sep 25			15,676	1,341	426	38	2	2,898	951	0		19	1	98.1	0.9	6.0	66.1
Sep 26			9,821	1,437	539	60	10	2,760	888	0		15	0	87.8	0.9	6.0	66.1
Sep 27			12,855	1,175	389	32	1	2,537	771	0		8	0	73.8	0.9	6.0	66.0
Sep 28			9,170	1,629	495	77	8	2,497	766	0		18	0	93.1	0.8	6.0	66.1
Sep 29			6,307	1,125	342	75	4	2,030	652	0		6	0	114.4	0.9	6.0	66.2
Sep 30			6,815	1,180	341	66	1	1,706	516	0		-8	0	102.6	0.9	6.0	66.2
TOTAL			385,164	44,022	14,978	2,553	510	106,510	31,771	1		788	7				
AVG.			12,839	1,467	499	85	17	3,550	1,059	0		26	0	92.0	1.0	6.0	67.4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	166,015	11,514
SUMMER	108,768	10,988
FALL	429,178	47,826
TOTAL	703,961	70,328

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
15,205	2,613	366,326	145,124	50,151	1	8,253	9

TABLE 56

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

JOHN DAY PROJECT - FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT			CHINOOK COHO		unclipped				CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	PINK								
Oct 1			8,267	1,436	315	33	0	1,953	631	0		2	0	85.7	0.9	6.0	66.0
Oct 2			8,694	1,094	352	47	0	2,025	670	0		4	0	73.2	0.9	6.0	65.5
Oct 3			6,187	1,067	338	31	1	2,211	757	0		9	0	75.6	0.7	6.0	65.2
Oct 4			6,416	633	196	18	0	1,826	642	0		7	0	77.6	0.9	6.0	65.1
Oct 5			4,468	657	231	20	4	1,876	703	0		11	0	87.2	0.8	6.0	65.1
Oct 6			6,288	441	175	11	0	1,454	506	0		5	0	101.7	0.8	6.0	65.0
Oct 7			5,611	546	138	33	1	1,563	576	0		5	0	100.6	0.8	6.0	64.9
Oct 8			5,733	505	155	15	2	1,440	606	0		2	1	88.3	0.8	6.0	64.9
Oct 9			4,945	819	158	26	9	1,626	732	0		2	0	80.7	0.8	6.0	64.8
Oct 10			3,298	498	116	19	3	2,706	1,492	4		1	0	75.0	0.8	6.0	64.6
Oct 11			4,914	622	164	27	2	2,536	1,342	0		7	0	71.2	0.8	6.0	
Oct 12			5,154	632	80	12	1	1,569	701	0		3	0	64.7	0.8	6.0	64.4
Oct 13			3,750	346	145	17	0	1,908	827	0		5	0	77.1	1.1	6.0	
Oct 14			3,683	351	149	21	0	1,643	741	0		6	0	94.6	0.9	6.0	64.3
Oct 15			3,384	397	99	12	0	1,227	493	0		5	0	101.0	0.8	6.0	64.1
Oct 16			2,502	277	88	8	1	856	337	1		8	0	97.7	0.8	6.0	63.9
Oct 17			3,003	240	60	10	1	663	285	0		0	0	91.9	0.8	6.0	63.7
Oct 18			2,460	229	74	9	0	686	265	0		5	0	71.9	0.9	6.0	63.6
Oct 19			1,694	189	76	9	1	577	238	0		1	1	84.2	0.8	6.0	63.4
Oct 20			1,010	125	60	9	0	487	227	0		1	0	82.9	0.8	6.0	63.2
Oct 21			1,420	174	42	7	0	506	212	0		5	0	92.6	0.8	6.0	63.3
Oct 22			1,281	151	32	6	1	465	217	0		9	0	95.1	0.9	6.0	62.9
Oct 23			1,575	164	43	6	1	344	126	0		5	0	102.3	0.8	6.0	62.7
Oct 24			1,377	120	23	3	0	281	108	0		1	0	101.1	0.8	6.0	62.5
Oct 25			1,467	99	20	2	0	272	112	0		0	0	98.8	0.8	6.0	62.2
Oct 26			1,528	155	23	4	0	200	63	0		-2	0	87.4	0.8	6.0	62.0
Oct 27			1,215	119	14	4	5	192	72	0		3	0	102.2	0.8	6.0	61.8
Oct 28			1,070	86	29	6	1	286	116	0		1	0	100.9	0.8	6.0	61.5
Oct 29			989	96	62	8	2	359	155	0		2	0	79.9	0.8	6.0	61.3
Oct 30			670	107	47	7	1	225	127	4		0	0	82.6	0.8	6.0	61.1
Oct 31			748	113	53	13	1	420	282	0		4	0	87.9	0.7	6.0	60.8
TOTAL			104,801	12,488	3,557	453	38	34,382	14,361	9		117	2				
AVG.			3,381	403	115	15	1	1,109	463	0		4	0	87.5	0.8	6.0	63.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	166,015	11,514
SUMMER	108,768	10,988
FALL	533,979	60,314
TOTAL	808,762	82,816

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
18,762	3,066	366,364	179,506	64,512	10

LAMPREY	STURGEON
8,370	11

Note: Visual counts ended October 31.

TABLE 57
DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2015

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI DEG F		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI DEG F	
Nov 1	84.4	0.7	6.0	60.4	Dec 1	117.0	0.0	6.0	47.1
Nov 2	93.4	0.7	6.0	59.9	Dec 2	124.3	0.0	6.0	46.6
Nov 3	107.0	0.8	6.0	59.4	Dec 3	124.6	0.0	6.0	46.0
Nov 4	109.3	0.7	6.0	59.0	Dec 4	108.9	0.0	6.0	45.5
Nov 5	98.8	0.7	6.0	58.5	Dec 5	108.7	0.0	6.0	45.1
Nov 6	113.0	0.7	6.0	58.2	Dec 6	111.4	0.0	6.0	44.8
Nov 7	118.1	0.7	6.0	57.8	Dec 7	124.1	0.0	6.0	44.6
Nov 8	112.6	0.8	6.0	57.4	Dec 8	117.9	0.0	6.0	44.3
Nov 9	117.6	0.7	6.0	57.0	Dec 9	104.0	0.0	6.0	44.2
Nov 10	120.9	0.7	6.0	56.5	Dec 10	138.5	0.0	6.0	44.2
Nov 11	110.5	0.7	6.0	56.0	Dec 11	170.6	0.0	6.0	44.4
Nov 12	120.6	0.7	6.0	55.6	Dec 12	171.3	0.0	6.0	44.7
Nov 13	106.8	0.8	6.0	55.3	Dec 13	119.6	0.0	6.0	44.9
Nov 14	107.9	0.7	6.0	55.1	Dec 14	128.4	0.0	6.0	45.0
Nov 15	102.0	0.7	6.0	54.9	Dec 15	132.4	0.0	6.0	45.2
Nov 16	126.6	0.7	6.0	54.4	Dec 16	140.1	0.0	6.0	45.4
Nov 17	114.5	0.7	6.0	54.0	Dec 17	154.3	0.0	6.0	45.5
Nov 18	125.4	0.8	6.0	53.3	Dec 18	141.5	0.0	6.0	45.7
Nov 19	137.8	0.8	6.0	52.8	Dec 19	138.7	0.0	6.0	45.7
Nov 20	126.7	0.7	6.0	52.5	Dec 20	120.9	0.0	6.0	45.6
Nov 21	132.2	0.7	6.0	52.2	Dec 21	148.1	0.0	6.0	45.4
Nov 22	123.4	0.7	6.0	51.8	Dec 22	130.8	0.0	6.0	45.0
Nov 23	138.8	0.7	6.0	51.2	Dec 23	105.9	0.0	6.0	44.7
Nov 24	143.7	0.8	6.0	50.7	Dec 24	91.7	0.0	6.0	44.2
Nov 25	133.7	0.7	6.0	50.4	Dec 25	94.6	0.0	6.0	44.0
Nov 26	108.8	0.8	6.0	49.9	Dec 26	110.4	0.0	6.0	43.7
Nov 27	122.1	0.7	6.0	49.6	Dec 27	122.9	0.0	6.0	43.4
Nov 28	137.8	0.7	6.0	49.1	Dec 28	123.3	0.0	6.0	43.1
Nov 29	134.1	0.0	6.0	48.4	Dec 29	136.9	0.0	6.0	42.8
Nov 30	152.5	0.0	6.0	47.6	Dec 30	122.0	0.0	6.0	42.6
					Dec 31	133.1	0.0	6.0	42.4
AVG.	119.4	0.7	6.0	54.3	AVG.	126.4	0.0	6.0	44.7

TABLE 58

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	unclipped				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	LAMPREY
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		0		0			0	0	0		0
Jun 15		39		65			385	10	5		462
Jun 16		47		58			458	6	3		367
Jun 17		43		86			330	12	8		299
Jun 18		33		50			490	3	1		632
Jun 19		38		57			490	15	6		331
Jun 20		49		75			709	18	11		333
Jun 21		50		89			1,010	13	9		268
Jun 22		40		8			1,415	4	3		135
Jun 23		43		6			2,124	10	2		162
Jun 24		51		73			1,933	5	3		296
Jun 25		63		3			1,630	4	0		184
Jun 26		34		7			479	5	2		171
Jun 27		58		13			463	1	1		226
Jun 28		119		36			1,736	4	3		288
Jun 29		103		51			1,675	7	5		247
Jun 30		107		33			1,653	7	1		248
TOTAL		917		710			16,980	124	63		4,649
AVG.		54		42			999	7	4		273

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

TABLE 59

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT -NIGHT FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped		LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK			STEELHEAD	PINK	
Jul 1		62		26			824	8	5		276
Jul 2		106		42			1,040	7	6		222
Jul 3		138		45			1,579	4	1		289
Jul 4		97		58			1,239	12	4		281
Jul 5		54		33			730	7	4		296
Jul 6		72		19			519	4	3		284
Jul 7		68		23			641	6	3		324
Jul 8		36		13			337	5	4		315
Jul 9		18		1			161	16	9		166
Jul 10		54		0			520	13	10		262
Jul 11		87		3			629	12	7		239
Jul 12		58		23			371	8	7		244
Jul 13		49		36			763	19	13		194
Jul 14		57		21			547	14	10		163
Jul 15		33		2			367	8	6		120
Jul 16		141		11			721	22	12		128
Jul 17		116		27			406	7	6		170
Jul 18		66		21			233	6	2		217
Jul 19		95		26			275	8	4		196
Jul 20		68		36			334	18	13		212
Jul 21		52		4			240	9	7		161
Jul 22		32		0			154	23	18		128
Jul 23		25		13			180	5	4		207
Jul 24		35		12			300	16	12		164
Jul 25		39		6			161	11	6		155
Jul 26		22		10			172	11	7		126
Jul 27		34		4			122	17	12		119
Jul 28		29		6			111	13	7		111
Jul 29		20		5			89	24	12		90
Jul 30		24		0			43	9	1		76
Jul 31		30		1			54	14	10		108
TOTAL		1,817		527			13,862	356	225		6,043

AVG

59

17

447

11

7

195

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

TABLE 60

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - NIGHT FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT					
Aug 1		52		3	0	0	13	17	9	102
Aug 2		15		2	0	0	35	12	6	132
Aug 3		19		2	0	0	43	16	7	236
Aug 4		14		1	0	0	37	14	4	240
Aug 5		12		2	0	0	50	20	10	198
Aug 6			14	1	0	0	55	34	16	268
Aug 7			14	3	0	0	32	26	15	154
Aug 8			19	5	0	0	35	29	10	145
Aug 9			7	2	0	0	20	23	14	229
Aug 10			11	1	0	0	12	18	9	132
Aug 11			11	0	0	0	13	10	6	145
Aug 12			8	4	0	0	20	27	15	104
Aug 13			20	2	0	0	21	25	13	185
Aug 14			15	5	0	0	15	39	22	274
Aug 15			3	2	0	1	9	39	14	198
Aug 16			17	3	0	1	11	38	19	223
Aug 17			5	2	0	0	5	25	11	133
Aug 18			10	4	0	0	2	25	18	207
Aug 19			17	5	0	0	4	26	13	182
Aug 20			11	6	0	0	6	40	15	137
Aug 21			12	4	0	0	5	49	22	107
Aug 22			37	2	0	0	7	72	37	125
Aug 23			15	4	0	2	10	96	42	107
Aug 24			22	2	0	1	4	66	29	138
Aug 25			27	3	0	0	14	90	35	115
Aug 26			31	5	0	0	7	81	26	84
Aug 27			21	7	0	0	7	91	24	89
Aug 28			29	7	0	0	3	74	23	95
Aug 29			61	6	0	2	9	107	26	95
Aug 30			91	12	0	0	10	111	36	87
Aug 31			90	10	3	1	3	82	32	110
TOTAL		112	618	117	3	8	517	1,422	578	4,776
AVG.		22	24	4	0	0	17	46	19	154

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

SEPTEMBER 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT					
Sep 1			27	8	0	0	5	166	66	131
Sep 2			151	34	0	0	8	315	109	132
Sep 3			45	18	0	0	6	194	61	136
Sep 4			113	25	2	2	5	182	62	81
Sep 5			123	31	5	5	13	309	102	93
Sep 6			117	28	6	3	4	257	81	68
Sep 7			69	36	9	12	2	326	97	96
Sep 8			68	23	6	9	4	335	113	99
Sep 9			55	10	26	6	5	461	139	88
Sep 10			29	12	28	11	1	221	71	88
Sep 11			52	21	19	17	3	180	72	106
Sep 12			35	8	8	6	2	202	66	86
Sep 13			29	7	12	5	1	286	104	98
Sep 14			34	10	21	6	1	192	70	101
Sep 15			48	4	18	11	2	298	101	97
Sep 16			30	5	21	6	2	270	115	101
Sep 17			30	0	7	0	0	211	63	25
Sep 18			29	6	18	2	0	190	68	78
Sep 19			43	7	13	2	0	239	87	68
Sep 20			40	7	13	1	2	247	86	57
Sep 21			27	11	13	5	0	203	85	69
Sep 22			41	8	10	2	1	205	98	55
Sep 23			39	8	13	3	0	221	76	68
Sep 24			29	7	14	3	0	160	61	68
Sep 25			11	5	22	6	0	157	48	76
Sep 26			37	11	13	6	1	231	82	47
Sep 27			23	8	10	4	0	190	62	39
Sep 28			17	9	13	3	0	126	41	28
Sep 29			19	8	10	4	0	135	45	60
Sep 30			12	5	9	2	0	152	58	55
TOTAL			1,422	380	359	142	68	6,861	2,389	2,394
AVG.			47	13	12	5	2	229	80	80

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

TABLE 62

YEARLY TOTALS OF SALMONIDS COUNTED OVER
JOHN DAY DAM
1968 - 2015

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	203,232	557,531	115,841	1,642,822
2015	891,578	179,506	366,364	21,828	1,459,276
TOTALS	13,585,364	8,485,523	4,472,375	939,894	27,483,962
10-Year Average	514,506	256,940	235,177	47,304	1,054,006

*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 63

MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2015

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			766,218	142,300	103,688	520,203	116,443
2015				73,181	94,629	77,299	46,700	53,294	429,186	117,289			891,578	177,529	119,756	594,293	82,816
TOTAL				4,123	1,237,080	2,130,675	1,336,526	972,025	963,952	5,954,281	973,581	12,625	13,585,364	3,525,529	2,226,197	7,820,462	2,855,470
10-Year Average				22,032	89,430	60,293	33,331	31,886	233,699	43,244			514,506	118,734	88,632	306,550	96,856

*Jacks included

TABLE 64

**MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM
1968 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1968						42,175	44,942	690	32	7	1		87,847
1969						13,383	26,174	245	37	8			39,847
1970						18,029	58,176	1,909	19				78,133
1971						5,219	66,183	787	38	5			72,232
1972						6,762	43,704	1,257	68	2			51,793
1973					2	21,283	42,588	864	6	1			64,744
1974						2,024	30,687	403	6	1			33,121
1975						6,154	44,454	163	2	1			50,774
1976						8,907	21,278	258	1	2			30,446
1977					6	52,852	32,269	537	34	3			85,701
1978						5,633	8,006	119	20				13,778
1979						13,466	29,603	560	1				43,630
1980						9,596	40,536	530	13				50,675
1981						17,064	28,975	94	13				46,146
1982						8,708	28,974	286	2				37,970
1983						27,372	63,995	506	37	7			91,917
1984						54,975	51,728	1,230	16	2			107,951
1985						78,326	46,184	421	10				124,941
1986						13,472	32,116	738	0	1			46,327
1987						35,022	39,983	513	11				75,529
1988						25,001	22,855	225	12	2			48,095
1989						18,883	20,330	148	12	1			39,374
1990					1	15,247	26,580	245	4				42,077
1991						10,917	52,130	699	9	5			63,760
1992					1	38,618	30,788	303	20	1			69,731
1993					1	30,668	30,348	198	2	1			61,218
1994						7,004	4,141	22	2	1			11,170
1995					1	4,242	4,352	71	1				8,667
1996						15,316	10,323	59	0				25,698
1997					10	11,605	23,604	603	4	4			35,830
1998						4,371	5,314	131	19	2			9,837
1999					1	4,803	9,910	88	2	5			14,809
2000					15	73,119	15,122	108	7	1			88,372
2001					7	86,624	21,062	100	75	1			107,869
2002					1	20,044	21,772	96	1	1			41,915
2003						19,260	16,004	151	2				35,417
2004					34	84,659	28,663	133	5	3			113,497
2005					-3	35,616	33,988	162	6	1			69,770
2006						20,279	14,949	154	5				35,387
2007					6	16,083	7,994	141	53				24,277
2008					1	150,928	42,325	153	2				193,409
2009					3	100,136	57,110	142	8	3			157,402
2010					14	226,244	97,705	153	8	4			324,128
2011						41,854	101,278	471	2	0			143,605
2012					2	241,353	152,501	285	22	3			394,166
2013					23	80,403	74,530	516	24	2			155,498
2014					6	230,010	325,778	1,712	25	0			557,531
2015					60	252,165	109,674	3,917	510	38			366,364
TOTAL					192	2,305,874	2,141,685	23,296	1,208	119	1		4,472,375
10-Year Average					14	135,946	98,384	764	66				235,177

TABLE 65
 MONTHLY COUNT OF COHO SALMON
 JOHN DAY DAM 1968 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
1968							4	1,311	32,882	3,848	188		38,233
1969							25	308	9,879	3,377			13,589
1970							14	1,026	17,272	1,231			19,543
1971								944	36,401	3,485			40,830
1972								1,253	14,965	1,315			17,533
1973								788	11,350	1,221			13,359
1974								730	11,253	2,668			14,651
1975								85	4,266	1,954			6,305
1976								57	3,739	2,010			5,806
1977								8	534	581			1,123
1978								6	2,676	5,673			8,355
1979							1	132	2,853	1,753	322		5,061
1980								27	1,431	466			1,924
1981								90	2,030	442			2,562
1982								145	3,032	886			4,063
1983								99	1,353	188			1,640
1984								4	1,736	331	9		2,080
1985								95	1,140	395	22		1,652
1986									1,527	406			1,933
1987							1	16	3,205	133			3,355
1988							3	241	5,170	1,399			6,813
1989								264	6,832	2,567			9,663
1990								1	1,890	1,132			3,023
1991								5	6,140	1,876			8,021
1992									2,153	480			2,633
1993								11	2,233	751			2,995
1994								164	1,892	786			2,842
1995								63	1,199	855			2,117
1996								11	3,432	836			4,279
1997								1	2,860	1,368			4,229
1998								18	2,806	5,673			8,497
1999								8	9,471	3,753			13,232
2000					2			921	15,355	7,691			23,969
2001							49	480	23,204	27,448			51,181
2002								66	5,101	4,105			9,272
2003								282	24,786	13,509	183	5	38,765
2004								161	24,884	9,710	766	1	35,522
2005								334	20,981	12,882	2,005	3	36,205
2006								613	20,825	12,340	4,543	53	38,374
2007						1	1	248	21,179	17,799	193		39,421
2008								810	29,451	14,637			44,898
2009							1	4,826	29,003	37,909			71,739
2010							10	375	14,126	8,761			23,272
2011								2,234	37,683	25,751			65,668
2012							9	1,393	28,826	3,631			33,859
2013							1	309	8,939	8,279	554	57	18,139
2014	1						0	151	95,529	20,160			115,841
2015							0	287	17,531	4,010			21,828
TOTAL				0	2	1	119	21,401	627,005	282,461	8,785	119	939,894
10-Year Average								1,125	30,309	15,328			47,304

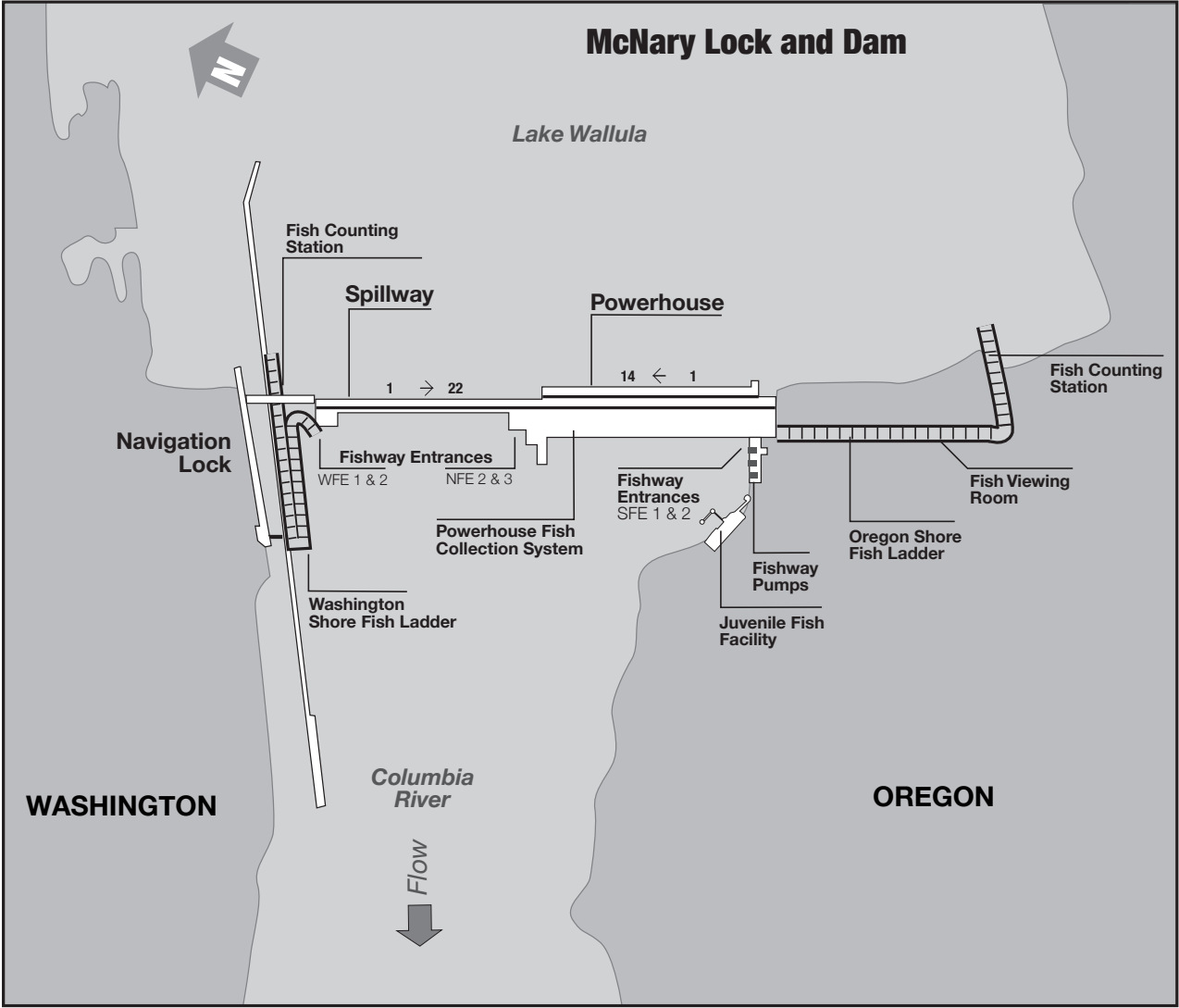
*Jacks included

TABLE 66

**MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1968				3,939	2,659	151	6,094	26,824	68,791	11,405	1,393		121,256
1969			314	3,986	3,691	714	12,004	13,267	40,082	12,290			86,348
1970				1,987	1,279	253	7,373	19,412	46,036	6,100			82,440
1971				1,472	592	263	17,459	19,693	63,868	12,630			115,977
1972				1,523	1,966	356	17,656	20,502	78,138	21,487			141,628
1973				8,019	3,546	785	12,134	15,608	46,566	14,782			101,440
1974				1,713	2,363	1,361	9,713	8,419	12,479	7,708			43,756
1975				760	428	648	6,251	8,583	9,977	6,004			32,651
1976				929	1,248	1,868	9,254	17,964	22,754	5,791			59,808
1977				1,319	418	2,341	18,366	7,088	56,134	16,892			102,558
1978				741	631	1,601	5,573	6,911	22,896	5,835			44,188
1979				602	136	253	8,012	10,717	16,202	18,072	1,883		55,877
1980				4,131	555	577	5,850	18,114	34,700	14,272			78,199
1981				2,061	1,539	2,515	15,999	18,283	34,098	20,677			95,172
1982				3,393	1,698	1,167	10,168	19,693	50,725	21,759			108,603
1983				1,492	434	560	15,088	31,453	83,215	22,183			154,425
1984				3,316	1,787	2,101	21,442	19,743	100,437	46,506	5,822		201,154
1985				6,821	1,723	3,583	19,631	64,456	109,488	37,227	4,164		247,093
1986			3,611	2,040	887	2,362	37,732	31,576	107,002	52,800			238,010
1987				3,926	-747	942	23,614	34,203	69,585	39,131			170,654
1988				4,290	525	2,188	17,649	25,741	81,859	32,398			164,650
1989				2,940	508	2,445	18,254	22,548	104,521	42,244			193,460
1990				3,339	600	1,902	10,544	9,445	42,888	39,131			107,849
1991				2,547	660	1,256	12,827	18,310	87,277	37,380			160,257
1992				1,334	406	2,337	10,732	17,326	143,823	19,236			195,194
1993				3,453	808	2,845	9,434	11,018	46,447	21,637			95,642
1994				2,286	413	1,647	6,961	7,140	44,175	30,453			93,075
1995				1,498	488	1,757	7,755	26,450	45,087	40,211			123,246
1996				1,597	462	1,576	11,885	42,853	67,171	30,458			156,002
1997				2,171	810	2,021	12,847	22,179	75,119	41,891			157,038
1998				4,367	1,018	2,460	9,827	9,053	67,322	64,500			158,547
1999				2,702	764	1,975	17,083	42,160	72,719	27,911			165,314
2000				2,607	784	4,500	23,496	37,827	113,619	37,495			220,328
2001				1,946	550	11,031	52,946	50,723	230,803	135,410			483,409
2002				7,330	972	5,875	42,167	59,430	170,893	103,633			390,300
2003			9,792	1,327	222	4,888	28,019	23,687	177,058	50,975	7,666	1,408	305,042
2004		186	2,591	1,437	537	6,840	20,250	24,594	145,241	28,300	3,401	54	233,431
2005		106	2,571	843	456	3,424	24,705	27,445	116,336	49,965	6,158	94	232,103
2006		32	1,252	2,104	343	2,575	15,719	25,008	125,323	46,050	12,909	40	231,355
2007		400	3,584	1,592	641	2,450	16,497	43,710	119,499	42,809	5,509	826	237,517
2008				2,363	1,004	5,973	45,572	41,931	144,781	35,538			277,162
2009				2,502	674	5,136	43,692	167,086	262,375	100,180			581,645
2010				2,156	442	7,589	73,271	36,206	123,408	40,740			283,812
2011				2,396	408	1,090	32,498	101,526	83,950	35,477			257,345
2012				1,657	277	1,995	27,799	34,466	67,996	27,893			162,083
2013				754	197	1,837	18,416	22,217	78,355	29,179	3,133	1,654	155,742
2014	181	696	1,517	363	422	2,906	27,211	18,916	116,932	34,088			203,232
2015				421	197	1,924	8,535	27,537	106,510	34,382			179,506
TOTAL	1,420	25,232	118,492	42,421	118,843	926,004	1,409,041	4,134,660	1,653,115	52,038	4,076		8,485,523
10-YR Average			1,631	461	3,348	30,921	51,860	122,913	42,634				256,940

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 – 5 January	Ladder in service.
5 – 16 January	Ladder dewatered for annual maintenance.
16 January – 31 December	Ladder in service.

Oregon Ladder

1 – 17 January	Ladder in service.
17 January – 27 February	Ladder dewatered for annual maintenance.
27 February – 31 December	Ladder in service.

FISHWAY ACTIVITIES

Washington ladder maintenance activities consisted of a camera inspection of diffuser gratings with maintenance performed on all above-water structures and in the ladder to tailwater elevation. The switch to digital controls at the entrance was completed. The junction pool still can not be dewatered due to safety concerns with the concrete bulkheads, which face the spillway.

The Wasco county PUD was out of service from 5 to 16 January for annual maintenance with conduit bulkheads in place.

Oregon ladder maintenance activities consisted of a camera inspection of the powerhouse and north entrance pool diffuser gratings, a physical inspection of all other diffuser gratings, replacement of two failed PIT tag detectors and removal of floating orifice gates at W3, W4 and W14 for rehabilitation. Maintenance was performed on all

entrance and exit weirs, with the switch to digital controls at the entrances almost completed.

Fish pump 2 remains out of service for major overhaul, which is now scheduled for completion around September, 2016. Fish pumps 1 and 3 were out of service from 17 January to 27 February for annual maintenance.

From 17 January to 27 February, the 1000 cfs auxiliary supply conduit was out of service.

From 30 March to 22 December, the juvenile bypass channel was operated for both juvenile and adult fallback passage. From 16 to 22 December, the system was in emergency bypass as ESBSs were being removed for winter maintenance. When in emergency bypass, the system does not provide auxiliary flow to the Oregon ladder's north powerhouse entrances.

TABLE 67

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

2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				54,895	97,690	62,853	47,043	37,795	381,931	140,309			822,516
STEELHEAD				589	153	1,325	6,295	24,569	101,373	42,833			177,137
SOCKEYE					42	183,645	91,482	3,454	982	139			279,744
COHO*						18	0	162	13,928	5,793			19,901
CHUM													0
PINK						2	5	0	0	4			11
TOTAL				55,484	97,885	247,843	144,825	65,980	498,214	189,078			1,299,309
SHAD					6,418	759,628	231,609	1,897					999,552
LAMPREY				5	18	372	714	385	225	29			1,748
STURGEON						1							1
BULL TROUT													0

*Jacks Included

TABLE 68
DISCHARGE AND WATER QUALITY DATA
MCNARY PROJECT 2015

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	173.4	0.0	6.0	42.0
Jan 2	171.6	0.0	6.0	41.0
Jan 3	174.4	2.0	6.0	40.0
Jan 4	196.6	24.0	6.0	40.0
Jan 5	190.5	14.2	6.0	40.0
Jan 6	144.0	0.0	6.0	40.0
Jan 7	181.1	14.2	6.0	40.0
Jan 8	185.1	36.7	6.0	41.0
Jan 9	187.7	37.2	6.0	41.0
Jan 10	179.0	7.2	6.0	40.0
Jan 11	191.5	19.2	6.0	40.0
Jan 12	193.5	29.6	6.0	41.0
Jan 13	185.1	27.7	6.0	41.0
Jan 14	174.8	13.9	6.0	41.0
Jan 15	181.4	9.6	6.0	41.0
Jan 16	183.8	10.6	6.0	41.0
Jan 17	184.5	10.6	6.0	41.0
Jan 18	180.0	5.3	6.0	40.0
Jan 19	176.6	0.0	6.0	40.0
Jan 20	185.8	13.2	6+	40.0
Jan 21	220.6	46.6	6+	40.0
Jan 22	196.8	22.1	6.0	40.0
Jan 23	186.4	12.6	6.0	40.0
Jan 24	177.0	4.1	6.0	40.0
Jan 25	174.0	0.0	6.0	39.0
Jan 26	178.8	12.6	6.0	39.0
Jan 27	189.7	30.9	6+	39.0
Jan 28	182.1	25.4	6+	39.0
Jan 29	201.5	42.0	6.0	40.0
Jan 30	203.8	44.8	6.0	39.0
Jan 31	213.0	42.3	6.0	39.0
AVG.	185.3	18.0	6.0	40.2

FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	222.6	47.5	6.0	40.0
Feb 2	211.6	34.9	6.0	40.0
Feb 3	197.9	21.5	6.0	40.0
Feb 4	218.7	36.1	6.0	39.0
Feb 5	218.5	22.3	6.0	39.0
Feb 6	212.7	16.7	6.0	39.0
Feb 7	225.0	27.8	6.0	39.4
Feb 8	229.1	43.9	6.0	40.0
Feb 9	223.7	48.1	6.0	40.0
Feb 10	236.4	61.7	6.0	41.0
Feb 11	255.0	79.4	6.0	41.0
Feb 12	256.0	78.6	6.0	40.0
Feb 13	250.0	72.5	6.0	41.0
Feb 14	247.9	70.6	6.0	41.0
Feb 15	253.8	76.9	4.5	41.0
Feb 16	256.5	79.9	3.0	41.0
Feb 17	239.1	79.9	3.1	41.0
Feb 18	255.9	78.5	6.0	41.0
Feb 19	251.1	76.5	6.0	41.0
Feb 20	246.7	68.6	5.0	41.0
Feb 21	231.5	53.6	5.5	41.0
Feb 22	223.5	45.4	4.5	40.0
Feb 23	230.9	58.4	4.3	40.0
Feb 24	239.1	64.9	4.0	40.0
Feb 25	216.2	40.5	3.5	40.0
Feb 26	180.6	6.5	6.0	40.0
Feb 27	211.5	38.0	3.5	40.0
Feb 28	203.9	31.0	3.7	40.0
AVG.	230.2	52.2	5.2	40.3

MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	193.7	17.1	3.5	41.0
Mar 2	189.0	13.8	3.5	41.0
Mar 3	174.3	10.4	3.5	41.0
Mar 4	187.9	21.1	3.5	41.0
Mar 5	200.7	30.4	3.5	41.0
Mar 6	211.4	45.3	3.8	41.0
Mar 7	200.1	25.2	3.9	41.0
Mar 8	197.2	21.6	3.9	41.0
Mar 9	184.9	9.4	4.1	42.0
Mar 10	186.3	8.6	4.1	42.0
Mar 11	166.0	0.1	4.2	42.0
Mar 12	161.4	0.0	4.4	43.0
Mar 13	166.7	0.0	5.5	43.0
Mar 14	157.9	9.1	5.8	44.0
Mar 15	141.6	9.1	6.0	44.0
Mar 16	172.4	8.7	6.0	45.0
Mar 17	169.1	5.0	6.0	45.0
Mar 18	182.4	4.1	6.0	45.0
Mar 19	201.4	0.0	6.0	45.0
Mar 20	182.0	0.0	5.8	45.0
Mar 21	183.7	0.0	6.0	45.0
Mar 22	210.8	0.0	6.0	45.0
Mar 23	193.1	0.0	6.0	45.0
Mar 24	211.1	0.0	6.0	45.0
Mar 25	205.0	0.0	5.7	45.0
Mar 26	206.8	0.0	6.0	45.0
Mar 27	208.1	0.0	6.0	45.0
Mar 28	207.8	0.0	6.0	46.0
Mar 29	232.7	22.7	6.0	46.0
Mar 30	241.7	29.1	6.0	46.0
Mar 31	229.9	18.8	6.0	47.0
AVG.	192.2	10.0	5.1	43.6

TABLE 69

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

MCNARY PROJECT - FISH COUNTS

APRIL 2015

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	16			0				30	17			0	193.7	37.0	6.0	47.0
Apr 2	14			1				40	23			0	242.6	85.8	6.0	47.0
Apr 3	8			0				40	23			0	224.7	62.3	6.0	47.0
Apr 4	30			0				27	18			0	224.5	61.4	6.0	47.0
Apr 5	20			0				6	-4			0	227.7	65.1	6.0	48.0
Apr 6	16			0				21	15			0	216.8	58.9	6.0	47.0
Apr 7	31			0				1	-5			0	197.0	41.0	6.0	47.0
Apr 8	38			0				10	4			0	190.9	38.3	6.0	47.0
Apr 9	41			0				12	9			0	173.4	16.2	6.0	47.0
Apr 10	126			1				33	21			1	187.9	75.3	6.0	48.0
Apr 11	147			0				53	39			1	180.3	72.5	6.0	48.0
Apr 12	101			0				48	27			1	171.5	69.1	6.0	48.0
Apr 13	114			0				16	15			0	191.8	77.0	5.5	48.0
Apr 14	215			1				21	13			0	182.5	73.3	5.7	49.0
Apr 15	334			0				17	10			1	154.9	62.2	6.0	48.0
Apr 16	143			0				17	10			0	156.3	62.6	6.0	48.0
Apr 17	956			1				16	12			0	148.7	59.7	6.0	49.0
Apr 18	793			0				21	13			0	151.7	60.8	6.0	49.0
Apr 19	751			1				21	15			0	152.7	61.2	6.0	50.0
Apr 20	1,641			16				25	24			0	162.8	65.4	6.0	50.0
Apr 21	2,273			88				11	9			0	161.1	64.4	6.0	51.0
Apr 22	4,822			12				12	6			0	162.3	65.0	6.0	51.0
Apr 23	4,835			55				21	17			0	166.5	66.4	6.0	52.0
Apr 24	7,266			114				13	11			1	159.8	63.9	6.0	52.0
Apr 25	7,808			79				9	6			0	157.4	63.3	6.0	52.0
Apr 26	4,483			36				16	12			0	159.4	64.0	6.0	52.0
Apr 27	5,180			58				12	6			0	167.6	67.1	6.0	52.0
Apr 28	3,529			44				4	4			0	165.5	66.3	6.0	52.0
Apr 29	3,816			33				10	8			0	145.9	58.5	6.0	52.0
Apr 30	4,769			39				6	4			0	128.7	51.5	6.0	53.0
TOTAL	54,316			579				589	382			5				
AVG.	1811			19				20	13			0	176.9	61.2	6.0	49.3

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 70

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

MCNARY PROJECT - FISH COUNTS

MAY 2015

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	KCFS		SECCHI
May 1	5,992			176			0	17	11		0	0	178.7	71.9	6.0	54.0
May 2	8,572			178			0	9	7		0	0	179.5	72.1	6.0	54.0
May 3	9,610			282			0	3	2		0	1	179.0	72.1	6.0	55.0
May 4	9,514			255			0	0	-1		0	1	189.6	76.0	6.0	55.0
May 5	8,333			173			0	12	7		0	0	170.9	68.6	6.0	55.0
May 6	3,710			110			0	6	3		0	5	172.3	69.1	6.0	55.0
May 7	3,120			98			0	6	2		0	0	179.9	71.9	6.0	55.0
May 8	2,282			101			0	13	4		0	0	162.3	65.3	6.0	55.0
May 9	2,687			135			0	1	0		0	0	162.7	65.4	6.0	56.0
May 10	2,461			154			0	10	2		0	0	144.5	58.1	6.0	56.0
May 11	3,192			266			0	-2	-2		0	0	144.6	58.1	6.0	56.0
May 12	2,837			292			0	0	-2		3	3	173.3	69.7	6.0	56.0
May 13	2,560			270			0	7	-1		1	0	187.7	75.4	6+	56.4
May 14	1,902			296			0	-2	-4		1	0	193.1	77.5	6.0	56.0
May 15	1,894			270			0	1	0		6	0	206.7	83.0	6.0	56.0
May 16	1,557			234			0	3	1		1	0	180.6	72.2	6.0	56.0
May 17	1,402			218			0	1	-1		2	0	167.5	66.7	6.0	56.0
May 18	1,380			192			0	5	3		5	0	209.7	84.7	6.0	56.0
May 19	1,434			293			0	2	0		4	0	204.7	82.4	6.0	57.0
May 20	1,333			238			0	2	-1		12	0	193.3	77.8	6.0	57.0
May 21	1,293			292			0	1	-1		16	0	217.7	87.6	6.0	58.0
May 22	1,232			296			0	1	1		26	0	213.1	85.7	6.0	58.0
May 23	1,060			192			0	3	2		22	1	203.2	81.4	6.0	58.0
May 24	1,553			356			0	-4	-11		20	0	220.7	88.6	6.0	58.0
May 25	1,615			236			1	9	-1		57	1	218.4	87.7	6.0	59.0
May 26	1,680			296			4	6	0		65	2	212.2	85.3	6.0	60.0
May 27	1,379			165			4	4	1		120	1	219.2	88.1	6.0	61.0
May 28	1,111			100			6	13	1		603	0	209.3	84.4	6.0	61.0
May 29	1,146			188			1	2	0		1250	0	205.7	82.8	6.0	61.0
May 30	1,465			241			11	17	4		2269	1	197.6	79.4	6.0	61.0
May 31	1,517			274			15	7	1		1935	2	200.6	80.7	6.0	61.0
TOTAL	90,823			6,867			42	153	27		6,418	18				
AVG.	2,930			222			1	5	1		207	1	190.3	76.4	6.0	57.0
RUN YEAR		CHINOOK	CHINOOK					TOTAL	unclipped							
TOTALS TO DATE		ADULT	JACK				SOCKEYE	STEELHEAD	STEELHEAD		SHAD	LAMPREY				
	SPRING	145,139	7,446				42	742	409		6,418	23				

Note: One Sturgeon counted on May 15.

TABLE 71

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
	SPRING	SUMMER	FALL						STEELHEAD	PINK							
Jun 1	1,476			334	0	0	23	5	0	0	5,513	1	202.6	81.2	6.0	62.0	
Jun 2	1,715			210	5	4	16	19	4	0	6,626	1	191.1	76.9	6.0	62.0	
Jun 3	1,521			282	1	0	74	17	3	0	8,556	1	180.3	72.7	6.0	62.0	
Jun 4	1,410			167	-1	0	83	20	1	0	14,361	2	184.7	74.2	6.0	62.0	
Jun 5	1,542			96	0	0	74	18	3	0	18,866	0	184.7	74.4	6.0	62.0	
Jun 6	1,184			72	4	0	69	19	1	0	17,350	1	179.2	72.1	6.0	63.0	
Jun 7	949			76	0	0	105	16	2	0	17,620	3	179.5	72.2	6.0	63.0	
Jun 8	1,215			84	0	0	216	24	2	0	16,028	2	192.0	77.2	6.0	64.0	
Jun 9		1,518		134	0	0	479	10	-2	0	28,132	1	206.4	82.8	6.0	82.0	
Jun 10		1,701		126	0	0	562	13	4	1	28,041	1	177.6	71.3	6.0	72.0	
Jun 11		1,559		178	-1	0	758	26	0	0	21,730	1	166.7	67.0	6.0	70.0	
Jun 12		1,824		230	-1	0	947	21	2	0	23,406	6	173.4	69.5	6.0	69.0	
Jun 13		2,198		282	0	1	1,192	29	3	0	27,369	3	160.6	64.2	6.0	65.0	
Jun 14		2,594		119	0	0	1,522	19	-4	0	34,574	7	151.7	60.6	6.0	66.0	
Jun 15		2,097		190	1	0	2,854	23	10	0	24,599	7	174.6	70.1	6.0	66.0	
Jun 16		2,316		126	0	0	3,274	30	9	0	33,906	7	173.7	86.8	6.0	66.0	
Jun 17		2,419		133	0	0	4,349	46	17	0	21,196	10	162.0	80.9	6.0	66.0	
Jun 18		2,077		119	5	0	5,989	31	6	0	28,902	12	132.6	66.3	6.0	66.0	
Jun 19		2,462		393	0	0	6,983	64	24	0	30,856	10	124.5	62.4	6.0	66.0	
Jun 20		1,495		192	0	0	6,175	59	21	0	35,248	23	124.3	62.5	6.0	66.0	
Jun 21		2,261		298	0	0	8,596	39	9	0	36,089	48	125.6	63.0	6.0	67.0	
Jun 22		2,456		333	0	0	10,749	62	12	0	38,865	33	111.5	55.7	6.0	67.0	
Jun 23		2,164		233	0	0	11,889	121	45	0	27,576	32	115.4	57.8	6+	67.0	
Jun 24		1,839		184	0	0	15,763	65	26	0	30,889	29	153.0	76.5	6+	68.0	
Jun 25		1,751		179	0	0	17,700	76	33	0	35,450	15	139.7	70.0	6.0	68.0	
Jun 26		1,865		123	0	0	16,802	62	21	1	28,561	28	152.9	76.6	6.0	68.0	
Jun 27		2,490		200	0	0	24,060	87	42	0	36,263	29	158.7	79.6	6.0	68.0	
Jun 28		2,303		153	0	0	17,138	121	53	0	40,785	27	162.4	81.5	6.0	68.0	
Jun 29		2,035		89	0	0	11,130	59	27	0	24,356	7	168.5	84.5	6.0	68.0	
Jun 30		2,867		215	0	0	14,074	124	56	0	17,915	25	156.3	78.3	6.0	69.0	
TOTAL	11,012	46,291		5,550	13	5	183,645	1,325	430	2	759,628	372					
AVG.	1,377	2,104		185	0	0	6,122	44	14	0	25,321	12	162.2	72.3	6.0	66.6	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	156,151	8,767
SUMMER	46,291	4,229
TOTAL	202,442	12,996

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
13	5	183,687	2,067	839	2	766,046	395

TABLE 72

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

MCNARY PROJECT - FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					DISCH SPILL TURBIDITY				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Jul 1		3,898		347	0		18,090	126	60	0	15,567	37	147.4	74.0	6.0	70.0
Jul 2		3,281		327	0		17,399	157	69	0	17,597	20	164.2	82.2	6.0	70.0
Jul 3		2,376		174	2		14,529	124	57	0	21,890	22	160.6	80.5	6.0	71.0
Jul 4		1,069		80	-2		6,718	101	60	0	19,700	18	129.9	65.3	6.0	71.0
Jul 5		2,161		131	0		5,851	146	88	0	14,473	19	146.3	73.4	6.0	71.0
Jul 6		2,211		145	0		5,495	130	73	1	22,566	23	153.5	76.9	6.0	71.0
Jul 7		2,694		115	0		4,466	116	51	0	22,264	24	155.6	77.9	6.0	71.0
Jul 8		1,656		65	0		2,654	121	74	0	8,950	36	135.1	67.6	6.0	71.0
Jul 9		2,029		100	0		1,810	151	94	0	12,927	24	153.7	77.1	6.0	72.0
Jul 10		1,321		129	0		1,146	135	78	0	12,135	18	125.5	62.7	6.0	72.0
Jul 11		836		110	0		642	216	129	0	6,460	36	116.5	58.5	6.0	72.0
Jul 12		1,076		99	0		536	222	135	1	5,300	39	112.9	56.6	6.0	72.0
Jul 13		1,148		163	0		624	239	131	0	5,870	25	122.7	61.5	6+	72.0
Jul 14		1,040		169	0		448	193	110	0	11,327	61	158.8	79.7	6.0	72.0
Jul 15		721		87	0		385	178	123	0	5,331	25	137.0	68.4	6.0	72.0
Jul 16		638		130	0		510	132	81	1	4,946	17	147.8	74.0	6.0	71.0
Jul 17		549		58	0		699	163	88	1	6,017	23	136.8	68.5	6.0	72.0
Jul 18		917		88	0		668	166	95	0	4,448	11	151.7	75.9	6.0	72.0
Jul 19		1,674		159	0		639	168	107	0	2,811	16	151.7	76.1	6.0	72.0
Jul 20		1,998		194	0		684	201	108	0	1,853	16	151.5	75.7	6.0	71.0
Jul 21		1,737		251	0		665	387	232	0	1,658	24	143.2	71.6	6.0	71.0
Jul 22		1,248		123	0		950	317	180	1	1,014	24	127.9	63.9	6.0	71.0
Jul 23		817		94	0		808	245	143	0	640	29	124.7	62.6	6.0	71.0
Jul 24		875		84	0		630	186	108	0	1,087	14	137.7	69.2	6.0	71.0
Jul 25		476		49	0		504	182	103	0	777	12	129.4	65.0	6.0	70.0
Jul 26		578		63	0		562	227	138	0	821	12	145.2	72.8	6.0	70.0
Jul 27		826		93	0		860	229	133	0	497	11	135.3	67.8	6.0	71.0
Jul 28		964		60	0		980	315	195	0	463	20	130.3	65.2	6.0	70.0
Jul 29		920		69	0		637	358	196	0	882	18	152.9	76.6	6.0	70.0
Jul 30		815		47	0		455	300	198	0	938	14	153.7	77.0	6.0	70.0
Jul 31		633		58	0		438	364	195	0	400	26	155.5	77.8	6.0	70.0
TOTAL		43,182		3,861	0		91,482	6,295	3,632	5	231,609	714				
AVG.		1393		125			2,951	203	117	0	7,471	23	141.8	71.0	6.0	71.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	156,151	8,767
SUMMER	89,473	8,090
TOTAL	245,624	16,857

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
13	5	275,169	8,362	4,471	7	997,655	1,109

TABLE 73

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

MCNARY PROJECT - FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL					SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK							
Aug 1		609		89	0	0	363	393	212		198	27	150.9	75.6	6.0	70.0	
Aug 2		698		80	0	0	301	401	219		197	35	130.5	65.6	6.0	71.0	
Aug 3		1,012		118	0	0	279	382	233		111	18	126.9	63.7	6.0	71.0	
Aug 4		1,218		118	0	0	301	793	441		237	28	139.8	70.2	6+	71.0	
Aug 5		1,336		99	0	0	296	996	555		91	14	140.8	70.4	6+	71.0	
Aug 6		828		61	0	0	179	917	499		167	14	149.0	74.7	6+	71.0	
Aug 7		585		38	0	0	205	870	452		159	2	153.0	77.0	6+	71.0	
Aug 8		528		30	0	0	146	538	270		47	11	154.2	77.3	6+	71.0	
Aug 9			600	45	0	0	221	753	378		70	23	122.4	61.3	6+	71.0	
Aug 10			603	41	1	0	140	689	289		49	23	149.4	74.9	6+	71.0	
Aug 11			1,194	84	0	0	169	680	356		67	10	125.5	63.0	6+	70.0	
Aug 12			952	61	1	0	109	560	291		40	5	145.3	72.9	6+	70.0	
Aug 13			781	84	0	0	101	523	248		96	6	146.3	73.3	6.0	71.0	
Aug 14			800	47	0	0	64	721	325		46	6	154.3	77.4	6.0	71.0	
Aug 15			843	57	0	0	59	813	385		30	13	142.0	71.2	6.0	71.0	
Aug 16			868	54	0	1	67	767	358		52	3	157.5	78.9	6+	71.0	
Aug 17			719	39	2	0	56	666	288		38	7	144.9	72.6	6+	71.0	
Aug 18			747	38	1	0	43	727	318		35	11	144.9	72.5	6+	71.0	
Aug 19			541	36	1	0	36	529	231		9	7	163.6	81.8	6+	71.0	
Aug 20			465	39	1	0	36	604	255		55	6	159.1	80.0	6.0	71.0	
Aug 21			489	68	0	0	33	725	291		30	2	142.9	71.8	6.0	71.0	
Aug 22			496	74	0	0	31	631	243		10	14	148.9	74.8	6.0	70.0	
Aug 23			1,037	131	2	0	26	515	210		8	8	152.4	76.5	6.0	70.0	
Aug 24			1,637	174	0	0	19	519	201		20	15	155.0	77.6	6.0	70.0	
Aug 25			2,565	198	-1	0	15	1,102	441		4	21	157.2	78.8	6.0	70.0	
Aug 26			1,191	120	1	1	34	1,340	524		2	7	142.8	71.7	6.0	70.0	
Aug 27			1,189	148	4	1	11	983	408		12	10	160.6	80.3	6.0	70.0	
Aug 28			1,086	96	18	5	21	1,207	444		1	9	140.8	70.4	6.0	70.0	
Aug 29			1,947	120	39	14	39	1,327	485		9	11	116.6	58.4	6.0	70.0	
Aug 30			3,679	156	30	9	29	1,331	503		1	7	111.0	55.5	6.0	69.0	
Aug 31			3,818	191	19	12	25	1,567	613		6	12	117.2	58.5	6.0	69.0	
TOTAL		6,814	28,247	2,734	119	43	3,454	24,569	10,966		1,897	385					
AVG.		852	1228	88	4	1	111	793	354		61	12	143.4	71.9	6.0	70.5	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	156,151	8,767
SUMMER	96,287	8,723
FALL	28,247	2,101
TOTAL	280,685	19,591

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
132	48	278,623	32,931	15,437	7	999,552	1,494

TABLE 74

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

MCNARY PROJECT - FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped			DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	PINK	SHAD	LAMPREY	KCFS	KCFS	SECCHI
Sep 1			3,837	291	30	12	20	1,462	484		15	110.7	0.2	6+	69.0
Sep 2			4,616	402	52	15	17	1,233	399		10	95.3	0.0	6.0	69.0
Sep 3			6,327	392	57	12	8	1,418	511		10	110.0	0.0	6.0	69.0
Sep 4			6,960	508	69	17	13	1,827	636		12	92.2	0.0	6.0	68.0
Sep 5			8,965	401	76	41	34	2,517	953		7	82.8	0.0	6+	67.0
Sep 6			8,648	566	188	24	28	2,828	911		15	77.6	0.0	6+	67.0
Sep 7			13,128	579	165	38	45	3,115	951		7	83.9	0.0	6+	67.0
Sep 8			14,199	373	127	37	125	3,092	886		13	95.5	0.0	6+	67.0
Sep 9			10,098	303	98	30	97	3,138	809		12	97.5	0.0	6+	67.0
Sep 10			11,284	268	193	39	56	3,674	998		14	98.5	0.0	6+	66.0
Sep 11			9,614	640	255	49	45	4,507	1,293		15	98.4	0.0	6.0	67.0
Sep 12			10,651	1,819	418	91	14	4,229	1,253		9	107.1	0.0	6.0	67.0
Sep 13			12,398	2,119	547	111	14	4,262	1,273		22	79.2	0.0	6+	68.0
Sep 14			16,687	2,462	761	154	19	5,510	1,555		6	90.3	0.0	6+	67.0
Sep 15			17,895	2,676	695	203	78	6,033	1,602		5	101.1	0.0	6+	67.0
Sep 16			13,450	1,550	519	141	13	4,378	1,073		1	97.9	0.0	6+	67.0
Sep 17			16,423	2,383	680	138	32	3,685	859		2	97.4	0.0	6+	67.0
Sep 18			14,208	778	640	102	22	4,193	1,089		6	81.5	0.0	6.0	67.0
Sep 19			11,325	535	560	118	26	4,095	1,109		3	88.7	0.0	6.0	67.0
Sep 20			14,281	717	522	140	35	3,504	940		0	70.4	0.0	6.0	66.0
Sep 21			15,356	972	818	127	45	4,958	1,342		3	81.1	0.0	6.0	66.0
Sep 22			13,141	1,011	487	167	10	3,984	1,255		3	91.6	0.0	6.0	66.0
Sep 23			7,868	1,441	560	126	12	3,025	821		9	102.7	0.0	6.0	66.0
Sep 24			10,536	1,441	699	117	35	3,392	908		1	115.5	0.0	6.0	66.0
Sep 25			11,514	1,729	191	24	30	3,011	1,011		2	105.8	0.0	6.0	66.0
Sep 26			13,186	1,707	438	45	34	3,175	857		2	87.8	0.0	6.0	66.0
Sep 27			18,329	2,405	543	53	27	4,055	985		8	75.8	0.0	6.0	66.0
Sep 28			12,306	1,850	352	25	24	2,799	711		6	96.4	0.0	6.0	65.0
Sep 29			8,933	483	289	68	14	1,947	513		5	112.2	0.0	6.0	65.0
Sep 30			12,268	699	525	110	10	2,327	570		2	104.0	0.0	6.0	65.0
TOTAL			348,431	33,500	11,554	2,374	982	101,373	28,557		225				
AVG.			11,614	1117	385	79	33	3,379	952		8	94.3	0.0	6.0	66.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	156,151	8,767
SUMMER	96,287	8,723
FALL	376,678	35,601
TOTAL	629,116	53,091

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
11,686	2,422	279,605	134,304	43,994	7	999,552	1,719

TABLE 75

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

MCNARY PROJECT - FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL				SHAD	LAMPREY	DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK			KCFS	KCFS	SECCHI	DEG F
Oct 1			9,017	376	584	124	27	2,184	505	0		1	93.0	0.0	6.0	65.0
Oct 2			8,783	1,235	304	53	6	2,762	764	1		1	95.6	0.0	6.0	65.0
Oct 3			8,052	1,062	430	101	19	2,850	825	0		0	82.3	0.0	6.0	64.0
Oct 4			8,891	1,552	475	130	11	2,452	791	0		0	96.9	0.0	6.0	64.0
Oct 5			5,112	1,061	318	106	4	1,519	489	1		1	90.5	0.0	6.0	64.0
Oct 6			6,796	1,250	466	105	6	2,069	744	0		1	102.5	0.0	6.0	64.0
Oct 7			4,589	1,145	161	26	1	2,023	661	0		2	96.9	0.0	6.0	64.0
Oct 8			6,213	974	299	35	7	2,068	640	0		3	90.2	0.0	6.0	64.0
Oct 9			5,661	408	280	44	2	1,800	572	0		1	85.6	0.0	6.0	64.0
Oct 10			4,849	514	133	24	2	1,347	478	0		5	76.4	0.0	6.0	64.0
Oct 11			6,730	648	238	26	14	2,125	830	1		3	61.9	0.0	6.0	63.0
Oct 12			4,672	515	158	18	9	2,090	963	0		0	60.9	0.0	6.0	63.0
Oct 13			3,100	356	82	23	6	1,794	906	0		1	85.3	0.0	6.0	63.0
Oct 14			6,027	903	122	43	4	2,665	1,229	0		0	111.5	0.0	6.0	63.0
Oct 15			4,886	716	81	15	2	1,871	886	0		1	108.2	0.0	6.0	63.0
Oct 16			3,496	628	59	14	0	1,787	814	0		1	94.5	0.0	6.0	63.0
Oct 17			2,962	651	79	13	0	1,368	624	1		1	99.7	0.0	6.0	63.0
Oct 18			3,188	585	88	11	1	1,180	426	0		2	80.4	0.0	6.0	62.0
Oct 19			2,705	682	84	6	3	974	386	0		2	84.3	0.2	6.0	62.0
Oct 20			2,879	246	82	11	0	1,081	386	0		0	81.6	0.0	6.0	62.0
Oct 21			1,890	184	52	0	0	743	308	0		2	88.3	0.0	6.0	62.0
Oct 22			1,068	115	32	0	3	473	164	0		1	96.5	0.0	6.0	62.0
Oct 23			972	330	20	7	1	488	223	0		0	99.2	0.0	6.0	61.0
Oct 24			948	326	30	1	2	480	171	0		0	102.8	0.0	6.0	61.0
Oct 25			1,269	226	24	2	1	427	198	0		1	90.9	0.0	6.0	61.0
Oct 26			1,486	346	30	0	1	490	206	0		0	92.3	0.0	6.0	60.0
Oct 27			1,027	258	28	5	2	424	182	0		-1	94.8	0.0	6.0	60.0
Oct 28			1,397	299	23	2	0	267	98	0		0	108.4	0.0	6.0	59.0
Oct 29			931	239	29	5	2	257	87	0		0	93.9	0.0	6.0	59.0
Oct 30			1,362	116	29	1	1	322	119	0		0	84.8	0.0	6.0	58.0
Oct 31			1,333	72	17	5	2	453	165	0		0	98.6	0.0	6.0	59.0
TOTAL			122,291	18,018	4,837	956	139	42,833	15,840	4		29	91.2	0.0	6.0	62.3
AVG.			3945	581	156	31	4	1,382	511	0		1	91.2	0.0	6.0	62.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	156,151	8,767
SUMMER	96,287	8,723
FALL	498,969	53,619
TOTAL	751,407	71,109

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
16,523	3,378	279,744	177,137	59,834	11	999,552	1,748

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

TABLE 76
DISCHARGE AND WATER QUALITY DATA
MCNARY PROJECT 2015

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY		DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F				SECCHI	DEG F
Nov 1	85.0	0.0	6+	59.0	Dec 1	117.7	0.0	6+	45.0
Nov 2	91.3	0.0	6+	58.0	Dec 2	97.4	0.0	6+	45.0
Nov 3	106.2	0.0	6+	58.0	Dec 3	129.4	0.0	6.0	45.0
Nov 4	116.0	0.0	6+	58.0	Dec 4	109.7	0.0	6+	45.0
Nov 5	102.1	0.0	6.0	58.0	Dec 5	103.5	0.0	6.0	45.0
Nov 6	112.8	0.0	6.0	57.0	Dec 6	122.9	0.0	6+	45.0
Nov 7	123.4	0.0	6.0	57.0	Dec 7	118.9	0.0	6+	45.0
Nov 8	95.6	0.0	6+	56.0	Dec 8	109.5	0.0	6+	46.0
Nov 9	116.0	1.2	6+	55.0	Dec 9	114.4	0.0	6+	46.0
Nov 10	123.7	0.0	6+	55.0	Dec 10	137.7	0.0	6.0	47.0
Nov 11	109.4	0.0	6+	55.0	Dec 11	156.6	0.0	6.0	47.0
Nov 12	117.4	0.0	6.0	54.0	Dec 12	168.4	0.0	6.0	48.0
Nov 13	106.7	0.0	6.0	54.0	Dec 13	119.9	0.0	6.0	48.0
Nov 14	113.5	0.0	6.0	54.0	Dec 14	122.5	0.0	6.0	48.0
Nov 15	117.1	0.0	6.0	53.0	Dec 15	124.2	0.0	6.0	47.0
Nov 16	122.9	0.0	6.0	53.0	Dec 16	132.3	0.0	6.0	47.0
Nov 17	116.3	0.0	6.0	53.0	Dec 17	149.8	0.0	6.0	46.0
Nov 18	128.8	0.0	6.0	53.0	Dec 18	138.7	0.0	6.0	45.0
Nov 19	135.6	0.0	6.0	53.0	Dec 19	145.7	0.0	6.0	45.0
Nov 20	127.4	0.0	6.0	52.0	Dec 20	119.8	0.0	6.0	44.0
Nov 21	134.9	0.0	6.0	51.0	Dec 21	148.4	0.0	6.0	44.0
Nov 22	129.3	0.0	6.0	51.0	Dec 22	124.0	0.0	5.0	44.0
Nov 23	142.0	0.0	6.0	51.0	Dec 23	106.5	0.0	5.0	44.0
Nov 24	135.1	0.0	6.0	50.0	Dec 24	94.2	0.0	5.0	44.0
Nov 25	118.0	0.0	6.0	49.0	Dec 25	105.9	0.0	5.0	44.0
Nov 26	110.6	0.0	5.5	48.0	Dec 26	116.9	0.0	6.0	43.0
Nov 27	124.1	0.0	6.0	48.0	Dec 27	100.9	0.0	6+	42.0
Nov 28	129.5	0.0	6.0	47.0	Dec 28	120.3	0.0	6+	42.0
Nov 29	135.2	0.0	6+	47.0	Dec 29	133.4	0.0	6+	42.0
Nov 30	151.7	0.0	6+	46.0	Dec 30	127.2	0.0	6+	41.0
					Dec 31	142.4	0.0	6.0	41.0
AVG.	119.3	0.0	6.0	53.1	AVG.	124.5	0.0	5.8	44.8

TABLE 77

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Jul 1		298		18			868	8	8			50
Jul 2		121		18			825	3	1			64
Jul 3		78		10			783	8	1			20
Jul 4		110		9			396	4	2			27
Jul 5		110		9			417	5	2			42
Jul 6		37		2			127	1	1			47
Jul 7		124		20			294	7	0			42
Jul 8		49		5			195	0	0			80
Jul 9		110		10			184	1	0			23
Jul 10		75		4			124	15	5			39
Jul 11		40		1			57	1	2			63
Jul 12		111		18			79	18	15			31
Jul 13		103		2			124	9	0			30
Jul 14		38		4			50	0	0			32
Jul 15		47		10			82	4	3			26
Jul 16		48		4			106	8	2			28
Jul 17		29		7			57	3	2			19
Jul 18		39		0			40	4	1			24
Jul 19		38		7			60	4	4			17
Jul 20		56		8			43	4	2			14
Jul 21		42		7			73	7	4			27
Jul 22		7		6			56	0	0			32
Jul 23		25		4			44	2	0			31
Jul 24		32		2			39	2	0			9
Jul 25		44		2			63	5	1			17
Jul 26		16		3			43	2	1			36
Jul 27		27		8			87	3	2			29
Jul 28		16		1			24	3	3			28
Jul 29		17		1			22	4	2			36
Jul 30		12		6			28	2	2			20
Jul 31		11		2			42	1	0			46
TOTAL		1,910		208			5,432	138	66			1,029

AVG. 62 7 175 4 2 33

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

TABLE 78

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

MCNARY PROJECT - NIGHT FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			PINK	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD			
Aug 1		23		12	0	0	46	0	0			29
Aug 2		18		7	0	0	35	0	0			51
Aug 3		25		12	0	0	35	4	2			35
Aug 4		29		10	0	0	43	3	1			38
Aug 5		27		2	0	0	51	9	6			29
Aug 6		18		2	0	0	17	2	1			17
Aug 7		9		3	0	0	22	0	0			11
Aug 8		32		4	0	0	26	8	4			12
Aug 9			9	5	0	0	41	0	0			25
Aug 10			12	5	0	0	37	0	0			28
Aug 11			24	7	0	0	39	3	1			31
Aug 12			35	5	0	0	22	2	1			25
Aug 13			33	5	0	0	13	1	1			19
Aug 14			25	3	0	0	49	1	1			26
Aug 15			7	0	0	0	9	42	26			5
Aug 16			19	4	0	0	25	0	0			15
Aug 17			10	4	0	0	13	5	4			10
Aug 18			17	4	0	0	18	0	0			13
Aug 19			7	2	0	0	23	1	1			10
Aug 20			9	2	0	0	17	3	1			10
Aug 21			13	9	0	0	16	10	2			10
Aug 22			21	0	0	0	1	21	4			3
Aug 23			18	2	0	0	18	7	2			12
Aug 24			21	1	0	0	0	25	15			17
Aug 25			26	3	0	0	4	74	33			5
Aug 26			29	0	0	0	2	52	11			25
Aug 27			23	2	1	0	5	37	5			16
Aug 28			17	2	10	7	2	64	16			11
Aug 29			25	4	1	0	1	51	12			20
Aug 30			31	-1	28	0	1	40	3			18
Aug 31			28	0	14	2	1	53	13			8
TOTAL		181	459	120	54	9	632	518	166			584
AVG.		23	20	4	2	0	20	17	5			19

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

TABLE 79

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - NIGHT FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		PINK	SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD			
Sep 1			11	1	0	0	0	68	24		34
Sep 2			17	1	4	-1	0	49	18		24
Sep 3			38	2	3	0	1	51	9		21
Sep 4			82	0	11	2	1	65	13		11
Sep 5			59	5	1	0	0	36	5		17
Sep 6			63	7	0	0	0	97	18		9
Sep 7			86	11	1	0	1	79	7		11
Sep 8			72	13	0	0	0	54	10		13
Sep 9			72	0	0	0	2	75	11		8
Sep 10			86	8	2	0	0	145	33		17
Sep 11			85	4	1	2	0	161	39		17
Sep 12			41	5	2	1	0	94	9		22
Sep 13			82	3	2	2	0	155	39		10
Sep 14			113	10	11	4	0	184	33		5
Sep 15			64	9	0	0	2	141	28		6
Sep 16			152	19	0	0	1	148	36		4
Sep 17			53	5	2	0	0	104	22		4
Sep 18			76	5	7	0	0	102	34		7
Sep 19			39	3	0	0	0	84	28		3
Sep 20			55	2	1	1	0	73	22		1
Sep 21			57	3	1	0	1	133	38		6
Sep 22			26	0	0	0	0	151	39		11
Sep 23			42	2	0	0	0	130	27		7
Sep 24			35	2	0	0	0	106	7		10
Sep 25			51	11	0	0	0	130	17		4
Sep 26			48	10	5	2	0	208	44		1
Sep 27			44	1	1	0	0	299	36		6
Sep 28			26	2	0	0	2	113	15		5
Sep 29			33	9	0	0	0	87	20		3
Sep 30			20	2	0	0	0	75	18		2
TOTAL			1,728	155	55	13	11	3,397	699		299

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

TABLE 80

YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS*
1954	126,555	75,059	108,181	950	310,745
1955	108,915	85,575	173,758	643	368,891
1956	114,342	42,554	102,145	683	259,724
1957	292,696	105,728	85,460	2,855	486,739
1958	226,092	87,890	102,397	1,350	417,729
1959	171,490	110,475	83,977	1,970	367,912
1960	176,767	96,895	55,372	1,580	330,614
1961	154,996	103,743	16,388	2,045	277,172
1962	152,756	163,181	29,372	3,195	348,504
1963	154,459	113,646	59,744	3,113	330,962
1964	167,934	100,742	83,931	3,317	355,924
1965	150,907	118,960	42,052	2,700	314,619
1966	223,141	145,130	173,028	8,525	549,824
1967	195,653	77,700	105,635	27,226	406,214
1968	200,488	112,522	101,007	39,518	453,535
1969	213,407	76,681	29,787	53,716	373,591
1970	168,892	69,759	59,636	36,399	334,686
1971	171,448	109,630	52,867	39,358	373,303
1972	168,821	93,820	26,422	45,635	334,698
1973	184,112	64,620	42,731	17,682	309,145
1974	127,858	26,932	26,505	13,746	195,041
1975	133,150	23,663	43,143	3,975	203,931
1976	163,314	54,000	24,632	7,539	249,485
1977	183,581	87,712	80,781	4,622	356,696
1978	144,148	34,740	18,511	20,356	217,755
1979	95,275	50,304	37,792	12,800	196,171
1980	80,773	66,524	44,301	571	192,169
1981	80,619	61,985	26,644	3,736	172,984
1982	102,225	75,099	15,077	3,119	195,520
1983	121,636	125,254	40,903	2,470	290,263
1984	159,071	135,515	56,906	2,841	354,333
1985	288,483	188,204	98,457	6,917	582,061
1986	342,417	193,481	46,443	1,374	583,715
1987	286,638	148,811	72,190	615	508,254
1988	243,608	151,765	50,080	2,010	447,463
1989	176,407	170,467	41,318	3,383	391,575
1990	147,439	95,061	46,145	2,059	290,704
1991	114,841	168,962	69,365	2,272	355,440
1992	135,707	194,026	68,737	1,801	400,271
1993	143,412	93,183	66,485	481	303,561
1994	128,868	94,427	10,603	1,735	235,633
1995	113,354	114,910	8,320	1,021	237,605
1996	114,947	124,177	28,585	1,853	269,562
1997	162,946	129,817	38,043	2,580	333,386
1998	114,604	99,705	9,391	6,173	229,873
1999	121,946	84,088	11,884	4,934	222,852
2000	191,231	130,332	60,242	11,152	392,957
2001	489,784	398,784	97,188	24,730	1,010,486
2002	417,090	286,805	39,424	3,192	746,511
2003	423,363	246,898	32,037	20,231	722,529
2004	384,808	212,683	89,707	20,570	707,768
2005	270,003	224,292	63,540	20,600	578,435
2006	219,191	206,155	29,295	13,923	468,564
2007	180,435	221,534	18,175	22,825	442,969
2008	267,979	221,310	146,924	21,806	658,019
2009	358,505	408,157	121,672	37,270	925,604
2010	463,000	262,513	278,799	15,089	1,019,401
2011	440,427	246,069	113,952	44,304	844,752
2012	405,202	157,018	364,147	18,801	945,168
2013	674,362	144,354	134,202	13,881	966,799
2014	715,072	209,772	546,012	112,587	1,583,443
2015	822,516	177,137	279,744	19,901	1,299,298
Totals	14,274,106	8,500,935	5,030,191	828,305	28,633,537
10-Year Average	454,669	225,402	203,292	32,039	915,402

*Jacks included

TABLE 81

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2015

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 81
(Continued)

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL
														MAR 15- JUN 8	JUN 9- AUG 8	AUG 9- OCT 31
1986			2	28,739	44,459	14,515	12,315	9,636	168,230	64,521			342,417	76,077	25,798	240,542
1987				26,258	32,171	12,889	11,219	19,123	151,410	33,568			286,638	60,396	25,353	200,889
1988				26,267	22,245	14,605	9,282	30,714	115,878	24,617			243,608	51,178	23,621	168,809
1989				9,625	24,281	12,484	11,112	23,034	80,089	15,782			176,407	35,954	24,708	115,745
1990				19,309	23,861	11,007	11,148	7,306	61,718	13,090			147,439	44,499	22,248	80,692
1991				4,942	15,838	9,289	9,409	4,328	56,251	13,674	1,074	36	114,841	22,631	17,588	74,622
1992				25,549	22,799	9,511	6,159	5,846	51,961	13,882			135,707	50,590	14,414	70,703
1993				18,649	37,255	14,880	8,119	8,414	48,093	8,002			143,412	59,556	20,374	63,482
1994				2,940	5,513	5,486	8,242	11,085	80,693	14,909			128,868	8,987	14,313	105,568
1995				1,392	3,871	4,343	8,270	13,224	61,633	20,621			113,354	5,930	13,219	94,205
1996				426	15,212	8,242	8,206	13,964	56,847	12,050			114,947	17,832	15,102	82,013
1997				6,529	44,264	18,384	10,584	6,892	63,484	12,809			162,946	56,826	23,649	82,471
1998				6,645	11,964	9,965	8,249	5,652	50,987	21,142			114,604	19,752	17,634	77,218
1999				1,193	10,841	7,570	13,475	15,402	59,360	14,105			121,946	13,232	21,618	87,096
2000				25,136	46,396	16,096	13,641	27,931	50,138	11,893			191,231	75,644	27,696	87,891
2001				164,846	86,605	50,064	36,562	16,605	111,369	23,733			489,784	265,372	77,514	146,898
2002				14,867	108,862	65,935	56,149	26,798	123,089	21,390			417,090	133,229	116,747	167,114
2003			853	53,947	46,116	57,732	50,157	13,667	166,635	32,349	1,750	157	423,363	107,522	104,948	208,982
2004			72	53,405	53,267	47,903	32,067	12,212	149,297	34,795	1,659	131	384,808	115,251	74,217	193,550
2005			4	6,750	38,439	45,654	28,928	11,655	111,701	25,976	825	71	270,003	55,056	66,858	147,189
2006			1	121	43,778	40,077	27,708	10,210	71,105	24,186	1,810	195	219,191	48,363	65,960	102,863
2007			3	7,073	38,622	27,760	18,036	8,565	60,291	18,455	1,538	92	180,435	51,104	42,436	85,262
2008				7,133	64,596	48,906	24,035	13,094	94,986	15,229			267,979	80,213	65,974	121,792
2009				1,821	98,882	63,510	26,828	30,161	117,844	19,459			358,505	113,741	78,319	166,445
2010				48,451	98,345	58,192	30,587	18,708	166,173	42,544			463,000	191,921	74,589	225,154
2011				683	118,537	64,599	46,170	21,482	144,223	44,733			440,427	132,995	102,786	204,646
2012				1,877	94,385	45,725	31,612	19,396	174,650	36,164	1,306	87	405,202	107,550	69,532	226,727
2013	7	-1		4,718	62,493	58,146	36,003	32,050	382,331	98,615			674,362	74,449	90,549	509,358
2014				10,091	102,818	63,317	47,458	18,523	395,599	77,266			715,072	123,180	104,996	486,896
2015				54,895	97,690	62,853	47,043	37,795	381,931	140,309			822,516	164,918	105,010	552,588
Total	7	-1	995	1,058,801	2,573,497	1,681,968	1,518,776	854,141	5,333,388	1,237,021	14,749	769	14,274,111	3,973,347	3,084,275	7,235,515
10-Year Average				13,686	82,015	53,309	33,548	20,998	198,913	51,696			454,669	108,843	80,015	268,173

*Jacks included

TABLE 82

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM: 1954 - 2015**

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 82

(Continued)

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM; 1954 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
1986						8,362	36,863	819	348	51			46,443	
1987					4	28,742	42,464	889	85	6			72,190	
1988						23,466	25,984	599	14	17			50,080	
1989					1	14,721	26,239	334	21	2			41,318	
1990					1	8,922	36,791	427	0	4			46,145	
1991					1	6,509	61,780	1,024	38	11	1	1	69,365	
1992					7	30,339	37,915	448	28				68,737	
1993						26,492	39,607	377	9				66,485	
1994					1	5,910	4,672	20					10,603	
1995					1	3,001	5,259	58		1			8,320	
1996						11,594	16,927	64					28,585	
1997						7,706	29,645	688	4				38,043	
1998						3,585	5,754	45	7				9,391	
1999						2,842	8,940	99	1	2			11,884	
2000					4	44,379	15,752	106	1				60,242	
2001					4	70,327	26,610	225	17	5			97,188	
2002					1	12,518	26,745	156	2	2			39,424	
2003					4	13,277	18,728	28	0				32,037	
2004					10	61,547	28,107	38	5				89,707	
2005					0	27,341	36,009	182	8				63,540	
2006					0	14,675	14,473	142	5				29,295	
2007					1	11,087	6,974	105	6	2			18,175	
2008					1	96,655	50,196	70	2				146,924	
2009					5	62,066	59,564	31	9	-3			121,672	
2010					7	166,127	112,474	194	-4	1			278,799	
2011						20,773	92,461	703	15				113,952	
2012					1	165,803	198,037	292	14				364,147	
2013					2	58,594	74,774	809	19	4			134,202	
2014					0	178,748	365,457	1,760	43	4			546,012	
2015					42	183,645	91,482	3,454	982	139			279,744	
Total					1	263	1,620,127	3,302,052	93,297	10,500	3,945	5	1	5,030,191
10-Year Average						7	95,817	106,589	756	109				203,292

TABLE 83

**MONTHLY COUNT OF COHO SALMON
McNARY DAM: 1954 - 2015**

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 83

(Continued)

MONTHLY COUNT OF COHO SALMON
McNARY DAM; 1954 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1986								1	851	522			1,374
1987							3	24	377	211			615
1988								17	1,210	783			2,010
1989								35	2,043	1,305			3,383
1990								1	1,007	1,051			2,059
1991									1,105	937	211	19	2,272
1992								1	1,130	670			1,801
1993								2	254	225			481
1994								9	978	748			1,735
1995								8	344	669			1,021
1996							2	1	1,212	638			1,853
1997								29	1,577	974			2,580
1998								6	687	5,480			6,173
1999								6	2,931	1,997			4,934
2000								309	6,947	3,896			11,152
2001								59	11,631	13,040			24,730
2002								10	1,765	1,417			3,192
2003								25	11,788	8,017	401		20,231
2004								17	13,954	6,161	427	11	20,570
2005								59	11,327	8,390	819	5	20,600
2006								90	7,893	5,350	588	2	13,923
2007								9	11,263	11,315	238		22,825
2008								63	14,588	7,155			21,806
2009								1,193	16,626	19,451			37,270
2010								54	9,555	5,480			15,089
2011								917	24,682	18,705			44,304
2012								424	14,779	2,998	550	50	18,801
2013		1						15	4,983	8,882			13,881
2014								36	86,736	25,815			112,587
2015						18	0	162	13,928	5,793			19,901
TOTAL	1	0	1	14	68	515	22,990	582,829	215,443	6,356	88		828,305
10-Year Average							296	20,503	11,094				32,039

*Jacks included

TABLE 84

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2015**

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

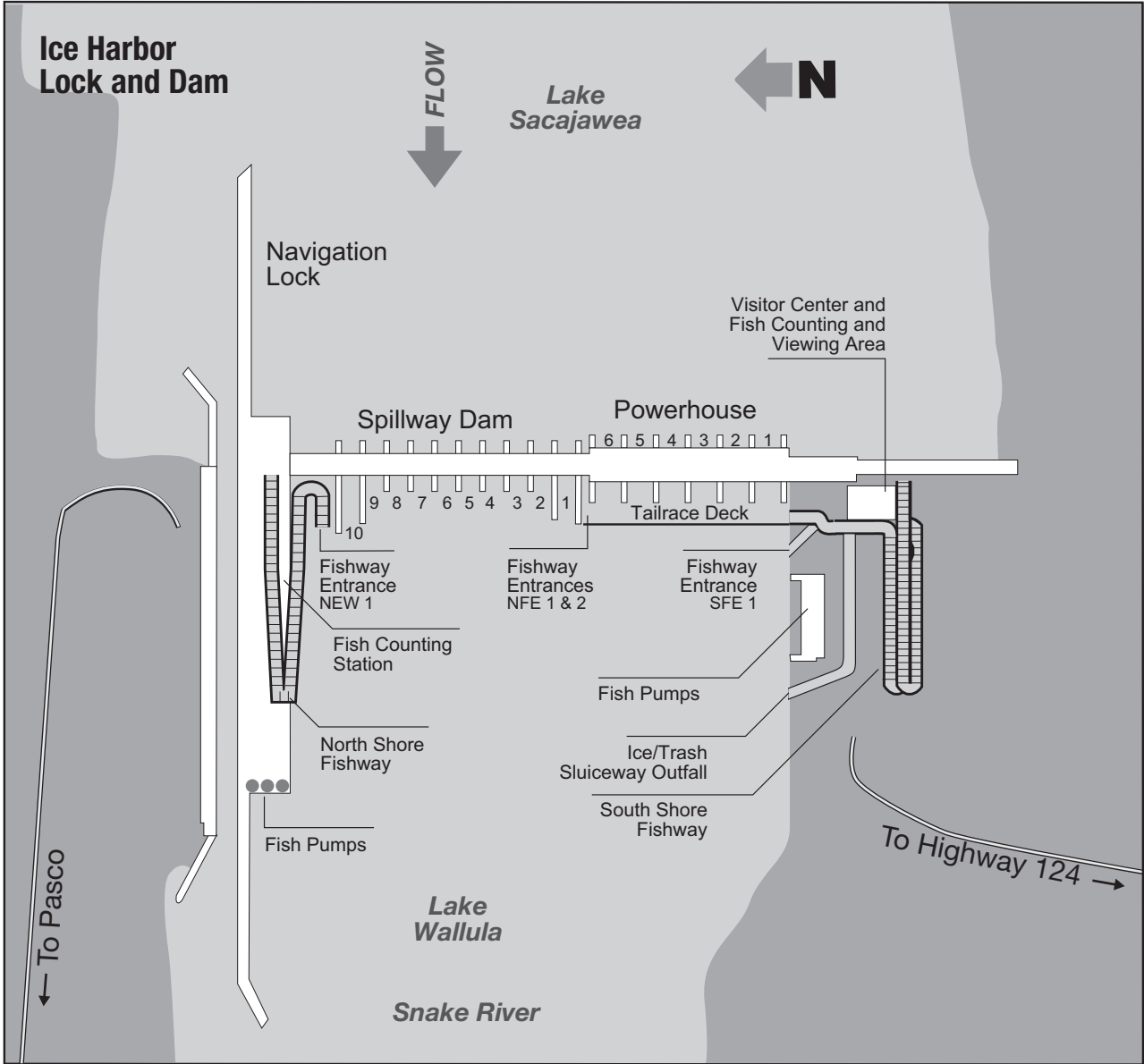
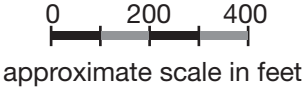
TABLE 84

(Continued)

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1986			1,282	1,184	414	1,193	27,563	32,339	74,769	54,737			193,481
1987				2,082	413	885	16,658	35,661	59,326	33,786			148,811
1988				4,176	1,095	2,117	11,609	25,875	69,259	37,634			151,765
1989				3,269	598	1,921	16,002	20,819	87,722	40,136			170,467
1990				2,754	660	1,489	9,105	10,368	33,452	37,233			95,061
1991				2,245	630	846	9,921	17,752	78,363	46,941	9,388	2,876	168,962
1992				1,427	642	1,921	10,989	15,504	127,626	35,917			194,026
1993				5,194	588	2,197	9,692	10,003	35,287	30,222			93,183
1994				2,622	336	1,169	7,436	5,468	40,871	36,525			94,427
1995				774	325	998	8,042	21,720	45,237	37,814			114,910
1996				701	301	950	8,726	34,385	50,723	28,391			124,177
1997				1,210	435	1,241	10,174	19,917	58,210	38,630			129,817
1998				1,236	364	1,391	6,372	4,040	38,324	47,978			99,705
1999				253	248	905	7,175	27,592	35,243	12,672			84,088
2000				588	238	1,901	16,311	23,148	59,803	28,343			130,332
2001				1,337	487	7,741	46,981	50,463	190,205	101,570			398,784
2002				4,650	271	2,957	29,979	48,226	120,936	79,786			286,805
2003			8,696	1,309	145	2,298	20,439	15,184	139,321	51,722	6,307	1,477	246,898
2004			4,316	1,133	480	3,901	14,376	10,863	132,387	37,931	4,348	2,948	212,683
2005			2,271	847	377	2,669	17,371	19,933	109,198	63,710	7,248	668	224,292
2006			1,388	2,009	175	1,272	9,214	14,519	104,009	52,826	17,808	2,935	206,155
2007			6,155	1,693	241	1,616	13,232	32,652	109,015	50,339	4,805	1,786	221,534
2008				2,066	362	2,342	27,375	26,588	122,078	40,499			221,310
2009				2,144	293	2,108	20,407	85,285	204,948	92,972			408,157
2010				1,974	397	3,668	51,028	39,689	122,146	43,611			262,513
2011				2,283	348	714	17,533	94,372	87,138	43,681			246,069
2012			3,009	1,521	234	1,744	18,373	33,983	62,318	28,580	4,931	2,325	157,018
2013	136	88		1,073	177	1,171	12,018	23,277	62,187	44,227			144,354
2014				519	341	2,269	23,228	21,019	119,067	43,329			209,772
2015				589	153	1,325	6,295	24,569	101,373	42,833			177,137
Total	1,195	1,013	36,732	118,923	42,438	85,126	759,276	1,453,669	4,042,834	1,868,126	74,211	17,392	8,500,935
10-Year Avg.				1,587	272	1,823	19,870	39,595	109,428	48,290			225,402

Plate 6 Ice Harbor Lock and Dam



ICE HARBOR DAM

FISH COUNTING SCHEDULE

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

FISH LADDER OPERATING SCHEDULE

North Ladder

1 January – 25 January	Ladder in service
26 January – 24 February	Ladder dewatered for annual maintenance
25 February – 31 December	Ladder in service

South Ladder

1 January – 4 January	Ladder in service
5 January – 22 January	Ladder dewatered for annual maintenance
23 January – 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 17 June to 7 October.

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 was completed in March. A direct injury and survival study was conducted on fish released through spillbay 2 in April.

The Juvenile Fish Facility was operated for juvenile fish bypass and adult fallbacks from 18 March to 18 December. Juvenile fish were sampled 14 April – 29 June, twice per week.

The unit 1 turbine intake fish distribution study using hydroacoustics occurred from April to August. Sensor fish were released into unit 1 turbine intake for the turbine environment characterization study in September and October.

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

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

TABLE 85

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER ICE HARBOR DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				36,199	75,507	26,847	6,784	8,657	55,175	10,239			219,408
STEELHEAD				942	203	953	2,707	11,206	74,537	37,973			128,521
SOCKEYE						372	593	87	-1	1			1,052
COHO*									1,123	369			1,492
PINK													0
TOTAL				37,141	75,710	28,172	10,084	19,950	130,834	48,582			350,473
SHAD					937	189,703	29,180	937					220,757
LAMPREY				2	9	132	314	246	55	6			764
STURGEON						1	1	0	1				3
BULL TROUT													0

*Jacks included

TABLE 86

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2015

JANUARY

DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Jan 1	28.2	0.0	8.0	42.0
Jan 2	29.0	0.0	7.6	41.0
Jan 3	25.1	0.0	7.6	41.0
Jan 4	27.6	0.0	7.6	41.0
Jan 5	21.6	0.0	7.5	41.0
Jan 6	38.1	0.0	8.5	42.0
Jan 7	32.0	0.0	9.1	42.0
Jan 8	41.5	0.0	9.1	42.0
Jan 9	38.0	0.0	9.3	42.0
Jan 10	32.7	0.0	9.3	42.0
Jan 11	37.0	0.0	9.3	42.0
Jan 12	31.4	0.0	9.5	41.0
Jan 13	30.3	0.0	9.5	41.0
Jan 14	28.4	0.0	9.5	41.0
Jan 15	28.6	0.0	9.6	41.0
Jan 16	29.7	0.0	9.6	42.0
Jan 17	34.9	0.0	8.4	42.0
Jan 18	27.2	0.0	8.4	42.0
Jan 19	40.6	0.0	8.4	42.0
Jan 20	44.8	0.0	8.0	42.0
Jan 21	46.0	0.0	7.8	42.0
Jan 22	39.5	0.0	7.2	41.0
Jan 23	33.1	0.0	7.0	41.0
Jan 24	37.3	0.0	7.2	41.0
Jan 25	35.2	0.0	7.2	41.0
Jan 26	41.1	0.0	7.2	41.0
Jan 27	35.9	0.0	7.4	41.0
Jan 28	37.8	0.0	7.4	41.0
Jan 29	44.1	0.0	7.0	41.0
Jan 30	37.7	0.0	6.4	41.0
Jan 31	40.5	0.0	6.4	41.0

AVG.

34.7	0.0	8.1	41.4
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FEBRUARY

DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Feb 1	42.7	0.0	6.4	41.0
Feb 2	36.6	0.0	6.4	41.0
Feb 3	39.1	0.0	6.4	42.0
Feb 4	44.4	0.0	6.4	42.0
Feb 5	41.6	0.0	6.5	42.0
Feb 6	41.2	0.0	6.5	42.0
Feb 7	47.7	0.0	6.5	42.0
Feb 8	57.5	0.0	6.5	42.0
Feb 9	63.5	0.0	6.5	42.0
Feb 10	77.4	13.4	6.5	42.0
Feb 11	88.3	23.8	6.5	42.0
Feb 12	78.4	13.6	6.7	44.0
Feb 13	75.8	10.8	6.7	44.0
Feb 14	74.8	5.5	6.7	44.0
Feb 15	74.8	0.0	6.7	43.0
Feb 16	70.4	0.0	4.6	43.0
Feb 17	62.7	0.0	4.6	43.0
Feb 18	56.5	0.0	4.6	42.0
Feb 19	55.6	0.0	4.6	42.0
Feb 20	54.5	0.0	3.0	42.0
Feb 21	49.1	0.0	3.0	43.0
Feb 22	47.9	0.0	2.6	43.0
Feb 23	46.9	0.0	2.6	43.0
Feb 24	45.3	0.0	2.7	43.0
Feb 25	34.8	0.0	2.7	43.0
Feb 26	34.3	0.0	2.7	43.0
Feb 27	46.1	0.0	2.9	43.0
Feb 28	41.3	0.0	2.9	42.0

AVG.

54.6	2.4	5.1	42.5
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MARCH

DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Mar 1	37.4	0.0	2.9	42.0
Mar 2	31.6	0.0	2.9	42.0
Mar 3	32.9	0.0	2.9	42.0
Mar 4	38.9	0.0	3.1	42.0
Mar 5	32.4	0.0	3.1	42.0
Mar 6	32.1	0.0	3.1	42.0
Mar 7	30.9	0.0	3.1	42.0
Mar 8	27.0	0.0	3.1	42.0
Mar 9	25.6	0.0	3.4	42.0
Mar 10	30.7	0.0	3.4	42.0
Mar 11	26.8	0.0	3.6	42.0
Mar 12	36.1	0.0	3.6	43.0
Mar 13	26.6	0.0	3.6	43.0
Mar 14	28.7	0.0	3.6	44.0
Mar 15	26.5	0.0	6.4	45.0
Mar 16	35.8	0.0	6.1	45.0
Mar 17	46.7	0.0	6.1	45.0
Mar 18	48.0	0.0	6.1	45.0
Mar 19	57.1	0.0	6.1	45.0
Mar 20	57.8	0.0	6.8	45.0
Mar 21	52.6	0.0	6.8	45.0
Mar 22	46.3	0.0	6.8	45.0
Mar 23	46.7	0.0	6.8	45.0
Mar 24	48.4	0.0	6.7	45.0
Mar 25	56.4	0.0	6.7	45.0
Mar 26	62.4	0.0	6.9	45.0
Mar 27	57.8	0.0	6.9	45.0
Mar 28	65.2	0.0	6.9	46.0
Mar 29	62.2	0.0	6.9	48.0
Mar 30	66.3	0.0	5.1	48.0
Mar 31	64.0	0.0	5.1	49.0

AVG.

43.2	0.0	5.0	44.1
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TABLE 87

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

ICE HARBOR PROJECT - FISH COUNTS

APRIL 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD								
Apr 1	10			0				57	40			1		57.6	6.5	5.3	49.0
Apr 2	18			0				108	56			0		89.6	15.0	5.4	49.0
Apr 3	3			0				35	25			0		61.0	46.4	5.4	49.0
Apr 4	8			0				64	42			0		60.0	47.4	5.4	49.0
Apr 5	0			0				47	33			0		57.2	43.8	5.4	49.0
Apr 6	10			0				41	18			0		50.1	40.0	5.4	49.0
Apr 7	7			1				46	29			0		52.7	41.9	5.4	49.0
Apr 8	4			0				26	15			0		50.0	38.9	5.4	49.0
Apr 9	14			0				33	22			0		46.7	36.4	4.6	49.0
Apr 10	41			0				47	32			0		48.9	19.1	4.6	49.0
Apr 11	20			0				23	18			0		45.0	13.4	5.5	49.0
Apr 12	128			0				37	24			0		45.8	13.7	5.2	50.0
Apr 13	90			0				25	13			0		40.4	12.4	5.2	50.0
Apr 14	24			0				25	18			0		45.4	30.6	5.6	50.0
Apr 15	69			1				29	19			0		45.4	35.2	5.6	50.0
Apr 16	109			0				23	13			0		39.1	29.1	5.6	50.0
Apr 17	148			1				22	15			1		43.4	33.4	5.6	50.0
Apr 18	463			1				17	16			0		45.0	35.0	5.6	50.0
Apr 19	152			0				10	4			0		46.0	35.7	5.6	50.0
Apr 20	663			2				9	6			0		50.9	40.7	5.6	50.0
Apr 21	544			1				13	9			0		47.7	37.5	6.7	50.0
Apr 22	2,356			2				32	27			0		51.0	40.2	6.9	50.0
Apr 23	3,278			1				34	22			0		58.1	46.2	7.2	50.0
Apr 24	2,465			18				30	18			0		55.8	43.6	7.2	50.0
Apr 25	6,060			30				18	15			0		55.7	45.2	7.2	50.0
Apr 26	6,215			36				15	7			0		54.1	43.6	7.2	50.0
Apr 27	4,029			17				27	15			0		48.5	38.2	7.3	52.0
Apr 28	2,945			18				30	14			0		54.7	43.0	7.3	52.0
Apr 29	3,325			19				14	12			0		47.0	36.9	6.8	52.0
Apr 30	2,840			13				5	5			0		51.2	41.0	6.4	52.0
TOTAL	36,038			161				942	602			2					
AVG.	1201			5				31	20			0		51.5	34.3	5.9	49.9

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. 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 88

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

MAY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD							SECCHI	DEG F
May 1	2,697			12				15	11		0	0		53.1	42.9	6.4	52.0
May 2	4,555			24				5	6		0	0		55.7	44.7	6.4	52.0
May 3	6,324			46				12	6		0	0		53.1	42.8	6.4	54.0
May 4	7,417			60				9	7		0	0		56.9	46.0	6.4	54.0
May 5	7,757			99				6	5		0	0		63.1	50.0	6.6	54.0
May 6	6,808			154				7	5		0	0		65.5	48.0	6.8	55.0
May 7	2,236			46				14	8		0	0		68.1	50.1	6.8	55.0
May 8	3,901			138				17	8		0	0		63.6	26.3	6.8	55.0
May 9	2,130			48				1	0		0	0		52.8	15.8	6.2	55.0
May 10	1,906			62				3	2		0	1		52.9	15.8	6.2	56.0
May 11	1,927			114				5	3		0	0		52.3	15.5	6.4	56.0
May 12	2,356			150				4	2		0	0		52.4	36.8	6.4	56.0
May 13	2,223			139				5	4		0	0		51.5	41.3	6.4	55.0
May 14	2,268			259				8	2		0	0		57.6	23.9	6.4	55.0
May 15	1,487			247				4	2		0	0		55.5	16.7	6.4	55.0
May 16	1,260			181				15	6		2	0		59.2	42.3	6.4	56.0
May 17	861			154				3	0		0	0		72.3	53.9	5.0	56.0
May 18	913			128				5	1		1	0		73.5	53.0	5.0	56.0
May 19	862			162				6	2		0	0		63.6	48.8	5.3	56.0
May 20	1,114			144				2	2		4	0		64.0	25.3	5.3	57.0
May 21	1,127			156				0	-6		0	2		62.0	18.7	5.6	57.0
May 22	770			155				4	4		4	1		65.8	44.4	5.6	57.0
May 23	1,016			220				1	1		1	0		62.8	50.7	5.6	58.0
May 24	763			162				1	1		8	1		68.8	28.4	5.6	58.0
May 25	941			289				1	1		2	0		64.1	19.2	5.6	58.0
May 26	936			268				4	0		4	1		63.6	18.9	5.7	58.0
May 27	1,257			268				2	-1		7	1		63.9	19.2	5.7	60.0
May 28	741			156				5	-1		2	1		63.9	42.0	5.9	60.0
May 29	747			101				4	1		67	1		65.8	49.6	5.9	60.0
May 30	882			127				6	2		154	0		59.7	47.9	5.9	60.0
May 31	948			108				29	4		681	0		60.6	47.3	5.9	61.0
TOTAL	71,130			4,377				203	88		937	9					

AVG.	2295			141				7	3					60.9	36.3	6.0	56.4
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	107,168	4,538
SPRING		

STEELHEAD	unclipped STEELHEAD
1,145	690

SHAD	LAMPREY
937	11

TABLE 89

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

ICE HARBOR PROJECT - FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL unclipped			SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD	PINK						SECCHI	DEG F
Jun 1	1,134			164			1	41	6		1,277	1	0	62.0	24.1	5.9	61.0
Jun 2	1,182			235			0	13	3		1,413	1	0	62.7	18.9	5.9	61.0
Jun 3	1,046			104			0	6	2		3,840	1	0	63.3	43.7	5.9	61.0
Jun 4	997			160			1	6	1		4,479	0	0	66.7	50.2	5.9	61.0
Jun 5	653			82			0	18	0		5,964	1	0	54.7	23.2	6.5	62.0
Jun 6	620			66			0	6	-2		5,637	0	0	49.4	14.9	6.5	62.0
Jun 7	497			64			0	19	0		5,830	0	0	52.5	37.5	6.5	63.0
Jun 8	583			74			2	21	1		8,204	0	0	51.8	41.7	6.7	63.0
Jun 9	735			84			0	5	4		6,242	0	0	52.3	21.4	6.9	63.0
Jun 10	878			86			2	19	15		6,608	1	0	49.0	14.7	7.7	63.0
Jun 11	969			88			0	17	7		7,074	2	0	43.8	29.6	7.7	63.0
Jun 12		730		116			0	4	2		7,772	0	0	46.5	36.8	7.7	64.0
Jun 13		824		96			0	20	3		8,321	4	0	42.7	16.4	7.7	64.0
Jun 14		1,134		114			1	19	3		9,595	4	0	34.3	11.0	5.8	64.0
Jun 15		1,188		184			1	28	4		8,100	1	1	30.4	17.2	5.5	64.0
Jun 16		861		58			1	6	3		10,168	2	0	36.1	26.5	5.5	64.0
Jun 17		1,311		174			11	61	15		11,016	6	0	32.5	12.2	5.8	65.0
Jun 18		846		133			4	26	6		10,084	10	0	32.8	10.6	5.8	65.0
Jun 19		674		187			2	31	6		5,363	2	0	29.6	19.7	5.9	65.0
Jun 20		764		67			10	10	6		5,786	5	0	31.9	22.3	5.9	66.0
Jun 21		790		107			13	19	10		8,837	5	0	30.7	11.1	7.0	66.0
Jun 22		934		102			17	30	15		6,876	12	0	31.4	10.4	6.8	67.0
Jun 23		868		159			22	38	8		4,513	8	0	26.5	16.4	6.8	67.0
Jun 24		872		112			33	43	16		5,938	7	0	31.3	21.5	6.6	67.0
Jun 25		600		78			40	51	12		5,661	14	0	30.9	11.8	6.6	67.0
Jun 26		353		71			23	87	9		5,346	5	0	30.5	9.1	6.6	68.0
Jun 27		300		48			33	99	14		5,240	11	0	31.1	9.3	6.6	68.0
Jun 28		393		98			42	75	17		5,483	4	0	36.8	11.0	6.6	68.0
Jun 29		453		90			59	93	20		6,584	7	0	33.1	9.8	6.6	68.0
Jun 30		384		73			54	42	19		2,452	18	0	26.4	15.3	6.6	69.0
TOTAL	9,294	14,279		3,274			372	953	225		189,703	132	1				
AVG.	845	752		109			12	32	8		6,323	4	0	41.1	20.6	6.5	64.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	116,462	5,745
SUMMER	14,279	2,067
TOTAL	130,741	7,812

SOCKEYE	STEELHEAD	unclipped STEELHEAD
372	2,098	915

SHAD	LAMPREY	STURGEON
190,640	143	1

TABLE 90

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

ICE HARBOR PROJECT - FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL unclipped				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK						SECCHI	DEG F
Jul 1		547		76			43	58	28		2,815	8	0	31.9	20.7	6.6	69.0
Jul 2		689		65			56	49	25		2,132	5	0	31.1	21.0	11.2	70.0
Jul 3		425		78			30	61	25		2,618	20	0	20.6	10.6	11.2	70.0
Jul 4		797		71			81	105	54		1,983	16	0	19.9	10.0	11.2	70.0
Jul 5		323		32			27	55	29		2,102	10	0	20.3	10.4	11.2	70.0
Jul 6		260		34			32	71	35		1,111	7	0	26.6	16.8	11.8	70.0
Jul 7		342		31			30	92	48		3,479	9	0	24.6	10.2	11.8	71.0
Jul 8		130		9			10	71	23		1,829	24	1	26.6	8.3	11.5	71.0
Jul 9		150		23			16	28	17		796	16	0	24.3	13.5	11.6	71.0
Jul 10		641		57			48	139	56		1,450	4	0	30.9	21.2	11.6	71.0
Jul 11		238		34			22	121	49		1,652	21	0	30.0	11.8	11.6	71.0
Jul 12		184		16			24	116	50		863	21	0	27.7	8.3	11.6	71.0
Jul 13		89		4			5	81	39		355	20	0	31.4	19.9	8.4	71.0
Jul 14		110		9			14	126	76		1,553	5	0	29.5	19.9	8.4	71.0
Jul 15		130		8			27	122	68		767	11	0	22.8	13.1	8.6	71.0
Jul 16		128		8			22	106	53		548	7	0	25.1	15.5	8.3	70.0
Jul 17		63		10			5	58	24		366	4	0	28.2	18.6	8.3	70.0
Jul 18		66		5			15	84	46		423	6	0	29.9	20.3	8.3	70.0
Jul 19		53		13			9	99	55		401	4	0	32.3	22.6	7.0	70.0
Jul 20		61		17			16	98	29		405	7	0	28.0	17.5	7.0	70.0
Jul 21		112		4			15	90	62		364	6	0	27.4	17.4	7.0	70.0
Jul 22		88		4			7	103	52		127	5	0	29.2	19.3	7.0	70.0
Jul 23		75		5			7	101	66		196	7	0	35.4	25.3	7.5	70.0
Jul 24		66		10			3	95	53		218	13	0	26.8	16.9	7.6	70.0
Jul 25		75		6			6	62	30		68	11	0	26.4	16.3	7.6	71.0
Jul 26		54		4			5	72	43		120	15	0	26.1	16.3	7.6	71.0
Jul 27		41		4			4	68	45		63	8	0	26.7	17.0	7.6	71.0
Jul 28		65		4			6	68	41		154	12	0	28.2	18.2	6.4	70.0
Jul 29		40		6			4	93	39		26	8	0	26.4	16.0	6.4	70.0
Jul 30		35		2			3	106	30		50	3	0	31.6	21.7	6.4	70.0
Jul 31		52		6			1	109	61		146	1	0	27.7	18.1	6.4	70.0
TOTAL		6,129		655			593	2,707	1,351		29,180	314	1				

AVG.	198	21	19	87	44	941	10	0	27.5	16.5	8.9	70.4
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	116,462	5,745
SUMMER	20,408	2,722
TOTAL	136,870	8,467

unclipped		
SOCKEYE	STEELHEAD	STEELHEAD
965	4,805	2,266

SHAD	LAMPREY	STURGEON
219,820	457	2

TABLE 91

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

ICE HARBOR PROJECT - FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL				SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK						SECCHI	DEG F
Aug 1		38		6			0	93	49		82	2		33.8	23.9	6.0	70.0
Aug 2		58		9			7	110	58		133	4		28.8	18.8	6.0	70.0
Aug 3		98		5			7	130	73		66	5		29.8	20.0	6.0	70.0
Aug 4		141		13			6	266	162		124	14		23.1	13.1	6.0	70.0
Aug 5		113		5			11	278	161		75	14		26.2	16.3	7.1	70.0
Aug 6		147		12			4	349	221		112	17		23.4	13.3	7.4	70.0
Aug 7		93		13			1	248	121		101	11		23.2	13.3	7.4	70.0
Aug 8		88		10			5	310	151		50	25		19.5	9.4	7.3	70.0
Aug 9		74		6			2	248	94		19	16		18.4	8.3	7.6	70.0
Aug 10		46		4			5	205	76		32	4		16.3	6.2	6.0	70.0
Aug 11		104		2			1	300	129		43	18		15.0	5.0	6.2	70.0
Aug 12			126	5			1	262	118		5	8		20.8	9.1	6.2	70.0
Aug 13			277	4			12	404	174		10	6		21.3	9.7	6.5	69.0
Aug 14			267	18			2	423	168		18	8		21.1	11.6	6.5	69.0
Aug 15			256	9			4	408	217		16	5		23.7	14.0	6.5	69.0
Aug 16			286	7			4	563	250		1	15		21.1	11.1	6.5	69.0
Aug 17			251	18			0	309	147		1	11		18.8	8.8	6.7	69.0
Aug 18			301	24			1	330	143		5	9		17.6	7.4	6.7	69.0
Aug 19			144	9			1	236	60		8	10		18.3	7.9	7.3	69.0
Aug 20			178	13			2	350	109		10	4		19.9	10.2	7.3	70.0
Aug 21			175	17			2	348	113		2	6		18.6	9.3	7.3	70.0
Aug 22			145	9			1	357	111		7	5		17.3	7.8	8.3	70.0
Aug 23			174	6			2	300	104		9	3		17.6	7.8	8.3	69.0
Aug 24			252	13			0	251	93		0	8		19.1	9.3	8.3	69.0
Aug 25			505	46			1	389	162		0	2		20.8	11.0	8.3	69.0
Aug 26			660	42			0	349	126		1	6		16.7	7.0	8.0	69.0
Aug 27			606	55			0	542	208		1	7		18.4	8.6	8.0	69.0
Aug 28			397	32			3	501	171		1	2		20.1	10.2	8.0	69.0
Aug 29			359	36			2	607	174		3	0		19.7	10.2	8.0	69.0
Aug 30			661	64			0	873	260		2	1		19.9	10.2	8.0	69.0
Aug 31			1,017	108			0	867	237		0	0		18.4	8.8	8.2	69.0
TOTAL		1,000	7,037	620			87	11,206	4,440		937	246					
AVG.		91	352	20			3	361	143		30	8		20.9	10.9	7.2	69.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	116,462	5,745
SUMMER	21,408	2,807
FALL	7,037	535
TOTAL	144,907	9,087

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON
1,052	16,011	6,706	220,757	703	2

TABLE 92
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS													SEPTEMBER 2015				
DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL		unclipped		PINK	SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD							KCFS	KCFS
Sep 1			1,183	50	0	0	0	707	261			3	0	18.7	0.0	7.0	69.0
Sep 2			1,135	73	1	0	0	731	274			1	0	13.9	0.0	7.0	69.0
Sep 3			1,224	53	7	1	0	752	193			0	0	13.7	0.0	7.0	69.0
Sep 4			1,380	106	2	0	0	645	178			5	0	10.7	0.0	7.8	69.0
Sep 5			1,209	112	2	4	0	694	179			2	0	14.7	0.0	8.1	69.0
Sep 6			1,871	152	7	4	0	1,634	458			1	0	18.0	0.0	6.3	68.0
Sep 7			1,503	142	2	1	0	1,192	308			1	0	17.4	0.0	6.3	68.0
Sep 8			2,614	206	12	7	0	1,317	370			0	0	21.9	0.0	6.3	68.0
Sep 9			2,585	226	23	6	1	1,813	394			3	0	22.2	0.0	6.3	67.0
Sep 10			1,878	139	4	5	0	1,562	322			2	0	18.8	0.0	6.9	67.0
Sep 11			1,701	112	14	6	0	2,328	534			1	0	19.8	0.0	6.9	67.0
Sep 12			1,605	108	22	4	0	2,660	722			3	0	17.3	0.0	6.9	67.0
Sep 13			2,850	191	34	3	0	4,179	958			1	0	16.5	0.0	6.2	67.0
Sep 14			2,161	219	83	3	0	3,829	828			2	0	22.9	0.0	6.2	67.0
Sep 15			2,594	308	68	14	0	3,493	835			0	0	22.5	0.0	6.7	67.0
Sep 16			3,131	387	88	13	0	4,971	1,185			3	0	26.7	0.0	7.2	67.0
Sep 17			1,858	193	86	11	0	3,108	700			5	0	19.4	0.0	7.4	67.0
Sep 18			1,483	191	47	9	0	2,283	506			1	0	24.0	0.0	7.4	67.0
Sep 19			1,626	228	62	16	-1	2,036	453			0	0	21.4	0.0	7.4	67.0
Sep 20			1,546	229	56	9	-1	2,890	579			1	0	13.6	0.0	7.4	67.0
Sep 21			1,371	222	54	2	0	3,273	668			1	1	17.4	0.0	7.4	66.0
Sep 22			1,642	126	21	0	0	3,258	846			5	0	16.6	0.0	7.7	66.0
Sep 23			1,660	190	20	0	0	4,206	1,017			1	0	13.6	0.0	7.4	66.0
Sep 24			1,139	150	22	0	0	3,219	721			3	0	18.8	0.0	7.4	66.0
Sep 25			1,031	231	26	8	0	2,944	682			6	0	13.5	0.0	7.4	66.0
Sep 26			1,294	271	39	5	0	3,234	723			0	0	13.7	0.0	7.4	66.0
Sep 27			903	164	28	7	0	2,295	523			2	0	12.2	0.0	7.4	65.0
Sep 28			1,296	296	44	5	0	2,549	624			3	0	14.8	0.0	7.4	65.0
Sep 29			1,310	391	56	2	0	4,329	1,003			-1	0	18.5	0.0	7.8	64.0
Sep 30			706	220	37	1	0	2,406	544			0	0	15.6	0.0	7.8	64.0
TOTAL			49,489	5,686	967	156	-1	74,537	17,588			55	1				
AVG.			1650	190	32	5	0	2,485	586			2	0	17.6	0.0	7.1	66.9
RUN YEAR																	
TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON							
SPRING	116,462	5,745	967	156	1,051	90,548	24,294	220,757	758	3							
SUMMER	21,408	2,807															
FALL	56,526	6,221															
TOTAL	194,396	14,773															

TABLE 93

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY	STURGEON	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD							
Oct 1			639	210	26	1	0	1,805	403		-1	16.4	0.0	7.4	64.0
Oct 2			529	261	32	3	0	1,868	487		0	11.4	0.0	7.4	64.0
Oct 3			394	271	25	1	0	1,921	469		1	13.7	0.0	8.4	64.0
Oct 4			456	216	26	0	0	1,859	482		-2	14.5	0.0	7.9	64.0
Oct 5			542	257	29	1	0	2,051	482		1	15.5	0.0	8.8	64.0
Oct 6			339	223	20	1	0	1,690	377		0	15.8	0.0	8.8	64.0
Oct 7			368	233	23	0	0	2,320	640		1	18.4	0.0	9.2	64.0
Oct 8			287	226	18	1	0	1,834	504		0	19.9	0.0	9.2	64.0
Oct 9			315	131	22	1	1	1,566	411		-1	16.6	0.0	9.2	63.0
Oct 10			228	144	5	0	0	1,704	456		0	15.9	0.0	9.2	63.0
Oct 11			147	64	13	0	0	1,416	318		1	13.1	0.0	9.2	63.0
Oct 12			236	74	4	1	0	1,006	278		1	12.8	0.0	8.8	63.0
Oct 13			284	141	7	0	0	2,097	700		1	13.7	0.0	8.8	63.0
Oct 14			190	128	1	0	0	1,294	496		0	23.3	0.0	8.8	63.0
Oct 15			248	121	6	0	0	1,609	623		0	13.4	0.0	9.0	63.0
Oct 16			171	168	4	0	0	1,528	503		1	11.9	0.0	9.0	63.0
Oct 17			180	101	9	1	0	1,526	512		-1	13.6	0.0	9.0	63.0
Oct 18			103	88	8	0	0	1,518	490		0	12.0	0.0	9.0	63.0
Oct 19			98	75	6	2	0	1,095	356		0	14.1	0.0	9.2	63.0
Oct 20			105	54	5	1	0	1,000	297		1	18.7	0.2	9.2	63.0
Oct 21			70	71	8	1	0	740	211		0	14.2	0.1	9.6	62.0
Oct 22			91	83	7	3	0	662	144		1	17.0	0.0	8.0	62.0
Oct 23			64	76	13	2	0	679	178		0	16.8	0.0	8.0	62.0
Oct 24			35	56	9	4	0	491	144		0	15.8	0.0	8.0	62.0
Oct 25			78	68	3	2	0	495	173		0	15.4	0.2	8.0	62.0
Oct 26			52	62	2	1	0	521	154		0	20.7	0.0	8.7	61.0
Oct 27			43	53	2	0	0	397	139		0	16.0	0.0	8.7	61.0
Oct 28			42	46	3	0	0	360	117		2	16.2	0.0	8.9	61.0
Oct 29			39	26	3	0	0	331	94		0	11.2	0.0	8.9	61.0
Oct 30			32	36	1	1	0	333	91		0	16.3	0.0	8.9	61.0
Oct 31			47	24	0	1	0	257	55		0		0.0	8.9	61.0
TOTAL			6,452	3,787	340	29	1	37,973	10,784		6				
AVG.			208	122	11	1	0	1,225	348		0	15.5	0.0	8.7	62.7

RUN YEAR	CHINOOK		COHO		TOTAL			unclipped		
	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY	STURGEON
SPRING	116,462	5,745	1,307	185	1,052	128,521	35,078	220,757	764	3
SUMMER	21,408	2,807								
FALL	62,978	10,008								
TOTAL	200,848	18,560								

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 94

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2015

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	17.6	0.0	7.1	60.0	Dec 1	12.3	0.0	7.4	50.0
Nov 2	25.7	0.0	7.1	60.0	Dec 2	12.1	0.0	7.6	50.0
Nov 3	23.0	0.0	7.1	60.0	Dec 3	12.3	0.0	7.6	49.0
Nov 4	21.2	0.0	7.1	60.0	Dec 4	12.3	0.0	7.6	49.0
Nov 5	20.8	0.0	7.6	60.0	Dec 5	19.8	0.0	8.5	48.0
Nov 6	18.0	0.0	7.6	60.0	Dec 6	17.8	0.0	8.5	48.0
Nov 7	17.3	0.0	7.6	60.0	Dec 7	18.8	0.0	8.5	48.0
Nov 8	12.3	0.0	7.5	60.0	Dec 8	22.4	0.0	8.3	48.0
Nov 9	20.8	0.0	7.5	60.0	Dec 9	27.2	0.0	8.3	48.0
Nov 10	14.5	0.0	7.3	60.0	Dec 10	33.7	0.0	8.1	48.0
Nov 11	22.4	0.0	7.3	60.0	Dec 11	30.6	0.0	8.1	48.0
Nov 12	21.4	0.0	7.5	59.0	Dec 12	31.9	0.0	8.1	48.0
Nov 13	12.2	0.0	7.5	59.0	Dec 13	22.7	0.0	8.1	48.0
Nov 14	25.1	0.0	7.5	59.0	Dec 14	30.2	0.0	8.1	48.0
Nov 15	13.7	0.0	7.5	59.0	Dec 15	26.4	0.0	8.6	48.0
Nov 16	18.9	0.0	7.3	59.0	Dec 16	23.8	0.0	8.6	47.0
Nov 17	14.2	0.0	7.3	59.0	Dec 17	26.6	0.0	8.8	47.0
Nov 18	18.9	0.0	7.0	59.0	Dec 18	25.2	0.0	8.8	47.0
Nov 19	19.7	0.0	7.0	56.0	Dec 19	20.9	0.0	8.8	47.0
Nov 20	19.9	0.0	7.0	56.0	Dec 20	18.8	0.0	12.0	44.0
Nov 21	18.5	0.0	7.0	56.0	Dec 21	30.0	0.0	12.0	44.0
Nov 22	14.5	0.0	7.0	55.0	Dec 22	26.6	0.0	12.0	44.0
Nov 23	22.4	0.0	7.0	55.0	Dec 23	24.9	0.0	12.0	44.0
Nov 24	15.3	0.0	7.0	54.0	Dec 24	19.9	0.0	12.0	43.0
Nov 25	17.5	0.0	7.0	54.0	Dec 25	23.6	0.0	12.0	43.0
Nov 26	15.4	0.0	7.0	52.0	Dec 26	18.8	0.0	12.0	43.0
Nov 27	13.6	0.0	7.0	52.0	Dec 27	24.5	0.0	12.0	42.0
Nov 28	16.9	0.0	7.0	51.0	Dec 28	24.7	0.0	12.0	42.0
Nov 29	23.8	0.0	7.0	51.0	Dec 29	20.0	0.0	12.0	42.0
Nov 30	16.6	0.0	7.0	51.0	Dec 30	22.8	0.0	12.0	42.0
					Dec 31	21.3	0.0	12.0	42.0
AVG.	18.4	0.0	7.2	57.2	AVG.	22.7	0.0	9.7	46.1

TABLE 95
 YEARLY TOTALS OF SALMONIDS COUNTED OVER
 ICE HARBOR DAM
 1962 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS*
1962	94,301	115,796	38	3,207	213,342
1963	61,190	74,539	1,118	1,933	138,780
1964	60,097	58,860	1,276	2,071	122,304
1965	39,233	62,873	317	320	102,743
1966	75,882	65,798	278	878	142,836
1967	84,930	44,205	717	3,770	133,622
1968	98,681	82,383	1,165	6,227	188,456
1969	100,514	63,889	745	5,316	170,464
1970	77,698	53,870	797	3,636	136,001
1971	70,248	67,029	532	2,969	140,778
1972	82,632	63,593	363	2,522	149,110
1973	81,821	38,311	233	2,443	122,808
1974	32,444	12,528	204	1,334	46,510
1975	31,686	16,218	243	1,559	49,706
1976	36,556	23,885	771	1,991	63,203
1977	56,514	54,820	582	1,561	113,477
1978	61,352	27,142	86	652	89,232
1979	13,929	23,117	30	398	37,474
1980	14,717	50,221	36	58	65,032
1981	22,092	41,290	142	82	63,606
1982	22,646	73,405	174	348	96,573
1983	20,259	88,475	216	465	109,415
1984	17,757	94,030	105	22	111,914
1985	47,981	128,481	24	10	176,496
1986	52,615	144,292	20	0	196,927
1987	47,477	74,491	13	0	121,981
1988	48,066	99,714	22	0	147,802
1989	27,234	151,101	4	0	178,339
1990	31,841	54,758	1	1	86,601
1991	23,175	123,762	9	1	146,947
1992	36,021	160,614	33	0	196,668
1993	34,991	73,107	17	0	108,115
1994	7,577	51,704	0	1	59,282
1995	7,990	92,026	5	4	100,025
1996	16,419	100,805	1	0	117,225
1997	55,412	103,830	15	128	159,385
1998	26,117	85,122	3	15	111,257
1999	23,331	84,163	8	144	107,646
2000	72,154	126,424	215	1,224	200,017
2001	215,697	283,694	38	1,595	501,024
2002	137,507	211,762	61	289	349,619
2003	143,329	191,675	37	1,431	336,472
2004	130,218	171,380	91	3,519	305,208
2005	58,361	156,920	18	1,621	216,920
2006	52,501	124,812	48	971	178,332
2007	69,106	157,620	55	2,147	228,928
2008	123,007	172,453	539	3,003	299,002
2009	180,349	328,105	867	5,436	514,757
2010	199,092	206,959	1,302	1,735	409,088
2011	177,586	198,805	1,141	6,727	384,259
2012	150,625	105,269	453	2,985	259,332
2013	152,174	116,162	895	2,530	271,761
2014	192,966	151,966	2,392	16,077	363,401
2015	219,408	128,521	1,052	1,492	350,473
Totals	4,017,506	5,656,774	19,547	96,848	9,790,675
10-Year Average	151,681	169,067	874	4,310	325,933

*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 96

MONTHLY COUNT OF CHINOOK SALMON
ICE HARBOR DAM
1962 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL
														1 APR- 11 JUN	12 JUN- 11 AUG	12 AUG- 31 OCT
1962				2,579	28,951	23,250	8,315	3,547	20,578	7,081			94,301	33,613	30,639	30,049
1963				3,434	21,790	14,001	7,591	1,415	9,342	2,918	677	22	61,190	26,778	20,875	13,537
1964		1	2	4,048	19,611	5,409	18,832	2,161	8,159	1,701	156	17	60,097	24,304	24,696	11,097
1965			4	1,677	9,649	5,072	10,209	803	9,318	2,152	349		39,233	12,178	14,701	12,354
1966				23,382	19,294	10,611	7,166	1,933	10,756	2,740			75,882	43,881	16,983	15,018
1967				15,973	18,137	9,020	22,218	820	11,947	6,815			84,930	35,593	30,315	19,022
1968				1,595	41,398	12,119	17,751	3,433	16,588	5,275	493	29	98,681	44,773	29,531	24,377
1969			195	697	43,181	24,918	12,861	2,369	12,027	3,555	708	3	100,514	52,090	30,917	17,507
1970				12,167	33,881	12,338	8,185	1,747	7,702	1,456	219	3	77,698	47,931	19,382	10,385
1971				1,104	25,089	19,265	13,364	873	8,960	1,593			70,248	32,638	26,606	11,004
1972				14,535	34,734	7,544	15,177	1,869	6,089	2,684			82,632	50,350	22,846	9,436
1973				34,277	23,627	10,925	4,254	840	6,657	1,241			81,821	60,639	12,829	8,353
1974				842	16,670	5,315	6,494	483	2,066	574			32,444	19,361	10,269	2,814
1975				1,314	17,796	5,817	3,972	506	1,875	406			31,686	21,401	7,727	2,558
1976				3,146	19,269	8,544	3,921	349	1,123	204			36,556	25,056	10,026	1,474
1977				24,003	17,626	9,328	3,606	297	1,370	284			56,514	44,421	10,337	1,756
1978				14,891	29,333	9,999	4,888	892	1,064	269	16		61,352	49,303	10,440	1,609
1979				1,731	6,528	2,234	1,216	379	1,489	333	19		13,929	9,247	2,608	2,074
1980				1,678	7,321	2,285	1,569	301	1,034	504	25		14,717	9,668	3,305	1,744
1981			1	6,744	8,542	2,884	1,751	161	1,530	470	9		22,092	16,167	3,814	2,111
1982			3	656	11,543	4,522	2,347	283	2,601	691			22,646	14,600	4,527	3,519
1983				1,925	9,418	4,132	1,921	316	1,945	602			20,259	12,602	4,922	2,735
1984				823	7,292	5,353	1,943	223	1,762	361			17,757	9,183	6,307	2,267
1985				12,245	18,334	6,885	1,294	546	5,414	3,263			47,981	33,527	5,290	9,164
1986			1	14,764	22,025	8,299	1,672	169	3,664	2,021			52,615	39,087	7,745	5,783
1987				11,141	18,821	6,550	2,437	329	6,089	2,110			47,477	32,083	6,982	8,412
1988				14,274	17,196	8,609	1,904	702	3,621	1,760			48,066	34,394	7,790	5,882
1989				3,307	11,724	4,946	1,143	776	3,917	1,421			27,234	17,029	4,215	5,990
1990				7,578	12,166	5,353	1,337	320	3,314	1,773			31,841	20,730	5,794	5,317
1991				1,639	7,953	5,367	2,101	155	4,053	1,907			23,175	11,288	5,861	6,026
1992				11,462	12,001	5,791	1,189	228	3,716	1,634			36,021	26,114	4,377	5,530
1993				5,776	15,879	8,705	1,405	338	2,087	801			34,991	24,935	6,919	3,137
1994				717	2,268	1,183	289	170	1,693	1,257			7,577	3,472	1,003	3,102
1995				256	1,253	928	315	387	2,920	1,931			7,990	1,873	915	5,202
1996				97	6,254	3,954	1,367	792	2,983	928	44	0	16,419	7,671	4,086	4,662
1997				3,442	30,332	14,678	2,224	411	2,502	1,680	143	0	55,412	41,473	9,318	4,621
1998				3,850	7,285	6,001	1,165	421	4,324	3,006	64	1	26,117	12,564	5,777	7,776
1999				260	5,717	5,659	1,461	917	6,283	2,943	89	2	23,331	8,008	5,211	10,112
2000				13,749	29,916	9,877	2,076	1,928	9,763	4,738	105	2	72,154	48,278	7,420	16,456
2001				104,883	55,788	26,709	4,268	1,327	18,315	4,262	140	5	215,697	174,199	17,667	23,831
2002				5,016	71,511	33,555	5,750	2,752	15,874	2,946	100	3	137,507	87,033	29,044	21,327
2003			132	42,343	34,581	28,636	5,732	1,286	23,445	7,174			143,329	86,190	25,344	31,663
2004			5	36,168	37,934	19,580	4,094	908	26,998	4,531			130,218	81,752	16,185	32,276
2005				1,763	20,798	14,089	2,323	1,389	14,672	3,327			58,361	29,306	9,817	19,238
2006				29	21,660	11,042	2,438	1,534	11,976	3,822			52,501	26,309	9,085	17,107
2007			1	3,277	27,506	11,597	3,167	1,984	17,456	4,118			69,106	35,355	10,599	23,151
2008				4,447	45,174	34,258	5,381	3,461	26,145	4,141			123,007	60,899	28,657	33,451
2009				1,173	65,190	40,728	9,465	10,549	49,471	3,773			180,349	83,658	33,256	63,435
2010				32,517	66,010	34,208	6,921	5,381	45,279	8,776			199,092	107,235	33,086	58,771
2011				374	74,309	38,699	12,109	5,817	39,184	7,094			177,586	87,467	39,136	50,983
2012				488	63,407	22,704	3,337	4,531	51,132	5,026			150,625	74,862	15,663	60,100
2013			8	1,979	48,023	18,657	5,350	10,876	60,731	6,220	325	5	152,174	56,620	18,233	76,983
2014	0	0		5,641	75,061	23,863	8,276	4,760	67,206	8,159			192,966	91,726	21,907	79,333
2015				36,199	75,507	26,847	6,784	8,657	55,175	10,239			219,408	122,207	24,215	72,986
TOTAL		1	352	554,075	1,472,263	702,842	288,325	99,801	735,384	160,690	3,681	92	4,017,506	2,263,121	775,199	978,607
10-Year Average				8,612	56,185	26,260	6,323	5,755	42,376	6,137			151,681	74,634	23,384	53,630

*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.

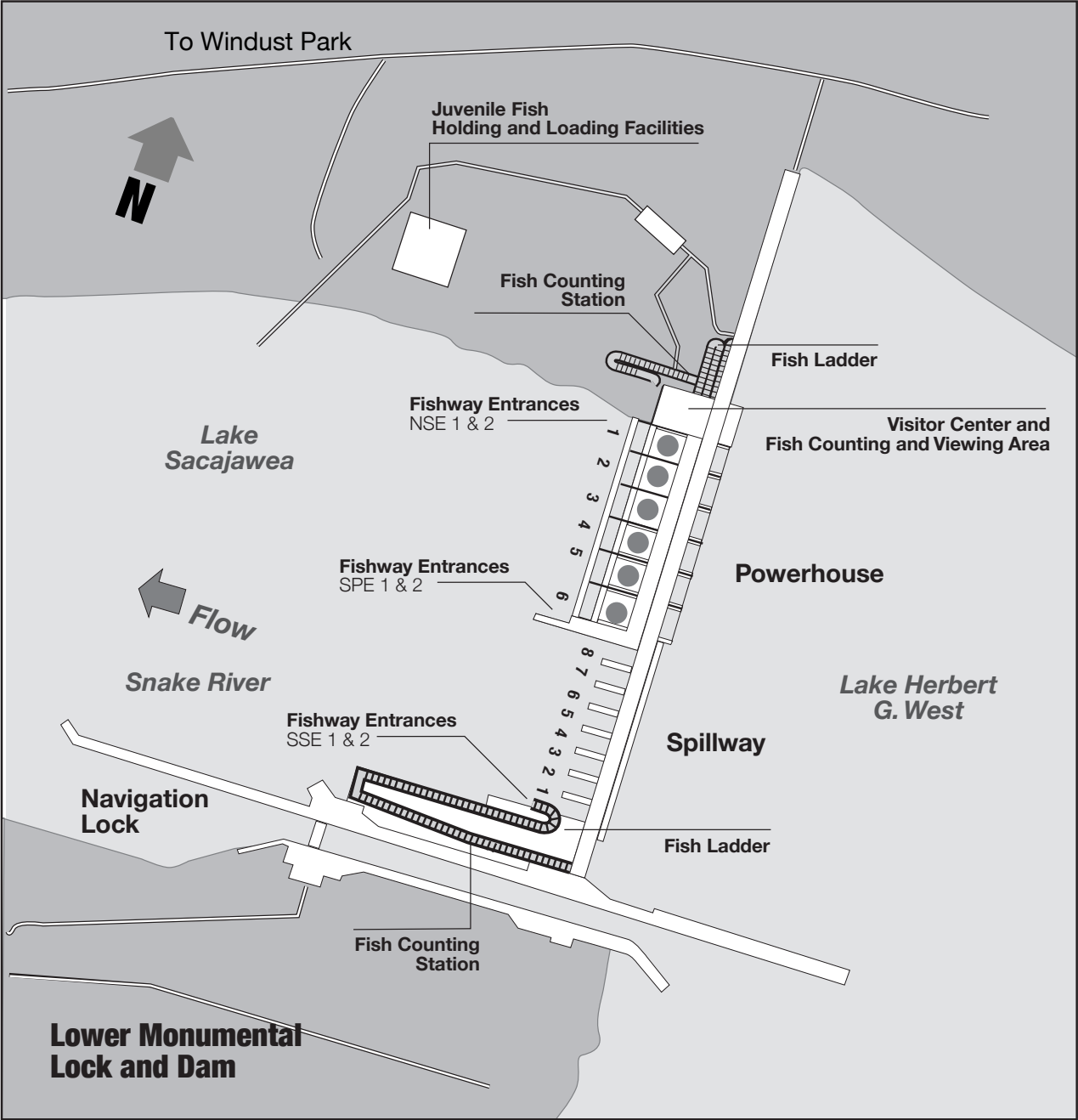
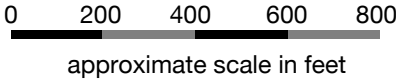
TABLE 97

**MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
1962				8,758	716	261	2,384	7,450	75,924	20,303			115,796
1963				969	895	163	2,157	6,514	35,382	24,070	4,042	347	74,539
1964	105	136	796	2,269	807	153	1,596	9,462	34,435	7,357	1,347	397	58,860
1965	31	110	673	1,976	488	439	3,739	4,497	33,595	13,522	3,803		62,873
1966				2,161	810	413	1,383	2,517	40,185	18,329			65,798
1967				1,266	894	345	972	953	18,914	20,861			44,205
1968				2,558	2,933	357	952	8,107	45,552	17,270	3,692	962	82,383
1969	132	41	807	4,971	2,430	321	3,348	5,715	27,219	14,953	3,874	78	63,889
1970				1,597	1,067	389	2,620	7,611	30,101	8,290	1,891	304	53,870
1971			458	1,938	843	215	3,064	2,996	42,481	15,034			67,029
1972				1,853	553	152	3,062	6,503	34,134	17,336			63,593
1973				1,570	827	254	1,785	2,699	22,021	9,155			38,311
1974				972	359	104	1,482	2,202	3,661	3,748			12,528
1975				564	409	76	1,223	3,878	6,816	3,252			16,218
1976				508	142	165	1,714	5,138	11,141	5,077			23,885
1977				685	220	308	3,654	3,017	30,610	16,326			54,820
1978				908	88	43	1,308	2,907	15,094	6,092	702		27,142
1979			454	538	114	60	1,995	1,778	6,136	9,717	2,325		23,117
1980			1,420	2,796	563	39	1,303	4,333	22,064	15,424	2,279		50,221
1981			797	1,106	433	137	2,305	1,431	16,563	16,669	1,849		41,290
1982			1,471	1,931	918	45	2,564	8,895	30,574	27,007			73,405
1983				1,001	150	36	3,773	9,875	48,519	25,121			88,475
1984				2,218	488	49	4,103	4,554	50,638	31,980			94,030
1985			1,892	7,353	439	306	3,070	14,468	75,378	25,575			128,481
1986			2,561	1,642	187	174	6,600	8,679	63,598	60,851			144,292
1987				2,136	235	262	3,292	4,972	28,491	35,103			74,491
1988				4,865	580	671	3,251	5,955	46,838	37,554			99,714
1989				4,326	355	487	7,399	8,916	80,799	48,819			151,101
1990				2,793	148	252	2,631	2,000	18,728	28,206			54,758
1991				2,297	256	166	3,254	1,275	55,447	61,067			123,762
1992				1,433	232	742	4,190	8,137	89,281	56,599			160,614
1993				7,418	287	745	5,896	8,086	21,614	29,061			73,107
1994				3,040	126	394	3,295	3,162	16,702	24,985			51,704
1995				828	84	193	4,699	14,521	39,494	32,207			92,026
1996				743	81	229	3,427	15,391	48,722	28,657	2,303	1,252	100,805
1997				1,187	216	280	4,323	11,522	40,238	37,036	8,484	544	103,830
1998				1,719	74	259	3,226	3,114	25,408	43,844	5,400	2,078	85,122
1999				713	93	246	3,784	16,120	40,424	18,887	2,809	1,087	84,163
2000				805	91	870	7,202	11,684	65,713	33,899	5,510	650	126,424
2001				1,322	139	3,682	17,607	27,925	136,208	68,837	22,449	5,525	283,694
2002				4,507	134	943	12,760	30,321	87,357	66,151	8,770	819	211,762
2003			5,201	1,548	74	1,128	11,558	12,267	109,101	50,798			191,675
2004			2,483	1,690	118	1,467	9,875	6,593	111,826	37,328			171,380
2005			1,379	1,205	124	1,364	4,619	11,902	76,394	59,933			156,920
2006			1,181	2,628	78	490	2,797	7,265	67,556	42,817			124,812
2007			4,001	2,183	107	903	4,743	11,723	83,713	50,247			157,620
2008				2,942	241	702	14,056	20,872	97,545	36,095			172,453
2009				2,906	154	1,218	13,616	43,697	167,918	98,596			328,105
2010				2,773	289	1,431	29,670	25,794	106,546	40,456			206,959
2011				2,691	360	201	9,931	55,460	86,211	43,951			198,805
2012				2,111	266	816	2,875	5,820	64,613	28,768			105,269
2013			1,531	2,159	156	923	5,886	16,367	46,775	37,027	4,635	703	116,162
2014	211	287		911	366	1,278	10,030	10,929	87,114	40,840			151,966
2015				942	203	953	2,707	11,206	74,537	37,973			128,521
Totals	479	574	27,105	120,929	23,440	28,299	274,755	549,175	2,842,048	1,689,060	86,164	14,746	5,656,774
10-Year Average				2,225	222	892	9,631	20,913	88,253	45,677			169,067

Video daytime counts during extended count seasons are included.

Plate 7 Lower Monumental Lock and Dam



LOWER MONUMENTAL DAM

FISH COUNTING SCHEDULE

1 Jan – 28 Feb	Video counting (0400 – 2000 hours PST)
1 Apr – 31 Oct	Visual counting daily (0400 – 2000 hours PST)

FISH LADDER OPERATING SCHEDULE

North Ladder

1 Jan – 5 Jan	Ladder in service.
5 Jan – 3 Feb	Ladder dewatered for annual maintenance.
3 Feb – 31 Dec	Ladder in service.

South Ladder

1 Jan – 4 Feb	Ladder in service.
4 Feb – 28 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 9 to September 16. 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 5 January through 26 February for annual maintenance.

PIT system fiber optic cabling was installed from both the north and south count stations to the JFF PIT system room during the winter maintenance period. Now both the north and south count stations have system antennae installed and functioning in the regional database.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 1 April through 15 December.

LoMo's RSW was in service as per requirements of 2015 operating year.

TABLE 98

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER MONUMENTAL DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				29,958	77,723	26,209	7,468	7,711	54,597	9,379			213,045
STEELHEAD	423	1,240		1,575	194	560	2,104	8,763	70,875	45,742			131,476
SOCKEYE						313	522	50	3				888
COHO*									771	582			1,353
PINK													0
TOTAL	423	1,240		31,533	77,917	27,082	10,094	16,524	126,246	55,703			346,762
LAMPREY					6	18	88	117	31	4			264
STURGEON													0
BULL TROUT				1	2								3

*Jacks included

TABLE 99

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

LOWER MONUMENTAL PROJECT - FISH COUNTS											JANUARY 2015						
DATE	CHINOOK ADULT			CHINOOK COHO		COHO		TOTAL unclipped		BULL		DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEY	STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT	LAMPREY	KCFS	KCFS	SECCHI	DEG F
Jan 1							69	30						27.0	0.0	6.0	42.0
Jan 2							68	23						27.7	0.0	6.0	42.0
Jan 3							16	6						29.1	0.0	6.0	41.5
Jan 4							5	4						25.3	0.0	6.0	41.5
Jan 5							12	7						24.8	0.0	6.0	41.5
Jan 6							5	2						21.5	0.0	7.0	44.0
Jan 7							9	5						35.7	0.0	7.0	44.0
Jan 8							12	4						38.0	0.0	7.0	44.0
Jan 9							17	6						41.1	0.0	6.0	40.0
Jan 10							30	11						36.5	0.0	6.0	40.0
Jan 11							27	11						32.3	0.0	6.0	40.0
Jan 12							8	3						37.3	0.0	5.0	40.0
Jan 13							23	9						30.4	0.0	5.0	40.0
Jan 14							5	1						30.2	0.0	5.0	40.0
Jan 15							7	5						30.4	0.0	5.0	40.0
Jan 16							20	7						29.4	0.0	5.0	40.0
Jan 17							7	4						26.5	0.0	5.0	40.0
Jan 18							7	4						35.0	0.0	5.0	39.0
Jan 19							2	2						29.7	0.0	5.0	39.0
Jan 20							2	0						39.9	0.0	4.5	39.0
Jan 21							2	0						45.8	0.0	4.5	39.0
Jan 22							4	1						42.8	0.0	4.5	38.5
Jan 23							5	2						38.8	0.0	4.5	38.0
Jan 24							7	2						33.9	0.0	4.5	38.0
Jan 25							15	2						36.8	0.0	4.5	38.0
Jan 26							14	6						34.3	0.0	4.0	39.0
Jan 27							5	2						42.2	0.0	4.0	39.0
Jan 28							9	4						34.7	0.0	4.0	39.0
Jan 29							6	1						38.1	0.0	4.5	39.0
Jan 30							2	2						44.0	0.0	4.5	39.5
Jan 31							3	0						38.8	0.0	4.5	40.0
TOTAL							423	166						34.1	0.0	5.2	40.1
AVG.							14	5									

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

LOWER MONUMENTAL PROJECT - FISH COUNTS										FEBRUARY 2015						
DATE	CHINOOK ADULT			CHINOOK COHO			TOTAL		BULL			DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYESTEELHEAD	STEELHEAD	PINK	STURGEON	TROUT			LAMPREY	SECCHI	DEG F
Feb 1							7	3					39.8	0.0	4.0	40.0
Feb 2							7	2					42.4	0.0	4.0	40.0
Feb 3							3	3					36.9	0.0	4.0	40.0
Feb 4							14	9					37.5	0.0	4.0	40.0
Feb 5							9	3					44.2	0.0	4.0	40.0
Feb 6							1	0					40.6	0.0	3.0	40.0
Feb 7							5	3					43.8	0.0	3.0	40.0
Feb 8							21	7					45.2	0.0	3.0	40.5
Feb 9							42	17					53.7	0.0	3.0	40.5
Feb 10							94	42					64.9	0.0	3.5	41.0
Feb 11							62	29					83.4	0.0	3.5	41.0
Feb 12							72	37					86.0	0.0	3.5	41.0
Feb 13							90	25					78.6	0.0	3.5	41.5
Feb 14							94	21					74.9	0.0	3.5	41.5
Feb 15							76	33					72.4	0.0	4.0	42.0
Feb 16							127	53					70.5	0.0	4.0	42.5
Feb 17							74	25					69.1	0.0	4.0	43.0
Feb 18							50	6					60.9	0.0	4.0	43.0
Feb 19							44	10					59.8	0.0	4.0	43.0
Feb 20							9	2					55.1	0.0	4.0	43.0
Feb 21							39	7					54.2	0.0	4.0	43.0
Feb 22							90	28					48.7	0.0	4.0	43.0
Feb 23							70	22					45.9	0.0	4.0	44.0
Feb 24							37	10					51.4	0.0	2.0	43.5
Feb 25							43	14					45.5	0.0	2.0	42.5
Feb 26							60	31					34.2	0.0	2.0	42.5
Feb 27													33.1	0.0	2.5	43.0
Feb 28													43.2	0.0	2.5	42.0
TOTAL							1,240	442					54.1	0.0	3.4	41.7
AVG.							48	17								

TABLE 101
DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2015

DATE	MARCH			
	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	40.4	0.0	2.5	42.0
Mar 2	37.2	0.0	2.5	42.0
Mar 3	33.3	0.0	2.5	42.0
Mar 4	31.6	0.0	3.0	42.0
Mar 5	38.7	0.0	3.0	41.0
Mar 6	31.7	0.0	3.0	42.0
Mar 7	31.5	0.0	3.0	42.0
Mar 8	31.7	0.0	3.0	42.0
Mar 9	25.3	0.0	3.0	41.5
Mar 10	25.0	0.0	3.0	41.0
Mar 11	29.2	0.0	3.0	43.0
Mar 12	27.8	0.0	3.0	43.0
Mar 13	32.8	0.0	3.0	42.5
Mar 14	26.1	0.0	3.0	43.5
Mar 15	30.3	0.0	3.0	43.0
Mar 16	27.5	0.0	3.0	44.0
Mar 17	37.1	0.0	3.5	44.0
Mar 18	44.4	0.0	3.5	45.0
Mar 19	49.1	0.0	3.5	45.0
Mar 20	55.0	0.0	4.0	44.0
Mar 21	55.5	0.0	4.0	44.0
Mar 22	52.6	0.0	4.0	44.0
Mar 23	47.0	0.0	4.5	45.0
Mar 24	48.7	0.0	4.5	46.0
Mar 25	49.6	0.0	4.5	46.0
Mar 26	54.6	0.0	4.5	46.0
Mar 27	66.3	0.0	4.5	47.0
Mar 28	57.4	0.0	4.5	47.0
Mar 29	63.9	0.0	4.5	47.0
Mar 30	58.6	0.0	4.5	47.0
Mar 31	67.6	0.0	4.5	49.0
AVG	42.2	0.0	3.5	44.0

TABLE 102

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

APRIL 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL	unclipped			BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD	PINK	STURGEON	TROUT			LAMPREY	SECCHI
Apr 1	5			0			112	74			0		64.4	0.0	4.5	49.0
Apr 2	8			0			80	47			0		53.6	0.0	4.5	49.5
Apr 3	4			0			120	89			0		84.1	0.0	5.0	50.0
Apr 4	5			0			110	81			1		58.9	27.9	5.0	50.0
Apr 5	5			0			85	57			0		56.9	27.9	4.0	49.0
Apr 6	6			0			59	39			0		50.9	27.9	3.5	48.5
Apr 7	14			0			95	62			0		49.2	28.0	4.0	49.0
Apr 8	9			0			46	37			0		50.9	28.0	4.0	49.0
Apr 9	3			1			55	37			0		49.0	28.0	4.0	49.0
Apr 10	7			1			62	46			0		44.8	26.0	4.0	49.0
Apr 11	9			1			42	28			0		46.5	30.0	4.0	50.0
Apr 12	21			0			46	29			0		44.0	30.0	4.0	50.0
Apr 13	12			0			7	10			0		45.4	30.0	4.0	50.0
Apr 14	96			2			34	23			0		40.9	26.3	4.0	50.0
Apr 15	99			1			50	42			0		43.8	30.1	4.0	50.0
Apr 16	53			1			42	30			0		43.6	30.6	4.0	49.0
Apr 17	79			0			41	22			0		38.5	26.4	4.0	49.0
Apr 18	138			4			45	29			0		41.1	29.2	4.0	49.0
Apr 19	198			2			48	33			0		44.2	31.0	4.0	49.0
Apr 20	340			5			58	42			0		44.4	29.4	4.0	49.0
Apr 21	321			7			52	36			0		49.0	28.0	4.5	50.0
Apr 22	803			10			34	32			0		45.1	28.0	4.5	50.0
Apr 23	1,454			24			43	33			0		50.6	28.1	5.0	51.0
Apr 24	2,926			12			40	30			0		57.1	28.0	5.0	51.0
Apr 25	2,830			13			39	32			0		54.2	28.0	4.0	51.0
Apr 26	2,952			17			37	27			0		54.6	27.9	4.0	51.0
Apr 27	4,318			28			23	18			0		53.3	28.0	4.0	51.0
Apr 28	5,550			115			29	22			0		47.4	28.0	4.0	52.5
Apr 29	3,958			67			17	11			0		53.4	27.2	4.0	53.0
Apr 30	3,366			58			24	19			0		47.0	26.1	4.0	53.0
TOTAL	29,589			369			1,575	1,117			1					
AVG.	986			12			53	37			0		50.2	25.5	4.2	50.0

Note: Official Spring Chinook run started April 1.

TABLE 103

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

MAY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL	unclipped		BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD	TROUT	LAMPREY			SECCHI	DEG F
May 1	3,060			44			24	12		0	0	52.2	26.2	4.0	53.0
May 2	3,088			32			18	18		0	0	51.1	26.0	4.0	54.0
May 3	4,240			44			17	12		0	0	54.8	25.3	4.0	54.0
May 4	4,703			88			12	9		1	0	53.0	24.6	4.0	54.0
May 5	8,519			114			13	8		0	0	55.1	23.0	3.5	54.0
May 6	6,648			190			9	6		0	0	61.7	23.3	3.0	54.0
May 7	6,266			211			6	5		0	0	65.1	23.2	3.0	54.0
May 8	2,946			156			13	11		0	0	65.2	23.9	4.0	55.0
May 9	3,305			204			5	4		0	0	63.6	23.3	4.0	55.0
May 10	2,420			122			7	2		0	0	53.3	23.3	4.0	55.0
May 11	1,742			100			8	6		0	0	53.0	23.2	4.0	55.0
May 12	1,983			142			0	0		0	0	51.4	23.3	4.5	56.0
May 13	1,773			111			1	0		0	0	51.7	23.4	4.5	56.0
May 14	2,423			232			3	2		0	0	53.0	23.2	4.0	55.0
May 15	2,166			300			9	5		0	0	57.3	23.7	3.5	56.0
May 16	2,101			377			9	4		0	0	56.4	24.7	3.5	56.0
May 17	1,350			252			8	5		0	0	59.9	26.6	3.5	56.0
May 18	834			208			3	0		0	0	70.8	26.5	3.5	56.0
May 19	940			210			4	2		0	0	72.2	26.3	3.5	56.0
May 20	989			264			2	0		0	1	63.4	26.5	3.5	57.0
May 21	818			214			1	-1		0	0	63.5	25.4	3.5	57.0
May 22	1,293			230			7	1		0	0	63.1	24.3	3.5	58.0
May 23	874			220			1	1		0	0	64.8	23.4	3.5	58.0
May 24	1,026			282			2	1		1	0	62.0	22.9	4.0	59.0
May 25	702			187			1	1		0	1	67.4	22.9	4.0	59.0
May 26	912			307			1	1		0	0	64.8	23.9	5.0	59.0
May 27	1,029			395			1	0		0	0	63.8	23.4	5.0	59.0
May 28	1,070			341			2	0		0	4	65.2	23.8	5.5	59.0
May 29	910			210			1	0		0	0	63.7	23.2	5.0	60.0
May 30	674			119			3	1		0	0	64.3	24.0	5.0	60.0
May 31	840			173			3	1		0	0	58.8	23.4	5.0	60.0
TOTAL	71,644			6,079			194	117		2	6				
AVG.	2,311			196			6	4		0	0	60.2	24.2	4.0	56.4
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				STEELHEAD	unclipped STEELHEAD		BULL TROUT	LAMPREY				
SPRING		101,233	6,448				1,769	1,234		3	6				

TABLE 104

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	STURGEON			TROUT	LAMPREY
Jun 1	781			176			0	6	0			59.6	23.4	3.5	62.0
Jun 2	1,055			228			4	9	2			61.7	22.4	3.5	62.0
Jun 3	1,040			288			1	4	2			61.4	23.2	3.5	62.0
Jun 4	957			236			0	8	2			61.9	22.5	3.5	62.0
Jun 5	819			226			0	0	0			66.1	23.4	5.5	62.0
Jun 6	808			169			1	7	2			54.1	23.4	5.5	62.0
Jun 7	840			160			0	6	0			48.6	23.8	4.0	62.0
Jun 8	487			71			0	3	1			51.3	23.4	4.0	62.0
Jun 9	721			149			1	10	2			51.7	23.0	4.0	65.0
Jun 10	727			157			0	21	3			51.8	20.7	4.0	65.0
Jun 11	689			146			1	7	1			46.3	20.0	4.0	64.5
Jun 12	852			134			1	11	2			44.7	19.4	3.5	66.0
Jun 13	502			109			0	16	7			45.8	20.0	3.0	66.0
Jun 14		296		65			1	1	0			41.8	19.4	3.0	66.0
Jun 15		679		105			4	1	1			34.2	18.6	3.0	66.0
Jun 16		1,328		264			0	17	5			31.5	18.6	3.0	66.0
Jun 17		991		122			0	16	1			35.6	21.0	3.0	66.0
Jun 18		932		175			2	20	11			31.1	18.6	3.0	66.5
Jun 19		1,024		209			6	27	4			32.9	19.5	3.0	67.0
Jun 20		675		226			6	23	5			29.4	16.7	3.0	67.0
Jun 21		437		138			8	27	5			30.6	17.7	3.0	67.0
Jun 22		877		227			16	38	10			29.5	16.4	3.0	67.0
Jun 23		739		155			22	29	7			30.8	15.9	3.0	68.0
Jun 24		557		140			24	31	5			27.4	13.6	3.0	68.0
Jun 25		778		166			16	42	12			30.6	17.0	3.0	68.0
Jun 26		379		72			36	30	9			29.8	16.6	3.0	69.0
Jun 27		214		32			18	11	5			29.6	17.0	3.0	69.0
Jun 28		142		24			8	9	4			31.9	16.6	3.0	69.0
Jun 29		585		240			84	76	23			35.1	17.0	3.0	70.0
Jun 30		489		200			53	54	20			33.3	16.3	3.5	70.0

TOTAL	10,278	11,122	4,809	313	560	151	18
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AVG.	791	654	160	10	19	5	1	41.7	19.5	3.4	65.7
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	111,511	8,697
SUMMER	11,122	2,560
TOTAL	122,633	11,257

SOCKEYE	STEELHEAD	unclipped STEELHEAD
313	2,329	1,385

BULL TROUT	LAMPREY
3	24

TABLE 105

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL			PINK STURGEON	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	unclipped STEELHEAD		TROUT	LAMPREY			SECCHI	DEG F
Jul 1		427		136			43	52	21			4	27.7	15.4	4.0	70.0
Jul 2		143		42			9	10	4			2	30.8	16.6	4.0	70.0
Jul 3		385		102			34	50	23			0	28.9	16.5	4.0	70.0
Jul 4		776		282			62	72	34			1	22.9	10.4	4.0	70.0
Jul 5		395		148			24	37	18			1	19.6	7.3	4.0	70.0
Jul 6		59		20			9	21	4			4	20.9	8.8	4.0	70.0
Jul 7		383		255			77	78	38			2	24.8	12.5	4.0	70.0
Jul 8		39		19			7	8	3			9	24.8	12.5	4.0	70.0
Jul 9		34		7			7	10	8			1	25.5	12.0	4.0	70.0
Jul 10		386		158			63	110	57			6	25.2	12.8	4.0	70.0
Jul 11		239		79			29	89	50			1	31.2	16.8	4.0	70.0
Jul 12		478		166			27	91	42			6	28.8	15.7	4.0	70.0
Jul 13		322		100			14	118	52			7	27.4	15.0	4.0	71.0
Jul 14		144		49			15	76	37			6	31.0	16.3	4.0	71.0
Jul 15		184		51			7	117	63			2	28.0	15.8	4.0	71.0
Jul 16		134		50			18	67	38			3	24.1	11.7	4.0	71.0
Jul 17		140		53			21	95	56			1	25.2	12.9	5.0	71.0
Jul 18		75		26			15	72	48			1	27.2	14.9	5.0	71.0
Jul 19		29		12			7	70	50			1	29.9	17.0	5.0	71.0
Jul 20		80		36			12	74	48			5	30.2	16.4	5.0	71.0
Jul 21		95		33			3	96	60			5	27.6	15.3	5.0	71.0
Jul 22		90		37			1	81	50			3	27.4	14.3	5.0	71.0
Jul 23		88		14			0	91	54			5	29.8	14.3	4.5	71.5
Jul 24		56		22			9	84	48			1	32.8	16.4	4.5	72.0
Jul 25		53		26			0	79	50			2	25.3	13.0	4.5	72.0
Jul 26		61		25			4	87	61			0	25.3	13.0	4.5	72.0
Jul 27		36		17			3	84	61			1	25.4	13.0	4.5	71.0
Jul 28		32		18			1	60	36			1	25.3	13.0	4.5	70.0
Jul 29		48		12			1	63	35			5	28.1	15.5	4.5	70.0
Jul 30		24		11			0	19	14			0	25.4	12.8	4.5	70.0
Jul 31		19		8			0	43	26			2	30.7	17.4	4.0	70.0
TOTAL		5,454		2,014			522	2,104	1,189			88				
AVG.		176		65			17	68	38			3	27.0	14.0	4.3	70.6
RUN YEAR TOTALS TO DATE		CHINOOK ADULT		CHINOOK JACK			SOCKEYE	STEELHEAD	unclipped STEELHEAD			BULL TROUT	LAMPREY			
SPRING		111,511		8,697			835	4,433	2,574			3	112			
SUMMER		16,576		4,574												
TOTAL		128,087		13,271												

TABLE 106

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	TOTAL SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK STURGEON	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL								TROUT	LAMPREY				
Aug 1		46		10			2	76	44			4	27.9	14.0	4.0	70.0
Aug 2		36		14			0	52	32			2	31.1	17.0	4.0	69.5
Aug 3		90		38			6	114	58			1	28.8	16.5	4.0	69.5
Aug 4		104		32			7	131	77			6	30.0	16.4	4.0	69.0
Aug 5		93		20			9	111	64			5	22.8	10.3	4.0	69.0
Aug 6		127		29			4	196	100			6	24.4	12.0	4.0	69.0
Aug 7		74		25			2	174	113			3	23.4	11.1	4.0	69.0
Aug 8		116		12			1	256	148			17	22.5	10.1	4.0	69.0
Aug 9		173		37			2	269	156			16	18.7	6.3	4.0	69.0
Aug 10		98		12			1	172	94			7	19.2	6.8	4.0	69.0
Aug 11		61		11			1	183	96			7	16.6	4.2	4.0	69.0
Aug 12		53		7			0	104	59			7	20.3	7.2	4.0	69.0
Aug 13		117		14			3	237	125			6	19.5	7.2	4.0	69.0
Aug 14			264	48			6	334	174			1	22.2	9.9	4.0	70.0
Aug 15			279	44			0	487	247			4	22.2	9.8	4.0	70.0
Aug 16			223	20			1	460	216			3	21.9	9.5	4.0	69.0
Aug 17			203	19			1	397	195			2	22.1	9.8	4.0	69.0
Aug 18			179	14			1	302	155			5	19.3	7.0	4.0	69.5
Aug 19			207	28			0	236	109			4	19.3	7.0	4.0	69.5
Aug 20			184	23			0	220	106			0	18.2	6.0	4.0	69.0
Aug 21			231	29			0	340	149			2	19.3	7.2	5.0	69.0
Aug 22			167	8			3	245	101			2	18.8	6.6	5.0	69.5
Aug 23			149	18			0	297	107			1	17.3	5.0	6.0	70.5
Aug 24			112	13			0	226	90			1	17.2	5.0	6.0	70.5
Aug 25			189	16			0	226	95			1	21.0	8.7	5.0	69.5
Aug 26			228	24			0	231	89			3	19.6	7.1	5.0	69.0
Aug 27			510	87			0	261	96			0	15.9	3.6	5.5	69.0
Aug 28			593	91			0	263	125			0	18.1	5.7	5.5	69.0
Aug 29			374	42			0	283	107			1	20.0	7.7	5.5	69.0
Aug 30			439	72			0	550	233			0	19.7	7.6	5.5	69.0
Aug 31			966	169			0	1,330	486			0	19.6	7.5	5.5	69.0
TOTAL		1,188	5,497	1,026	0	0	50	8,763	4,046			117				
AVG.		91	305	33	#DIV/0!	#DIV/0!	2	283	131			4	21.2	8.7	4.5	69.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	111,511	8,697
SUMMER	17,764	4,835
FALL	5,497	765
TOTAL	134,772	14,297

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
0	0	885	13,196	6,620

BULL TROUT	LAMPREY
3	229

TABLE 107

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

SEPTEMBER 2015

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	SECCHI	DEG F
Sep 1			931	167	0	0	0	1,097	363				1	18.3	6.0	5.5	69.0
Sep 2			1,002	137	0	0	0	853	275				2	18.3	0.1	5.5	69.0
Sep 3			1,105	175	0	0	0	947	312				2	16.6	0.0	5.5	69.0
Sep 4			748	124	0	0	0	529	173				1	13.1	0.0	5.0	68.0
Sep 5			1,267	242	0	0	1	733	185				0	13.1	0.0	5.0	68.0
Sep 6			1,257	249	1	0	0	756	226				2	15.1	0.0	5.0	67.5
Sep 7			1,202	271	1	0	0	925	290				4	19.2	0.0	5.0	67.5
Sep 8			2,215	304	2	2	1	1,187	393				1	17.0	0.0	5.5	67.0
Sep 9			1,815	385	7	4	0	1,339	367				0	20.9	0.0	5.0	67.0
Sep 10			1,580	328	7	2	0	1,093	282				0	22.0	0.1	4.5	67.0
Sep 11			1,179	353	1	1	1	1,296	295				1	18.5	0.1	4.0	67.0
Sep 12			1,050	298	4	1	0	1,300	331				2	20.2	0.0	4.0	67.0
Sep 13			2,239	656	11	13	0	2,273	542				0	19.4	0.0	4.0	67.0
Sep 14			1,917	745	18	6	0	2,135	544				2	15.9	0.0	4.5	66.5
Sep 15			1,740	646	12	14	0	3,120	686				0	23.1	0.0	4.5	66.0
Sep 16			2,272	827	15	16	0	4,464	1,078				0	22.8	0.0	4.5	66.0
Sep 17			2,641	878	29	29	0	4,860	1,209				0	27.9	0.0	4.5	66.0
Sep 18			1,863	475	45	7	0	4,318	1,008				4	21.8	0.0	4.5	66.0
Sep 19			1,617	513	28	13	0	3,655	868				1	23.8	0.0	4.5	66.0
Sep 20			1,609	546	49	8	0	3,120	722				2	16.2	0.0	4.5	65.0
Sep 21			1,753	557	65	9	0	3,396	797				1	16.2	0.0	4.5	65.0
Sep 22			1,150	343	34	10	0	2,702	614				0	16.5	0.0	4.5	65.0
Sep 23			1,378	423	47	16	0	3,277	741				0	17.6	0.0	4.5	65.0
Sep 24			1,269	392	30	14	0	3,289	807				-1	15.5	0.0	4.5	65.0
Sep 25			1,139	373	39	13	0	3,762	845				1	18.8	0.0	4.5	65.0
Sep 26			775	266	14	11	0	2,802	623				1	14.5	0.0	5.0	65.0
Sep 27			828	269	10	9	0	2,462	569				4	14.4	0.0	5.0	65.0
Sep 28			860	306	17	6	0	2,682	567				0	13.4	0.0	5.0	64.0
Sep 29			878	427	27	9	0	3,301	832				0	16.1	0.0	5.0	64.5
Sep 30			1,155	488	44	1	0	3,202	832				0	17.2	0.0	5.0	64.5
TOTAL			42,434	12,163	557	214	3	70,875	17,376				31				
AVG.			1,414	405	19	7	0	2,363	579				1	18.1	0.2	4.8	66.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	111,511	8,697
SUMMER	17,764	4,835
FALL	47,931	12,928
TOTAL	177,206	26,460

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
557	214	888	84,071	23,996

BULL TROUT	LAMPREY
3	260

TABLE 108

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

LOWER MONUMENTAL PROJECT - FISH COUNTS

OCTOBER 2015

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	SECCHI
Oct 1			889	402	50	2	0	3,335	776			0	15.8	0.0	4.0	64.0
Oct 2			681	224	42	12	0	3,163	739			1	16.4	0.0	4.0	64.0
Oct 3			596	216	29	13	0	3,185	728			0	13.9	0.0	4.0	64.0
Oct 4			253	106	19	8	0	1,354	342			2	12.3	0.0	4.0	64.0
Oct 5			360	126	24	11	0	2,189	499			1	14.8	0.0	4.0	64.0
Oct 6			406	164	20	7	0	1,992	507			2	15.9	0.0	4.0	64.0
Oct 7			270	91	15	8	0	1,471	332			1	16.2	0.0	4.0	64.0
Oct 8			227	145	20	1	0	1,492	397			1	19.1	0.0	4.0	63.5
Oct 9			297	100	28	12	0	2,108	528			0	21.2	0.0	4.0	63.0
Oct 10			288	139	19	6	0	1,578	408			0	18.3	0.0	4.0	63.0
Oct 11			306	160	29	8	0	3,253	865			-1	15.1	0.0	4.5	63.0
Oct 12			186	102	21	5	0	1,398	370			0	13.3	0.0	4.0	63.0
Oct 13			168	97	21	1	0	1,468	345			0	14.1	0.0	4.0	63.0
Oct 14			206	99	18	0	0	1,234	336			-4	15.0	0.0	4.5	63.0
Oct 15			186	94	12	3	0	1,810	518			0	23.6	0.0	4.5	63.0
Oct 16			124	72	7	2	0	1,392	433			0	14.2	0.0	5.0	63.0
Oct 17			164	102	10	1	0	1,193	392			-1	12.8	0.0	5.0	63.0
Oct 18			139	79	8	5	0	1,948	648			0	13.9	0.0	5.0	63.0
Oct 19			88	45	9	5	0	1,194	349			0	12.2	0.0	5.0	63.0
Oct 20			78	57	7	5	0	1,386	485			0	13.5	0.0	5.0	63.0
Oct 21			66	42	7	3	1	1,218	413			0	18.9	0.0	5.0	63.0
Oct 22			84	63	2	1	0	1,209	402			0	16.0	0.0	5.0	63.0
Oct 23			66	31	6	0	0	750	267			0	16.0	0.0	5.0	63.0
Oct 24			35	20	5	0	0	728	208			1	17.4	0.0	5.0	63.0
Oct 25			36	23	6	0	0	526	146			0	16.7	0.0	5.0	63.0
Oct 26			37	15	3	6	0	788	249			0	16.8	0.0	5.0	63.0
Oct 27			55	23	1	0	0	533	175			1	19.5	0.0	5.0	62.0
Oct 28			11	8	2	0	0	348	108			0	16.7	0.0	5.0	62.0
Oct 29			42	24	1	0	0	481	130			0	15.9	0.0	5.0	61.5
Oct 30			54	11	4	0	-1	571	199			0	12.6	0.0	5.0	61.5
Oct 31			65	36	12	0	0	447	150			0	15.4	0.0	5.0	61.0
TOTAL			6,463	2,916	457	125	0	45,742	12,444			4				
AVG.			208	94	15	4		1,476	401			0	15.9	0.0	4.6	63.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	111,511	8,697
SUMMER	17,764	4,835
FALL	54,394	15,844
TOTAL	183,669	29,376

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,014	339	888	129,813	36,440

BULL TROUT	LAMPREY
3	264

TABLE 109

DISCHARGE AND WATER QUALITY DATA
LOWER MONUMENTAL PROJECT 2015

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	18.4	0.0	5.0	61.0	Dec 1	16.1	0.0	4.0	52.0
Nov 2	18.8	0.0	4.5	60.0	Dec 2	12.6	0.0	4.0	52.0
Nov 3	26.9	0.0	4.0	60.0	Dec 3	12.4	0.0	4.0	52.0
Nov 4	21.1	0.0	4.0	60.0	Dec 4	12.6	0.0	4.0	50.0
Nov 5	21.1	0.0	4.0	60.0	Dec 5	14.9	0.0	4.0	49.0
Nov 6	20.9	0.0	4.0	59.0	Dec 6	19.3	0.0	4.0	49.0
Nov 7	19.9	0.0	4.0	59.0	Dec 7	18.4	0.0	4.0	49.0
Nov 8	18.0	0.0	4.0	59.0	Dec 8	18.5	0.0	3.0	48.0
Nov 9	12.4	0.0	4.0	58.0	Dec 9	23.6	0.0	5.0	48.0
Nov 10	19.7	0.0	4.0	58.0	Dec 10	27.7	0.0	5.5	48.0
Nov 11	16.0	0.0	4.0	58.0	Dec 11	33.0	0.0	5.5	48.0
Nov 12	20.5	0.0	4.0	58.0	Dec 12	31.1	0.0	6.5	48.0
Nov 13	21.8	0.0	4.0	58.0	Dec 13	32.2	0.0	6.5	48.0
Nov 14	14.8	0.0	4.0	58.0	Dec 14	23.3	0.0	6.5	48.0
Nov 15	25.1	0.0	4.0	57.0	Dec 15	29.5	0.0	6.5	48.0
Nov 16	14.4	0.0	4.0	57.0	Dec 16	27.0	0.0	6.5	47.0
Nov 17	19.1	0.0	4.0	57.0	Dec 17	25.5	0.0	6.5	47.0
Nov 18	14.2	0.0	4.0	57.0	Dec 18	25.4	0.0	6.0	44.0
Nov 19	18.9	0.0	4.0	56.0	Dec 19	25.7	0.0	6.0	44.0
Nov 20	20.3	0.0	3.5	55.0	Dec 20	22.6	0.0	6.0	44.0
Nov 21	19.6	0.0	3.5	55.0	Dec 21	21.3	0.0	6.0	44.0
Nov 22	20.7	0.0	3.5	55.0	Dec 22	29.3	0.0	6.0	44.0
Nov 23	13.5	0.0	3.5	54.0	Dec 23	26.8	0.0	6.0	44.0
Nov 24	20.0	0.0	3.5	54.0	Dec 24	25.4	0.0	6.0	44.0
Nov 25	17.9	0.0	3.5	54.0	Dec 25	21.9	0.0	6.0	43.0
Nov 26	18.5	0.0	3.5	53.0	Dec 26	25.2	0.0	6.0	43.0
Nov 27	15.1	0.0	3.5	53.0	Dec 27	19.4	0.0	6.0	43.0
Nov 28	15.0	0.0	4.0	53.0	Dec 28	24.2	0.0	5.0	42.0
Nov 29	17.8	0.0	4.0	53.0	Dec 29	25.4	0.0	5.0	42.0
Nov 30	21.6	0.0	4.0	52.0	Dec 30	20.0	0.0	5.0	41.0
					Dec 31	25.1	0.0	5.0	41.0
AVG.	18.7	0.0	3.9	56.7	AVG.	23.1	0.0	5.4	46.3

TABLE 110
 YEARLY TOTALS OF SALMONIDS COUNTED OVER
 LOWER MONUMENTAL DAM
 1969 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1969	86,700	71,436	1,127	6,466	165,729
1970	75,310	62,167	240	2,972	140,689
1971	68,885	70,114	808	2,171	141,978
1972	72,220	66,857	415	733	140,225
1973	80,557	39,530	206	1,333	121,626
1974	31,728	15,139	114	812	47,793
1975	33,013	17,363	146	572	51,094
1976	34,395	21,822	364	361	56,942
1977	49,301	47,749	293	122	97,465
1978	56,835	20,540	96	218	77,689
1979	11,288	17,794	31	194	29,307
1980	10,885	34,322	48	73	45,328
1981	19,991	35,923	136	63	56,113
1982	21,965	62,772	154	89	84,980
1983	19,082	80,562	118	110	99,872
1984	17,866	88,655	63	26	106,610
1985	42,437	109,718	68	24	152,247
1986	50,584	120,479	26	9	171,098
1987	42,434	62,586	16	6	105,042
1988	44,262	84,746	35	3	129,046
1989	25,590	129,618	9	17	155,234
1990	28,215	44,907	0	1	73,123
1991	18,210	98,315	6	5	116,536
1992	30,145	130,429	15	0	160,589
1993	34,195	70,992	18	0	105,205
1994	7,219	49,917	7	0	57,143
1995	7,883	90,157	4	4	98,048
1996	15,606	96,609	3	6	112,224
1997	51,556	85,602	16	30	137,204
1998	21,537	66,118	2	0	87,657
1999	20,271	72,842	15	88	93,216
2000	68,961	112,616	291	750	182,618
2001	225,667	285,745	32	1,210	512,654
2002	124,897	232,809	46	158	357,910
2003	123,158	187,338	14	1,106	311,616
2004	114,030	158,792	80	3,665	276,567
2005	52,281	153,792	18	2,095	208,186
2006	54,482	135,566	17	1,181	191,246
2007	73,333	154,104	44	2,231	229,712
2008	123,018	186,058	722	4,513	314,311
2009	183,451	317,275	1,162	5,617	507,505
2010	200,817	213,811	1,652	2,003	418,283
2011	178,281	187,272	1,395	4,829	371,777
2012	144,661	101,523	486	2,501	249,171
2013	151,421	106,649	1,014	2,325	261,409
2014	193,400	170,270	2,805	19,855	386,330
2015	213,045	131,476	888	1,353	346,762
Total	3,355,068	4,900,876	15,265	71,900	8,343,109
10-Year Average	151,591	170,400	1,019	4,641	327,651

*Jacks included

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

TABLE 111
MONTHLY COUNT OF CHINOOK SALMON
LOWER MONUMENTAL DAM
1969-2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1969			1	67	38,702	25,289	13,832	1,776	5,069	1,619	340	5	86,700
1970	1		1	9,194	32,623	15,818	9,369	1,720	5,178	1,281	122	3	75,310
1971				358	19,340	23,842	14,492	857	8,599	1,397			68,885
1972				6,838	36,448	6,989	15,501	1,835	3,737	872			72,220
1973				27,168	31,973	11,282	4,343	678	4,273	840			80,557
1974				327	15,796	4,904	7,241	602	1,972	886			31,728
1975				704	17,421	6,648	4,884	548	2,428	380			33,013
1976				1,995	19,292	7,731	3,172	175	1,609	421			34,395
1977				19,125	17,093	7,884	3,092	300	1,321	486			49,301
1978				12,324	30,067	8,941	3,853	831	536	283			56,835
1979				1,332	5,637	2,010	922	211	916	260			11,288
1980				1,008	5,198	2,318	1,315	319	405	322			10,885
1981				4,039	9,012	3,349	1,924	97	1,100	470			19,991
1982				372	11,319	5,031	2,773	264	1,631	575			21,965
1983				1,250	10,262	3,841	2,103	220	1,008	398			19,082
1984				513	7,186	6,297	2,549	205	789	327			17,866
1985				7,360	20,572	7,303	1,279	402	2,451	3,070			42,437
1986				10,893	25,454	7,436	1,821	123	2,786	2,071			50,584
1987				8,706	21,166	5,492	2,400	278	2,625	1,767			42,434
1988				11,451	19,823	7,851	1,832	607	1,752	946			44,262
1989				159	14,924	4,858	1,615	476	1,852	706			24,590
1990				6,830	12,127	5,197	1,594	181	1,205	1,081			28,215
1991				925	6,537	5,491	1,936	127	2,177	1,017			18,210
1992				10,529	10,822	5,001	1,220	188	1,729	656			30,145
1993				3,848	16,154	9,720	2,016	313	1,591	509	44		34,195
1994				574	2,448	1,287	322	156	1,308	1,124			7,219
1995				210	1,435	1,092	471	280	2,183	2,212			7,883
1996				62	5,836	4,442	1,407	395	2,547	917			15,606
1997				1,493	26,966	16,833	2,484	309	2,174	1,297			51,556
1998				2,325	6,626	5,095	1,222	272	3,418	2,579			21,537
1999				124	4,551	4,951	1,630	623	5,499	2,893			20,271
2000				10,018	30,132	11,068	2,469	1,367	8,950	4,957			68,961
2001				104,119	60,247	32,422	6,261	1,472	16,390	4,411	334	11	225,667
2002	1		7	3,881	60,767	31,795	6,496	2,367	15,707	3,660	214	2	124,897
2003			50	33,435	31,906	28,381	6,247	951	15,255	6,642	288	3	123,158
2004			1	29,462	36,732	18,114	3,721	566	21,620	3,670	145	-1	114,030
2005				1,174	18,726	13,028	2,942	948	12,215	3,248			52,281
2006				10	17,659	12,916	3,541	1,816	12,534	6,006			54,482
2007				2,143	27,277	13,221	5,238	1,804	17,407	6,243			73,333
2008				2,468	43,772	37,105	7,801	3,334	24,325	4,213			123,018
2009				483	64,754	45,527	10,839	7,310	49,587	4,951			183,451
2010				23,522	70,028	39,285	9,253	2,937	44,326	11,466			200,817
2011				193	71,045	44,773	15,764	4,502	34,401	7,603			178,281
2012				203	59,645	23,507	4,218	4,103	47,126	5,859			144,661
2013				1,102	45,917	19,984	7,105	9,070	61,547	6,696			151,421
2014				4,044	75,066	28,085	9,916	4,481	62,903	8,547	351	7	193,400
2015				29,958	77,723	26,209	7,468	7,711	54,597	9,379			213,045
Total	2	0	60	398,318	1,294,206	659,643	223,893	70,107	574,758	131,213	1,838	30	3,354,068
10-Year Average				6,413	55,289	29,061	8,114	4,707	40,875	7,096			151,591

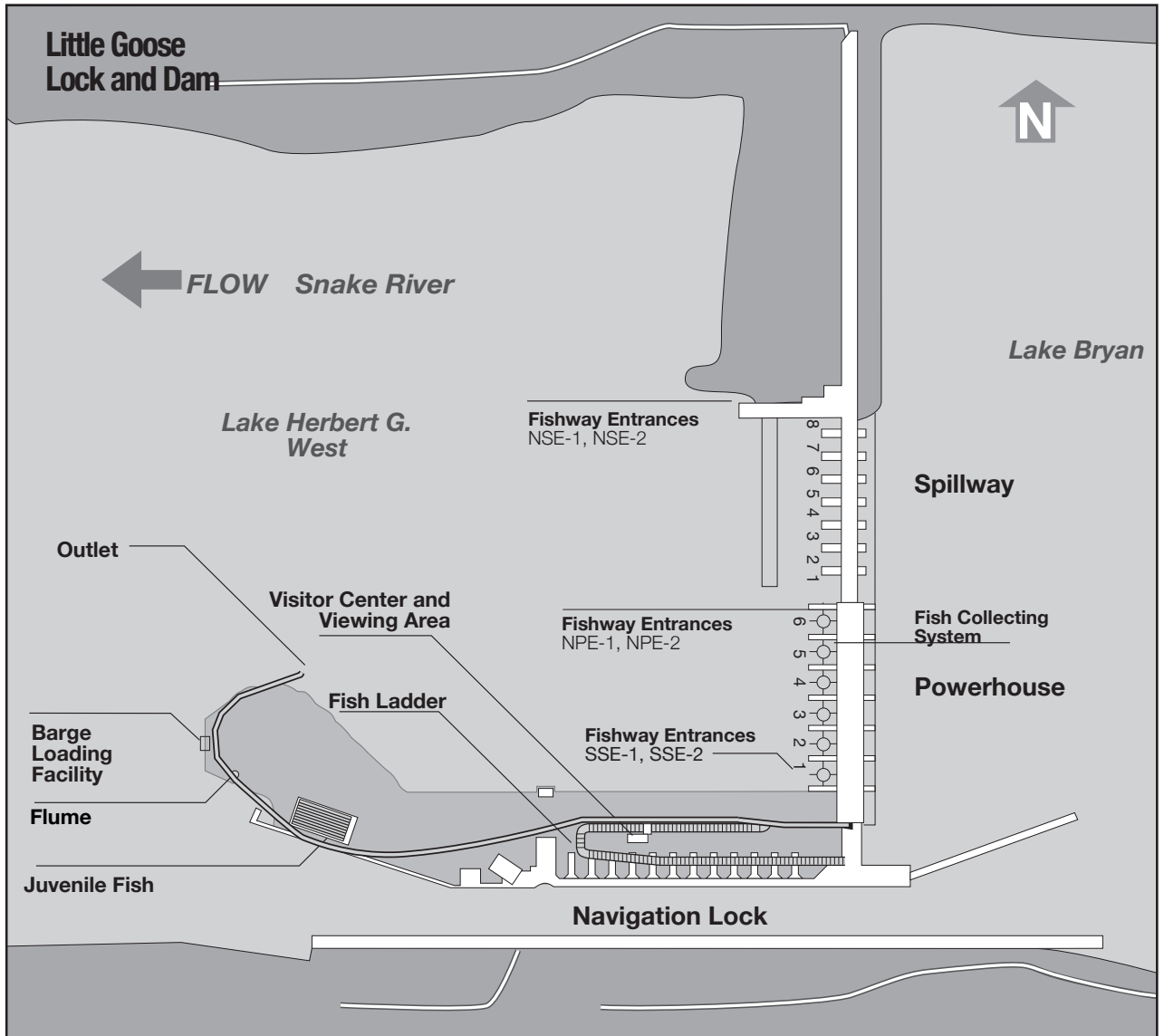
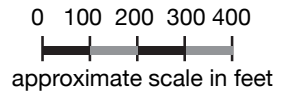
*Jacks included
2001-2004 and 2014 - 2015 extended season video counts are included.

TABLE 112
MONTHLY COUNT OF STEELHEAD
LOWER MONUMENTAL DAM
1969 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
1969		5	1,525	9,235	5,475	248	2,141	6,410	26,647	15,195	4,189	366	71,436
1970	252	1,025	1,519	3,143	2,134	232	1,989	7,947	30,701	11,194	1,615	416	62,167
1971			422	2,404	1,510	131	2,199	2,992	42,438	18,018			70,114
1972				2,182	744	86	2,336	7,184	32,417	21,908			66,857
1973				2,061	658	82	2,060	3,505	21,241	9,923			39,530
1974				1,221	256	17	1,237	2,835	4,929	4,644			15,139
1975				745	444	24	873	4,417	7,437	3,423			17,363
1976				806	256	146	1,092	4,409	10,328	4,785			21,822
1977				849	192	127	3,026	2,991	22,494	18,070			47,749
1978				1,324	128	16	719	2,522	10,477	5,354			20,540
1979				643	118	28	1,314	1,937	4,898	8,856			17,794
1980				2,467	573	70	754	3,725	14,078	12,655			34,322
1981				996	321	75	1,783	1,632	12,416	18,700			35,923
1982				2,026	1,123	35	1,851	7,373	22,426	27,938			62,772
1983				1,021	131	14	3,027	10,101	40,004	26,264			80,562
1984				2,663	482	52	3,150	4,820	42,788	34,700			88,655
1985				6,889	548	189	1,888	10,086	63,734	26,384			109,718
1986				1,914	205	89	5,082	7,751	46,876	58,562			120,479
1987				2,483	264	142	2,531	4,692	20,766	31,708			62,586
1988				4,274	604	411	1,903	5,725	35,290	36,539			84,746
1989				1,067	389	304	6,364	8,093	63,026	50,375			129,618
1990				2,691	197	189	1,804	1,579	14,209	24,238			44,907
1991				2,211	288	70	2,275	1,497	41,894	50,080			98,315
1992				1,456	182	285	2,890	7,223	68,606	49,787			130,429
1993				7,752	277	564	5,367	8,197	16,146	30,228	2,461		70,992
1994				2,844	76	186	2,595	2,998	14,901	26,317			49,917
1995				1,072	162	138	4,074	10,424	38,890	35,397			90,157
1996				934	96	137	3,199	12,413	47,234	32,596			96,609
1997				1,044	162	177	3,422	9,326	34,521	36,950			85,602
1998				1,501	62	198	2,361	1,835	19,892	40,269			66,118
1999				559	59	98	2,652	11,170	37,899	20,405			72,842
2000				937	-26	546	5,741	9,045	61,072	35,301			112,616
2001				1,636	113	2,874	19,045	26,264	126,517	76,474	23,900	8,922	285,745
2002	3,687	1,858	3,429	4,876	196	688	10,901	25,998	94,310	75,670	9,028	2,168	232,809
2003	775	3,686	5,325	1,872	45	850	7,704	8,122	93,190	60,813	3,945	1,011	187,338
2004	115	1,036	2,619	1,473	127	1,052	6,477	4,020	90,900	45,380	4,101	1,492	158,792
2005				783	181	1,062	5,193	7,445	70,701	68,427			153,792
2006				2,756	98	454	3,392	7,778	63,849	57,239			135,566
2007				2,174	143	914	5,735	8,657	77,612	58,869			154,104
2008				3,520	510	552	12,664	21,947	97,562	49,303			186,058
2009				4,294	426	1,358	12,112	23,920	167,680	107,485			317,275
2010				3,621	489	1,377	19,765	25,351	109,728	53,480			213,811
2011				3,331	548	196	7,342	45,999	82,453	47,403			187,272
2012				3,189	421	518	2,960	4,550	55,979	33,906			101,523
2013				2,310	196	539	4,476	12,809	45,280	41,039			106,649
2014			3,603	1,179	497	1,163	10,001	11,417	79,686	51,670	8,778	2,276	170,270
2015	423	1,240		1,575	194	560	2,104	8,763	70,875	45,742			131,476
Total	5,252	8,850	18,442	112,003	22,274	19,263	213,570	429,894	2,296,997	1,699,663	58,017	16,651	4,900,876
10-Year Average				2,795	352	763	8,055	17,119	85,070	54,614			170,400

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

Plate 8 Little Goose Lock and Dam



LITTLE GOOSE DAM

FISH COUNTING SCHEDULE

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 – 6 January	Ladder in service
7 January – 18 February	Ladder dewatered for annual maintenance
19 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, with particular attention to Zebra Mussels and Quagga Mussels. Reports were submitted weekly to district.

Auxiliary fish pump 1 was sent out for repairs, but complications with the shaft alignment prevented it from being in service during 2015. Fish Pumps 2 and 3 were operated at higher RPMs during 2015.

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 113

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LITTLE GOOSE DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				21,188	80,186	23,558	7,211	6,218	51,580	12,730			202,671
STEELHEAD				1,308	183	158	948	4,639	66,554	52,481			126,271
SOCKEYE						150	392	31	10	4			587
COHO								0	984	1,002			1,986
PINK													0
TOTAL				22,496	80,369	23,866	8,551	10,888	119,128	66,217			331,515
LAMPREY					-1	16	82	15	-34	-20			58
STURGEON													0
BULL TROUT				1	1	1	0	0	0	0			3

*Jacks included

TABLE 114

DISCHARGE AND WATER QUALITY DATA
LITTLE GOOSE PROJECT 2015

JANUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Jan 1	26.0	0.0		
Jan 2	25.4	0.0		
Jan 3	24.7	0.0		
Jan 4	24.1	0.0		
Jan 5	20.4	0.0		
Jan 6	33.1	0.0		
Jan 7	36.1	0.0		
Jan 8	38.2	0.0		
Jan 9	32.6	0.0		
Jan 10	31.7	0.0		
Jan 11	32.7	0.0		
Jan 12	30.8	0.0		
Jan 13	29.3	0.0		
Jan 14	27.6	0.0		
Jan 15	26.6	0.0		
Jan 16	26.0	0.0		
Jan 17	32.2	0.0		
Jan 18	28.9	0.0		
Jan 19	37.8	0.0		
Jan 20	41.2	0.0		
Jan 21	39.6	0.0		
Jan 22	35.8	0.0		
Jan 23	32.2	0.0		
Jan 24	33.9	0.0		
Jan 25	32.5	0.0		
Jan 26	37.5	0.0		
Jan 27	33.7	0.0		
Jan 28	34.6	0.0		
Jan 29	42.5	0.0		
Jan 30	37.5	0.0		
Jan 31	37.7	0.0		

AVG.

32.3	0.0
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FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Feb 1	38.6	0.0		
Feb 2	35.6	0.0		
Feb 3	33.3	0.6		
Feb 4	42.3	0.0		
Feb 5	38.1	0.0		
Feb 6	38.9	0.0		
Feb 7	43.9	0.0		
Feb 8	48.0	0.0		
Feb 9	62.7	0.0		
Feb 10	78.7	0.0		
Feb 11	78.0	0.0		
Feb 12	73.0	0.0		
Feb 13	69.4	0.0		
Feb 14	68.1	0.0		
Feb 15	64.7	0.0		
Feb 16	65.3	0.0		
Feb 17	57.8	0.0		
Feb 18	57.4	0.0		
Feb 19	46.7	0.0		
Feb 20	54.3	0.0		
Feb 21	46.5	0.0		
Feb 22	46.5	0.0		
Feb 23	49.2	0.0		
Feb 24	43.2	0.0		
Feb 25	32.7	0.0		
Feb 26	30.0	0.0		
Feb 27	41.2	0.0		
Feb 28	39.4	0.0		

AVG.

50.8	0.0
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MARCH				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY	
			SECCHI	DEG F
Mar 1	36.0	0.0	3.8	41.8
Mar 2	33.7	0.0	3.8	42.0
Mar 3	28.9	0.0		
Mar 4	36.7	0.0	3.8	41.5
Mar 5	30.4	0.0		
Mar 6	30.0	0.0		
Mar 7	27.6	0.0		
Mar 8	25.4	0.0		
Mar 9	24.3	0.0		
Mar 10	28.0	0.0	4.4	41.4
Mar 11	28.7	0.0	4.7	42.0
Mar 12	29.8	2.3	5.0	44.2
Mar 13	26.0	0.0		
Mar 14	29.3	0.0		
Mar 15	25.8	0.0		
Mar 16	37.2	0.0	5.5	43.9
Mar 17	43.4	0.0		
Mar 18	47.3	0.0	5.1	43.8
Mar 19	53.7	0.0	5.1	44.3
Mar 20	54.2	0.0		
Mar 21	48.9	0.0		
Mar 22	45.2	0.0		
Mar 23	46.6	0.0		
Mar 24	47.0	0.0	5.0	47.7
Mar 25	51.2	0.0	4.8	47.9
Mar 26	59.8	0.0	4.4	47.8
Mar 27	51.8	0.0		
Mar 28	59.6	0.0		
Mar 29	57.4	0.0		
Mar 30	62.6	0.0	3.4	48.8
Mar 31	59.6	0.0		

AVG.

40.8	0.1	4.5	44.4
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*Water temps are from water quality sensor located in the tailrace

TABLE 115

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

LITTLE GOOSE PROJECT - FISH COUNTS

APRIL 2015

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													
Apr 1	1			0				132	72		0		49.3	0.0	2.2	48.2
Apr 2	1			0				81	44		0		80.3	2.7		
Apr 3	0			0				55	41		0		57.1	17.0		
Apr 4	4			0				78	47		0		55.1	16.5		
Apr 5	10			0				61	30		0		52.8	15.9		
Apr 6	5			1				69	43		0		47.7	14.4		
Apr 7	11			0				57	37		0		47.4	14.2	3.8	49.1
Apr 8	11			0				52	41		0		47.7	14.3	4.8	49.5
Apr 9	8			1				39	28		0		43.0	12.8		
Apr 10	12			0				49	31		1		44.8	13.4		
Apr 11	13			0				53	37		0		44.3	13.2		
Apr 12	4			1				56	36		0		42.4	12.7	4.8	48.5
Apr 13	2			2				15	13		0		39.6	11.9		
Apr 14	10			0				25	17		0		42.3	12.7		
Apr 15	24			1				19	13		0		40.8	12.2	3.7	48.5
Apr 16	53			0				25	18		0		38.1	11.4	4.2	48.7
Apr 17	100			0				43	30		0		40.8	12.2		
Apr 18	70			1				33	22		0		42.3	12.7	4.8	51.4
Apr 19	127			1				20	13		0		43.1	12.9	5.0	51.2
Apr 20	193			4				42	26		0		47.1	14.1		
Apr 21	276			4				29	23		0		43.5	13.0		
Apr 22	302			4				37	29		0		48.7	14.6		
Apr 23	505			1				40	32		0		54.9	16.4	5.0	51.6
Apr 24	883			16				35	23		0		52.1	15.6	4.9	51.7
Apr 25	1,741			56				24	16		0		54.8	16.4		
Apr 26	3,121			22				36	32		0		52.7	15.7		
Apr 27	2,615			22				25	20		0		45.4	13.6	4.4	57.5
Apr 28	3,522			36				30	16		0		50.5	15.1		
Apr 29	5,894			98				38	30		0		45.0	13.4		
Apr 30	1,387			12				10	5		0		50.3	15.0	5.0	58.8
TOTAL	20,905			283				1,308	865		1					
AVG.	697			9				44	29		0		48.1	13.2	4.4	51.2

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

TABLE 116

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

LITTLE GOOSE PROJECT - FISH COUNTS

MAY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL		PINK	BULL		DISCH SPILL TURBIDITY			
	SPRING	SUMMER	FALL					STEELHEAD	unclipped STEELHEAD		TROUT	LAMPREY	KCFS	KCFS	SECCHI	DEG F
May 1	2,425			18				10	6		0	0	50.1	15.0		
May 2	3,370			38				24	19		0	0	53.5	15.9		
May 3	5,219			49				25	18		0	0	52.3	15.6	5.2	54.2
May 4	4,636			77				11	10		0	0	52.8	15.7		
May 5	5,149			86				14	12		0	0	62.2	18.6		
May 6	7,991			224				-1	4		0	0	64.8	19.4		
May 7	4,434			169				5	4		0	0	64.2	19.2	4.6	54.9
May 8	3,636			142				11	6		0	0	63.2	18.9	4.5	55.5
May 9	3,799			172				5	5		0	0	53.7	16.1		
May 10	5,302			232				9	8		0	0	50.8	15.2	6.0	56.2
May 11	2,681			161				8	7		0	1	50.8	15.2		
May 12	1,889			121				7	5		0	0	50.3	15.1		
May 13	2,206			115				5	5		0	0	51.1	15.3		
May 14	2,278			149				6	1		0	0	54.7	16.4	3.8	55.8
May 15	1,999			254				5	4		0	0	55.8	16.7	4.2	55.6
May 16	2,248			312				3	1		0	0	58.8	17.6		
May 17	1,764			338				8	2		1	0	69.4	20.7		
May 18	1,626			296				5	5		0	0	70.8	21.2	4.7	57.1
May 19	965			175				2	1		0	0	61.7	18.5	5.5	60.6
May 20	893			198				1	1		0	0	61.8	18.5		
May 21	841			245				3	1		0	0	61.4	18.4		
May 22	934			272				3	1		0	0	64.1	19.2	5.5	58.0
May 23	1,079			248				3	1		0	0	61.5	18.4		
May 24	802			210				-1	-1		0	0	64.7	19.5		
May 25	1,044			284				1	0		0	0	64.6	19.4	4.0	59.3
May 26	688			187				2	0		0	0	62.0	18.6	2.8	61.1
May 27	859			263				1	1		0	-1	63.4	19.0		
May 28	976			370				2	1		0	0	62.8	18.8		
May 29	1,064			304				3	2		0	0	62.3	18.6		
May 30	746			172				1	0		0	-1	58.1	17.5	3.7	62.0
May 31	674			88				2	2		0	0	58.6	17.5		
TOTAL	74,217			5,969				183	132		1	-1				
AVG.	2,394			193				6	4		0	0	59.2	17.7	4.5	57.5
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	unclipped STEELHEAD		BULL TROUT	LAMPREY				
TOTALS TO DATE		95,122	6,252					1,491	997		2	-1				
SPRING																

TABLE 117

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

JUNE 2015

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					
Jun 1	658			168			0	0	0			0	0	60.4	18.1	4.8	63.2
Jun 2	886			232			0	6	1			0	0	61.7	18.4		
Jun 3	649			172			0	0	0			0	-1	61.6	18.5		
Jun 4	804			228			0	0	0			0	1	64.7	19.4	4.2	63.9
Jun 5	707			187			0	-4	0			0	0	54.1	16.2	5.3	64.2
Jun 6	581			140			0	1	1			0	0	47.9	14.4		
Jun 7	763			142			1	3	2			0	0	50.4	15.1	4.2	66.3
Jun 8	737			134			4	2	0			0	0	50.9	15.2		69.2
Jun 9	823			148			6	5	1			0	0	52.1	15.5		62.9
Jun 10	673			131			2	5	0			0	1	46.6	14.0		62.8
Jun 11	655			161			0	2	0			0	1	44.8	13.4	3.2	63.3
Jun 12	552			138			2	11	1			0	0	44.2	13.2		64.1
Jun 13	761			133			2	3	1			1	1	40.6	12.1		65.1
Jun 14	436			110			0	6	2			0	1	35.0	10.5	4.5	65.9
Jun 15	317			77			1	4	2			0	0	31.8	9.4		66.5
Jun 16		434		85			1	2	1			0	1	35.3	10.7	6+	66.8
Jun 17		1,020		191			2	1	1			0	1	29.9	10.7	5.1	66.4
Jun 18		1,075		168			4	1	0			0	0	33.8	10.7		66.9
Jun 19		750		150			0	15	5			0	0	31.5	10.6		66.9
Jun 20		1,025		226			6	9	4			0	0	29.7	10.6		67.5
Jun 21		592		198			19	1	1			0	0	28.8	10.6	5.0	68.0
Jun 22		538		152			2	12	4			0	4	31.2	9.6		68.1
Jun 23		779		227			12	10	4			0	0	29.0	8.6		67.7
Jun 24		637		140			6	7	1			0	0	30.8	9.4		68.0
Jun 25		386		158			17	12	5			0	2	30.6	9.3	5.4	68.2
Jun 26		484		136			16	8	2			0	1	31.8	11.0		68.4
Jun 27		127		34			0	2	2			0	2	31.8	11.1		68.3
Jun 28		164		84			0	6	4			0	0	35.8	11.1		68.4
Jun 29		476		164			25	19	5			0	1	35.4	10.6	5.8	68.4
Jun 30		488		167			22	9	4			0	0	28.4	8.5		68.6

TOTAL	10,002	8,975		4,581			150	158	54			1	16				
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AVG.	667	598		153			5	5	2			0	1	40.7	12.5	4.8	66.4
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	105,124	8,553
SPRING	105,124	8,553
SUMMER	8,975	2,280
TOTALS	114,099	10,833

SOCKEYE	STEELHEAD	unclipped STEELHEAD
150	1,649	1,051

BULL TROUT	LAMPREY
3	15

TABLE 118

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

LITTLE GOOSE PROJECT - FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped		PINK	BULL		DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE	STEELHEAD		STEELHEAD	TROUT			LAMPREY	KCFS
Jul 1		478		142			55	18	6			1	30.5	10.5		68.7
Jul 2		311		137			29	8	4			1	29.0	10.9	5.5	68.9
Jul 3		241		91			30	12	7			4	23.0	10.3		68.5
Jul 4		372		113			25	9	1			1	19.9	7.4		68.0
Jul 5		614		199			36	18	10			2	22.8	7.4	5.8	67.8
Jul 6		155		29			14	6	2			1	24.9	7.4		68.4
Jul 7		246		102			30	19	13			2	24.9	9.2		67.8
Jul 8		173		74			5	10	5			4	25.6	9.3		68.3
Jul 9		13		0			0	2	1			0	27.6	9.4	5.9	68.4
Jul 10		205		104			26	35	7			4	31.6	9.3		68.9
Jul 11		270		148			14	28	12			0	28.9	11.2		69.2
Jul 12		228		109			18	23	22			5	28.7	11.2	5.5	69.4
Jul 13		241		109			7	36	23			4	31.6	11.2		70.5
Jul 14		271		113			10	46	29			4	27.9	11.1		71.0
Jul 15		185		67			12	29	22			4	25.2	9.3	6.0	70.7
Jul 16		160		60			6	45	35			5	26.0	9.1	4.9	70.0
Jul 17		160		28			5	42	32			7	28.2	9.2		69.9
Jul 18		79		30			11	26	20			0	31.0	10.9		70.0
Jul 19		64		19			1	15	13			0	30.4	11.0	4.8	69.0
Jul 20		85		24			6	31	23			5	29.1	11.0		67.1
Jul 21		98		24			5	18	13			6	27.5	11.0		67.1
Jul 22		85		31			7	49	32			1	30.8	9.3		67.5
Jul 23		82		41			10	89	59			6	31.8	3.9	5.1	69.2
Jul 24		107		61			12	62	49			2	27.1	4.9		68.3
Jul 25		58		19			0	32	24			2	26.7	10.4		67.8
Jul 26		50		17			8	49	35			2	26.5	9.3	5.0	67.8
Jul 27		65		25			7	54	36			4	27.9	9.4		68.1
Jul 28		72		24			1	66	50			1	27.1	3.9	5.2	68.5
Jul 29		44		12			2	25	13			6	26.8	4.7	5.6	69.9
Jul 30		12		5			0	24	16			-1	31.3	10.6	5.0	70.0
Jul 31		20		10			0	22	16			-1	29.0	10.6		
TOTAL		5,244		1,967			392	948	630			82				

AVG.	169	63	13	31	20	3	27.7	9.2	5.4	68.8
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE							
SPRING	105,124	8,553	542	2,597	1,681	3	97
SUMMER	14,219	4,247					
TOTAL	119,343	12,800					

TABLE 119

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

LITTLE GOOSE PROJECT - FISH COUNTS

AUGUST 2015

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				
Aug 1		23		8			2	25	18			-1	31.1	11.2		
Aug 2		30		8			1	25	20			-2	30.5	11.2	5.9	70.7
Aug 3		30		12			0	24	19			1	30.7	11.2		
Aug 4		71		35			1	28	17			1	24.5	11.2		
Aug 5		78		20			0	59	42			1	26.4	9.3		
Aug 6		94		26			0	89	55			-1	24.3	9.3	4.4	68.5
Aug 7		79		12			5	68	43			-1	22.8	9.3		
Aug 8		80		14			0	91	48			1	18.7	6.0		
Aug 9		92		13			2	84	56			1	19.7	6.9	5.3	68.2
Aug 10		79		12			0	77	43			1	17.9	5.5		
Aug 11		84		6			4	77	42			-1	16.6	4.2		
Aug 12		58		5			1	62	48			-2	19.8	7.5	5.7	71.0
Aug 13		49		4			0	70	44			2	20.9	7.3	5.8	71.3
Aug 14		186		24			0	139	79			0	21.3	7.2		
Aug 15		242		18			2	255	146			1	22.0	7.2		
Aug 16			275	23			8	329	168			4	20.9	6.6	5.7	69.5
Aug 17			223	16			4	279	151			2	18.1	5.6		
Aug 18			210	14			0	211	114			5	17.9	5.5		
Aug 19			162	8			0	189	101			6	18.1	5.5	5.6	69.3
Aug 20			164	10			0	169	92			-2	19.3	5.6		
Aug 21			226	31			1	177	88			0	17.4	4.5		
Aug 22			263	29			0	303	158			0	15.9	3.7		
Aug 23			144	16			0	174	89			1	16.9	4.7	5.4	70.2
Aug 24			146	12			0	144	78			4	21.3	7.3		
Aug 25			158	13			0	214	98			-1	18.2	5.1		
Aug 26			124	7			0	128	58			-1	15.0	2.8	5.6	69.8
Aug 27			196	8			0	78	36			-1	18.2	5.6	4.4	69.6
Aug 28			324	48			0	100	38			0	19.6	7.2		
Aug 29			361	46			0	111	40			-1	19.4	7.2		
Aug 30			654	72			0	292	137			-2	17.7	5.6	6.0	69.0
Aug 31			652	91			0	568	224			0	18.1	5.5		
TOTAL		1,275	4,282	661			31	4,639	2,390			15				
AVG.		85	268	21			1	150	77			0	20.6	6.9	5.4	69.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	105,124	8,553
SUMMER	15,494	4,464
FALL	4,282	444
TOTALS	124,900	13,461

SOCKEYE	STEELHEAD	unclipped STEELHEAD
573	7,236	4,071

BULL TROUT	LAMPREY
3	112

TABLE 120

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

LITTLE GOOSE PROJECT - FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	BULL	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE						
Sep 1			960	133	0	0	1,002	401		-2	17.1	0.0		
Sep 2			775	104	0	0	998	372		-2	16.1	0.0		
Sep 3			1,142	160	0	0	928	364		1	12.8	0.0	4.7	68.1
Sep 4			1,032	74	0	0	753	250		0	15.7	0.0		
Sep 5			859	79	0	0	654	198		-2	18.2	0.0		
Sep 6			1,442	155	0	1	840	252		0	18.6	0.0	5.1	67.1
Sep 7			1,248	110	0	0	792	223		1	16.6	0.0		
Sep 8			1,404	158	0	1	786	228		-6	20.5	0.0	5.3	66.7
Sep 9			1,343	197	1	2	843	244		-2	21.2	0.0		
Sep 10			1,476	197	1	1	1,033	306		-1	16.8	0.0	6.0	66.1
Sep 11			1,828	208	6	1	1,135	336		1	20.5	0.0		
Sep 12			1,246	176	5	1	1,116	289		-4	19.0	0.0		
Sep 13			1,086	124	4	2	1,151	301		1	15.7	0.0	6.0	65.5
Sep 14			3,084	455	23	1	2,180	562		-2	22.6	0.0	6+	65.0
Sep 15			1,879	268	14	4	2,101	539		2	22.2	0.0		
Sep 16			1,800	293	8	8	2,508	677		-1	28.1	0.0		
Sep 17			2,836	430	18	7	3,597	848		1	17.2	0.0	4.9	65.6
Sep 18			3,094	505	44	6	4,273	986		-1	23.4	0.0		
Sep 19			2,116	437	157	29	4,591	1,001		-2	18.5	0.0		
Sep 20			1,552	313	42	2	4,372	893		-4	16.5	0.0	6.0	65.0
Sep 21			1,910	428	70	13	3,858	811		-2	18.8	0.0		
Sep 22			1,453	311	49	1	2,464	562		2	18.3	0.0		
Sep 23			1,418	246	73	6	3,403	775		-4	15.8	0.0		
Sep 24			1,607	314	60	2	3,531	778		-2	19.4	0.0	6.0	64.6
Sep 25			1,025	175	24	13	2,196	516		0	14.9	0.0		
Sep 26			1,360	265	65	13	4,311	1,013		-1	13.3	0.0		
Sep 27			800	160	41	7	3,876	845		-2	12.7	0.0	5.9	64.3
Sep 28			719	148	23	2	1,559	324		-1	15.6	0.0		
Sep 29			1,088	188	56	6	2,916	635		-1	16.2	0.0		
Sep 30			990	197	65	6	2,787	565		-1	15.6	0.0		
TOTAL			44,572	7,008	849	135	66,554	16,094		-34				

AVG.	1,486	234	28	5	0	2,218	536			-1	17.9	0.0	5.5	65.8
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	105,124	8,553
SUMMER	15,494	4,464
FALL	48,854	7,452
TOTALS	169,472	20,469

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
849	135	583	73,790	20,165

BULL TROUT	LAMPREY
3	78

TABLE 121

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

LITTLE GOOSE PROJECT - FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	BULL	DISCH	SPILL	TURBIDITY			
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD					PINK	TROUT
Oct 1			1,147	319	48	6	2,944	671			2	15.5	0.0	4.9	64.1
Oct 2			1,212	335	85	12	4,577	1,115			-5	14.0	0.0		
Oct 3			842	254	88	14	3,546	800			0	12.6	0.0		
Oct 4			685	239	65	18	3,114	668			0	15.1	0.0	6.0	63.9
Oct 5			350	143	41	10	1,611	356			-4	15.3	0.0		
Oct 6			502	142	38	1	2,454	550			-1	15.6	0.0		
Oct 7			325	96	28	1	1,951	461			1	18.1	0.0		
Oct 8			404	96	29	7	2,008	500			1	20.2	0.0	5.9	64.1
Oct 9			443	125	46	18	1,790	421			-4	17.3	0.0		
Oct 10			344	152	50	23	1,621	361			-1	14.5	0.0		
Oct 11			425	180	61	17	3,008	676			-6	14.1	0.0	6.0	64.0
Oct 12			414	149	26	11	2,109	494			2	14.3	0.0		
Oct 13			323	101	41	14	2,280	575			0	15.1	0.0		
Oct 14			199	78	28	4	1,619	370			-4	21.4	0.0		
Oct 15			227	59	25	11	1,454	340			0	14.2	0.0	4.5	63.8
Oct 16			199	65	30	7	1,563	473			1	12.6	0.0		
Oct 17			169	42	6	0	1,447	414			0	13.6	0.0		
Oct 18			163	52	7	0	1,397	438			0	12.7	0.0	6.0	63.7
Oct 19			191	73	14	0	1,165	361			1	13.3	0.0		
Oct 20			160	56	6	0	1,434	451			-1	17.6	0.0		
Oct 21			157	43	13	1	1,479	425			-1	15.4	0.0		
Oct 22			106	26	6	0	1,080	319			-2	15.8	0.0	5.9	63.3
Oct 23			92	43	6	2	1,506	409			0	17.1	0.0		
Oct 24			59	48	7	0	909	275			0	16.8	0.0		
Oct 25			76	26	7	1	723	230			0	14.6	0.0	6.0	62.8
Oct 26			46	28	6	1	901	264			-2	19.0	0.0		
Oct 27			110	40	5	1	647	198			1	16.2	0.0		
Oct 28			77	25	2	0	486	151			1	15.5	0.0		
Oct 29			67	20	4	0	598	194			-1	13.0	0.0	6.0	61.9
Oct 30			48	26	4	0	607	181			0	15.7	0.0		
Oct 31			58	29	0	0	453	130			2	16.8	0.0		
TOTAL			9,620	3,110	822	180	52,481	13,271			-20				
AVG.			310	100	27	6	1,693	428			-1	15.6	0.0	5.7	63.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	105,124	8,553
SUMMER	15,494	4,464
FALL	58,474	10,562
TOTALS	179,092	23,579

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,671	315	587	126,271	33,436

BULL TROUT	LAMPREY
3	58

TABLE 122

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2015

NOVEMBER					DECEMBER				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F		KCFS	KCFS	SECCHI	DEG F
Nov 1	16.8	0.0			Dec 1	12.5	0.0		
Nov 2	27.5	0.0	6.0	60.6	Dec 2	12.8	0.0	6.0	47.5
Nov 3	21.5	0.0	5.0	60.1	Dec 3	12.2	0.0	5.9	46.5
Nov 4	19.7	0.0			Dec 4	14.9	0.0		
Nov 5	20.2	0.0	6.0	59.3	Dec 5	18.5	0.0	6.0	46.9
Nov 6	19.6	0.0			Dec 6	17.4	0.0		
Nov 7	18.2	0.0			Dec 7	17.7	0.0	6+	45.9
Nov 8	12.8	0.0			Dec 8	23.1	0.0	6.0	45.6
Nov 9	19.8	0.0	5.8	58.1	Dec 9	27.3	0.0		
Nov 10	16.2	0.0	5.8	57.9	Dec 10	29.6	0.0	6+	45.5
Nov 11	20.0	0.0			Dec 11	29.1	0.0		
Nov 12	20.5	0.0			Dec 12	29.6	0.0		
Nov 13	14.8	0.0			Dec 13	22.8	0.0		
Nov 14	24.2	0.0			Dec 14	28.1	0.0	5.7	44.5
Nov 15	14.4	0.0			Dec 15	26.6	0.0	5.5	43.9
Nov 16	18.2	0.0	5.2	55.0	Dec 16	23.5	0.0	5.1	43.5
Nov 17	14.1	0.0			Dec 17	24.2	0.0	5.7	42.8
Nov 18	17.7	0.0	5.8	54.0	Dec 18	23.7	0.0		
Nov 19	19.0	0.0			Dec 19	20.3	0.0		
Nov 20	19.3	0.0			Dec 20	21.3	0.0		
Nov 21	21.0	0.0			Dec 21	27.4	0.0	5.9	41.5
Nov 22	13.1	0.0			Dec 22	25.0	0.0	6.0	41.5
Nov 23	19.1	0.0			Dec 23	23.8	0.0	6+	41.6
Nov 24	17.6	0.0	6+	51.1	Dec 24	19.9	0.0		
Nov 25	17.9	0.0			Dec 25	23.6	0.0		
Nov 26	14.2	0.0	6+	50.3	Dec 26	19.5	0.0		
Nov 27	14.9	0.0			Dec 27	21.9	0.0		
Nov 28	17.0	0.0			Dec 28	24.3	0.0	5.7	40.9
Nov 29	18.2	0.0			Dec 29	17.6	0.0	5.8	40.7
Nov 30	15.3	0.0	6+	47.9	Dec 30	23.4	0.0	5.8	40.7
					Dec 31	21.0	0.0		
AVG.	18.1	0.0	5.7	55.4	AVG.	22.0	0.0	5.8	43.7

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

TABLE 123

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1970	72,971	59,640	163	2,480	135,254
1971	61,402	70,013	891	2,701	135,007
1972	64,211	63,638	408	799	129,056
1973	70,605	38,820	192	1,157	110,774
1974	26,787	14,784	124	532	42,227
1975	26,960	15,225	173	697	43,055
1976	32,359	20,894	644	733	54,630
1977	49,176	47,388	574	438	97,576
1978	56,069	24,927	168	307	81,471
1979	12,515	21,049	72	390	34,026
1980	10,605	38,627	88	124	49,444
1981	19,086	38,680	200	120	58,086
**					
1991	13,737	96,830	10	1	110,578
1992	26,746	117,698	12	0	144,456
1993	32,384	59,740	16	0	92,140
1994	5,457	45,815	44	0	51,316
1995	5,061	77,744	17	9	82,831
1996	13,538	82,203	1	0	95,742
1997	49,664	74,219	10	59	123,952
1998	19,798	63,753	5	1	83,557
1999	17,235	65,471	16	89	82,811
2000	62,886	101,030	296	313	164,525
2001	214,726	261,132	72	768	476,698
2002	119,429	215,251	38	133	334,851
2003	114,902	176,193	23	865	291,983
2004	100,998	151,406	81	3,042	255,527
2005	46,553	143,537	13	1,992	192,095
2006	44,695	124,440	26	972	170,133
2007	60,398	135,414	37	2,141	197,990
2008	108,953	168,105	594	3,806	281,458
2009	163,562	305,436	1,061	5,239	475,298
2010	189,451	193,891	1,658	2,008	387,008
2011	197,424	175,328	1,436	4,851	379,039
2012	142,119	98,278	453	2,662	243,512
2013	149,442	95,871	996	2,136	248,445
2014	185,367	144,980	2,811	21,468	354,626
2015	202,671	126,271	587	1,986	331,515
Total	2,789,942	3,753,721	14,010	65,019	6,622,692
10-Yr Avg	144,408	156,801	966	4,727	306,902

*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 124

**MONTHLY COUNT OF CHINOOK SALMON
LITTLE GOOSE DAM; 1970-1981, 1991-2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1970				6,765	32,616	15,204	11,200	1,529	4,508	965	178	6	72,971
1971				133	16,012	24,096	14,473	707	5,319	606	55	1	61,402
1972				2,226	37,991	5,585	14,747	1,614	1,445	576	27		64,211
1973				17,490	34,570	10,661	4,344	520	2,472	528	19	1	70,605
1974				136	14,224	4,451	6,213	556	749	449	9		26,787
1975				152	14,161	6,487	4,182	540	1,143	295			26,960
1976				612	17,403	9,470	3,575	302	642	355			32,359
1977				16,973	19,936	6,707	4,181	182	842	355			49,176
1978				8,190	29,195	10,676	6,172	717	621	498			56,069
1979				947	4,436	4,396	1,391	254	802	289			12,515
1980				508	5,250	2,560	1,488	191	368	240			10,605
1981				2,798	9,399	3,214	2,217	108	724	626			19,086
**													
1991				469	4,968	5,066	1,949	85	715	394	91		13,737
1992				8,000	11,108	4,932	1,217	94	959	331	105		26,746
1993				2,032	16,308	10,018	2,425	241	989	317	54		32,384
1994				294	2,307	1,281	282	98	540	610	45		5,457
1995				82	1,117	1,041	481	146	1,179	1,015			5,061
1996				57	4,872	4,695	1,450	280	1,572	612			13,538
1997				519	26,980	16,769	3,007	296	1,302	791			49,664
1998				1,327	6,787	5,655	1,422	207	2,020	2,380			19,798
1999				73	3,990	4,878	1,937	432	3,787	2,138			17,235
2000				7,510	31,034	11,091	2,680	749	5,148	4,674			62,886
2001				96,386	61,247	31,686	6,792	1,082	12,222	4,953	356	2	214,726
2002			1	1,807	60,391	32,782	6,846	1,493	12,631	3,374	96	8	119,429
2003			2	32,082	29,615	26,129	5,838	829	14,048	5,917	433	9	114,902
2004				21,955	34,443	16,941	3,946	473	19,087	3,888	264	1	100,998
2005				599	16,952	11,484	3,638	679	10,362	2,839			46,553
2006				10	14,632	10,859	4,432	1,108	9,228	4,426			44,695
2007				998	21,050	14,741	4,650	1,154	12,109	5,696			60,398
2008				1,294	39,284	35,674	7,926	2,252	18,892	3,631			108,953
2009				173	52,369	43,467	11,800	4,289	44,304	7,160			163,562
2010				14,935	72,430	37,156	9,058	2,761	39,443	13,668			189,451
2011				145	60,525	67,803	21,088	5,064	31,454	11,345			197,424
2012				113	58,343	22,568	6,156	3,227	43,726	7,986			142,119
2013				611	43,290	19,104	8,331	7,440	60,363	10,303			149,442
2014				2,321	74,676	25,209	12,744	3,873	56,194	10,350			185,367
2015				21,188	80,186	23,558	7,211	6,218	51,580	12,730			202,671
Total			3	271,910	1,064,097	588,094	211,489	51,790	473,489	127,310	1,732	28	2,789,942
10-Year Average				3,853	48,522	28,329	8,821	3,460	34,332	8,194			135,512

**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.

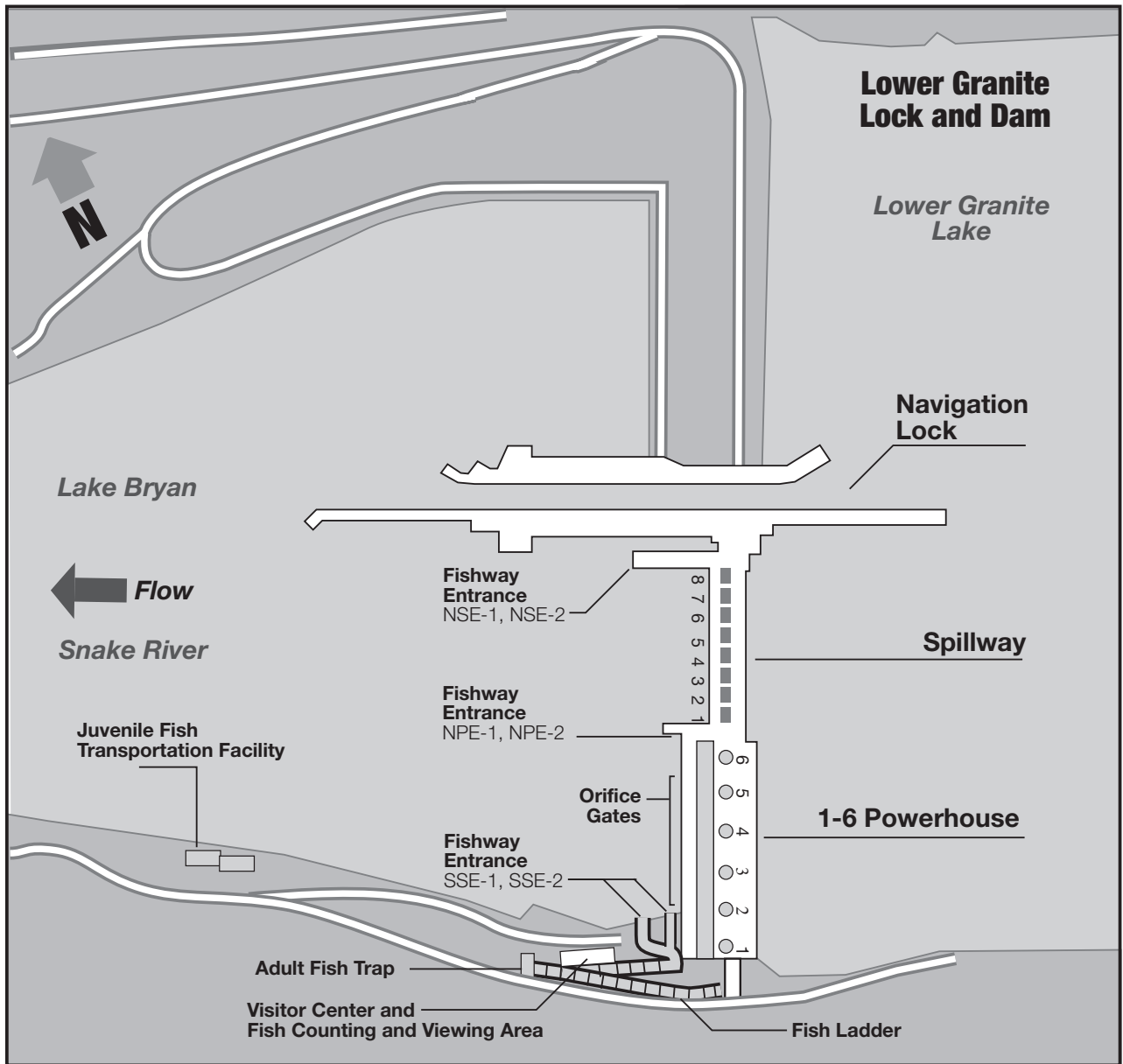
Includes 2003 and 2004 extended season counts for January, February, and March 0800-1600 PST and November and December 0600-1600 PST.

TABLE 125
MONTHLY COUNT OF STEELHEAD
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970			3,346	4,148	1,762	167	1,485	7,487	27,898	11,931	1,136	280	59,640
1971			586	1,968	1,319	85	1,286	3,337	38,988	19,674	2,161	609	70,013
1972	248	251	943	2,565	720	54	1,209	6,637	25,089	24,323	1,258	341	63,638
1973	133	80	1,039	2,051	829	65	1,249	2,856	16,650	12,420	1,129	319	38,820
1974	191	294	543	1,105	278	5	726	2,203	3,970	4,721	583	165	14,784
1975	96	75	70	732	472	16	390	3,433	6,230	3,711			15,225
1976				1,052	345	133	678	3,556	8,988	6,142			20,894
1977				1,340	272	155	1,951	2,738	18,753	22,179			47,388
1978				1,625	216	20	593	2,617	11,547	8,309			24,927
1979				742	222	16	1,614	2,326	5,278	10,851			21,049
1980				3,063	668	43	821	3,858	15,305	14,869			38,627
1981 **				1,360	424	119	1,740	2,024	11,559	21,454			38,680
1991			804	266	99	1,637	559	31,818	53,734	7,913			96,830
1992			472	189	141	997	2,652	54,585	48,870	9,792			117,698
1993			1,569	343	322	3,601	5,891	12,770	32,357	2,887			59,740
1994			771	148	162	1,522	2,239	8,828	25,830	6,315			45,815
1995			1,130	232	107	1,644	5,743	31,493	37,395				77,744
1996			936	99	105	1,489	7,560	40,468	31,546				82,203
1997			1,208	197	92	1,919	6,629	25,883	38,291				74,219
1998			1,924	107	139	1,090	912	12,939	46,642				63,753
1999			841	78	61	1,796	7,444	33,818	21,433				65,471
2000			841	112	384	3,355	5,361	54,244	36,733				101,030
2001			1,818	179	1,505	9,814	17,590	111,452	90,311	20,313	8150		261,132
2002		1,387	3,342	5,873	294	455	5,853	21,066	86,596	83,357	5,483	1545	215,251
2003	310	2,067	6,744	2,001	109	586	4,741	6,701	81,173	65,715	5,020	1026	176,193
2004	106	911	2,702	1,814	87	524	3,133	4,118	83,925	48,491	4,326	1269	151,406
2005			896	128	494	2,528	5,165	62,611	71,715				143,537
2006			2,569	120	129	978	3,547	54,727	62,370				124,440
2007			2,096	205	339	2,062	4,560	63,517	62,635				135,414
2008			2,127	490	179	5,770	15,499	93,240	50,800				168,105
2009			4,839	538	595	5,655	13,821	160,927	119,061				305,436
2010			2,755	369	632	9,165	19,891	103,207	57,872				193,891
2011			5,505	697	151	4,283	29,183	83,281	52,228				175,328
2012			3,416	510	184	1,419	3,031	52,470	37,248				98,278
2013			2,024	184	180	1,773	6,888	41,043	43,779				95,871
2014			1,175	385	534	6,113	7,120	73,440	56,213				144,980
2015			1,308	183	158	948	4,639	66,554	52,481				126,271
Total	1,084	5,065	19,315	72,463	13,776	9,135	97,027	250,881	1,715,264	1,487,691	68,316	13,704	3,753,721
10-Year Average			2,781	368	308	3,817	10,818	79,241	59,469				156,801

** 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 FISHWAY SUMMARY 2015

FISH COUNTING SCHEDULE

1 Jan – 5 Mar	No counting.
5 Mar – 31 Mar	Video counting daily 0600 – 1600 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400 – 2000 hours PST.
15 Jun – 31 Aug	Night video counts for sockeye 2000 – 0400 hours PST.
1 Nov – 31 Dec	Video counting daily 0600 – 1600 hours PST.

FISH LADDER OPERATING SCHEDULE

1 Jan – 4 Jan	Ladder in service
5 Jan – 4 Mar	Ladder dewatered for annual maintenance
5 Mar – 31 Dec	Ladder in service

FISHWAY ACTIVITIES

Fish ladder water temperatures were monitored hourly at the ladder exit, diffuser 14, turn pool, and junction pool from June 2 to October 1. Fish ladder Auxiliary pump 1 was operated June 23 through September 30 in response to increased water temperatures. Temporary cooling pumps were operated from June 25 through September 30 to control fish ladder water temperatures.

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 – March 4. Additionally, fish pump 2 was out of service January 3 through May 27 for lower guide bearing replacement.

Lower Granite adult fish trap was operated March 11 through November 22. Due to high water temperatures, the trap was operated as river conditions permitted for four hours at 100% sample rate between June 19 and August 30. Emergency trapping for Endangered Sockeye occurred from July 13 to Aug 5 and Aug 10 to 18. Emergency trapping of Coho for run reconstruction occurred from September 25 to November 20.

The juvenile fish facility was operated for fish transport/bypass from March 17 to October 31 and for monitoring and bypass of adult fallbacks and juvenile PIT-tagged fish from November 1 to December 2. The juvenile collection gallery and facility were dewatered early for juvenile bypass/collection facility Phase 1 construction.

TABLE 126

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER GRANITE DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			6	13,867	85,575	23,383	7,957	4,817	51,721	14,945	974	14	203,259
STEELHEAD			7,118	1,798	264	113	814	3,323	59,018	58,255	8,150	923	139,776
SOCKEYE					10	65	305	37	15	8			440
COHO*									554	838	293	3	1,688
PINK													0
TOTAL			7,124	15,665	85,849	23,561	9,076	8,177	111,308	74,046	9,417	940	345,163
SHAD					13	42,638	40,779	1,403					84,833
LAMPREY						2	27	26	-3	-2			50
STURGEON													0
BULL TROUT													0

*Jacks included

TABLE 127
DISCHARGE AND WATER DATA
LOWER GRANITE PROJECT 2015

		JANUARY						FEBRUARY			
		DISCH	SPILL	TURBIDITY				DISCH	SPILL	TURBIDITY	
		KCFS	KCFS	SECCHI	DEG F			KCFS	KCFS	SECCHI	DEG F
Jan 1		25.8	0.0			Feb 1		39.7	0.0		
Jan 2		25.7	0.0			Feb 2		38.2	0.0		
Jan 3		24.0	0.0			Feb 3		35.8	0.0		
Jan 4		24.5	0.0			Feb 4		39.6	0.0		
Jan 5		28.2	0.0			Feb 5		38.2	0.0		
Jan 6		26.7	0.0			Feb 6		40.3	0.0		
Jan 7		32.3	0.0			Feb 7		42.4	0.0		
Jan 8		38.0	0.0			Feb 8		47.0	0.0		
Jan 9		38.7	0.0			Feb 9		56.4	0.0		
Jan 10		36.4	0.0			Feb 10		69.1	0.0		
Jan 11		33.4	0.0			Feb 11		88.7	7.2		
Jan 12		32.5	0.0			Feb 12		84.4	0.0		
Jan 13		31.0	0.0			Feb 13		77.5	0.0		
Jan 14		27.6	0.0			Feb 14		69.9	0.0		
Jan 15		31.9	0.0			Feb 15		69.5	0.0		
Jan 16		30.2	0.0			Feb 16		69.3	0.0		
Jan 17		30.4	0.0			Feb 17		66.7	0.0		
Jan 18		30.8	0.0			Feb 18		62.0	0.0		
Jan 19		32.7	0.0			Feb 19		57.4	0.0		
Jan 20		38.8	0.0			Feb 20		52.6	0.0		
Jan 21		43.0	0.0			Feb 21		54.0	0.0		
Jan 22		41.0	0.0			Feb 22		48.6	0.0		
Jan 23		36.1	0.0			Feb 23		48.0	0.0		
Jan 24		33.3	0.0			Feb 24		48.0	0.0		
Jan 25		36.8	0.0			Feb 25		44.7	0.0		
Jan 26		34.3	0.0			Feb 26		37.6	0.0		
Jan 27		37.4	0.0			Feb 27		43.5	0.0		
Jan 28		36.0	0.0			Feb 28		39.0	0.0		
Jan 29		38.6	0.0								
Jan 30		41.5	0.0								
Jan 31		37.5	0.0								
AVG.		33.4	0.0			AVG.		53.9	0.3		

TABLE 128
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS													MARCH 2015				
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													40.1	0.0			
Mar 2													37.9	0.0			
Mar 3													36.1	0.0			
Mar 4													33.2	0.0			
Mar 5	0							207	38				38.1	0.0	3.4	43.8	
Mar 6	0							169	47				30.1	0.0			
Mar 7	0							139	39				31.1	0.0			
Mar 8	0							108	44				26.4	0.0			
Mar 9	0							42	10				26.7	0.0			
Mar 10	0							51	18				25.3	0.0	4.2	43.3	
Mar 11	0							40	15				28.0	0.0	3.9	43.9	
Mar 12	0							133	49				29.0	0.0	4.4	44.1	
Mar 13	0							240	78				29.7	0.0			
Mar 14	0							761	245				25.6	0.0			
Mar 15	0							887	362				29.5	0.0			
Mar 16	0							295	120				30.2	0.0			
Mar 17	0							255	95				41.5	0.0		48.9	
Mar 18	0							326	141				46.9	0.0	4.0	48.9	
Mar 19	0							216	94				49.4	0.0	4.1	48.9	
Mar 20	0							549	249				53.7	0.0	2.4	47.8	
Mar 21	0							598	286				52.7	0.0			
Mar 22	0							251	135				48.5	0.0	4.0	48.0	
Mar 23	1							223	131				47.8	0.0	2.9	48.0	
Mar 24	0							213	110				47.1	0.0			
Mar 25	0							156	85				47.4	0.0			
Mar 26	1							165	77				56.2	0.0	3.4		
Mar 27	2							330	165				63.8	0.0	2.3	48.0	
Mar 28	1							237	119				59.8	0.0	1.9	47.5	
Mar 29	0							203	115				59.6	0.0	1.7	47.0	
Mar 30	-1							112	62				63.1	0.0	3.8	48.0	
Mar 31	2							212	128				64.8	0.0	4.1		
TOTAL	6							7,118	3,057								
AVG.								264	113				41.9	0.0	3.4	46.9	

Note: Video counting began on March 5. The counts are 16-hour counts and occurred between 0400-2000 PST.

TABLE 129
MONTHLY FISH PASSAGE SUMMARY REPORT
U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

APRIL 2015

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				144	73				59.6	0.0	4.0		
Apr 2	0			0				101	47				61.5	0.0	4.4		
Apr 3	1			0				172	90				69.3	0.0	3.5	48.0	
Apr 4	5			0				183	106				59.5	20.2	3.7	48.0	
Apr 5	0			0				92	54				56.2	20.2	4.4	48.0	
Apr 6	1			0				99	52				54.2	20.1	4.8	47.5	
Apr 7	5			0				55	38				50.7	20.2	4.2		
Apr 8	8			0				76	53				50.3	20.2	4.8		
Apr 9	1			0				65	36				48.2	20.2	4.5	48.0	
Apr 10	12			0				61	31				46.1	20.2	3.6	48.0	
Apr 11	10			0				80	48				46.6	20.2	4.4	48.0	
Apr 12	7			0				61	43				45.0	20.1	4.2		
Apr 13	4			0				46	26				45.0	20.2	4.5	48.5	
Apr 14	2			0				45	34				42.8	20.2	4.8		
Apr 15	8			0				28	20				43.4	20.3			
Apr 16	7			0				33	22				43.6	20.2	5.0		
Apr 17	37			0				24	14				41.2	20.2	4.1	49.5	
Apr 18	74			0				24	16				43.0	20.2	5.0	50.0	
Apr 19	62			1				40	28				45.2	20.2	5.0	50.0	
Apr 20	55			0				36	26				43.2	20.2	5.0		
Apr 21	139			4				35	22				47.1	20.2	5.0		
Apr 22	197			6				30	20				47.3	20.3	5.0		
Apr 23	263			2				35	25				50.7	20.3	4.6		
Apr 24	398			6				26	19				56.1	20.4	4.6	52.1	
Apr 25	754			5				37	29				53.7	20.3	5.0	52.4	
Apr 26	1,499			17				36	24				56.2	20.4	5.0	52.0	
Apr 27	1,517			13				24	17				53.8	20.3	5.0	52.1	
Apr 28	2,248			20				43	30				50.2	20.3	5.0		
Apr 29	3,180			43				32	26				50.0	20.3	4.7		
Apr 30	3,226			30				35	16				47.7	20.3	5.0		
TOTAL	13,720			147				1,798	1,085								
AVG.	457			5				60	36				50.2	18.2	4.6	49.5	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	13,726	147

STEELHEAD	unclipped STEELHEAD
8,916	4,142

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

TABLE 130

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

LOWER GRANITE PROJECT - FISH COUNTS

MAY 2015

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	3,312			31			0	30	17	0			51.0	20.4	4.6	52.0
May 2	3,318			37			0	25	18	0			52.6	20.2	5.0	52.5
May 3	3,920			38			0	12	8	0			53.7	20.1	5.0	53.0
May 4	2,824			32			0	17	13	0			54.6	20.0	5.0	
May 5	3,671			35			0	27	23	0			55.9	20.3	5.0	
May 6	5,952			68			0	20	18	0			62.8	20.3	4.5	
May 7	7,502			95			0	16	10	0			67.2	20.3	5.0	51.0
May 8	6,287			131			0	9	7	0			65.7	20.2	5.0	
May 9	5,323			168			0	12	7	0			65.0	20.3	5.0	54.0
May 10	3,162			144			0	16	12	0			57.2	20.2	5.0	54.5
May 11	3,910			184			0	8	8	0			53.0	20.2	5.0	54.5
May 12	2,310			137			0	9	8	0			51.2	20.2	5.0	
May 13	2,551			95			0	5	4	0			52.9	20.2	5.0	
May 14	3,106			127			0	4	2	0			51.4	20.4	5.0	
May 15	2,754			139			0	7	6	0			57.8	20.3	4.5	55.0
May 16	3,085			259			0	5	4	0			56.3	20.2	5.0	55.5
May 17	2,074			236			0	4	4	0			59.9	20.3	5.0	56.0
May 18	1,457			254			0	1	1	0			71.5	20.3	5.0	
May 19	1,256			296			0	9	7	0			71.3	20.5	4.7	
May 20	1,097			221			0	5	4	0			63.4	20.5	5.0	
May 21	1,115			175			0	2	1	0			64.3	20.4	5.0	
May 22	1,344			215			0	6	6	0			64.5	20.4	4.5	58.0
May 23	1,182			242			0	4	4	0			64.3	20.3	4.7	58.0
May 24	1,154			230			0	1	1	1			64.3	20.4	5.0	59.0
May 25	956			217			0	1	1	0			67.7	20.5	5.0	59.0
May 26	938			259			4	1	1	2			66.1	20.4	4.5	
May 27	820			262			4	2	2	6			64.0	20.3	3.0	
May 28	685			229			1	0	0	2			64.2	20.4	3.3	
May 29	1,098			413			0	1	1	0			67.1	20.3	4.0	
May 30	1,136			340			0	4	4	0			63.6	20.4	4.1	
May 31	739			228			1	1	1	2			60.3	20.5	3.8	60.0
TOTAL	80,038			5,537			10	264	203	13						
AVG.	2582			179			0	9	7	0			60.8	20.3	4.7	55.5
RUN YEAR		CHINOOK ADULT	CHINOOK JACK						unclipped STEELHEAD	SHAD						
TOTALS TO DATE																
SPRING		93,764	5,684				10	9,180	4,345	13						

TABLE 131
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JUNE 2015

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	548			127			0	2	1	2	0		61.0	20.3	4.6	60.5
Jun 2	779			164			0	0	0	1	0		63.1	20.3	5.0	60.5
Jun 3	815			190			0	4	0	1	0		63.4	20.4	5.0	60.7
Jun 4	907			235			0	-1	-1	8	0		65.7	20.4	4.0	
Jun 5	1,036			311			0	2	2	1	0		65.9	20.2	1.6	
Jun 6	854			258			2	3	1	13	0		55.8	20.1	1.6	
Jun 7	488			132			0	0	0	13	0		50.8	20.3	1.6	61.0
Jun 8	677			192			1	2	0	102	0		52.1	20.2	2.5	
Jun 9	668			108			0	1	1	112	0		53.5	20.2	4.3	63.0
Jun 10	638			133			0	2	1	96	0		54.2	20.2	4.5	65.0
Jun 11	857			148			0	2	0	85	0		48.9	20.1	4.2	
Jun 12	738			150			0	7	5	78	0		46.7	20.3	4.4	66.0
Jun 13	526			131			0	4	0	412	0		44.3	20.2	4.6	67.0
Jun 14	430			104			0	4	0	1,394	0		43.6	20.3	4.8	68.0
Jun 15	400			92			0	3	1	1,304	0		38.3	20.5	4.8	68.0
Jun 16	290			92			1	2	0	1,624	0		34.4	20.4	5.0	66.5
Jun 17	458			128			1	0	0	1,291	0		35.4	20.6	5.0	66.0
Jun 18		548		144			2	2	1	1,718	0		33.3	20.6	4.8	
Jun 19		847		192			0	8	2	2,111	0		34.4	20.4	5.0	66.5
Jun 20		806		229			0	5	1	2,008	0		33.1	20.4	5.0	67.0
Jun 21		683		133			4	9	4	1,196	0		33.2	20.3	5.0	67.0
Jun 22		364		86			2	9	5	1,906	0		30.9	18.3	5.0	
Jun 23		416		132			4	4	2	1,908	1		30.7	17.7	5.0	66.0
Jun 24		619		157			1	11	1	2,395	0		30.2	17.4	5.0	66.2
Jun 25		1200		296			8	6	1	3,156	0		31.9	18.1	5.0	
Jun 26		547		188			6	10	4	3,599	0		31.2	18.2	5.0	67.0
Jun 27		498		148			6	2	1	4,303	1		30.9	18.2	5.0	68.0
Jun 28		352		68			10	-1	0	6,126	0		32.9	18.1	5.0	67.5
Jun 29		318		80			5	6	1	2,776	0		36.5	18.1	4.6	68.0
Jun 30		397		131			12	5	0	2,899	0		34.2	18.0	4.4	64.1
TOTAL	11,109	7,595		4,679			65	113	34	42,638	2					
AVG.	653	584		156			2	4	1	1421	0		43.4	19.6	4.4	65.4
RUN YEAR																
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY					
SPRING		104,873	8,379				75	9,293	4,379	42,651	2					
SUMMER		7,595	1,984													
TOTAL		112,468	10,363													

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

LOWER GRANITE PROJECT - FISH COUNTS

JULY 2015

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	SHAD						LAMPREY	SECCHI
Jul 1		479		158			14	7	5	1,816	0		30.8	18.0	5.0	64.2	
Jul 2		464		164			20	11	4	2,231	0		30.9	18.2	5.0		
Jul 3		205		53			25	6	2	1,445	0		28.4	15.8	5.0	65.5	
Jul 4		89		37			5	9	5	1,658	2		24.7	12.1	4.8	67.0	
Jul 5		193		50			8	6	4	1,954	0		22.8	10.1	5.0	66.0	
Jul 6		108		31			7	6	4	1,445	0		22.9	10.1	5.0	66.0	
Jul 7		55		48			2	5	0	1,001	0		24.7	11.9	5.0	66.1	
Jul 8		121		84			12	7	6	2,172	1		24.9	12.0	5.0	66.7	
Jul 9		240		131			17	1	1	3,308	0		27.5	14.5	5.0		
Jul 10		205		59			8	8	6	1,732	1		28.1	15.1	5.0	67.0	
Jul 11		188		71			5	8	6	1,093	1		32.0	18.0	5.0	68.0	
Jul 12		208		52			6	9	7	2,353	2		30.5	17.5	5.0	68.5	
Jul 13		202		85			13	13	11	2,837	0		30.0	17.0	5.0		
Jul 14		176		48			17	21	17	3,973	1		33.4	16.4	5.0	68.4	
Jul 15		271		71			19	19	14	1,920	1		26.9	8.1	4.5	67.6	
Jul 16		520		121			25	35	18	1,133	2		25.5	6.8	4.8		
Jul 17		226		47			13	44	30	743	1		26.7	8.1	4.7		
Jul 18		73		18			2	19	11	752	0		30.3	11.8	5.0	68.0	
Jul 19		67		17			2	20	14	790	0		31.0	12.3	5.0		
Jul 20		52		22			8	19	11	736	1		31.0	12.5	5.0		
Jul 21		391		73			18	47	34	824	4		29.3	10.5	5.0	68.0	
Jul 22		373		85			8	44	32	536	-1		29.9	11.2	5.0	67.1	
Jul 23		175		67			10	39	25	706	1		32.4	13.8	5.0		
Jul 24		181		50			8	42	31	540	2		31.2	12.5	4.9		
Jul 25		244		56			10	82	59	311	1		30.5	11.7	5.0		
Jul 26		215		70			6	87	62	566	1		27.3	8.6	5.0	67.0	
Jul 27		62		32			5	41	31	318	1		25.7	7.0	5.0		
Jul 28		56		28			7	41	29	614	2		28.8	10.0	5.0	68.0	
Jul 29		89		47			2	41	28	377	1		27.5	8.9	5.0	68.2	
Jul 30		29		7			2	35	24	428	1		29.8	11.3	5.0		
Jul 31		101		17			1	42	26	467	1		28.5	9.9	5.0		
TOTAL		6,058		1,899			305	814	557	40,779	27						
AVG.		195		61			10	26	18	1315	1		28.5	12.3	5.0	67.1	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	104,873	8,379
SUMMER	13,653	3,883
TOTAL	118,526	12,262

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
380	10,107	4,936	83,430	29

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

LOWER GRANITE PROJECT - FISH COUNTS

AUGUST 2015

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	FALL													
Aug 1		37		12			0	21	13	211	0		31.3	12.8	5.0	67.8
Aug 2		19		11			0	16	14	125	1		31.2	12.5	5.0	67.0
Aug 3		35		13			0	22	14	140	0		31.7	13.1	5.0	66.0
Aug 4		88		19			0	27	17	155	1		30.9	15.1	5.0	
Aug 5		54		24			0	18	14	71	0		25.7	12.9	4.8	64.0
Aug 6		79		22			6	42	30	79	2		26.4	13.8	4.8	
Aug 7		35		29			0	39	32	154	0		24.9	12.1	5.0	
Aug 8		95		32			7	59	41	180	1		23.0	10.2	5.0	66.2
Aug 9		78		28			7	43	29	73	1		19.6	6.6	5.0	66.0
Aug 10		48		16			1	54	34	5	0		20.1	7.1	5.0	66.0
Aug 11		43		11			1	42	28	17	0		18.7	9.6	5.0	
Aug 12		46		13			1	44	26	12	1		18.1	8.9	5.0	66.7
Aug 13		53		13			0	24	10	8	1		20.7	11.5	4.8	
Aug 14		120		17			1	44	20	88	0		22.3	13.2	5.0	
Aug 15		143		25			1	89	55	30	5		21.1	8.5	5.0	
Aug 16		199		24			1	177	103	14	0		24.7	11.6	5.0	66.5
Aug 17		133		30			0	129	67	11	0		20.1	7.1	5.0	67.8
Aug 18			175	16			2	128	61	6	0		19.5	6.2	5.0	
Aug 19			131	10			1	128	64	4	1		19.3	6.4	5.0	67.0
Aug 20			103	11			0	175	84	0	5		19.3	6.4	5.0	66.0
Aug 21			235	20			0	261	152	4	1		19.5	6.4	5.0	
Aug 22			155	22			1	273	149	7	0		18.8	5.8	5.0	68.5
Aug 23			319	28			2	204	112	-2	1		17.6	4.8	4.5	
Aug 24			162	14			0	117	68	5	0		18.5	5.8	4.1	67.0
Aug 25			274	23			1	248	108	0	1		21.1	8.2	4.7	
Aug 26			208	28			0	153	79	1	0		16.6	4.0	5.1	67.4
Aug 27			115	24			0	129	50	0	2		17.1	3.9	4.9	67.0
Aug 28			78	19			2	132	53	-1	0		19.4	6.8	5.0	66.0
Aug 29			172	30			0	129	55	0	2		20.4	7.8	4.8	66.0
Aug 30			284	48			1	141	68	6	0		19.3	6.7	5.0	64.0
Aug 31			416	53			1	215	102	0	0		18.9	6.3	5.0	
TOTAL		1,305	2,827	685			37	3,323	1,752	1,403	26					
AVG		77	202	22			1	107	57	45	1		21.8	8.8	4.9	66.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
	104,873	8,379			6,688		
SPRING	104,873	8,379	417	13,430	6,688	84,833	55
SUMMER	14,958	4,222					
FALL	2,827	346					
TOTAL	122,658	12,947					

TABLE 134
 MONTHLY FISH PASSAGE SUMMARY REPORT
 U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL	unclipped	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		SOCKEYE							
Sep 1			366	72	0	0	343	143		0		19.0	6.3	5.0	64.2
Sep 2			814	145	0	0	522	220		0		18.8	0.0	5.0	
Sep 3			818	157	-1	0	896	354		0		17.1	0.0	5.0	
Sep 4			667	78	0	0	741	262		0		16.0	0.0	5.0	
Sep 5			600	110	0	0	496	198		0		18.3	0.0	5.0	65.0
Sep 6			1,040	132	0	0	836	265		0		21.4	0.0	5.0	
Sep 7			800	112	0	0	762	268		0		23.9	0.0	5.0	66.0
Sep 8			1,223	191	1	0	752	259		0		18.1	0.0	5.0	
Sep 9			1,310	175	4	0	687	215		-1		21.4	0.0	5.0	64.0
Sep 10			762	113	0	0	548	151		0		22.1	0.0	5.0	
Sep 11			1,834	254	1	0	718	250		0		18.0	0.0	5.0	
Sep 12			2,364	318	2	0	1,000	322		0		20.5	0.0	4.8	63.8
Sep 13			1,343	178	0	0	848	235		0		19.9	0.0	4.8	
Sep 14			2,239	296	2	0	2,354	360		-1		16.6	0.0	5.0	
Sep 15			1,999	227	4	1	1,871	479		0		22.1	0.0	5.0	64.0
Sep 16			1,678	277	0	0	2,318	588		-1		21.8	0.0	5.0	64.0
Sep 17			1,517	210	6	0	1,480	371		0		23.0	0.0	5.0	
Sep 18			2,878	338	10	0	2,712	677		0		17.9	0.0	5.0	
Sep 19			3,089	382	11	4	2,985	728		0		22.5	0.0	5.0	65.0
Sep 20			2,513	350	23	0	2,979	728		0		19.2	0.0	5.0	
Sep 21			2,826	431	40	2	5,352	1,148		0		17.2	0.0	5.0	
Sep 22			2,017	263	32	2	5,639	1,343		0		19.5	0.0	5.0	63.7
Sep 23			1,283	204	14	0	2,121	460		0		19.1	0.0	5.0	63.8
Sep 24			1,535	272	35	1	2,940	614		0		19.2	0.0	5.0	65.0
Sep 25			1,848	283	52	4	3,333	706		0		19.7	0.0	5.0	
Sep 26			1,361	266	79	4	3,170	668		0		16.3	0.0	5.0	65.5
Sep 27			1,500	308	73	8	3,837	838		0		16.8	0.0	5.0	
Sep 28			878	176	58	2	2,668	594		0		18.1	0.0	5.0	
Sep 29			995	193	42	2	3,041	714		0		18.2	0.0	5.0	
Sep 30			943	170	36	0	2,069	468		0		17.6	0.0	5.0	64.4
TOTAL			45,040	6,681	524	30	59,018	14,626		-3					
AVG.			1,501	223	17	1	1,967	488		0		19.3	0.2	5.0	64.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	104,873	8,379
SUMMER	14,958	4,222
FALL	47,867	7,027
TOTAL	167,698	19,628

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
524	30	432	72,448	21,314	84,833	52

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

LOWER GRANITE PROJECT - FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT			CHINOOK ADULT	COHO JACK	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			1,310	292	38	4	1	2,886	2,218		0		16.1	0.0	5.0	64.4
Oct 2			1,003	257	26	2	0	3,125	2,399		0		16.5	0.0	5.0	
Oct 3			1,525	490	49	7	2	5,305	4,014		0		14.6	0.0	5.0	64.5
Oct 4			569	186	32	6	0	3,018	2,284		0		13.8	0.0	5.0	
Oct 5			640	220	40	1	0	2,615	2,002		0		15.3	0.0	5.0	
Oct 6			596	242	38	11	0	2,718	2,131		0		16.5	0.0	4.5	
Oct 7			389	196	26	2	0	2,006	1,594		0		16.0	0.0	4.8	63.8
Oct 8			354	140	44	7	0	1,864	1,475		0		18.3	0.0	5.0	64.0
Oct 9			419	134	24	4	1	2,335	1,765		-1		19.8	0.0	5.0	
Oct 10			301	136	25	1	1	1,934	1,492		0		18.1	0.0	5.0	64.0
Oct 11			386	173	47	5	1	2,649	1,976		0		15.2	0.0	5.0	
Oct 12			251	108	18	2	0	1,682	1,267		0		16.4	0.0	5.0	
Oct 13			254	122	24	1	1	2,050	1,528		0		15.7	0.0	5.0	
Oct 14			294	146	19	4	0	2,257	1,717		0		15.0	0.0	5.0	62.7
Oct 15			238	116	16	1	0	1,854	1,384		0		22.5	0.0	5.0	64.0
Oct 16			194	116	25	11	0	1,524	1,200		0		14.4	0.0	5.0	
Oct 17			211	83	18	28	0	1,442	1,064		-1		14.6	0.0	5.0	64.0
Oct 18			197	80	17	10	0	1,449	1,061		0		15.1	0.0	5.0	
Oct 19			176	89	18	7	0	1,246	884		0		12.9	0.0	5.0	
Oct 20			196	125	19	11	0	2,097	1,480		0		13.9	0.0	5.0	63.5
Oct 21			152	86	14	2	0	1,563	1,078		0		18.3	0.0	5.0	62.0
Oct 22			121	70	23	14	0	1,186	852		0		17.0	0.0	5.0	
Oct 23			137	91	18	8	0	1,816	1,247		0		16.1	0.1	5.0	
Oct 24			127	70	5	0	0	1,230	868		0		17.4	0.0	5.0	62.0
Oct 25			103	46	2	6	0	977	641		0		18.1	0.0	5.0	
Oct 26			134	66	6	1	0	1,112	748		0		16.8	0.0	5.0	
Oct 27			82	41	7	1	0	872	628		0		17.2	0.0	5.0	60.0
Oct 28			131	54	5	2	0	1,012	731		0		18.4	0.0	5.0	59.8
Oct 29			97	68	8	0	0	643	455		0		17.3	0.0	5.0	
Oct 30			125	55	11	6	1	832	608		0		14.0	0.0	5.0	
Oct 31			83	52	6	5	0	956	640		0		16.6	0.0	5.0	58.1
TOTAL			10,795	4,150	668	170	8	58,255	43,431		-2					
AVG.			348	134	22	5	0	1,879	1,401		0		16.4	0.0	5.0	62.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
TOTALS TO DATE										
SPRING	104,873	8,379	1,192	200	440	130,703	64,745	84,833	50	0
SUMMER	14,958	4,222								
FALL	58,662	11,177								
TOTAL	178,493	23,778								

Note: Visual counts ended October 31.

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

LOWER GRANITE PROJECT - FISH COUNTS

NOVEMBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL		unclipped	BULL		DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY				
Nov 1			40	50	3	0		614	423			16.6	0.0	5.0	
Nov 2			68	54	13	1		546	381			18.7	0.0	5.0	
Nov 3			60	34	13	3		450	297			25.9	0.0	5.0	58.0
Nov 4			33	25	14	0		363	265			22.4	0.0	5.0	57.0
Nov 5			46	26	21	0		365	255			20.9	0.0	5.0	
Nov 6			23	26	11	0		280	200			20.8	0.0	5.0	56.2
Nov 7			39	27	18	4		433	307			20.6	0.0	5.0	
Nov 8			34	15	15	0		382	269			19.3	0.0	5.0	
Nov 9			22	14	9	0		88	62			13.8	0.0		
Nov 10			32	7	6	1		228	167			20.9	0.0		
Nov 11			42	17	25	4		319	215			18.2	0.0		
Nov 12			19	9	18	6		425	280			19.5	0.0		
Nov 13			18	14	15	5		359	231			20.0	0.0		
Nov 14			43	12	4	0		398	251			15.4	0.0		
Nov 15			25	8	5	1		342	218			23.9	0.0		
Nov 16			13	6	15	2		311	184			17.6	0.0	5.0	52.0
Nov 17			7	0	9	3		257	153			18.4	0.0	5.0	51.0
Nov 18			9	0	8	2		362	233			15.0	0.0		
Nov 19			5	1	5	3		353	203			18.8	0.0	5.0	51.0
Nov 20			10	1	2	0		170	94			19.5	0.0		
Nov 21			11	1	2	0		262	157			19.6	0.0		
Nov 22			3	0	1	1		175	106			21.3	0.0		
Nov 23			1	1	4	0		139	77			15.3	0.0		
Nov 24			1	0	3	1		49	28			18.6	0.0	5.0	48.0
Nov 25			2	0	2	0		99	53			17.6	0.0	4.0	50.0
Nov 26			7	0	9	0		135	93			19.3	0.0		
Nov 27			6	0	3	1		128	71			15.7	0.0		
Nov 28			3	0	2	0		78	44			15.2	0.0		
Nov 29			4	0	-1	1		28	20			18.1	0.0		
Nov 30			0	0	0	0		12	11			18.2	0.0	5.0	47.0
TOTAL			626	348	254	39		8,150	5,348						
AVG.			21	12	8	1		272	178			18.8	0.0	4.9	52.2

RUN YEAR TOTALS TO DATE	CHINOOK	CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	unclipped	SHAD	LAMPREY	BULL
	ADULT	JACK	ADULT	JACK			STEELHEAD			TROUT
SPRING	104,873	8,379	1,446	239	440	138,853	70,093	84,833	50	0
SUMMER	14,958	4,222								
FALL	59,288	11,525								
TOTAL	179,119	24,126								

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

TABLE 137

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

LOWER GRANITE PROJECT - FISH COUNTS

DECEMBER 2015

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			3	0	0	0	7	7				14.6	0.0	5.0	47.0	
Dec 2			1	0	0	0	16	11				13.5	0.0			
Dec 3			1	0	0	0	17	14				14.1	0.0	5.0	51.0	
Dec 4			1	0	0	0	12	10				12.7	0.0			
Dec 5			0	0	1	0	27	16				15.5	0.0			
Dec 6			0	2	0	0	75	46				18.6	0.0			
Dec 7			1	0	0	0	42	23				18.8	0.0	5.0	43.0	
Dec 8			2	0	1	0	13	9				18.1	0.0	5.0	43.0	
Dec 9			0	0	0	0	11	7				22.5	0.0	4.8	42.0	
Dec 10			0	0	0	0	21	14				28.3	0.0	4.6	42.0	
Dec 11			0	0	0	0	21	13				28.6	0.0			
Dec 12			1	0	0	0	33	21				33.0	0.0			
Dec 13			0	0	1	0	92	53				31.9	0.0			
Dec 14			1	0	0	0	91	56				23.2	0.0	3.4	42.0	
Dec 15			0	0	0	0	52	26				28.6	0.0	3.6	42.0	
Dec 16			0	0	0	0	26	18				28.7	0.0	3.2	41.5	
Dec 17			1	0	0	0	30	24				24.7	0.0	3.2	41.5	
Dec 18			0	0	0	0	53	33				24.0	0.0			
Dec 19			0	0	0	0	22	10				24.5	0.0			
Dec 20			0	0	0	0	32	22				21.9	0.0			
Dec 21			0	0	0	0	24	19				22.6	0.0	4.4	41.5	
Dec 22			0	0	0	0	20	15				28.0	0.0	4.7	41.0	
Dec 23			0	0	0	0	21	10				25.5	0.0	4.5	40.0	
Dec 24			0	0	0	0	30	18				23.9	0.0			
Dec 25			0	0	0	0	31	24				22.5	0.0			
Dec 26			0	0	0	0	13	7				23.5	0.0			
Dec 27			0	0	0	0	25	14				21.9	0.0			
Dec 28			0	0	0	0	30	22				21.9	0.0	4.7	40.0	
Dec 29			0	0	0	0	12	11				24.8	0.0	5.0	40.0	
Dec 30			0	0	0	0	10	7				19.6	0.0	5.0	40.0	
Dec 31			0	0	0	0	14	11				23.7	0.0			
TOTAL			12	2	3	0	923	591								

AVG.	0	0	0	0	30	19	22.7	0.0	4.4	42.3
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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	104,873	8,379	1,449	239	440	139,383	70,419	84,833	50	0
SUMMER	14,958	4,222								
FALL	59,299	11,527								
TOTAL	179,130	24,128								

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

TABLE 138

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

Jun-15

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											
Jun 15	-6			3			0	0	0		0
Jun 16	47			6			0	0	0		1
Jun 17	9			1			0	0	0		0
Jun 18		17		1			0	1	1		3
Jun 19		213		64			0	0	0		5
Jun 20		47		4			0	1	0		1
Jun 21		30		9			1	0	0		1
Jun 22		27		1			0	0	0		2
Jun 23		62		19			1	0	0		0
Jun 24		102		25			2	0	0		1
Jun 25		66		19			1	1	1		2
Jun 26		8		4			2	0	0		1
Jun 27		12		6			0	0	0		5
Jun 28		3		3			0	0	0		2
Jun 29		24		3			0	1	1		8
Jun 30		19		9			2	0	0		2
TOTAL	50	630		177			9	4	3		34
AVG.	17	48		11			1	0	0		2

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

TABLE 139

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

Jul-15

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Jul 1		21		15			8	1	1		3
Jul 2		9		8			3	2	0		7
Jul 3		12		4			0	1	1		4
Jul 4		0		1			1	0	0		11
Jul 5		6		3			3	0	0		4
Jul 6		0		2			1	0	0		8
Jul 7		-3		-2			1	0	0		7
Jul 8		1		1			0	-2	0		5
Jul 9		0		-1			1	1	1		4
Jul 10		-4		1			0	0	0		18
Jul 11		-2		-1			0	0	0		19
Jul 12		5		0			0	-1	-1		14
Jul 13		4		-2			0	1	1		9
Jul 14		7		0			-3	0	0		25
Jul 15		2		-1			0	1	1		11
Jul 16		7		3			1	1	1		10
Jul 17		8		-2			0	1	1		10
Jul 18		0		0			2	-1	-1		19
Jul 19		-1		1			0	0	0		38
Jul 20		-1		0			1	0	0		33
Jul 21		28		6			0	3	3		33
Jul 22		9		3			1	0	0		21
Jul 23		-1		0			1	1	1		15
Jul 24		2		-1			0	0	0		28
Jul 25		-2		0			0	0	0		11
Jul 26		1		1			0	1	1		27
Jul 27		1		2			0	0	0		17
Jul 28		2		0			1	-1	-1		17
Jul 29		1		0			0	1	1		16
Jul 30		-3		0			0	-1	-1		13
Jul 31		-1		-1			1	0	0		6
TOTAL		108		40			23	9	9		463
AVG.		3		1			1	0	0		15

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

TABLE 140

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

Aug-15

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Aug 1		-1		-2			0	0	0		6
Aug 2		1		0			0	-2	-2		7
Aug 3		0		0			0	-1	-1		10
Aug 4		0		0			0	2	2		11
Aug 5		1		1			0	1	0		10
Aug 6		4		0			0	0	0		13
Aug 7		-2		0			0	1	1		9
Aug 8		0		0			0	0	0		10
Aug 9		-3		0			0	1	1		6
Aug 10		0		0			0	0	0		9
Aug 11		-1		-1			0	-1	0		3
Aug 12		-3		0			0	1	1		4
Aug 13		-1		0			0	1	0		6
Aug 14		1		-1			0	-1	0		9
Aug 15		-2		0			0	1	1		16
Aug 16		-7		-1			0	-2	-2		6
Aug 17		-9		-2			0	1	2		3
Aug 18			-9	-1			0	-2	-1		12
Aug 19			-6	-1			1	1	1		12
Aug 20			-6	0			0	3	3		11
Aug 21			-2	0			0	0	1		16
Aug 22			2	0			0	1	1		26
Aug 23			1	0			-1	0	0		6
Aug 24			2	0			0	1	1		4
Aug 25			1	-1			0	3	3		13
Aug 26			-1	0			0	1	1		7
Aug 27			1	1			0	0	-3		6
Aug 28			-5	0			0	2	2		5
Aug 29			-3	0			0	1	0		5
Aug 30			4	0			0	3	2		5
Aug 31			0	0			0	3	-1		8
TOTAL		-22	-21	-8			0	19	13		274
AVG		-1	-2	0			0	1	0		9

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

TABLE 141

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - NIGHT FISH COUNTS

Sep-15

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	TOTAL			SHAD	LAMPREY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD		
Sep 1			-1	0	0	0	0	7	5		14
Sep 2			-1	0	0	0	0	19	7		2
Sep 3			2	-1	0	0	0	8	6		2
Sep 4			-3	1	0	0	0	2	4		2
Sep 5			3	-1	0	0	1	13	9		3
Sep 6			2	-1	0	0	0	18	7		6
Sep 7			1	1	0	0	0	17	9		8
Sep 8			1	-2	0	0	0	14	6		2
Sep 9			-2	2	0	0	1	23	10		2
Sep 10			0	0	0	0	0	14	5		1
Sep 11			4	0	0	0	1	11	3		3
Sep 12			-1	0	0	0	0	14	4		2
Sep 13			-2	0	0	0	0	13	6		0
Sep 14			3	0	0	0	0	7	1		0
Sep 15			-1	0	0	0	0	37	14		2
Sep 16			2	1	0	0	0	16	6		2
Sep 17			3	0	0	0	1	77	27		4
Sep 18			0	0	0	0	0	96	35		0
Sep 19			0	3	0	0	0	74	22		1
Sep 20			0	1	0	0	0	130	40		1
Sep 21			2	2	1	0	1	162	45		-2
Sep 22			0	0	0	0	1	49	13		-1
Sep 23			2	3	1	0	0	76	20		0
Sep 24			9	11	0	0	0	139	53		1
Sep 25			4	7	0	0	0	138	35		0
Sep 26			1	0	1	0	0	48	9		0
Sep 27			5	0	1	0	0	87	21		1
Sep 28			14	11	4	1	1	203	50		1
Sep 29			16	7	2	1	0	107	24		1
Sep 30			17	6	2	0	0	106	29		2
TOTAL			80	51	12	2	7	1,725	525		60
AVG.			3	2	0	0	0	58	18		2

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

TABLE 142

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER GRANITE DAM
1975 - 2015

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1975	28,460	17,311	209	921	46,901
1976	31,667	23,017	531	900	56,115
1977	49,123	53,037	458	268	102,886
1978	54,246	30,068	123	152	84,589
1979	12,548	25,046	25	158	37,777
1980	10,986	40,454	96	43	51,579
1981	19,198	40,234	218	17	59,667
1982	19,476	72,840	211	59	92,586
1983	16,200	86,234	122	51	102,607
1984	16,517	98,923	49	0	115,489
1985	36,567	118,463	35	2	155,067
1986	43,023	134,519	15	1	177,558
1987	37,677	70,151	29	0	107,857
1988	37,882	87,040	23	0	124,945
1989	19,557	132,579	2	0	152,138
1990	23,345	56,859	0	0	80,204
1991	13,618	100,381	8	0	114,007
1992	26,193	121,459	15	0	147,667
1993	30,446	66,699	12	0	97,157
1994	5,077	47,550	5	0	52,632
1995	3,702	80,853	3	0	84,558
1996	11,129	86,072	3	0	97,204
1997	46,727	85,917	11	92	132,747
1998	18,557	72,017	2	12	90,588
1999	15,884	74,370	14	262	90,530
2000	62,659	113,211	299	925	177,094
2001	210,381	262,568	36	1,087	474,072
2002	119,304	218,718	55	395	338,472
2003	119,676	180,672	11	1,265	301,624
2004	109,061	154,389	113	3,904	267,467
2005	49,530	155,783	18	2,183	207,514
2006	45,992	145,991	17	1,434	193,434
2007	62,530	157,345	52	2,798	222,725
2008	115,632	175,481	909	4,770	296,792
2009	168,032	323,697	1,219	4,912	497,860
2010	189,394	206,885	2,201	1,902	400,382
2011	179,497	183,648	1,502	5,351	369,998
2012	141,449	110,675	470	2,635	255,229
2013	149,926	107,910	757	2,454	261,047
2014	195,167	164,106	2,786	18,651	380,710
2015	203,259	139,776	440	1,688	345,163
Total	2,749,294	4,622,948	13,104	59,292	7,444,638
10-Year Average	145,088	171,551	1,035	4,660	322,334

*Jacks included

TABLE 143

**MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS*
1975				1	11,693	8,722	4,854	1,183	1,462	474	71		28,460
1976				149	14,358	10,438	5,074	428	605	535	80		31,667
1977				12,824	22,892	6,718	4,622	203	961	776	125	2	49,123
1978				3,329	29,983	11,464	6,976	1,234	698	519	42	1	54,246
1979				234	4,461	4,455	1,794	256	1,003	302	43		12,548
1980				328	5,227	2,558	1,916	241	345	343	28		10,986
1981				1,380	10,730	2,713	2,561	92	1,008	677	37		19,198
1982				42	9,121	4,650	3,217	329	1,399	650	62	6	19,476
1983				113	7,676	3,551	3,167	234	828	552	79		16,200
1984				134	4,915	5,602	4,274	303	719	522	48		16,517
1985				1,429	20,384	10,466	1,971	281	1,285	697	53	1	36,567
1986				3,623	26,434	7,472	2,796	137	1,250	1,136	172	3	43,023
1987			1	4,836	22,217	5,578	3,532	216	664	508	116	9	37,677
1988				4,722	20,615	8,771	2,654	212	429	371	104	4	37,882
1989				577	10,597	5,771	1,511	225	478	338	60		19,557
1990				2,808	12,925	4,902	2,094	64	248	264	40		23,345
1991				250	4,698	5,177	2,397	72	524	465	35		13,618
1992				6,205	12,170	4,783	1,998	110	576	288	63		26,193
1993				638	15,627	9,728	3,095	281	736	300	41		30,446
1994				99	2,283	1,180	436	73	422	539	45		5,077
1995				22	870	936	438	113	757	539	27		3,702
1996				38	3,415	4,260	1,557	210	1,133	471	45		11,129
1997				222	22,323	18,376	3,690	274	1,159	631	52		46,727
1998			1	942	6,330	5,398	1,877	175	1,495	2,200	138	1	18,557
1999				36	3,358	4,886	2,214	396	3,017	1,832	143	2	15,884
2000				5,984	30,609	12,074	3,032	564	5,719	4,435	240	2	62,659
2001				90,165	63,007	31,721	7,392	760	11,596	5,319	414	7	210,381
2002			1	1,050	56,456	35,129	8,223	1,102	12,774	4,336	229	4	119,304
2003			10	29,379	30,358	31,808	7,467	817	12,616	6,990	228	3	119,676
2004			1	20,189	42,777	19,382	3,991	410	17,277	4,512	522	0	109,061
2005				327	17,557	11,709	5,320	445	11,295	2,767	105	5	49,530
2006				4	14,325	12,477	3,927	1,053	8,630	5,332	240	4	45,992
2007			1	531	19,516	16,994	4,921	1,200	12,720	6,428	217	2	62,530
2008				1,019	36,995	40,654	9,513	1,819	20,570	4,725	335	2	115,632
2009				95	52,614	45,565	12,404	2,871	44,432	9,630	419	2	168,032
2010			1	9,432	75,785	36,788	11,810	2,078	38,806	14,025	668	1	189,394
2011				71	52,580	56,837	23,502	3,837	30,091	12,011	557	11	179,497
2012				36	53,549	24,743	5,607	2,353	45,341	9,016	793	11	141,449
2013			1	267	42,356	20,223	6,930	3,818	61,913	13,316	1,102	0	149,926
2014			0	1,149	74,107	26,374	12,194	3,017	61,195	15,640	1,486	5	195,167
2015			6	13,867	85,575	23,383	7,957	4,817	51,721	14,945	974	14	203,259
Total	23	218,546	1,053,468	604,416	204,905	38,303	469,897	149,356	10,278	102			2,749,294
10-Year Average	2,647	50,740	30,404	9,877	2,686	37,542	10,507	679					145,088

*Jacks included

TABLE 144

MONTHLY COUNT OF STEELHEAD

LOWER GRANITE DAM

1975 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1975				1,724	1,065	104	102	3,337	6,396	3,584	703	296	17,311
1976	173	21	181	1,120	575	120	527	3,816	8,720	6,837	860	67	23,017
1977		9	142	1,235	229	59	1,538	2,652	16,296	27,492	2,950	435	53,037
1978	354	716	2,276	2,009	252	9	478	2,721	10,829	9,528	788	108	30,068
1979	12	44	802	962	192	16	1,197	2,602	5,143	11,323	2,487	266	25,046
1980			1,149	3,403	1,172	36	517	3,378	13,291	15,455	2,053		40,454
1981			1,052	1,610	604	98	1,422	1,609	9,391	20,714	3,096	638	40,234
1982			1,778	2,202	1,472	66	817	9,118	20,219	32,850	3,945	373	72,840
1983			3,336	1,416	244	7	1,676	8,899	32,063	34,028	4,425	140	86,234
1984			2,647	3,914	961	40	1,886	3,458	34,709	46,445	4,841	22	98,923
1985			2,474	9,686	856	146	706	5,027	63,074	33,137	3,230	127	118,463
1986			8,179	2,358	163	62	3,031	2,323	39,780	71,426	6,671	526	134,519
1987			2,962	2,951	251	51	783	2,342	16,644	34,235	8,809	1,123	70,151
1988			2,108	4,562	623	173	768	1,806	27,071	43,066	6,307	556	87,040
1989			2,172	4,789	429	99	2,026	4,199	49,256	55,766	13,308	535	132,579
1990			2,728	3,329	174	27	444	364	8,250	26,117	13,872	1,554	56,859
1991			2,422	3,530	285	43	1,009	454	24,610	58,803	7,892	1,333	100,381
1992			1,925	2,789	194	76	725	2,009	47,058	56,284	9,709	690	121,459
1993			3,232	8,118	364	191	2,621	5,298	10,374	32,618	3,702	181	66,699
1994			1,644	3,007	132	97	888	1,693	7,089	25,913	6,772	315	47,550
1995			3,176	1,166	193	33	1,216	3,540	27,585	37,260	5,176	1,508	80,853
1996			1,720	1,017	71	52	1,068	4,218	38,109	34,267	4,607	943	86,072
1997			2,043	1,408	183	65	1,423	5,975	22,424	42,544	9,305	547	85,917
1998			2,390	1,837	107	94	1,001	731	10,295	46,326	7,071	2,165	72,017
1999			2,091	855	92	35	1,333	5,577	35,954	23,694	4,044	695	74,370
2000			1,453	932	94	275	2,907	5,081	57,412	39,501	5,217	339	113,211
2001			3,200	2,365	193	1,087	6,772	11,315	101,289	105,685	24,287	6,375	262,568
2002			4,064	7,992	415	272	4,866	14,234	83,239	93,223	9,360	1,053	218,718
2003			13,038	2,583	182	398	3,169	5,108	71,337	77,100	7,157	600	180,672
2004			4,802	2,662	154	421	2,492	3,227	78,020	55,626	6,480	505	154,389
2005			3,479	1,204	180	433	2,156	3,315	57,231	79,926	6,882	977	155,783
2006			3,467	3,924	200	87	691	2,063	50,958	68,063	14,958	1,580	145,991
2007			6,894	3,477	211	271	1,504	3,792	58,983	71,535	8,269	2,409	157,345
2008			3,812	3,412	547	107	4,301	13,596	83,413	56,851	8,322	1,120	175,481
2009			4,313	5,918	550	486	3,806	8,978	154,804	129,599	14,574	669	323,697
2010			5,934	3,986	542	490	8,939	16,337	98,690	63,325	7,620	1,022	206,885
2011			5,017	6,443	830	73	3,309	21,163	84,732	58,065	3,355	661	183,648
2012			4,451	3,863	613	108	1,202	2,374	46,049	40,984	8,927	2,104	110,675
2013			4,461	2,674	304	107	1,044	4,016	39,492	49,717	5,597	498	107,910
2014			5,419	1,683	381	325	4,511	5,448	66,495	66,635	10,137	3,072	164,106
2015			7,118	1,798	264	113	814	3,323	59,018	58,255	8,150	923	139,776
Total	539	790	135,551	125,913	16,543	6,852	81,685	210,516	1,775,792	1,943,802	285,915	39,050	4,622,948
10-Yr Average			5,089	3,718	444	217	3,012	8,109	74,263	66,303	8,991	1,406	171,551

PRIEST RAPIDS AND WANAPUM DAMS

2015 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.

2015 FISH COUNTING SCHEDULE – WANAPUM 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.

2015 FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – PRIEST RAPIDS DAM

Left Bank Ladder

01 Jan. – 26 Feb.	Out of criteria for annual inspection, maintenance and repairs.
26 Feb. – 31 Dec.	In service (within operational criteria).

Right Bank Ladder

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

2015 FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – WANAPUM DAM

Left Bank Ladder

01 Jan. – 21 Jan.	Out of criteria for annual inspection, maintenance, and repairs.
22 Jan. – 30 Nov.	In service (within operational criteria).
1 Dec. – 31 Dec.	Out of criteria for annual inspection, maintenance, and repairs.

Right Bank Ladder

01 Jan. – 22 Jan.	In service (within operational criteria).
23 Jan. – 05 Feb.	Out of criteria for annual inspection, maintenance, and repairs.
06 Feb. – 31 Dec.	In service (within operational criteria).

Note: Out of criteria dates provided above reflect time periods when the adult fishway was out of operational flow and/or head differential criteria. Upstream fish passage is possible for one to several days before and after the indicated dates. “Ladder flow” are periods of reduced fishway flow that still allow fish passage.

2015 FISHWAY ACTIVITIES

Adult Fish Counting

The video fish-counting system uses digital video cameras installed in the fishways to assist with counting migrating fish at Priest Rapids and Wanapum dams. Digital video images are streamed 24 hours per day to a digital video recorder (DVR) at each dam. These DVRs are networked and accessed by fish counters via 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 periods of concentrated fish passage at the counting window, playback is slowed down to real time or replayed to facilitate counting accuracy. At the end of each day all counts are electronically tallied and a fish-count report is generated for each dam and posted on Grant County PUD's Fish, Wildlife, and Water Quality's website: <http://www.grantpud.org/environment/fish-wildlife/fish-counts>.

This site provides several years of fish counts and a historic fish count summary for Priest Rapids and Wanapum dams. In 2015, adult fish counting occurred at Priest Rapids and Wanapum dams 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 were upgraded with Biomark FS2020 transceivers along with replacement of a faulty antennae. 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: (1) the Yakama Nation to trap adult sockeye salmon for the Lake Cle Elum and Cooper Lake sockeye reintroduction program from June 22 – July 10, (2) the Washington Department of Fish and Wildlife (WDFW) for its steelhead stock assessment from July 6 to November 6, (3) the WDFW for the Priest Rapids Hatchery broodstock collection feasibility program from September 16 to November 6, (4) the Yakama Nation to collect Coho salmon broodstock for the Mid-Columbia Coho Reintroduction Project from September 25 – October 15, and (5) the Columbia River Inter-Tribal Fish Commission to sample sockeye salmon age composition from July 10 – July 20. The facility was completely dewatered and winterized on November 19, 2015.

Adult Lamprey Passage Study

In 2015, Grant PUD continued studies to identify and address potential hydro project impacts to upstream migrating adult Pacific lamprey. The study utilized strategically placed aluminum plating installed at fish counting stations that facilitate fish passage as ideal location for HDX-PIT tag arrays installed to evaluate passage success and travel

times within the Priest Rapids and Wanapum dam fish ladders. In 2015, HDX-PIT arrays at Priest Rapids and Wanapum dams were modified to refine detection resolution in the upper Priest Rapids left bank fishway for the purpose of determining whether a pattern of slower passage through that section continued to occur. As such, two new stations were installed in the vicinity of the OLAF, and one station in each of the lower fishways was removed.

TABLE 145

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER PRIEST RAPIDS DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				5,980	16,135	34,671	42,919	20,036	48,819	34,192	3,351		206,103
STEELHEAD				24	12	305	1,564	4,735	6,206	1,376	94		14,316
SOCKEYE						161,203	133,737	6,252	76	4			301,272
COHO*								21	2,971	1,930	114		5,036
PINK													0
TOTAL				6,004	16,147	196,179	178,220	31,044	58,072	37,502	3,559		526,727
SHAD				1	2	4,076	11,666	1,172	115	11			17,043
LAMPREY				4	35	429	3,021	2,422	671	155	12		6,749

*Jacks included

TABLE 146

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

PRIEST RAPIDS PROJECT- FISH COUNTS

APRIL 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL		ADULT	JACK							
Apr 1											140.3	25.5	44.5
Apr 2											153.2	7.1	44.8
Apr 3											154.7	0.0	44.8
Apr 4											157.4	0.0	45.0
Apr 5											153.0	0.0	45.0
Apr 6											145.0	0.0	44.9
Apr 7											142.4	0.0	44.8
Apr 8											118.2	0.0	45.2
Apr 9											129.5	0.0	45.4
Apr 10											143.4	0.0	45.2
Apr 11											116.0	0.0	45.2
Apr 12											116.8	1.1	45.6
Apr 13											134.1	0.6	45.7
Apr 14											115.8	0.2	45.7
Apr 15	28			0				5	0	1	100.7	2.3	46.3
Apr 16	23			0				3	0	1	113.6	0.0	46.9
Apr 17	23			1				0	0	1	116.1	0.0	47.8
Apr 18	42			0				1	0	0	110.1	0.0	47.8
Apr 19	48			1				2	0	0	105.8	11.7	48.4
Apr 20	40			0				2	0	0	100.2	14.6	48.5
Apr 21	123			0				0	0	0	118.4	26.7	48.8
Apr 22	100			1				2	0	0	92.2	23.6	49.0
Apr 23	138			0				0	0	0	99.8	26.5	49.0
Apr 24	307			4				2	0	0	106.1	28.0	49.1
Apr 25	569			0				2	1	0	99.9	27.7	49.4
Apr 26	851			0				1	0	0	102.6	27.2	49.6
Apr 27	827			2				1	0	1	105.7	25.1	50.1
Apr 28	929			15				1	0	0	108.6	26.5	50.6
Apr 29	1,029			11				0	0	0	82.7	23.5	50.7
Apr 30	863			5				2	0	0	89.5	23.6	50.8
TOTAL	5,940			40				24	1	4			
AVG.	371			3				2	0	0	119.1	10.7	47.2

TABLE 147

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

MAY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL										
May 1	605			11				1	0	0	120.3	25.3	51.1
May 2	623			9				0	0	0	105.8	27.5	51.3
May 3	828			16				0	0	0	119.3	29.6	51.6
May 4	895			15				0	0	0	132.5	26.7	51.5
May 5	1,089			14				0	0	0	111.2	24.4	51.4
May 6	1,437			14				0	0	0	93.9	20.5	51.4
May 7	1,247			34				2	0	0	103.7	25.4	51.5
May 8	977			52				0	0	0	87.2	23.6	52.0
May 9	819			29				0	0	1	83.6	23.7	52.8
May 10	593			26				1	1	0	83.0	25.9	53.1
May 11	422			33				0	0	0	86.9	25.4	53.0
May 12	340			26				0	0	0	120.8	28.7	52.5
May 13	138			14				1	0	0	133.7	32.5	52.1
May 14	500			48				0	0	0	141.8	27.9	52.3
May 15	334			40				2	0	0	146.6	38.5	52.6
May 16	388			65				0	0	0	87.0	19.4	53.2
May 17	423			53				1	0	0	102.6	28.2	53.2
May 18	296			55				2	0	0	136.3	27.3	53.2
May 19	217			51				1	0	0	121.1	23.8	53.5
May 20	192			38				0	0	1	137.0	26.7	54.2
May 21	223			30				0	0	0	140.3	26.0	55.0
May 22	352			45				0	0	6	134.4	28.5	56.1
May 23	222			13				0	0	2	138.7	29.1	56.6
May 24	192			25				0	0	5	141.7	28.8	56.9
May 25	232			68				0	0	2	141.8	27.9	56.9
May 26	152			46				0	0	4	139.5	27.4	56.7
May 27	240			26				0	0	3	148.2	28.2	57.0
May 28	224			71				1	0	5	128.7	26.5	57.7
May 29	245			22				0	1	4	133.6	28.0	58.1
May 30	330			74				0	0	0	122.4	28.3	58.7
May 31	263			34				0	0	2	125.2	28.9	58.8
TOTAL	15,038			1,097				12	2	35			
AVG.	485			35				0	0	1	120.9	27.0	54.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	20,978	1137

STEELHEAD	SHAD	LAMPREY
36	3	39

TABLE 148

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

PRIEST RAPIDS PROJECT- FISH COUNTS

JUNE 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT							
Jun 1	291			39		0	2	0	4	143.2	30.7	58.6
Jun 2	386			41		2	1	0	0	124.3	25.8	58.7
Jun 3	245			27		9	1	1	2	102.3	22.9	58.8
Jun 4	399			39		24	3	1	4	115.9	25.8	58.9
Jun 5	368			53		19	0	0	5	108.1	27.8	59.6
Jun 6	546			55		36	3	0	2	125.2	29.2	60.0
Jun 7	544			27		63	1	1	2	133.5	29.1	60.4
Jun 8	640			10		119	0	0	9	126.8	29.0	61.1
Jun 9	772			44		95	5	0	9	145.3	28.5	61.4
Jun 10	403			21		73	0	1	8	118.3	27.1	61.7
Jun 11	520			30		129	2	1	10	114.7	27.4	61.5
Jun 12	567			38		392	3	0	8	96.8	28.4	61.8
Jun 13	1,057			9		520	4	3	6	122.4	36.1	61.7
Jun 14		618		26		614	1	3	7	117.6	29.1	62.3
Jun 15		960		74		1,056	1	5	11	133.4	28.9	62.7
Jun 16		1,157		63		1,496	3	8	12	142.1	26.8	62.7
Jun 17		1,018		48		2,033	12	5	8	93.9	25.8	63.0
Jun 18		1,334		66		3,124	6	6	8	82.3	27.8	63.5
Jun 19		1,618		87		3,881	4	0	18	81.2	29.0	63.2
Jun 20		1,462		33		4,576	3	12	15	80.4	29.2	63.5
Jun 21		1,380		88		6,807	5	19	10	83.0	30.3	63.4
Jun 22		1,909		113		8,568	19	27	28	89.9	30.3	63.6
Jun 23		1,233		105		7,318	9	58	21	121.8	30.5	62.9
Jun 24		1,446		46		9,237	22	149	20	103.3	26.4	63.0
Jun 25		2,082		101		11,889	12	168	20	106.7	25.8	63.3
Jun 26		2,220		199		13,878	19	358	23	107.3	27.1	64.0
Jun 27		1,865		97		20,866	18	620	26	123.2	27.7	64.9
Jun 28		1,774		81		19,584	100	1,036	54	105.7	28.7	65.8
Jun 29		1,760		130		22,396	20	1,031	35	133.8	27.6	65.8
Jun 30		2,268		39		22,399	26	563	44	117.1	28.3	65.8
TOTAL	6,738	26,104		1,829		161,203	305	4,076	429			
AVG.		1536		61		5,373	10	136	14	113.3	28.2	62.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,716	1,570
SUMMER	26,104	1,396
TOTAL	53,820	2,966

SOCKEYE	STEELHEAD	SHAD	LAMPREY
161,203	341	4,079	468

TABLE 149

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL										
Jul 1		1,802		66			16,391	32	703	37	114.4	29.6	65.876
Jul 2		2,300		44			14,858	38	751	36	136.2	28.3	65.9
Jul 3		2,390		44			15,287	36	715	72	107.6	28.8	66.6
Jul 4		3,537		107			18,543	39	597	49	105.1	29.5	67.0
Jul 5		2,481		88			16,570	52	588	94	127.1	29.5	67.2
Jul 6		1,771		91			12,451	64	839	122	113.8	28.1	67.7
Jul 7		1,069		84			7,576	46	687	87	50.2	26.6	68.7
Jul 8		1,948		171			6,010	57	603	149	62.6	27.0	68.0
Jul 9		1,837		65			5,472	66	563	112	86.5	24.9	
Jul 10		1,629		74			3,145	49	384	129	62.8	24.8	68.3
Jul 11		1,323		59			2,265	71	325	136	60.9	25.1	68.2
Jul 12		1,638		45			1,875	60	374	121	88.0	26.9	67.9
Jul 13		966		55			956	80	421	109	68.5	26.7	67.6
Jul 14		627		45			677	33	554	134	54.8	27.7	67.7
Jul 15		921		22			723	18	605	145	81.3	28.1	67.2
Jul 16		738		16			489	34	386	82	100.9	27.2	
Jul 17		956		10			441	32	287	116	113.3	27.6	
Jul 18		567		143			230	46	253	118	106.9	27.8	67.1
Jul 19		723		55			451	45	237	133	82.2	28.1	67.2
Jul 20		463		4			374	25	393	86	102.5	27.0	67.0
Jul 21		1,123		18			603	48	399	91	46.7	26.0	66.4
Jul 22		1,148		27			707	39	105	105	61.0	27.6	
Jul 23		1,706		3			1,441	20	247	97	85.4	27.1	
Jul 24		1,982		47			678	73	64	92	80.8	28.5	66.9
Jul 25		1,270		12			727	68	44	112	111.7	29.6	66.9
Jul 26		917		0			795	55	149	78	56.8	28.9	66.4
Jul 27		763		10			659	79	54	48	66.1	28.9	66.0
Jul 28		446		46			598	53	89	56	126.1	28.3	66.9
Jul 29		661		68			569	53	39	79	91.5	28.3	67.6
Jul 30		777		2			1,126	79	172	90	115.8	26.9	
Jul 31		898		21			1,050	74	39	106	58.9	27.2	68.5
TOTAL		41,377		1,542			133,737	1,564	11,666	3,021			
AVG.		1,335		50			4,314	50	376	97	87.9	27.6	67.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,716	1,570
SUMMER	67,481	2,938
TOTAL	95,197	4,508

SOCKEYE	STEELHEAD	SHAD	LAMPREY
294,940	1,905	15,745	3,489

TABLE 150

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

PRIEST RAPIDS PROJECT- FISH COUNTS

AUGUST 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT								JACK
Aug 1		1,365		46	0	0	1,146	84	75	74	46.3	26.9	68.3
Aug 2		751		10	0	0	731	106	39	70	83.2	29.8	68.7
Aug 3		875		72	0	0	530	141	18	91	51.6	30.2	68.3
Aug 4		745		19	0	0	478	71	216	92	70.0	29.1	68.3
Aug 5		828		41	0	0	480	120	29	86	133.4	28.9	67.7
Aug 6		959		55	0	0	321	78	91	57	108.7	24.0	
Aug 7		1,299		12	0	0	325	101	51	90	94.0	26.5	68.1
Aug 8		976		66	0	0	706	130	50	114	74.1	25.3	68.5
Aug 9		767		45	0	0	239	199	13	125	90.3	25.4	68.5
Aug 10		496		34	0	0	249	199	63	112	89.7	24.1	68.8
Aug 11		523		87	0	0	118	169	17	82	51.3	26.5	
Aug 12		483		78	0	0	133	170	13	164	95.9	27.2	69.3
Aug 13		591		47	0	0	110	207	2	98	70.1	28.3	
Aug 14			890	64	0	0	83	221	0	66	88.8	2.6	69.3
Aug 15			654	20	0	0	129	175	7	75	119.0	2.5	68.7
Aug 16			602	73	0	0	69	189	12	85	82.1	2.4	68.6
Aug 17			542	29	0	0	89	172	24	98	95.5	2.5	68.9
Aug 18			549	33	0	0	94	155	20	111	101.6	2.5	69.0
Aug 19			394	25	0	0	57	124	7	104	105.1	2.6	69.2
Aug 20			717	12	0	0	24	240	59	82	107.1	2.5	
Aug 21			311	23	0	0	26	180	11	79	138.3	2.5	67.8
Aug 22			274	28	0	0	33	131	168	43	139.3	2.4	68.5
Aug 23			264	36	0	0	7	125	9	37	113.2	2.2	68.5
Aug 24			242	33	0	0	18	149	16	43	55.9	2.4	68.0
Aug 25			178	11	1	0	19	129	49	59	112.0	2.6	68.0
Aug 26			190	10	0	0	5	112	-8	47	124.7	2.4	68.0
Aug 27			441	54	2	0	1	103	45	69	84.1	2.3	
Aug 28			834	50	2	0	2	231	74	59	111.7	2.3	
Aug 29			413	24	4	0	13	172	12	31	63.8	2.5	67.6
Aug 30			345	26	1	0	10	196	-8	45	39.0	2.1	66.7
Aug 31			336	39	7	4	7	156	-2	34	57.2	2.8	66.9
TOTAL		10,658	8,176	1,202	17	4	6,252	4,735	1,172	2,422			
AVG.		820	454	39	1	0	202	153	38	78	90.2	12.8	68.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,716	1,570
SUMMER	78,139	3,550
FALL	8,176	590
TOTAL	114,031	5,710

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
17	4	301,192	6,640	16,917	5,911

TABLE 151

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F	
	SPRING	SUMMER	FALL	JACK	ADULT								JACK
Sep 1			179	21	8	0	22	180	18	33	82.8	2.9	66.7
Sep 2			499	19	8	1	10	277	102	48	43.5	2.8	66.6
Sep 3			545	32	10	4	5	192	-2	48	39.5	2.5	
Sep 4			678	29	21	4	1	169	-2	30	40.9	2.6	
Sep 5			821	59	8	0	-1	176	-29	33	41.8	2.5	65.8
Sep 6			648	33	5	4	0	136	-5	41	76.8	2.7	66.0
Sep 7			883	43	25	9	0	226	0	32	74.5	2.5	65.8
Sep 8			792	32	48	5	2	190	-1	34	40.4	2.5	66.0
Sep 9			620	42	54	16	0	221	0	30	40.1	2.2	
Sep 10			751	64	62	18	1	247	-9	18	40.2	2.2	
Sep 11			908	40	115	12	4	219	0	34	39.6	2.9	66.1
Sep 12			1,939	124	26	3	0	179	18	18	87.1	2.9	66.7
Sep 13			2,759	122	34	7	0	311	40	40	40.3	3.0	66.2
Sep 14			3,028	76	108	29	0	165	2	9	88.0	2.7	65.1
Sep 15			1,048	51	153	5	0	133	-5	4	40.7	2.3	64.6
Sep 16			1,319	88	81	16	4	249	-4	19	55.9	2.4	64.6
Sep 17			1,383	152	126	18	5	330	0	25	62.5	2.5	
Sep 18			1,312	63	163	5	0	164	-11	11	67.4	2.4	
Sep 19			1,957	122	111	15	0	242	0	27	40.7	2.4	65.6
Sep 20			2,437	181	128	10	2	247	7	16	51.6	2.8	65.2
Sep 21			5,292	340	229	71	6	348	0	10	125.4	2.8	65.5
Sep 22			3,511	223	142	6	8	441	0	11	120.4	2.7	65.2
Sep 23			1,385	131	67	6	0	200	-1	16	82.4	2.7	
Sep 24			1,062	92	255	22	3	203	0	12	100.1	2.7	
Sep 25			1,456	102	102	9	0	133	0	15	63.5	2.6	
Sep 26			1,642	185	108	4	0	182	0	15	40.3	19.6	64.5
Sep 27			2,435	156	72	7	4	148	0	7	95.3	2.7	63.8
Sep 28			1,064	96	50	15	0	101	0	12	95.2	2.7	63.9
Sep 29			1,474	104	84	12	0	90	-3	8	92.1	2.7	64.0
Sep 30			2,035	135	181	54	0	107	0	15	52.9	2.7	64.1
TOTAL			45,862	2,957	2,584	387	76	6,206	115	671			
AVG.			1529	99	86	13	3	207	4	22	65.4	3.2	65.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,716	1,570
SUMMER	78,139	3,550
FALL	54,038	3,547
TOTAL	159,893	8,667

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
2,601	391	301,268	12,846	17,032	6,582

TABLE 152

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK							
Oct 1			1,267	78	96	11	0	104	0	6	50.9	2.6	
Oct 2			1,740	181	88	5	2	105	0	15	63.2	2.7	63.3
Oct 3			869	113	43	0	0	66	11	12	60.0	2.6	63.0
Oct 4			965	83	91	9	0	63	0	7	40.4	2.5	62.9
Oct 5			780	42	82	10	0	40	0	7	105.1	2.6	62.9
Oct 6			814	97	71	8	0	69	0	6	40.3	2.5	62.7
Oct 7			766	62	23	1	0	20	0	8	40.9	2.1	62.6
Oct 8			839	79	121	18	0	51	0	5	72.4	1.9	
Oct 9			1,055	62	57	4	0	42	0	3	41.8	2.3	62.7
Oct 10			1,235	54	47	6	0	11	0	6	44.7	42.8	62.5
Oct 11			1,700	152	110	11	0	100	0	13	40.3	2.7	62.5
Oct 12			986	78	62	11	0	48	0	8	40.3	2.8	62.1
Oct 13			779	35	15	4	0	40	0	10	87.3	2.9	61.8
Oct 14			692	83	53	7	0	47	0	4	119.9	1.9	61.6
Oct 15			814	112	118	12	0	107	0	3	123.9	2.9	
Oct 16			781	131	54	15	2	58	0	1	84.3	2.4	
Oct 17			620	34	31	3	0	26	0	3	70.0	1.6	61.4
Oct 18			813	38	113	16	0	81	0	3	48.8	1.5	61.1
Oct 19			719	37	14	1	0	16	0	9	38.0	1.5	60.7
Oct 20			1,041	23	23	7	0	22	0	5	92.3	2.1	60.7
Oct 21			1,180	47	33	10	0	18	0	7	108.6	2.0	
Oct 22			696	35	34	7	0	27	0	1	134.8	12.9	
Oct 23			2,309	83	27	9	0	22	0	2	124.7	2.5	60.0
Oct 24			628	65	24	4	0	39	0	2	123.3	2.2	59.7
Oct 25			1,376	48	22	3	0	12	0	0	122.8	1.7	59.6
Oct 26			1,315	59	57	2	0	52	0	2	104.6	2.1	59.3
Oct 27			1,418	26	68	25	0	17	0	0	125.2	2.6	58.9
Oct 28			1,323	48	38	0	0	10	0	0	124.6	2.4	58.5
Oct 29			886	40	47	0	0	26	0	1	63.8	1.7	
Oct 30			808	35	14	1	0	13	0	3	99.6	1.9	58.4
Oct 31			881	37	31	3	0	24	0	3	62.1	1.8	58.2
TOTALS			32,095	2,097	1,707	223	4	1,376	11	155			

AVG.	1,035	68	55	7	0	44	0	5	80.6	3.9	61.1
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,716	1,570
SUMMER	78,139	3,550
FALL	86,133	5,644
TOTAL	191,988	10,764

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
4,308	614	301,272	14,222	17,043	6,737

TABLE 153

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS

NOVEMBER 2015

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT	JACK							
Nov 1			489	48	10	0		19		3	40.3	1.5	
Nov 2			473	19	11	0		10		1	120.0	2.0	57.2
Nov 3			508	22	11	2		4		0	135.0	1.8	
Nov 4			357	15	19	2		11		0	102.9	1.7	
Nov 5			355	44	14	3		0		1	106.7	1.6	
Nov 6			477	15	12	0		7		2	139.4	2.3	55.2
Nov 7			98	5	4	0		6		4	112.8	1.9	55.1
Nov 8			77	0	8	2		7		0	139.2	2.2	55.1
Nov 9			70	2	6	1		14		0	156.0	18.2	55.0
Nov 10			60	5	2	0		4		0	139.3	2.1	
Nov 11			27	0	1	0		4		1	129.1	2.0	
Nov 12			27	1	2	1		1		0	148.3	29.4	
Nov 13			76	3	2	0		2		0	165.5	29.9	54.1
Nov 14			45	4	1	0		3		0	156.7	19.9	54.2
Nov 15			29	0	0	0		2		0	166.0	29.5	53.8
Nov 16											136.9	0.0	53.0
Nov 17											185.6	53.5	53.0
Nov 18											159.7	91.0	52.8
Nov 19											150.7	0.0	
Nov 20											151.9	0.0	52.1
Nov 21											181.6	29.7	51.8
Nov 22											152.9	0.0	50.7
Nov 23											95.2	0.0	
Nov 24											72.4	0.0	
Nov 25											72.4	0.0	
Nov 26											77.6	0.0	
Nov 27											147.7	0.0	
Nov 28											103.2	0.0	
Nov 29											150.9	0.0	
Nov 30											87.0	0.0	
TOTALS			3,168	183	103	11		94		12			
AVG.			211	12	7	1		6		1	129.4	10.7	53.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	27,716	1,570
SUMMER	78,139	3,550
FALL	89,301	5,827
TOTAL	195,156	10,947

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
4,411	625	301,272	14,316	17,043	6,749

TABLE 154

**YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
1982 - 2015**

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTALS
1982	32,051	11,160	40,461	1,810	85,482
1983	31,008	31,809	90,008	502	153,327
1984	41,425	26,213	114,761	173	182,572
1985	62,164	34,589	118,542	219	215,514
1986	68,703	22,401	43,084	83	134,271
1987	73,214	14,011	76,578	108	163,911
1988	53,963	10,208	51,135	68	115,374
1989	49,246	10,730	45,301	32	105,309
1990	36,257	7,830	46,331	31	90,449
1991	31,482	13,939	71,245	22	116,688
1992	37,752	13,733	80,857	1	132,343
1993	54,552	5,460	82,963	0	142,975
1994	32,892	6,706	12,385	0	51,983
1995	30,548	4,358	9,186	3	44,095
1996	27,325	8,324	29,422	5	65,076
1997	33,036	8,948	45,412	26	87,422
1998	29,415	5,837	10,769	18	46,039
1999	57,054	8,277	16,432	55	81,818
2000	91,223	11,331	89,547	378	192,479
2001	139,929	30,090	111,326	11,189	292,534
2002	161,510	15,895	47,883	1,555	226,843
2003	160,433	17,652	36,551	5,216	219,852
2004	134,620	18,727	124,943	5,624	283,914
2005	109,429	12,472	74,563	1,260	197,724
2006	87,086	10,408	26,710	3,813	128,017
2007	65,962	15,183	24,645	12,310	118,100
2008	104,001	16,725	196,835	6,022	323,583
2009	114,137	40,093	153,466	11,293	318,989
2010	123,576	26,476	357,058	2,655	509,765
2011	116,914	20,757	145,070	23,392	306,133
2012	138,487	17,230	408,257	9,957	573,931
2013	371,726	15,011	163,078	4,020	553,835
2014	242,755	19,843	608,142	36,685	907,425
2015	206,103	14,316	301,272	5,036	526,727
Totals	3,149,978	546,742	3,854,218	143,561	7,694,499
10-Year Average	157,075	19,604	238,453	11,518	426,651

*Jacks included

TABLE 155

MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1960				159	651	25	318	2,255	3,190	1,229			7,827
1961				52	208	43	381	1,480	4,650	1,753			8,567
1962				133	530	74	329	2,027	4,925	1,306			9,324
1963				183	564	109	336	2,922	3,344	1,816			9,274
1964				85	196	44	261	1,986	2,649	770			5,991
1965				129	298	91	649	2,498	3,868	1,508			9,041
1966				189	252	296	1,194	2,775	5,549	2,751			13,006
1967				213	381	62	411	1,686	2,109	2,492			7,354
1968				530	1,112	24	185	1,954	4,950	1,769			10,524
1969				120	670	105	566	1,598	2,544	1,047			6,650
1970				85	195	27	197	1,129	3,053	872			5,558
1971				46	440	61	185	2,043	6,241	2,086			11,102
1972				163	552	42	318	1,992	2,190	1,172			6,429
1973				132	160	56	788	1,738	3,254	871			6,999
1974				45	129	229	504	845	945	392			3,089
1975				3	37	99	214	670	1,187	252			2,462
1976				3	133	246	531	1,873	5,462	1,000			9,248
1977				178	200	209	1,029	1,963	4,519	1,706			9,804
1978				72	134	214	532	1,143	1,869	581			4,545
1979				13	127	30	585	3,082	3,174	1,398			8,409
1980				232	203	17	179	1,815	4,721	1,263	94		8,524
1981				75	144	105	445	2,414	4,127	1,545	133	24	9,012
1982	5	32	70	136	86	46	331	3,126	5,345	1,805	163	15	11,160
1983	5	9	52	40	11	12	599	8,660	18,272	3,534	602	13	31,809
1984	28	4	92	142	145	224	2,534	8,840	11,907	2,030	256	11	26,213
1985	2	11	74	351	326	856	5,319	11,063	14,693	1,659	235		34,589
1986				82	100	262	3,637	10,584	5,647	1,856	233		22,401
1987				42	71	124	1,954	5,741	4,311	1,495	273		14,011
1988				48	108	239	1,234	3,119	4,016	1,176	268		10,208
1989				36	50	133	1,361	3,499	4,581	872	198		10,730
1990				24	52	130	1,282	2,616	3,060	551	115		7,830
1991				31	73	66	1,406	4,041	6,301	1,768	253		13,939
1992				60	152	313	2,328	3,261	6,265	1,227	127		13,733
1993				34	41	125	993	1,733	2,013	471	40		5,450
1994				7	13	78	902	1,286	3,087	1,269	64		6,706
1995				4	20	30	540	1,316	2,062	363	23		4,358
1996				9	14	35	546	3,234	3,810	627	49		8,324
1997				5	17	39	574	2,822	4,176	1,224	91		8,948
1998				7	9	40	806	935	2,976	1,005	59		5,837
1999				6	19	72	588	3,361	3,543	633	55		8,277
2000				2	13	155	1,895	3,786	4,825	598	57		11,331
2001				14	11	326	4,426	10,368	12,136	2,607	202		30,090
2002				22	15	134	3,225	7,442	4,101	874	82		15,895
2003				7	2	95	2,924	5,198	8,009	1,362	55		17,652
2004				7	79	516	3,438	2,687	10,905	1,042	53		18,727
2005				7	7	150	1,691	2,986	5,715	1,805	111		12,472
2006				18	26	87	983	2,934	5,583	723	54		10,408
2007				10	41	51	1,217	5,201	6,581	1,960	122		15,183
2008				25	100	452	3,572	5,409	6,004	1,038	125		16,725
2009				24	34	78	2,330	13,537	19,965	4,034	91		40,093
2010				63	23	229	6,634	9,933	8,150	1,333	111		26,476
2011				14	27	29	1,089	10,012	7,780	1,740	66		20,757
2012				64	26	149	1,879	6,586	7,024	1,364	138		17,230
2013				24	28	124	1,219	4,678	6,834	1,993	111		15,011
2014				63	50	160	2,623	5,112	9,741	1,917	177		19,843
2015				24	12	305	1,564	4,735	6,206	1,376	94		14,316
TOTAL	40	56	288	4,292	9,117	8,072	77,780	221,729	314,144	78,910	4,980	63	719,471
10-Year Average				33	37	166	2,311	6,814	8,387	1,748	109		19,604

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 0700 to 1530 hours Pacific Standard Time.
Nov 16 – Dec 31	No video recording or fish counting during this period.

Fish Ladder Operating Schedule

Left Bank Ladder

Jan 1 – Jan 11	Fishway in service.
Jan 12 – Feb 6	Fishway out of service for 2014/2015 annual maintenance period.
Feb 7 – Dec 31	Fishway in service.

Middle Ladder

Jan 1 – Jan 9	Fishway out of service for 2014/2015 annual maintenance period.
Jan 10 – Dec 14	Fishway in service.
Dec 15 – Dec 31	Fishway out of service for 2015/2016 annual maintenance period.

Right Bank Ladder

Jan 1 – Feb 27	Fishway out of service for 2014/2015 annual maintenance period.
Feb 28 – Nov 30	Fishway in service.
Dec 1 – Dec 31	Fishway out of service for 2015/2016 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 30 August 2015. Juvenile fish were sampled daily during that time period. The annual bypass (biological) evaluation included the collection of species composition and fish condition data.

The adult fish PIT tag system was operational throughout the 2015 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 denils remained in place throughout 2015. All denils will be detached and extracted in January 2016.

TABLE 156

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				3,242	20,321	31,935	51,148	23,647	16,947	15,987	4,778		168,005
STEELHEAD				76	56	79	1,004	4,443	6,539	1,663	191		14,051
SOCKEYE					3	91,832	163,851	8,250	664	75	3		264,678
COHO									2,362	2,063	74		4,499
PINK													0
TOTAL				3,318	20,380	123,846	216,003	36,340	26,512	19,788	5,046		451,233
LAMPREY						21	656	1,255	225	8			2,165
BULL TROUT				1	34	38	7	1	0	0	1		82

TABLE 157

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

ROCK ISLAND PROJECT- FISH COUNTS

APRIL 2015

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												142.0	0.0	43.9
Apr 2												144.3	0.0	44.1
Apr 3												147.3	0.0	43.9
Apr 4												142.0	0.0	43.9
Apr 5												141.3	0.0	43.8
Apr 6												138.3	0.0	43.7
Apr 7												122.2	0.0	43.7
Apr 8												119.1	0.0	44.0
Apr 9												130.5	0.0	44.3
Apr 10												125.9	0.0	44.6
Apr 11												108.7	0.0	45.1
Apr 12												121.7	0.0	45.3
Apr 13												123.5	0.0	45.4
Apr 14	2			0				10	6	0		88.9	0.1	45.5
Apr 15	9			0				6	5	0		110.7	0.0	45.8
Apr 16	4			0				2	2	0		121.9	11.0	46.2
Apr 17	1			0				2	2	0		116.8	11.5	46.6
Apr 18	2			0				9	7	0		83.6	9.8	46.8
Apr 19	3			0				3	1	0		95.0	9.8	47.3
Apr 20	9			0				4	2	0		121.8	11.6	47.7
Apr 21	13			0				4	3	0		104.3	11.3	48.2
Apr 22	27			0				4	3	1		90.6	11.4	48.3
Apr 23	53			0				3	2	0		104.5	11.0	48.4
Apr 24	50			0				6	4	0		108.9	9.8	48.6
Apr 25	129			0				3	2	0		90.2	9.8	48.5
Apr 26	158			0				3	2	0		86.1	9.0	48.4
Apr 27	176			0				4	3	0		97.3	9.8	48.7
Apr 28	613			0				4	2	0		103.1	10.1	49.0
Apr 29	1,261			2				2	1	0		80.1	9.5	49.4
Apr 30	730			0				7	5	0		100.6	9.5	49.6
TOTAL	3,240			2				76	52	1				
AVG.	191			0				4	3	0		113.7	5.2	46.3

TABLE 158

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

MAY 2015

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	932			1			0	4	3	0		124.1	11.7	49.5
May 2	1,150			2			0	4	3	0		122.3	10.5	50.0
May 3	575			0			0	5	4	1		109.4	9.8	49.8
May 4	1,006			6			0	1	1	0		113.8	11.8	50.3
May 5	610			4			0	3	3	0		94.6	10.1	50.7
May 6	1,043			10			0	4	4	0		91.1	9.1	50.4
May 7	1,341			1			0	1	1	0		87.1	9.5	50.1
May 8	1,598			15			0	1	1	0		84.4	9.0	50.5
May 9	1,584			6			0	1	2	0		91.0	9.0	51.2
May 10	1,085			10			0	5	3	0		81.3	8.7	51.2
May 11	1,466			24			0	3	3	0		103.0	11.3	51.4
May 12	430			21			0	3	2	0		119.9	10.3	51.7
May 13	190			8			0	1	1	0		128.7	12.1	51.3
May 14	602			30			0	1	1	1		125.6	12.5	51.0
May 15	601			23			1	2	0	0		105.9	11.8	51.2
May 16	819			24			0	0	0	0		101.6	11.1	51.9
May 17	295			20			0	0	0	2		126.1	10.4	52.4
May 18	566			49			0	3	1	0		123.2	15.2	53.3
May 19	372			55			1	1	0	1		86.1	11.5	54.2
May 20	270			44			0	1	1	5		117.4	15.3	54.7
May 21	398			45			1	5	2	2		124.2	15.4	55.0
May 22	355			53			0	2	0	0		126.2	17.4	54.8
May 23	248			36			0	0	0	0		107.1	15.2	55.0
May 24	304			50			0	0	0	3		133.5	15.3	55.7
May 25	158			32			0	0	0	3		126.0	15.2	56.0
May 26	169			45			0	0	0	2		137.1	13.4	56.2
May 27	304			62			0	2	0	4		137.9	14.1	56.2
May 28	271			22			0	2	0	1		133.6	15.3	56.5
May 29	195			16			0	0	0	0		104.0	15.3	56.7
May 30	352			67			0	0	0	1		118.3	13.4	57.2
May 31	242			9			0	1	1	8		151.0	13.9	57.4
TOTAL	19,531			790			3	56	37	34				
AVG.	630			25			0	2	1	1		114.0	12.4	53.0
RUN YEAR		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT				
TOTALS TO DATE														
SPRING		22,771	792				3	132	89	35				

TABLE 159

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JUNE 2015

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	278			6			0	0	0	1	0	89.6	28.4	57.4
Jun 2	305			33			1	0	0	0	0	101.5	29.0	57.7
Jun 3	477			43			1	1	0	2	0	99.1	22.0	58.0
Jun 4	225			11			2	0	0	0	0	124.0	20.7	58.6
Jun 5	351			26			0	1	1	0	0	139.4	25.4	58.8
Jun 6	287			27			2	1	1	1	0	161.5	24.0	59.2
Jun 7	283			30			8	2	0	1	0	105.6	23.0	59.5
Jun 8	600			12			11	1	0	1	0	127.4	26.6	59.9
Jun 9	560			17			31	0	0	3	1	104.2	25.5	60.3
Jun 10	649			7			40	0	0	4	0	123.6	28.0	60.8
Jun 11	547			14			80	0	0	2	0	114.8	25.5	61.2
Jun 12	726			9			72	1	0	2	1	105.3	25.1	61.0
Jun 13	551			3			71	1	1	2	0	99.5	22.7	61.2
Jun 14	539			6			150	1	0	1	0	128.3	23.0	61.5
Jun 15	632			9			289	0	0	3	0	61.1	26.8	61.2
Jun 16	1,310			18			602	2	1	1	1	56.0	27.4	61.0
Jun 17	659			29			811	0	0	2	2	107.1	22.9	61.3
Jun 18	1,399			13			948	2	2	1	0	103.8	23.6	61.2
Jun 19	853			22			1,163	3	0	0	1	56.2	20.2	61.0
Jun 20	1,538			13			2,171	0	0	3	0	114.5	20.0	61.5
Jun 21	1,686			25			2,760	4	3	0	1	41.3	17.7	61.5
Jun 22	1,766			43			3,636	7	7	0	0	95.1	23.2	62.1
Jun 23	2,012			51			5,628	5	2	1	1	91.4	20.4	62.8
Jun 24		1,983		35			7,059	8	5	0	2	72.4	21.5	63.1
Jun 25		1,588		30			6,988	9	8	3	5	82.7	21.2	63.3
Jun 26		1,507		12			7,341	0	0	2	0	115.5	25.9	63.1
Jun 27		991		9			7,037	3	2	1	0	97.4	25.5	63.0
Jun 28		1,416		42			9,801	5	3	0	1	100.0	25.7	63.3
Jun 29		2,919		92			12,522	6	2	1	1	64.0	25.7	63.9
Jun 30		2,543		68			22,607	16	10	0	4	83.0	25.1	64.4
TOTAL	18,233	12,947		755			91,832	79	48	38	21			
AVG.	793	1,850		25			3,061	3	2	1	1	98.8	24.1	61.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	41,004	1,259
SUMMER	12,947	288
TOTALS	53,951	1,547

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
91,835	211	137	73	21

TABLE 160

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

ROCK ISLAND PROJECT- FISH COUNTS

JULY 2015

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		2,194		35			20,008	23	19	1	4	111.9	22.0	65.3
Jul 2		2,059		49			18,290	21	9	2	2	75.6	25.4	65.7
Jul 3		1,666		59			17,532	9	7	0	6	104.1	21.2	65.7
Jul 4		2,259		39			15,005	13	8	0	5	107.3	20.3	65.8
Jul 5		2,602		117			13,888	17	15	0	6	114.9	20.5	66.0
Jul 6		3,932		114			14,953	30	21	2	7	47.7	22.5	66.0
Jul 7		3,099		71			14,508	12	9	1	9	82.8	20.5	65.8
Jul 8		1,998		35			11,893	21	15	0	9	82.3	23.7	65.8
Jul 9		1,131		37			7,974	28	19	0	14	66.0	21.9	66.0
Jul 10		2,070		49			7,539	31	24	0	26	51.2	17.8	66.2
Jul 11		1,546		66			4,076	19	15	0	22	31.7	17.6	66.0
Jul 12		1,927		76			3,281	21	15	0	29	70.2	17.7	65.8
Jul 13		1,576		34			2,234	22	10	0	15	89.4	22.2	66.0
Jul 14		2,059		97			2,121	32	23	0	16	65.2	22.7	65.7
Jul 15		950		23			1,655	41	29	0	22	102.1	22.8	65.7
Jul 16		831		14			1,122	32	18	0	18	89.5	22.9	65.3
Jul 17		1,055		27			839	29	18	1	18	87.8	22.9	64.9
Jul 18		638		11			585	27	20	0	23	89.1	20.2	65.3
Jul 19		947		45			479	26	15	0	18	96.1	20.3	66.0
Jul 20		985		60			504	31	16	0	28	106.4	23.2	66.7
Jul 21		1,181		33			504	36	19	0	23	83.3	24.1	66.6
Jul 22		745		28			439	51	28	0	28	87.2	17.9	66.9
Jul 23		908		29			410	48	23	0	22	81.8	20.5	66.7
Jul 24		1,326		19			335	27	15	0	41	73.9	20.2	67.1
Jul 25		2,185		45			406	50	28	0	44	77.3	19.4	66.7
Jul 26		2,197		76			496	29	16	0	33	71.3	19.1	66.7
Jul 27		1,511		65			494	56	28	0	24	74.0	22.4	66.6
Jul 28		1,430		52			505	41	22	0	26	64.5	22.8	66.4
Jul 29		1,063		30			592	75	33	0	35	118.8	24.8	66.9
Jul 30		847		26			565	59	24	0	34	95.5	23.8	67.8
Jul 31		749		21			619	47	27	0	49	98.0	24.7	67.8
TOTAL		49,666		1,482			163,851	1,004	588	7	656			

AVG.	1,602	48	5,286	32	19	0	21	83.8	21.5	66.2
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	41,004	1,259
SUMMER	62,613	1,770
TOTALS	103,617	3,029

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
255,686	1,215	725	80	677

TABLE 161

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

ROCK ISLAND PROJECT- FISH COUNTS

AUGUST 2015

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		1,096		37			794	54	31	0	35	75.8	23.4	67.6
Aug 2		996		33			830	67	34	0	39	99.9	20.5	67.6
Aug 3		1,238		35			697	57	25	0	24	76.0	25.9	67.5
Aug 4		1,287		31			711	67	39	0	29	63.0	25.4	67.8
Aug 5		1,238		43			712	96	51	0	36	97.0	24.4	67.8
Aug 6		1,170		27			523	82	38	0	39	132.3	23.6	67.8
Aug 7		953		25			433	98	59	0	90	61.4	24.4	67.8
Aug 8		876		18			412	79	44	0	59	100.9	21.4	68.0
Aug 9		1,280		47			346	83	44	0	58	94.4	22.5	68.4
Aug 10		1,398		40			323	138	77	0	49	125.6	25.9	68.5
Aug 11		945		30			323	168	76	0	71	114.3	25.7	68.5
Aug 12		721		18			321	173	89	0	58	128.1	0.0	68.4
Aug 13		738		30			296	144	66	0	60	123.9	0.0	68.7
Aug 14		629		28			242	189	86	0	69	104.5	0.0	68.5
Aug 15		810		31			216	191	90	0	45	113.1	0.0	68.5
Aug 16		858		35			152	205	104	0	33	123.6	0.0	68.4
Aug 17		591		31			117	178	75	0	56	125.5	0.0	68.4
Aug 18		833		33			111	174	88	0	38	124.9	0.0	68.7
Aug 19		609		39			108	198	99	0	51	134.0	0.0	68.7
Aug 20		628		18			71	163	66	1	47	124.2	0.0	68.4
Aug 21		566		31			93	175	72	0	33	115.8	0.0	68.0
Aug 22		570		24			70	203	91	0	28	126.6	0.0	67.6
Aug 23		366		20			63	171	66	0	27	115.2	0.0	67.8
Aug 24		339		32			47	150	48	0	24	85.1	0.0	67.6
Aug 25		279		29			35	156	53	0	28	125.6	0.0	67.6
Aug 26		241		27			32	158	74	0	41	99.1	0.0	67.3
Aug 27		144		11			33	135	58	0	18	86.0	0.0	67.3
Aug 28		217		18			50	180	84	0	20	85.9	0.0	67.5
Aug 29		279		15			34	155	56	0	23	55.8	0.0	67.5
Aug 30		537		23			26	195	79	0	9	91.8	0.0	67.5
Aug 31		331		25			29	161	59	0	18	94.1	0.0	67.5
TOTAL		22,763		884			8,250	4,443	2,021	1	1,255			

AVG.	734	29	266	143	65	0	40	104.0	8.5	68.0
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	41,004	1,259
SUMMER	85,376	2,654
TOTALS	126,380	3,913

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
263,936	5,658	2,746	81	1,932

TABLE 162

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

ROCK ISLAND PROJECT- FISH COUNTS

SEPTEMBER 2015

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		364		32	2	0	34	158	73		4	60.7	0.0	67.3
Sep 2			222	49	1	0	27	234	107		16	81.3	0.0	66.7
Sep 3			271	48	0	0	34	176	87		12	64.9	0.0	66.2
Sep 4			241	38	4	0	36	207	91		7	35.6	0.0	65.8
Sep 5			265	51	2	0	35	207	81		5	43.0	0.0	65.5
Sep 6			368	28	7	0	24	203	87		12	55.8	0.0	65.7
Sep 7			235	40	8	0	35	213	79		17	46.5	0.0	65.8
Sep 8			419	47	6	0	30	193	72		8	76.5	0.0	65.5
Sep 9			278	29	13	1	13	204	78		14	26.4	0.0	65.8
Sep 10			342	33	11	0	21	165	77		12	73.4	0.0	66.4
Sep 11			345	58	16	0	30	228	95		16	88.6	0.0	66.6
Sep 12			230	34	22	1	38	242	99		23	23.2	0.0	66.6
Sep 13			355	22	45	1	26	223	73		20	69.7	0.0	66.2
Sep 14			491	39	51	3	32	249	85		4	26.0	0.0	66.0
Sep 15			776	36	47	6	20	320	130		9	31.1	0.0	65.7
Sep 16			783	52	39	7	35	272	106		4	44.5	0.0	65.7
Sep 17			763	34	85	7	17	282	107		4	56.2	0.0	65.7
Sep 18			481	44	54	0	17	163	63		2	40.2	0.0	65.5
Sep 19			387	44	72	1	20	170	50		7	24.9	0.0	65.1
Sep 20			367	27	79	2	24	189	68		2	24.0	0.0	65.3
Sep 21			659	60	170	6	24	266	101		2	55.4	0.0	65.3
Sep 22			767	48	161	4	21	275	117		1	38.1	0.0	65.3
Sep 23			1,269	59	256	13	12	313	145		1	73.7	0.0	64.8
Sep 24			1,152	72	207	6	16	320	113		1	61.9	0.0	64.9
Sep 25			774	48	150	3	7	205	89		6	50.6	0.0	64.8
Sep 26			473	54	250	2	6	194	79		5	92.6	0.0	64.2
Sep 27			461	39	135	4	10	193	55		3	96.1	0.0	64.6
Sep 28			631	69	101	3	10	179	62		4	29.4	0.0	64.0
Sep 29			785	45	168	10	4	166	67		3	44.2	0.0	63.7
Sep 30			683	31	117	3	6	130	45		1	57.7	0.0	63.7
TOTAL		364	15,273	1,310	2,279	83	664	6,539	2,581		225			
AVG.			527	44	76	3	22	218	86		8	53.1	0.0	65.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	41,004	1,259
SUMMER	85,740	2,686
FALL	15,273	1,278
TOTALS	142,017	5,223

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2,279	83	264,600	12,197	5,327	81	2,157

TABLE 163

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

ROCK ISLAND PROJECT- FISH COUNTS

OCTOBER 2015

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
Oct 1			570	66	135	3	7	139	51		1	96.8	0.0	63.5
Oct 2			405	53	110	0	7	118	44		0	59.8	0.0	63.1
Oct 3			649	47	162	0	8	118	36		2	60.5	0.0	63.1
Oct 4			513	51	138	4	6	108	46		1	99.3	0.0	62.8
Oct 5			509	60	79	1	4	97	29		0	17.4	0.0	62.6
Oct 6			342	38	71	2	3	90	35		2	61.6	0.0	62.2
Oct 7			400	50	118	11	6	78	33		0	61.9	0.0	62.2
Oct 8			379	64	139	5	5	76	19		0	38.9	0.0	62.1
Oct 9			411	66	114	1	1	70	14		0	23.0	0.0	62.1
Oct 10			284	48	106	0	2	41	16		0	9.2	0.0	61.9
Oct 11			267	33	76	3	7	40	15		0	56.2	0.0	61.9
Oct 12			445	41	64	2	2	45	20		0	56.1	0.0	61.9
Oct 13			423	50	70	0	1	47	17		0	65.7	0.0	61.7
Oct 14			529	47	70	2	1	53	21		0	65.5	0.0	61.5
Oct 15			421	37	89	3	2	56	23		0	31.7	0.0	61.3
Oct 16			356	39	70	2	3	40	10		0	79.2	0.0	61.2
Oct 17			298	39	62	1	0	52	16		0	66.9	0.0	61.2
Oct 18			248	30	35	2	0	35	15		0	63.0	0.0	61.0
Oct 19			401	21	37	2	4	36	15		0	26.6	0.0	61.0
Oct 20			437	35	28	0	0	21	6		1	84.3	0.0	60.8
Oct 21			430	28	46	1	1	32	12		0	61.6	0.0	60.6
Oct 22			382	19	31	4	1	44	11		0	36.7	0.0	60.6
Oct 23			342	30	40	0	0	28	12		0	17.3	0.0	60.3
Oct 24			419	19	22	1	2	29	12		0	35.1	0.0	59.7
Oct 25			588	35	25	1	2	37	14		0	44.5	0.0	59.4
Oct 26			355	19	17	0	0	20	1		1	18.2	0.0	59.4
Oct 27			829	22	14	0	0	30	6		0	21.3	0.0	58.8
Oct 28			916	36	8	0	0	24	7		0	33.2	0.0	58.5
Oct 29			678	24	16	2	0	16	6		0	75.5	0.0	58.3
Oct 30			804	28	7	0	0	26	5		0	93.7	0.0	58.5
Oct 31			761	21	11	0	0	17	6		0	101.3	0.0	58.3
TOTAL			14,791	1,196	2,010	53	75	1,663	573		8			

AVG.			477	39	65	2	2	54	18		0	53.6	0.0	61.0
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
TOTALS TO DATE									
SPRING	41,004	1,259	4,289	136	264,675	13,860	5,900	81	2,165
SUMMER	85,740	2,686							
FALL	30,064	2,474							
TOTALS	156,808	6,419							

TABLE 164

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

ROCK ISLAND PROJECT- FISH COUNTS

NOVEMBER 2015

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			964	20	15	0	19	9	0		107.0	0.0	55.6		
Nov 2			412	16	9	1	16	8	0		99.5	0.0	57.0		
Nov 3			599	13	13	0	4	1	1		66.3	0.0	57.0		
Nov 4			543	18	6	0	16	8	0		70.2	0.0	56.8		
Nov 5			413	5	7	1	7	4	0		50.9	0.0	56.7		
Nov 6			338	5	4	0	14	6	0		74.5	0.0	56.5		
Nov 7			419	5	2	0	11	5	0		103.9	0.0	56.3		
Nov 8			313	9	5	0	8	3	0		101.7	0.0	56.5		
Nov 9			208	15	1	0	16	4	0		60.1	0.0	55.9		
Nov 10			195	9	1	0	16	10	0		58.6	0.0	55.9		
Nov 11			86	5	0	1	13	7	0		79.2	0.0	55.8		
Nov 12			60	4	2	0	19	7	0		88.4	0.0	55.6		
Nov 13			41	3	2	0	14	7	0		46.4	0.0	55.4		
Nov 14			32	4	1	0	11	4	0		122.1	0.0	54.7		
Nov 15			23	1	3	0	7	3	0		77.6	0.0	54.3		
Nov 16											102.3	0.0	54.3		
Nov 17											102.0	0.0	54.0		
Nov 18											105.4	0.0	52.5		
Nov 19											97.1	0.0	52.7		
Nov 20											95.6	0.0	52.9		
Nov 21											88.0	0.0	52.9		
Nov 22											99.9	0.0	52.7		
Nov 23											109.1	0.0	51.8		
Nov 24											85.3	0.0	51.8		
Nov 25											130.7	0.0	51.3		
Nov 26											112.6	0.0	50.9		
Nov 27											108.8	0.0	50.4		
Nov 28											118.4	0.0	50.0		
Nov 29											84.5	0.0	49.8		
Nov 30											108.3	0.0	49.8		
TOTAL			4,646	132	71	3	3	191	86	1					
AVG.			310	9	5	0	0	13	6	0			91.8	0.0	53.9

RUN YEAR	CHINOOK		COHO		SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
	ADULT	JACK	ADULT	JACK					
TOTALS TO DATE									
SPRING	41,004	1,259	4,360	139	264,678	14,051	5,986	82	2,165
SUMMER	85,740	2,686							
FALL	34,710	2,606							
TOTALS	161,454	6,551							

TABLE 165

**MONTHLY COUNT OF STEELHEAD
ROCK ISLAND DAM 1981 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981						30	282	1,886	2,338	2,493	347		7,376
1982				118	113	8	157	2,246	4,260	2,785	192		9,879
1983				53	36	18	579	5,811	16,942	5,619	608		29,666
1984				88	220	180	1,962	7,925	10,507	3,687	527		25,096
1985				106	393	729	4,886	6,588	16,089	2,889	319		31,999
1986				145	168	192	3,383	10,036	5,883	2,731	347		22,885
1987				100	94	112	1,242	4,900	4,095	1,842	347		12,732
1988				193	156	173	737	2,813	3,446	1,523	200		9,241
1989				135	73	66	847	2,685	3,999	1,355	191		9,351
1990				55	46	99	953	2,385	2,577	736	93		6,944
1991				30	51	45	916	3,322	4,194	2,165	204		10,927
1992				86	193	315	1,603	2,821	5,714	1,599	145		12,476
1993				97	88	87	1,427	546	1,930	597	57		4,829
1994				29	16	50	631	1,151	2,181	1,437	125		5,620
1995				23	35	44	421	951	2,153	510	38		4,175
1996				17	34	27	303	2,224	3,701	920	79		7,305
1997				19	22	7	300	2,343	3,461	1,466	108		7,726
1998				20	13	29	449	726	2,486	1,141	98		4,962
1999				17	22	37	377	2,429	2,900	540	40		6,362
2000				18	5	74	1,356	3,299	4,974	727	63		10,516
2001				49	23	185	3,094	9,380	12,129	3,461	292		28,613
2002				53	20	85	2,327	6,374	5,144	1,200	79		15,282
2003				17	17	51	1,664	4,233	9,339	2,061	127		17,509
2004				50	108	363	2,518	2,983	11,794	1,658	73		19,547
2005				30	29	135	1,423	3,362	5,925	1,422	83		12,409
2006				44	19	23	693	2,332	5,175	1,032	64		9,382
2007				27	25	33	830	4,378	5,943	1,888	172		13,296
2008				163	109	292	2,749	5,868	5,819	1,206	82		16,288
2009				62	41	47	1,502	10,229	22,154	3,565	200		37,800
2010				103	21	100	3,994	8,946	7,472	1,441	102		22,179
2011				42	32	11	849	8,146	8,153	1,711	80		19,024
2012				98	75	108	1,410	6,186	5,959	1,464	154		15,454
2013				49	57	79	703	3,764	4,817	1,891	141		11,501
2014				195	81	98	1,193	3,777	7,092	2,389	212		15,037
2015				76	56	79	1,004	4,443	6,539	1,663	191		14,051
Total				2,407	2,491	4,011	48,764	151,488	227,284	64,814	6,180		507,439
10-Year Average				86	52	87	1,493	5,807	7,912	1,825	140		17,401

ROCKY REACH DAM

Fish Counting Schedule

Jan 1 - Apr 13	No video recording or fish counting during this period.
Apr 14 - Nov 15	Video recording 24 hours per day/7 days a week. Video counting daily from 0700 to 1530 hours Pacific Standard Time.
Nov 16 - Dec 31	No video recording or fish counting during this period.

Fish Ladder Operating Schedule

Jan 1 to Jan 5	Fishway in service.
Jan 6 to Feb 26	Fishway out of service for 2014/2015 annual maintenance period.
Feb 27 to Dec 31	Fishway in service.

Fish Facility Activities

The adult fish PIT tag system was operational throughout the 2015 adult fish migration. PIT tag detections from the fishway were uploaded daily to PTAGIS.

The juvenile fish bypass system was operated for fish passage from 1 April through 30 August 2015. Juvenile fish sampling occurred over the same time frame. The annual bypass (biological) evaluation included the collection of species composition and fish condition data.

TABLE 166

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				727	8,826	20,595	46,251	22,249	14,567	13,826	4,061		131,102
STEELHEAD				74	38	29	550	3,314	5,172	1,541	176		10,894
SOCKEYE						56,290	151,805	7,676	526	88	4		216,389
COHO									904	1,186	50		2,140
PINK													0
TOTAL				801	8,864	76,914	198,606	33,239	21,169	16,641	4,291		360,525
LAMPREY						8	564	1,298	256	7	1		2,134
BULL TROUT					55	75	19	2	0	2	7		160

TABLE 167

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

ROCKY REACH PROJECT- FISH COUNTS

APRIL 2015

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												132.8	11.8	43.7
Apr 2												134.7	1.3	43.8
Apr 3												137.9	0.0	43.6
Apr 4												132.9	0.0	43.7
Apr 5												131.5	0.0	43.6
Apr 6												129.7	0.0	43.5
Apr 7												113.1	0.0	43.5
Apr 8												114.3	0.0	43.8
Apr 9												124.2	0.0	44.2
Apr 10												119.7	0.0	44.5
Apr 11												98.7	0.0	44.9
Apr 12												116.8	1.1	45.0
Apr 13												118.3	0.0	45.3
Apr 14	0			0				3	2			84.2	0.0	45.4
Apr 15	2			0				13	8			107.9	0.0	45.5
Apr 16	1			0				7	7			116.7	0.0	45.9
Apr 17	0			0				4	3			110.6	0.0	46.1
Apr 18	0			0				2	2			79.7	0.0	46.4
Apr 19	4			0				7	5			90.5	0.0	46.7
Apr 20	4			0				3	1			116.2	0.0	47.3
Apr 21	1			0				3	1			97.3	0.0	47.7
Apr 22	2			0				9	7			86.3	0.0	48.0
Apr 23	9			0				3	0			100.1	0.0	48.2
Apr 24	12			0				4	4			101.2	0.0	48.3
Apr 25	27			0				4	2			85.2	0.0	48.3
Apr 26	55			0				3	3			79.8	0.0	48.0
Apr 27	48			0				3	3			94.1	0.0	48.2
Apr 28	94			0				2	1			95.9	0.0	48.6
Apr 29	246			0				3	2			76.7	0.0	48.9
Apr 30	221			1				1	1			95.2	0.0	48.9
TOTAL	726			1				74	52					
AVG.	43			0				4	3			107.4	0.5	46.0

TABLE 168

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

MAY 2015

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	321			0				1	0	0		113.3	0.0	49.1
May 2	510			0				8	4	0		111.3	0.0	49.4
May 3	449			0				7	7	1		101.6	0.0	49.3
May 4	194			0				0	0	0		107.5	0.0	50.1
May 5	245			3				0	0	0		87.9	0.0	50.1
May 6	379			5				3	2	0		85.3	0.0	49.6
May 7	197			2				1	1	0		82.2	0.0	49.7
May 8	628			9				1	1	1		80.6	0.0	50.4
May 9	612			5				1	0	0		85.9	0.0	50.5
May 10	502			4				3	3	0		75.4	0.0	50.6
May 11	640			9				2	1	3		97.4	0.0	51.1
May 12	461			12				0	0	1		113.8	1.6	51.4
May 13	286			28				0	0	2		123.2	4.6	50.8
May 14	123			5				0	0	0		115.7	0.0	50.7
May 15	145			0				0	0	2		98.8	0.1	50.8
May 16	145			5				1	1	0		92.8	0.3	51.5
May 17	431			0				1	0	2		114.6	0.0	52.4
May 18	196			6				1	1	1		99.4	0.0	53.2
May 19	205			60				3	1	10		68.8	0.0	53.8
May 20	208			16				1	1	4		94.1	0.0	54.3
May 21	123			10				1	1	0		93.1	0.0	54.4
May 22	106			30				1	1	3		102.4	0.0	54.2
May 23	223			29				1	0	1		95.5	0.0	54.8
May 24	82			15				1	0	2		118.5	0.0	55.4
May 25	194			15				0	0	1		111.6	0.0	55.7
May 26	180			16				0	0	3		115.7	0.0	55.8
May 27	121			30				0	0	3		110.9	0.0	55.9
May 28	104			40				0	0	4		115.9	0.0	55.9
May 29	116			19				0	0	4		92.8	0.0	56.3
May 30	151			24				0	0	5		108.3	11.4	56.8
May 31	122			30				0	0	2		140.3	22.3	56.9
TOTAL	8,399			427				38	25	55				
AVG.	271			14				1	1	2		101.7	1.3	52.6
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD	BULL TROUT				
SPRING		9,125	428					112	77	55				

TABLE 169

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JUNE 2015

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	187			5			0	0	0	5	0	89.9	10.7	57.1
Jun 2	131			7			0	0	0	6	0	85.6	10.6	57.5
Jun 3	119			20			0	1	1	3	0	90.2	6.8	57.6
Jun 4	110			3			1	0	0	3	0	122.3	8.9	58.3
Jun 5	168			6			2	2	1	7	0	121.8	8.8	58.3
Jun 6	203			12			1	1	1	7	0	154.2	10.6	58.6
Jun 7	171			7			0	0	0	3	0	101.8	8.5	59.0
Jun 8	137			14			3	0	0	4	0	115.5	10.3	59.4
Jun 9	205			25			12	0	0	0	0	73.6	9.3	60.1
Jun 10	214			18			9	0	0	1	0	107.1	10.8	60.3
Jun 11	343			8			33	0	0	4	0	98.1	9.7	60.4
Jun 12	415			12			48	1	0	1	0	107.4	10.4	60.6
Jun 13	411			12			80	0	0	4	0	89.2	8.4	60.6
Jun 14	204			0			60	2	1	5	0	113.8	8.8	60.8
Jun 15	417			7			95	1	0	3	0	74.8	10.6	60.4
Jun 16	404			5			199	0	0	0	0	66.8	10.8	60.4
Jun 17	482			4			451	1	0	0	1	91.8	6.5	60.4
Jun 18	892			11			716	0	0	4	0	95.0	9.3	60.4
Jun 19	906			5			1,016	0	0	1	0	61.2	8.7	60.6
Jun 20	694			24			1,010	0	0	4	0	73.1	8.7	60.8
Jun 21	983			22			1,792	1	0	1	0	38.3	6.5	61.5
Jun 22	1,209			7			2,236	4	2	3	0	89.9	51.7	62.1
Jun 23	1,094			10			2,415	0	0	0	0	80.0	8.7	62.2
Jun 24		1,745		43			5,445	5	3	1	1	67.1	8.6	62.6
Jun 25		1,301		4			5,516	3	2	1	1	85.7	8.7	62.2
Jun 26		1,282		6			5,130	2	1	0	0	121.1	10.1	62.2
Jun 27		1,381		5			5,945	0	0	2	0	86.8	10.0	62.2
Jun 28		891		4			6,009	3	2	2	2	84.6	9.9	62.8
Jun 29		1,117		39			6,918	2	1	0	0	72.5	9.9	63.5
Jun 30		2,389		45			11,148	0	0	0	3	99.0	8.4	64.2
TOTAL	10,099	10,106		390			56,290	29	15	75	8			
AVG.	439	1444		13			1876	1	1	3		91.9	10.7	60.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,224	672
SUMMER	10,106	146
TOTALS	29,330	818

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
56,290	141	92	130	8

TABLE 170

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

JULY 2015

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER											
Jul 1		1,858	61			15,682	5	4	0	3	97.8	8.3	64.8
Jul 2		1,757	31			17,053	10	8	1	1	62.7	8.3	64.8
Jul 3		1,595	31			14,059	7	2	4	1	90.6	8.4	65.1
Jul 4		1,669	74			13,963	8	3	2	4	121.4	7.3	65.1
Jul 5		2,084	76			12,525	18	13	3	3	107.9	7.2	65.3
Jul 6		2,812	83			11,721	18	13	1	5	60.4	8.5	64.9
Jul 7		2,761	63			12,939	9	6	0	3	91.2	8.5	64.9
Jul 8		2,235	51			12,376	10	4	3	6	80.2	9.6	65.1
Jul 9		1,533	29			9,936	10	5	1	15	73.7	8.5	65.5
Jul 10		757	9			6,509	11	7	1	9	57.0	8.6	65.7
Jul 11		1,601	67			5,384	7	3	0	14	44.1	8.5	65.3
Jul 12		1,327	22			3,562	13	10	0	16	81.1	7.1	65.7
Jul 13		2,023	30			2,725	21	19	0	14	95.6	8.3	65.1
Jul 14		1,615	30			2,019	17	8	0	18	80.9	8.9	65.1
Jul 15		1,910	48			1,976	13	10	1	6	98.0	8.1	64.9
Jul 16		1,000	28			1,458	9	5	0	25	88.3	8.7	64.6
Jul 17		633	13			877	16	13	0	21	82.3	8.7	64.4
Jul 18		699	21			673	13	6	0	10	86.5	8.6	64.9
Jul 19		709	23			671	15	9	0	11	99.0	8.7	65.8
Jul 20		969	30			694	24	16	2	11	100.5	8.8	66.0
Jul 21		928	28			597	12	7	0	26	69.9	9.5	66.2
Jul 22		1,078	30			441	21	14	0	28	92.8	6.3	66.4
Jul 23		745	22			504	23	11	0	29	80.4	8.3	66.6
Jul 24		1,018	30			383	24	13	0	44	86.1	6.6	66.7
Jul 25		1,294	43			422	26	11	0	33	87.2	6.5	66.6
Jul 26		1,817	46			301	22	9	0	34	61.4	7.2	66.2
Jul 27		2,206	49			438	32	16	0	39	77.6	8.7	65.8
Jul 28		1,401	31			428	26	11	0	24	68.6	8.6	66.0
Jul 29		1,356	53			471	38	22	0	42	115.5	8.3	66.9
Jul 30		841	21			536	40	19	0	39	92.7	8.7	67.3
Jul 31		818	29			482	32	16	0	30	107.1	9.0	66.9
TOTALS		45,049	1,202			151,805	550	313	19	564			

AVG.	1453	39	4,897	18	10	1	18	85.1	8.2	65.6
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,224	672
SUMMER	55,155	1,348
TOTAL	74,379	2,020

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
208,095	691	405	149	572

TABLE 171

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

AUGUST 2015

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		779		33			504	34	21	0	28	80.3	9.3	66.9
Aug 2		918		33			619	34	26	0	28	72.1	8.1	67.1
Aug 3		1,050		28			747	51	27	0	43	78.6	10.2	67.3
Aug 4		1,273		42			585	38	23	0	47	79.9	10.3	67.3
Aug 5		1,289		38			639	39	20	0	35	93.0	10.6	67.6
Aug 6		963		31			537	61	27	0	38	127.8	8.3	67.3
Aug 7		967		22			499	64	34	0	47	50.7	9.4	67.3
Aug 8		853		14			331	58	28	0	37	118.0	0.0	67.5
Aug 9		815		25			326	78	39	0	49	85.0	0.0	67.8
Aug 10		1,207		27			348	97	48	1	47	112.3	0.0	68.0
Aug 11		1,466		30			292	121	62	0	81	113.4	0.0	67.8
Aug 12		788		27			225	114	54	1	49	120.9	0.0	67.8
Aug 13		624		19			232	78	39	0	37	121.2	0.0	68.4
Aug 14		704		20			368	119	52	0	72	96.1	0.0	68.5
Aug 15		547		19			209	165	65	0	75	108.9	0.0	68.4
Aug 16		721		27			193	165	84	0	67	110.3	0.0	68.0
Aug 17		748		30			149	136	68	0	45	120.2	0.0	68.0
Aug 18		684		26			112	113	43	0	49	121.6	0.0	68.5
Aug 19		715		35			166	158	79	0	67	124.7	3.8	68.4
Aug 20		512		22			88	125	65	0	38	121.8	0.0	68.2
Aug 21		526		28			58	117	58	0	40	104.5	0.0	67.8
Aug 22		642		22			87	189	68	0	15	121.4	0.0	67.6
Aug 23		347		16			50	113	44	0	34	94.4	0.0	67.5
Aug 24		85		8			54	66	26	0	29	90.9	0.0	67.3
Aug 25		525		28			67	162	58	0	42	121.4	0.0	67.1
Aug 26		427		19			49	108	45	0	28	86.4	0.0	66.7
Aug 27		241		14			31	123	40	0	32	90.3	0.0	66.9
Aug 28		196		18			25	135	57	0	21	90.4	0.0	67.3
Aug 29		199		11			32	124	56	0	34	76.4	0.0	67.5
Aug 30		241		9			25	98	36	0	28	69.9	0.0	67.6
Aug 31		460		16			29	231	95	0	16	106.0	0.0	67.5
TOTAL		21,512		737			7,676	3,314	1,487	2	1,298			

AVG.	694	24	248	107	48	0	42	100.3	2.3	67.6
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,224	672
SUMMER	76,667	2,085
TOTALS	95,891	2,757

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
215,771	4,005	1,892	151	1,870

TABLE 172

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

SEPTEMBER 2015

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		277		24	0	0	19	129	36		13	59.8	0.0	66.7
Sep 2			352	30	2	0	19	115	47		16	110.1	0.0	66.4
Sep 3			339	31	0	0	21	166	61		11	54.6	0.0	66.0
Sep 4			226	21	0	0	36	127	64		25	54.9	0.0	65.8
Sep 5			294	28	0	0	26	155	66		20	54.3	0.0	65.8
Sep 6			184	22	0	0	20	150	62		18	48.0	0.0	65.7
Sep 7			359	20	1	0	14	128	47		16	52.7	0.0	65.3
Sep 8			209	16	0	0	20	113	40		7	73.7	0.0	65.3
Sep 9			313	24	0	0	23	159	53		18	62.2	0.0	65.8
Sep 10			185	25	5	0	13	147	53		13	71.2	0.0	66.0
Sep 11			331	25	6	1	15	172	65		12	95.1	0.0	66.0
Sep 12			262	28	3	0	18	157	64		6	39.8	0.0	66.4
Sep 13			292	18	9	0	22	220	82		8	61.6	0.0	66.6
Sep 14			158	15	5	2	22	146	44		17	33.4	0.0	66.0
Sep 15			473	34	6	0	23	150	55		8	43.5	0.0	65.8
Sep 16			709	32	18	0	10	315	109		3	72.3	0.0	65.5
Sep 17			688	36	22	6	27	188	73		8	52.4	0.0	65.5
Sep 18			732	34	15	0	33	206	79		7	60.5	0.0	65.3
Sep 19			316	31	23	0	11	163	72		5	46.6	0.0	65.1
Sep 20			369	14	28	4	14	125	32		1	41.7	0.0	65.1
Sep 21			381	19	16	1	20	166	59		3	60.1	0.0	65.1
Sep 22			646	39	59	2	20	234	98		1	53.6	0.0	64.8
Sep 23			729	36	65	7	22	228	85		2	67.2	0.0	64.8
Sep 24			901	53	81	10	7	253	87		3	61.4	0.0	64.8
Sep 25			834	61	66	1	8	207	80		5	65.9	0.0	64.8
Sep 26			857	58	110	4	9	226	80		2	82.2	0.0	64.6
Sep 27			397	42	70	4	10	168	58		2	79.9	0.0	64.0
Sep 28			362	39	93	4	10	152	54		4	40.1	0.0	63.7
Sep 29			667	33	80	7	10	166	46		0	61.4	0.0	63.7
Sep 30			797	40	57	11	4	141	46		2	65.2	0.0	63.3
TOTAL		277	13,362	928	840	64	526	5,172	1,897		256			
AVG.			461	31	28	2	18	172	63		9	60.8	0.0	65.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,224	672
SUMMER	76,944	2,109
FALL	13,362	904
TOTALS	109,530	3,685

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
840	64	216,297	9,177	3,789	151	2,126

TABLE 173

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

ROCKY REACH PROJECT- FISH COUNTS

OCTOBER 2015

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			440	24	65	10	9	111	42	0	1	69.0	0.0	63.3
Oct 2			485	43	85	1	8	139	50	0	0	52.2	0.0	63.1
Oct 3			414	49	52	1	11	92	31	0	2	64.8	0.0	62.8
Oct 4			411	32	59	1	4	91	29	0	1	84.9	0.0	62.4
Oct 5			388	36	46	4	10	75	24	0	1	42.1	0.0	62.4
Oct 6			564	32	100	12	2	109	46	0	0	53.2	0.0	62.2
Oct 7			331	46	62	1	9	89	23	0	0	48.6	0.0	62.1
Oct 8			302	40	43	2	1	60	18	0	0	50.3	0.0	61.9
Oct 9			387	64	50	0	7	77	20	0	0	37.3	0.0	61.9
Oct 10			436	55	62	2	2	61	21	0	0	37.5	0.0	61.9
Oct 11			210	36	45	5	1	33	11	0	1	49.4	0.0	61.9
Oct 12			275	15	35	0	4	52	18	0	0	58.5	0.0	61.7
Oct 13			365	42	41	2	0	66	26	0	1	69.2	0.0	61.5
Oct 14			332	32	55	1	2	42	9	1	0	61.4	0.0	61.5
Oct 15			291	36	29	6	1	38	10	0	0	57.0	0.0	61.3
Oct 16			375	33	36	0	2	40	14	0	0	75.7	0.0	61.3
Oct 17			305	24	38	0	4	47	19	0	0	57.0	0.0	61.2
Oct 18			186	17	17	2	1	23	11	0	0	50.9	0.0	61.0
Oct 19			287	25	34	1	2	46	16	0	0	44.2	0.0	60.6
Oct 20			447	16	12	0	4	22	9	0	0	76.6	0.0	60.6
Oct 21			377	24	11	2	0	22	6	1	0	56.0	0.0	60.6
Oct 22			329	18	23	1	2	23	7	0	0	47.0	0.0	60.4
Oct 23			388	30	24	2	1	40	13	0	0	39.3	0.0	60.1
Oct 24			326	17	19	1	0	20	6	0	0	31.6	0.0	59.7
Oct 25			347	17	20	0	0	12	3	0	0	50.0	0.0	59.4
Oct 26			450	28	14	1	0	26	10	0	0	31.7	0.0	59.0
Oct 27			354	9	9	1	1	14	4	0	0	24.4	0.0	58.6
Oct 28			693	15	8	0	0	19	4	0	0	30.2	0.0	58.6
Oct 29			930	6	23	1	0	14	4	0	0	61.0	0.0	58.6
Oct 30			683	26	5	0	0	20	9	0	0	94.0	0.0	58.6
Oct 31			811	20	4	0	0	18	4	0	0	72.1	0.0	58.3
TOTAL			12,919	907	1,126	60	88	1,541	517	2	7			

AVG.	417	29	36	2	3	50	17	0	0	54.1	0.0	60.9
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,224	672
SUMMER	76,944	2,109
FALL	26,281	1,811
TOTALS	122,449	4,592

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
1,966	124	216,385	10,718	4,306	153	2,133

TABLE 174

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

ROCKY REACH PROJECT- FISH COUNTS

NOVEMBER 2015

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
	SPRING	SUMMER											
Nov 1			593	12	11	0	18	4	0	0	74.4	0.0	57.9
Nov 2			701	19	4	0	11	3	0	0	69.6	0.0	57.6
Nov 3			497	12	4	0	18	8	0	0	74.8	0.0	57.4
Nov 4			576	14	6	0	14	4	0	0	65.4	0.0	57.2
Nov 5			345	6	2	0	14	8	0	0	58.1	0.0	56.8
Nov 6			342	1	2	0	10	3	0	0	74.9	0.0	56.8
Nov 7			269	7	6	0	8	2	0	0	99.7	0.0	56.5
Nov 8			212	7	2	2	9	5	4	1	92.8	0.0	56.5
Nov 9			146	2	0	2	13	4	0	0	61.7	0.0	56.3
Nov 10			106	5	5	0	3	1	0	0	55.6	0.0	56.1
Nov 11			64	7	0	0	15	7	0	0	63.1	0.0	56.1
Nov 12			50	0	1	0	10	5	2	0	55.8	0.0	55.8
Nov 13			19	1	3	0	9	4	0	0	32.7	0.0	55.8
Nov 14			35	0	3	0	12	3	0	0	75.8	0.0	55.6
Nov 15			13	0	1	0	12	3	1	0	68.9	0.0	55.4
Nov 16											80.3	4.3	54.9
Nov 17											43.4	0.0	54.9
Nov 18											57.9	0.0	54.3
Nov 19											73.3	0.0	54.0
Nov 20											80.9	0.0	53.8
Nov 21											76.5	0.0	53.4
Nov 22											72.5	0.0	52.9
Nov 23											92.7	0.0	52.3
Nov 24											63.7	0.0	52.2
Nov 25											108.0	0.0	51.8
Nov 26											109.2	0.0	51.1
Nov 27											94.8	0.0	50.9
Nov 28											107.8	0.0	50.5
Nov 29											62.8	0.0	50.2
Nov 30											93.2	0.0	49.8
TOTAL			3,968	93	50	4	176	64	7	1			
AVG.			265	6	3	0	12	4	0	0	74.7	0.1	54.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,224	672
SUMMER	76,944	2,109
FALL	30,249	1,904
TOTALS	126,417	4,685

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2,016	124	216,389	10,894	4,370	160	2,134

TABLE 175

**MONTHLY COUNT OF STEELHEAD
ROCKY REACH DAM: 1981 - 2015**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981						14	173	1,309	1,827	1,691	300		5,314
1982				137	116	5	73	1,192	2,863	1,735	120		6,241
1983				31	18	2	334	3,525	11,329	4,048	411		19,698
1984				41	174	127	1,032	5,564	7,263	2,589	438		17,228
1985				63	273	523	3,547	4,152	11,133	2,646	381		22,718
1986				61	178	160	2,003	6,072	4,225	2,222	236		15,157
1987				67	75	80	567	2,574	2,361	1,210	244		7,178
1988				99	108	108	493	1,498	2,439	820	112		5,677
1989				62	41	30	458	1,442	2,721	1,134	151		6,039
1990				24	31	33	534	1,809	1,889	646	67		5,033
1991				19	26	63	584	2,346	2,996	1,473	138		7,645
1992				50	138	203	1,026	1,861	3,051	1,093	94		7,516
1993				49	52	24	346	869	1,066	379	31		2,816
1994				12	11	30	301	578	1,002	821	63		2,818
1995				18	12	9	147	398	827	315	32		1,758
1996				23	26	12	179	1,585	2,868	969	112		5,774
1997				40	15	1	192	1,789	2,901	1,576	208		6,722
1998				71	18	23	281	671	2,025	1,127	226		4,442
1999				35	16	46	198	1,518	2,361	557	84		4,815
2000				62	22	34	679	2,276	4,289	835	78		8,275
2001				83	33	83	1,861	6,843	9,827	3,025	290		22,045
2002				152	33	49	1,441	4,631	4,103	1,332	112		11,853
2003				46	4	40	1,154	3,393	6,649	2,211	153		13,650
2004				177	142	244	1,847	2,571	7,748	1,650	201		14,580
2005				278	85	60	762	2,430	4,589	1,423	83		9,710
2006				117	34	14	401	1,774	4,557	1,028	199		8,124
2007				93	75	46	507	2,777	4,247	2,227	174		10,146
2008				308	201	303	1,882	4,429	4,776	1,406	566		13,871
2009				302	134	49	967	7,355	17,011	3,509	220		29,547
2010				285	85	49	2,318	7,265	6,024	1,511	334		17,871
2011				327	263	25	516	5,368	6,566	2,105	110		15,280
2012				525	203	104	908	4,731	4,846	1,554	229		13,100
2013				94	63	32	448	2,758	3,719	1,932	158		9,204
2014				174	75	39	532	2,263	5,427	1,943	134		10,587
2015				74	38	29	550	3,314	5,172	1,541	176		10,894
Total				3,999	2,818	2,693	29,241	104,930	166,697	56,283	6,665		373,326
10-Year Average				230	117	69	903	4,203	6,235	1,876	230		13,862

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 2015.

East Ladder Maintenance

December 9, 2014 to February 5, 2015, outage for inspection and maintenance.

West Ladder Maintenance

March 31, 2015 to April 15, 2015, outage for inspection and maintenance. December 1, 2015 through January 28, 2016, 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 in that entrance. These temporary modifications to the low-level entrance are for Pacific Lamprey passage only, and are designed to preclude salmonid passage. The primary entrance to the west fishway remains open to all fish species, with no changes to standard operating procedures.

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. Due to

moderate flows during the bypass season, Douglas PUD did not need to remove any bypass barriers in 2015 in order to comply with TDG standards.

Douglas PUD operated the Wells bypass system in 2015 as guided by the Wells Habitat Conservation Plan (HCP) Coordinating Committee-approved *2015 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 99.88 percent of the yearling Chinook migration, 99.69 percent of the steelhead migration, 99.99 percent of the Sockeye migration, 99.96 percent of the Coho migration, and 99.97 percent of the sub-yearling Chinook migration passing Wells Dam in 2015.

TABLE 176

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER WELLS DAM
2015

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					8,099	15,431	42,566	21,424	7,274	6,437	2127		103,358
STEELHEAD					37	37	333	2,596	4,243	1,662	235		9,143
SOCKEYE						37,277	142,423	6,719	567	69			187,055
COHO									405	712	56		1,173
TOTAL					8,136	52,745	185,322	30,739	12,489	8,880	2,418		300,729
LAMPREY													0
BULL TROUT					48	37	4	1					90

*Jacks included

TABLE 177

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

MAY 2015

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	215			0				5	3	0		117.1	8.4	48.1
May 2	210			0				2	2	0		113.6	8.0	49.1
May 3	213			0				3	2	0		108.2	8.0	49.0
May 4	264			0				3	2	0		111.1	8.0	48.4
May 5	215			3				2	1	1		90.9	7.1	48.8
May 6	196			1				0	0	0		88.7	6.9	49.3
May 7	196			1				0	0	0		90.4	6.9	49.0
May 8	397			2				0	0	0		84.1	6.2	49.4
May 9	448			1				2	2	2		90.4	6.5	50.1
May 10	655			9				1	1	0		78.2	6.2	50.6
May 11	141			1				2	2	1		101.3	8.1	50.1
May 12	466			26				3	2	0		124.0	8.8	50.3
May 13	248			8				0	0	0		123.1	8.6	49.9
May 14	489			21				2	2	0		121.3	9.0	50.4
May 15	626			37				2	2	0		104.9	9.1	51.4
May 16	335			20				1	1	5		94.7	7.0	52.2
May 17	168			11				0	0	0		113.1	7.9	52.6
May 18	46			9				1	1	4		75.5	7.6	52.9
May 19	119			15				0	0	2		88.0	7.7	53.2
May 20	227			17				0	0	5		113.4	9.5	53.0
May 21	466			70				1	1	3		103.5	8.7	52.9
May 22	206			30				2	2	2		102.5	7.8	54.0
May 23	88			35				1	1	7		117.1	10.0	54.4
May 24	123			38				2	1	1		123.5	10.0	54.7
May 25	84			32				0	0	2		121.9	10.0	54.8
May 26	56			18				0	0	3		105.8	9.8	54.7
May 27	98			50				2	2	2		104.1	9.2	54.9
May 28	94			42				0	0	2		105.2	10.0	55.4
May 29	204			64				0	0	3		80.1	10.0	55.6
May 30	49			38				0	0	1		99.3	18.4	55.9
May 31	94			64				0	0	2		102.1	22.9	56.3
TOTAL	7,436			663				37	30	48				
AVG.	240			21				1	1	2		103.1	9.1	52.0
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD	BULL TROUT				
SPRING		7,436	663					37	30	48				

TABLE 178

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JUNE 2015

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	62			36			0	0	0	0		88.4	7.8	56.4
Jun 2	96			35			0	2	0	3		62.6	5.2	56.9
Jun 3	51			34			0	3	2	3		107.3	7.8	56.8
Jun 4	91			59			0	0	0	2		117.8	10.0	57.0
Jun 5	135			52			0	0	0	2		116.2	10.0	57.3
Jun 6	62			25			0	1	0	2		128.7	9.9	57.8
Jun 7	174			41			2	2	1	3		106.1	9.4	58.3
Jun 8	175			33			0	2	2	2		122.9	10.0	58.6
Jun 9	87			24			3	1	0	0		70.0	7.8	58.7
Jun 10	80			26			1	0	0	1		86.9	9.1	59.2
Jun 11	169			35			16	2	0	0		74.0	7.7	59.4
Jun 12	272			17			17	2	1	2		105.7	7.8	59.5
Jun 13	381			21			30	1	1	1		82.2	6.7	58.7
Jun 14	212			10			50	2	1	3		74.7	6.8	58.7
Jun 15	514			17			66	1	0	0		51.0	4.1	58.4
Jun 16	132			9			44	0	0	1		86.5	5.6	58.5
Jun 17	135			17			104	0	0	1		72.5	7.7	59.1
Jun 18	582			23			238	3	2	1		43.8	4.7	59.3
Jun 19	485			25			396	2	2	0		56.3	5.6	60.3
Jun 20	805			34			696	0	0	2		57.1	4.7	60.7
Jun 21	553			34			969	1	1	0		22.2	5.6	60.9
Jun 22	780			20			1,129	0	0	1		46.1	3.4	60.8
Jun 23	793			17			1,638	0	0	1		67.3	5.6	60.6
Jun 24	894			30			2,257	1	0	1		77.2	7.8	60.5
Jun 25	1,544			61			3,076	5	4	0		67.0	7.3	60.4
Jun 26	1,182			40			4,904	1	0	2		116.3	10.0	61.1
Jun 27	897			49			4,029	2	1	0		122.8	10.0	61.6
Jun 28	1,192			33			5,477	1	0	0		101.5	7.8	62.2
Jun 29		809		31			5,440	0	0	2		101.7	7.8	62.9
Jun 30		1,132		67			6,695	2	1	1		105.3	9.6	62.9
TOTAL	12,535	1,941		955			37,277	37	19	37				
AVG.	448	971		32			1243	1	1	1		84.6	7.4	59.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,971	1,520
SUMMER	1,941	98
TOTAL	21,912	1,618

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
37,277	74	49	85

TABLE 179

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JULY 2015

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		1,387		80			7,605	1	0	1		110.7	10.0	62.9
Jul 2		2,120		103			11,712	1	1	0		82.7	10.0	63.2
Jul 3		1,728		108			14,714	2	0	1		79.9	9.7	63.5
Jul 4		1,548		49			13,571	3	3	1		104.4	10.0	63.3
Jul 5		1,425		64			12,353	7	4	0		96.1	9.6	63.3
Jul 6		1,585		128			9,992	8	6	0		69.4	5.6	63.3
Jul 7		1,888		125			10,374	6	3	1		86.9	7.0	63.5
Jul 8		2,795		158			10,773	4	2	0		73.1	5.8	63.5
Jul 9		2,074		138			9,601	6	4	0		62.8	5.6	63.6
Jul 10		1,461		85			9,045	7	6	0		69.8	5.1	63.7
Jul 11		721		31			6,716	7	3	0		51.9	3.4	63.7
Jul 12		959		58			4,721	2	2	0		99.2	7.8	63.6
Jul 13		880		42			3,863	7	4	0		78.2	7.1	63.4
Jul 14		1,520		68			2,942	3	2	0		86.0	7.8	63.4
Jul 15		1,121		45			2,297	3	1	0		103.7	7.8	62.9
Jul 16		908		56			1,468	9	8	0		104.1	7.8	63.3
Jul 17		1,037		50			1,822	8	4	0		99.1	7.8	63.9
Jul 18		797		53			1,622	5	3	0		99.9	7.8	64.4
Jul 19		1,240		67			1,263	14	9	0		90.4	7.8	64.8
Jul 20		817		43			831	10	6	0		117.7	10.0	65.2
Jul 21		675		32			633	7	6	0		52.7	5.6	65.4
Jul 22		894		40			702	19	11	0		83.5	7.6	65.8
Jul 23		741		54			561	6	2	0		102.1	7.8	32.0
Jul 24		990		64			527	15	11	0		96.0	7.8	65.8
Jul 25		595		24			444	21	12	0		83.7	6.9	64.9
Jul 26		994		62			335	20	11	0		72.7	5.6	65.0
Jul 27		1,499		90			379	21	12	0		85.5	5.6	66.0
Jul 28		2,441		141			382	29	13	0		117.9	9.8	66.2
Jul 29		1,510		90			424	35	16	0		75.1	5.6	65.5
Jul 30		924		74			326	22	12	0		101.5	7.8	65.6
Jul 31		994		76			425	25	13	0		100.9	7.8	66.0

TOTAL

40,268

2,298

142,423

333

190

4

88.3

7.5

63.2

AVG.

1299

74

4594

11

6

0

RUN YEAR

TOTALS TO DATE

CHINOOK ADULT

CHINOOK JACK

SOCKEYE

STEELHEAD

WILD STEELHEAD

BULL TROUT

SPRING

19,971

1,520

179,700

407

239

89

SUMMER

42,209

2,396

TOTAL

62,180

3,916

TABLE 180

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

AUGUST 2015

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		1,086		50			432	36	19	0		91.1	10.0	66.4
Aug 2		714		52			413	38	18	0		78.4	7.0	66.7
Aug 3		684		49			458	19	11	0		83.5	7.3	66.9
Aug 4		1,058		47			502	20	13	0		94.6	7.8	66.6
Aug 5		1,082		53			530	30	16	0		116.8	10.0	66.3
Aug 6		935		34			417	27	13	1		70.9	6.6	66.4
Aug 7		1,199		58			577	41	23	0		70.6	5.6	66.8
Aug 8		887		43			431	38	19	0		90.9	7.8	67.0
Aug 9		869		36			392	56	26	0		57.5	7.8	66.8
Aug 10		1,030		41			327	39	19	0		26.0	3.4	66.9
Aug 11		985		33			277	59	27	0		23.8	3.4	67.2
Aug 12		1,173		34			251	73	34	0		79.6	5.6	67.3
Aug 13		1,024		39			277	107	62	0		106.7	7.9	67.9
Aug 14		549		34			206	105	45	0		139.4	10.0	67.8
Aug 15		478		22			146	81	40	0		63.5	5.6	67.5
Aug 16		493		15			180	93	42	0		111.4	10.0	67.8
Aug 17		609		43			137	116	46	0		96.3	10.0	67.6
Aug 18		780		31			118	132	73	0		104.1	10.0	67.3
Aug 19		617		24			115	102	48	0		102.6	7.7	67.4
Aug 20		630		30			78	130	50	0		111.2	0.0	67.4
Aug 21		572		36			95	125	60	0		98.7	0.0	67.0
Aug 22		425		13			49	110	49	0		108.7	0.0	66.8
Aug 23		460		23			45	123	51	0		74.2	0.0	66.5
Aug 24		371		15			47	102	34	0		82.1	0.0	66.1
Aug 25		282		11			37	127	49	0		108.6	0.0	66.2
Aug 26		174		11			34	72	28	0		95.0	0.0	66.7
Aug 27		395		16			44	148	47	0		96.3	0.0	67.2
Aug 28		359		22			41	115	47	0		86.9	0.0	67.4
Aug 29			239	13			22	113	41	0		105.6	0.0	67.5
Aug 30			99	5			18	92	40	0		45.3	0.0	67.0
Aug 31			219	14			23	127	49	0		94.5	0.0	66.1
TOTAL		19,920	557	947			6,719	2,596	1,139	1				

AVG.	711	186	31				217	84	37	0		87.6	4.6	67.0
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,971	1,520
SUMMER	62,129	3,311
FALL	557	32
TOTAL	82,657	4,863

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
186,419	3,003	1,378	90

TABLE 181

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

SEPTEMBER 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD				
Sep 1			324	14	0	0	21	76	37		62.9	0.0	66.1
Sep 2			276	12	0	0	31	94	34		84.1	0.0	65.9
Sep 3			140	19	0	0	30	100	35		25.8	0.0	65.7
Sep 4			374	17	0	0	33	141	51		53.8	0.0	65.7
Sep 5			245	13	0	0	39	150	48		60.3	0.0	65.7
Sep 6			143	14	0	0	17	108	43		58.1	0.0	65.6
Sep 7			190	9	0	0	20	100	39		45.2	0.0	65.8
Sep 8			123	12	0	0	23	73	32		80.8	0.0	65.5
Sep 9			269	14	0	0	24	94	42		38.3	0.0	65.4
Sep 10			237	7	0	0	29	93	45		86.7	0.0	65.8
Sep 11			185	3	0	0	30	151	66		101.9	0.0	66.0
Sep 12			163	11	2	0	20	139	47		34.3	0.0	32.0
Sep 13			244	10	1	0	21	199	82		50.0	0.0	66.4
Sep 14			80	6	0	0	15	89	40		22.9	0.0	65.8
Sep 15			107	3	4	0	16	118	42		68.4	0.0	65.5
Sep 16			122	5	2	0	18	143	65		70.6	0.0	65.3
Sep 17			396	21	5	2	22	183	57		52.3	0.0	65.2
Sep 18			377	11	8	2	14	229	79		76.4	0.0	65.0
Sep 19			148	16	11	1	15	174	61		43.2	0.0	64.6
Sep 20			397	25	11	0	24	213	69		65.9	0.0	64.5
Sep 21			39	11	7	2	13	65	22		61.1	0.0	64.7
Sep 22			182	10	7	0	7	126	41		28.3	0.0	64.7
Sep 23			239	12	10	3	20	166	51		70.3	0.0	64.5
Sep 24			357	10	36	0	16	228	72		46.9	0.0	64.2
Sep 25			354	19	36	5	13	177	48		31.4	0.0	63.9
Sep 26			345	18	78	1	6	247	72		54.0	0.0	63.7
Sep 27			392	18	55	0	8	183	68		66.6	0.0	63.4
Sep 28			168	17	27	3	13	99	31		29.0	0.0	63.3
Sep 29			124	9	36	2	3	164	51		29.4	0.0	63.1
Sep 30			150	18	44	4	6	121	37		49.9	0.0	62.8

TOTAL	6,890	384	380	25	567	4,243	1,507
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AVG.	230	13	13	19	141	50	55.0	0.0	63.9
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,971	1,520
SUMMER	62,129	3,311
FALL	7,447	416
TOTAL	89,547	5,247

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
380	25	186,986	7,246	2,885	90

TABLE 182

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

OCTOBER 2015

DATE	CHINOOK ADULT		CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	BULL	LAMPREY	DISCH	SPILL	DEG F
	SPRING	SUMMER	FALL	JACK	ADULT			JACK	STEELHEAD				
Oct 1			188	26	52	0	3	140	45		61.8	0.0	62.5
Oct 2			146	14	39	1	7	122	43		41.2	0.0	62.4
Oct 3			296	12	80	0	8	174	50		58.6	0.0	62.2
Oct 4			122	13	62	0	8	96	30		53.5	0.0	62.1
Oct 5			78	24	45	0	14	63	21		25.8	0.0	62.1
Oct 6			118	13	43	0	0	57	19		44.8	0.0	62.1
Oct 7			122	20	27	0	3	65	25		40.2	0.0	32.0
Oct 8			96	8	25	1	3	87	36		46.4	0.0	61.6
Oct 9			69	11	31	5	1	68	29		42.8	0.0	61.6
Oct 10			72	9	22	0	3	83	35		40.7	0.0	61.5
Oct 11			471	41	25	0	1	114	50		36.6	0.0	61.6
Oct 12			274	15	19	3	3	41	14		45.6	0.0	61.5
Oct 13			113	8	18	2	4	35	16		69.3	0.0	61.5
Oct 14			133	16	21	0	1	58	22		46.3	0.0	61.3
Oct 15			137	24	22	0	3	45	12		34.2	0.0	56.5
Oct 16			232	12	20	0	2	61	30		80.9	0.0	57.0
Oct 17			93	10	15	2	1	29	8		38.0	0.0	54.5
Oct 18			193	10	15	2	1	38	10		56.8	0.0	54.0
Oct 19			99	8	4	1	1	30	7		31.4	0.0	57.2
Oct 20			168	9	4	1	1	34	14		65.5	0.0	58.0
Oct 21			92	11	9	1	1	19	4		64.6	0.0	58.0
Oct 22			85	8	8	1	0	21	4		49.4	0.0	58.4
Oct 23			231	13	6	1	0	37	11		36.9	0.0	57.2
Oct 24			282	14	7	0	0	22	11		28.9	0.0	57.0
Oct 25			198	5	7	0	0	24	8		42.3	0.0	55.8
Oct 26			285	10	12	0	0	18	5		64.4	0.0	56.0
Oct 27			298	5	9	0	0	12	7		49.9	0.0	57.3
Oct 28			130	5	13	0	0	22	8		25.9	0.0	58.6
Oct 29			374	12	13	0	0	16	6		57.4	0.0	58.4
Oct 30			542	20	10	0	0	15	2		70.2	0.0	58.3
Oct 31			286	8	8	0	0	16	1		37.2	0.0	58.3
TOTAL			6,023	414	691	21	69	1,662	583				

AVG.	194	13	22	1	2	54	19	48.0	0.0	58.3
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	19,971	1,520
SUMMER	62,129	3,311
FALL	13,470	830
TOTAL	95,570	5,661

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
1,071	46	187,055	8,908	3,468	90

TABLE 183

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

NOVEMBER 2015

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			504	18	5	0		29	7			24.2	0.0	58.1
Nov 2			320	9	3	0		25	9			21.1	0.0	57.6
Nov 3			341	12	7	0		27	9			59.8	0.0	57.7
Nov 4			201	8	3	0		19	5			45.8	0.0	57.3
Nov 5			200	8	7	0		16	5			61.5	0.0	57.2
Nov 6			115	3	9	0		16	6			54.6	0.0	56.7
Nov 7			90	2	6	0		10	6			82.1	0.0	56.9
Nov 8			81	4	2	0		8	2			74.6	0.0	57.0
Nov 9			74	2	1	0		13	4			54.0	0.0	57.0
Nov 10			48	0	3	0		14	6			36.7	0.0	56.8
Nov 11			33	1	4	0		7	3			28.6	0.0	56.4
Nov 12			20	1	2	0		14	3			69.6	0.0	56.0
Nov 13			17	1	0	1		13	10			50.7	0.0	56.1
Nov 14			7	1	1	1		11	4			50.8	0.0	56.0
Nov 15			5	1	1	0		13	5			53.5	0.0	55.8
Nov 16												76.1	0.0	55.0
Nov 17												36.6	0.0	55.1
Nov 18												36.6	0.0	54.7
Nov 19												40.1	0.0	54.5
Nov 20												75.0	0.0	53.7
Nov 21												65.0	0.0	53.6
Nov 22												59.7	0.0	53.2
Nov 23												60.7	0.0	53.1
Nov 24												20.8	0.0	52.6
Nov 25												64.9	0.0	32.0
Nov 26												96.5	0.0	51.7
Nov 27												76.0	0.0	51.5
Nov 28												102.0	0.0	51.2
Nov 29												59.0	0.0	51.2
Nov 30												79.8	0.0	50.6

TOTALS		2,056	71	54	2			235	84					
AVG.		137	5	4	0			16	6			57.2	0.0	54.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
	SPRING	19,971	1,520	1,125	48	187,055	9,143	3,552	90
SUMMER	62,129	3,311							
FALL	15,526	901							
TOTAL	97,626	5,732							

TABLE 184

MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2015

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1976					44	37	56	530	1964	1856	156		4,643
1977					37	22	38	1,034	818	2,849	526		5,324
1978					177	32	12	399	432	528			1,580
1979					72	2	22	1,212	938	1,040	355		3,641
1980					202	24	15	382	1,032	1,358	413		3,426
1981					139	23	107	212	1,702	1,401	513		4,097
1982					149	7	67	814	2,428	3,733	730		7,928
1983					26	2	145	1,891	10,728	5,294	1,327		19,413
1984					153	32	766	5,024	6,545	3,298	778		16,596
1985					220	401	2,675	3,387	9,822	2,821	541		19,867
1986					65	102	1,515	4,994	3,833	2,391	403		13,303
1987					13	29	413	1,897	1,668	1,236	237		5,493
1988					85	103	357	1,273	1,797	785			4,400
1989					43	11	351	1,168	2,223	804			4,600
1990					20	16	283	1,093	1,630	702	104		3,848
1991					14	8	361	2,054	3,078	1,923	313		7,751
1992					86	168	892	1,448	2,946	1,346	181		7,067
1993					48	10	240	706	883	490	23		2,400
1994					7	8	240	442	670	695	121		2,183
1995					5	6	77	160	509	188	**		945
1996					11	7	79	764	2,099	921	246		4,127
1997					38	6	82	868	1,758	1,199	156		4,107
1998					5	3	161	363	1,031	995	110		2,668
1999					13	33	106	903	1,941	446	62		3,504
2000					23	6	309	1,338	3,661	857	86		6,280
2001					30	34	947	5,404	8,326	3,339	403		18,483
2002					66	33	957	3,630	3,388	1,244	157		9,475
2003					21	10	456	2,346	4,618	2,320	192		9,963
2004					74	56	916	1,709	5,039	1,401	122		9,317
2005					63	14	366	1,590	3,287	1,738	145		7,203
2006					28	16	138	922	4,017	1,248	305		6,674
2007					45	18	250	1,605	3,332	2,033	217		7,500
2008					145	167	861	2,792	3,740	1,580	523		9,808
2009					70	37	502	4,777	15,992	3,813	252		25,443
2010					95	34	1,085	4,524	5,235	1,581	375		12,929
2011					123	4	242	3,274	5,873	2,377	176		12,069
2012					101	56	557	3,294	4,001	1,554	215		9,778
2013					64	28	247	2,180	2,767	1,792	144		7,222
2014					122	35	337	1,776	3,390	1,890	185		7,735
2015					37	37	333	2,596	4,243	1,662	235		9,143
TOTAL					2,779	1,677	17,563	76,775	143,384	68,728	11,027		321,933
10-Year Average					83	43	455	2,774	5,259	1,953	263		10,830

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