US Army Corps of Engineers ®
Portland District
Walla Walla District

Annual Fish Passage Report 2011

Columbia and Snake River Projects

2011

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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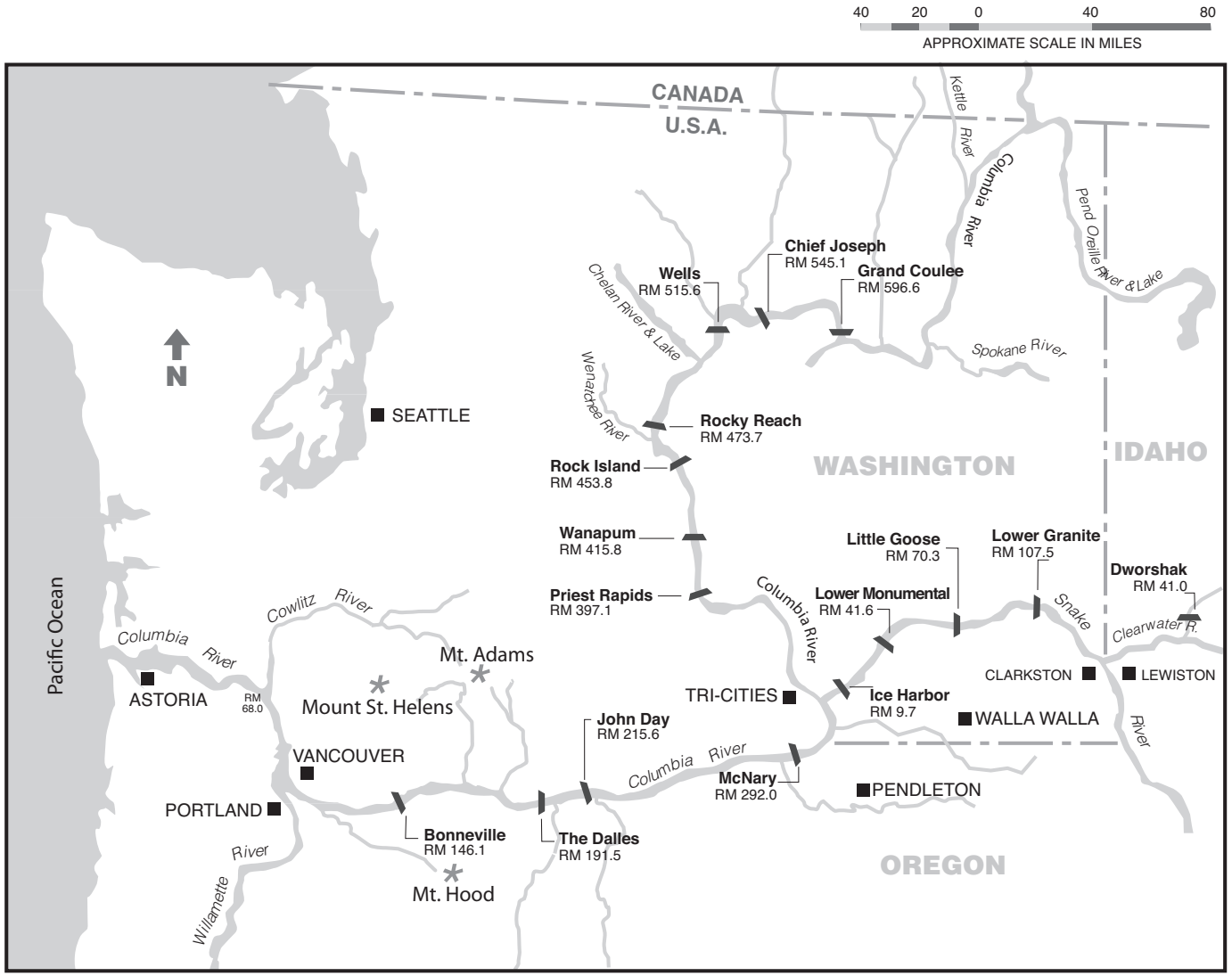


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS ON THE COLUMBIA AND SNAKE RIVERS: 2007-2011

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
2007								
CHINOOK*	359671†	252,215	214,329	178,802	69,105	73,333	60,398	62,530
Spring*	83,230	68,201	57,042	51,104	35,355	35,064	31,187	31,455
Summer*	61,568	52,062	47,908	42,436	10,599	13,362	10,759	11,096
Fall*	214873†	131,952	109,379	85,262	23,151	24,907	18,452	19,979
Jacks	83750†	65,200	61,316	49,740	19,635	17,371	18,120	22,146
STEELHEAD	322341†	241,898	227,198	208,788	153,619	154,104	135,414	157,345
SOCKEYE	24,376	19,124	24,277	18,175	55	44	37	52
COHO*	100155†	32,749	39,226	22,587	2,147	2,231	2,141	2,798
Adults	95892†	30,661	33,017	20,217	1,994	2,092	1,963	2,532
Jacks	4263†	2,088	6,209	2,370	153	139	178	266
SHAD	2,575,277	3,591,988	**	985,466	202,818	**	**	21,386
LAMPREY	19,313	6,085	5,744	3,454	290	138	72	34
2008								
CHINOOK*	587,289	397,766	342,952	267,979	123,007	123,018	108,953	115,632
Spring*	143,097	111,239	96,697	80,213	60,899	61,397	58,201	61,092
Summer*	89,892	77,279	77,329	65,974	28,657	30,233	26,559	27,684
Fall*	354,300	209,248	168,926	121,792	33,451	31,388	24,193	26,856
Jacks	68,480	66,298	60,788	43,295	24,265	20,240	18,674	26,246
STEELHEAD	356,186	277,640	274,799	221,310	172,453	186,058	168,105	175,421
SOCKEYE	213,607	177,984	193,409	146,924	539	722	594	909
COHO*	145,913	42,682	44,898	21,806	3,003	4,513	3,806	4,770
Adults	135,399	37,982	39,975	18,756	2,889	4,143	3,440	3,458
Jacks	10,514	4,700	4,923	3,050	114	370	366	1,312
SHAD	2,144,756	1,805,516	**	623,010	119,312	**	**	3,573
LAMPREY	14,562	4,599	6,625	1,530	264	145	104	61
2009								
CHINOOK*	698,993	525,837	451,974	358,505	180,349	183,451	163,562	168,032
Spring*	181,156	147,554	126,539	113,741	83,658	86,940	76,973	80,731
Summer*	119,352	107,794	99,136	78,319	33,256	35,086	31,547	30,849
Fall*	398,485	270,489	226,299	166,445	63,435	61,425	55,042	56,452
Jacks	218,841	175,120	164,110	126,411	76,234	70,983	67,460	88,716
STEELHEAD	603,264	515,111	581,645	408,157	328,105	317,275	305,436	323,527
SOCKEYE	177,823	155,591	157,402	121,672	867	1,162	1,061	1,219
COHO*	234,347	77,492	71,739	37,270	5,436	5,617	5,239	4,912
Adults	224,597	68,940	64,893	33,358	4,947	4,583	4,548	4,629
Jacks	9,750	8,552	6,846	3,912	489	1,034	691	283
SHAD	1,373,738	1,641,362	**	486,725	79,496	**	**	3,457
LAMPREY	8,622	2,318	2,044	676	57	58	34	12
2010								
CHINOOK*	902,121	618,699	534,247	463,000	199,092	200,817	189,451	189,394
Spring*	256,996	201,385	191,240	163,257	107,235	103,232	98,446	100,612
Summer*	113,207	93,820	83,430	74,589	33,086	39,459	36,378	34,072
Fall*	531,918	323,494	259,577	225,154	58,771	58,126	54,627	54,710
Jacks	92,609	75,458	69,502	44,681	21,780	25,668	20,912	24,598
STEELHEAD	412,760	333,033	283,812	262,513	206,959	213,811	193,891	206,333
SOCKEYE	386,524	325,132	324,128	278,799	1,302	1,652	1,658	2,201
COHO*	127,142	31,374	23,269	15,089	1,735	2,003	2,008	1,902
Adults	120,223	29,091	21,506	13,673	1,521	1,707	1,727	1,509
Jacks	6,919	2,283	1,763	1,416	214	296	281	393
SHAD	1,042,471	1,241,769	**	276,673	70,853	**	**	3,279
LAMPREY	6,237	1,726	1,662	833	114	44	29	14
2011								
CHINOOK*	862,920	591,869	497,771	440,427	177,586	178,281	197,424	179,498
Spring*	218,042	164,310	143,224	132,995	87,467	87,926	90,813	81,405
Summer*	159,730	120,968	110,919	102,786	39,136	44,906	60,425	53,189
Fall*	485,148	306,591	243,628	204,646	50,983	45,449	46,186	44,904
Jacks	185,968	151,007	138,591	102,370	50,117	49,679	58,970	58,141
STEELHEAD	366,554	299,007	257,345	246,069	198,805	187,272	175,328	183,522
SOCKEYE	185,796	138,293	143,605	113,952	1,141	1,395	1,436	1,502
COHO*	149,710	76,753	65,668	44,304	6,727	4,829	4,851	5,348
Adults	145,138	72,120	62,795	42,220	5,914	4,579	4,445	5,057
Jacks	4,572	4,633	2,873	2,084	813	250	406	291
SHAD	948,070	**	**	224,905	37,409	**	**	174
LAMPREY	18,305	4,997	3,566	868	269	99	80	48

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.

† Changes reflect counts updated on the electronic data base after the 2007 AFPR publication.

TABLE 2

FISH ESCAPEMENT AT MID COLUMBIA RIVER DAMS: 2007 - 2011

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
2007				
CHINOOK*	65,962	47,659	34,581	22,280
Spring*	5,884	9,577	3,805	2,793
Summer*	33,045	34,352	27,829	16,817
Fall*	27,033	3,730	2,947	2,670
Jacks	5,960	9,974	7,450	5,362
STEELHEAD	15,183	13,296	10,146	7,500
SOCKEYE	24,645	25,122	20,683	22,273
COHO*	12,310	17,152	4,738	2,432
Adults	11,488	16,604	4,634	2,432
Jacks	822	548	104	**
SHAD	1,015	**	**	**
LAMPREY	6,593	1,299	541	35
2008				
CHINOOK*	104,001	68,075	48,135	31,992
Spring*	12,798	15,095	4,605	3,134
Summer*	42,616	41,877	33,861	22,435
Fall*	48,587	11,103	9,669	6,423
Jacks	18,637	8,019	6,202	4,261
STEELHEAD	16,725	16,288	13,871	9,808
SOCKEYE	196,835	193,739	161,343	165,334
COHO*	6,022	8,393	3,726	1,196
Adults	5,592	6,736	2,944	1,191
Jacks	430	1,657	782	5
SHAD	340	**	**	**
LAMPREY	5,083	880	368	7
2009				
CHINOOK*	114,137	87,420	59,348	44,027
Spring*	16,379	24,027	8,707	8,174
Summer*	51,534	50,263	41,298	29,525
Fall*	46,224	13,130	9,343	6,328
Jacks	10,426	17,449	8,951	7,779
STEELHEAD	40,093	37,800	29,547	25,443
SOCKEYE	153,466	162,830	133,106	134,937
COHO*	11,293	21,905	5,937	3,014
Adults	10,884	19,805	5,611	2,985
Jacks	409	2,100	326	29
SHAD	295	**	**	**
LAMPREY	2,714	375	278	9
2010				
CHINOOK*	124,443	96,670	55,883	41,463
Spring*	31,471	33,063	9,489	8,257
Summer*	50,482	51,698	37,239	28,950
Fall*	42,490	11,909	9,155	4,256
Jacks	6,025	8,315	3,860	3,669
STEELHEAD	26,476	22,179	17,871	12,929
SOCKEYE	357,058	338,310	295,638	291,766
COHO*	2,655	7,695	2,691	1,234
Adults	2,389	6,209	2,181	1,224
Jacks	266	1,486	510	10
SHAD	1,815	**	**	**
LAMPREY	1,114	318	268	2
2011				
CHINOOK*	116,914	94,490	63,711	51,745
Spring*	21,276	23,916	11,304	8,122
Summer*	55,088	60,843	49,841	38,286
Fall*	40,550	9,731	2,566	5,337
Jacks	15,767	28,116	15,338	14,882
STEELHEAD	20,757	19,024	15,280	12,069
SOCKEYE	145,070	146,111	132,096	111,508
COHO*	23,392	31,045	7,951	5,796
Adults	22,098	30,341	7,812	5,784
Jacks	1,294	704	139	12
SHAD	271	**	**	**
LAMPREY	3,868	886	618	1

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 1953-2011

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 - 2011

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 *	83948	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
Total	9,646,080	7,530,419	7,485,268	4,959,102	4,207,565	3,119,185	3,929,123
10-Year Average	328,120	325,608	268,994	200,697	202,742	187,901	198,806

*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.

TABLE 4

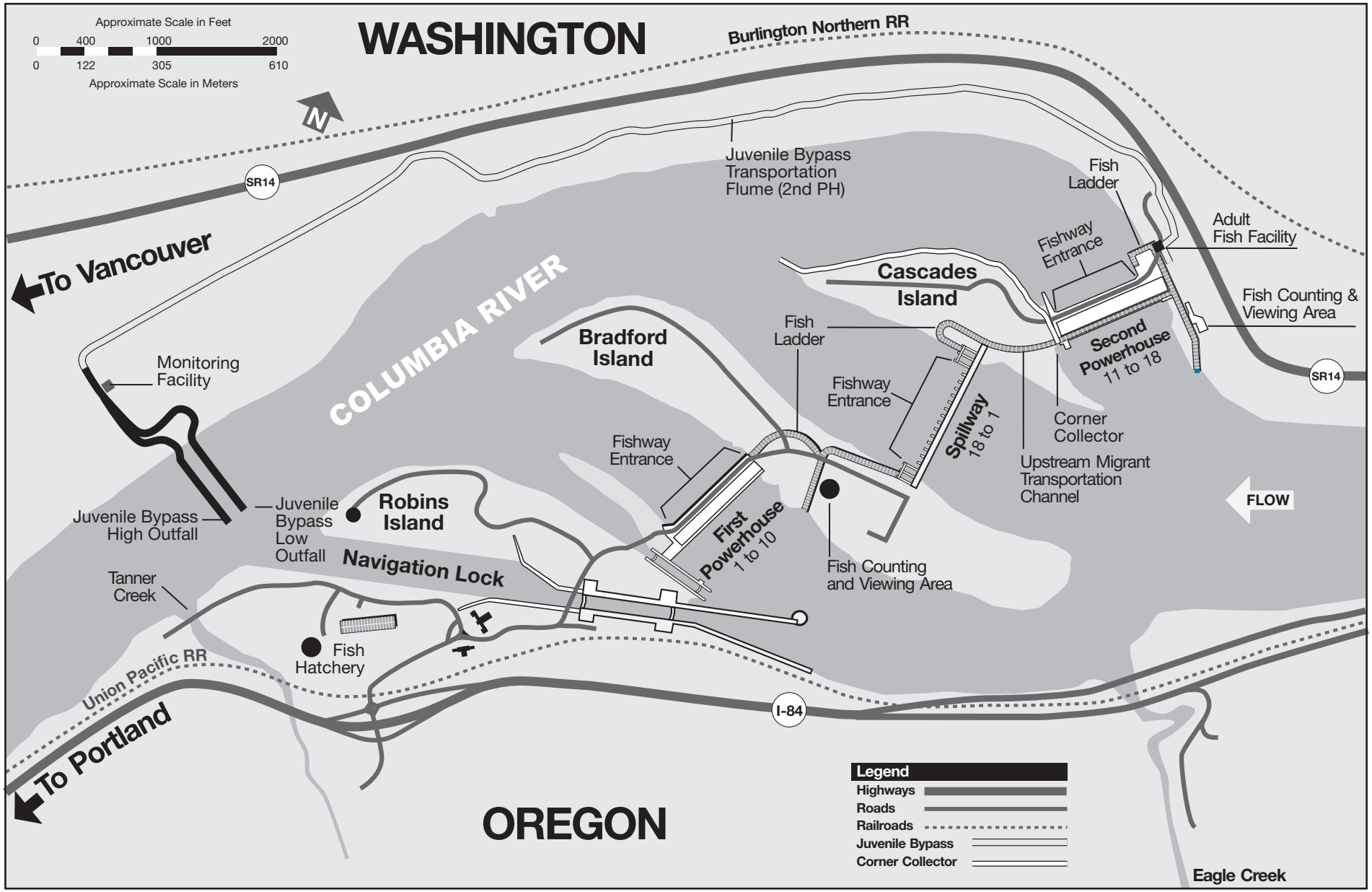
STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2011

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
Total	632,365	432,448	314,851	276,109
10-Year Average	20,374	19,231	15,187	11,689

*Partial year

Plate 2 Bonneville Lock and Dam



BONNEVILLE DAM

FISH COUNTING SCHEDULE

Jan 1 – Mar 31	Video counting daily 0400-2000 hours Pacific Standard Time.
Apr 1 – Oct 31	Visual counting daily 0400-2000 hours Pacific Standard Time.
Jun 15 – Sep 30	Video Lamprey counting 2000-0400 hours PST.
Nov 1 – Dec 31	Video counting daily 0400-2000 hours Pacific Standard Time.

FISH FACILITIES OPERATION SCHEDULE

Fish Facility	OOS Date 2010	In Service Date 2011	OOS Date 2011	Reason for Outage
BI Lamprey Passge Structure	26 Oct 10	31 May 11	09 Nov 11	Winter maintenance
CI Lamprey Passge Structure	11 Sep 10	06 Jun 11	15 Sep 11	Winter maintenance
WS Lamprey Passge Structure	26 Oct 10	25 May 11	09 Nov 11	Winter maintenance
Bradford Island B-branch	N/A	N/A	17 Sep 11	Early outage for emergency erosion repair
Cascades Island ladder	03 Dec 10	28 Feb 11	N/A	Winter maintenance
UMT	03 Dec 10	28 Feb 11	N/A	Winter maintenance
WS Ladder	03 Dec 10	24 Feb 11	N/A	Winter maintenance
The WA shore ladder from "Y" junction to TW was OOS 16-17 Aug for diffuser grating repair.				
The WA shore ladder from "Y" junction to TW was also OOS 14 Oct - 08 Dec for diffuser grating and AWS repair.				
DSM 2	21 Dec 10	17 Feb 11	03 Nov 11	Early 2011 outage for WA shore ladder repair/Winter maintenance
B2CC	31 Aug 10	14 Mar 11	01 Sep 11	Closed for winter maintenance until 2011 fish passage season, Kelt trigger reached on 13 Mar 11, closed for winter maintenance on 01 Sep 11 until 2012 fish passage season.
AFF	26 Oct 10	13 Apr 11	12 Oct 11	Early 2011 outage for ladder repair/Winter maintenance
JMF	29 Oct 10	01 Mar 11	31 Oct 11	System in bypass for winter

FISHWAY ACTIVITIES

Sea lion exclusion devices (SLEDS) installed at the fishway entrances to prevent sea lion access to the fish ladder. The following are fishway modifications for the 2010/2011 passage year:

- Repaired erosion cavities under the B-branch ladder of Bradford Island.
- Welded elevation indicators on chain gates 3B, 6C, and 10B
- Lamprey count improvements including video verification network at exit flume.
- Picket lead spacers for lamprey passage removed on 29 June.
- One inch picket lead spacers installed on 24 May to allow lamprey passage under leads
- SA-24 board replaced with new PH2 Collection Channel Fishway PLC.

- Reattached blown off diffuser grating in ladder at North Monolith and debris removal from AWS and accompanying diffusers.
- AFF sample flume modified to accommodate an auxiliary sample tank used by WDFW. CRITFC obtained and installed a new, larger sample tank complete with a PIT tag detector at the entrance to the tank.
- Picket lead spacers for lamprey passage removed on 29 June.
- NOAA installed a picket lead sill ramp to ease the transition from the ladder into the AWS. NOAA also installed ¾ inch crowder picket leads at the count station.

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.

<u>WA shore ladder (12/03/10):</u> 33 coho, 30 steelhead, 10 chinook, 115 suckers, 92 peamouth, 15 northern pikeminnow, 2 sculpin, and 1 sturgeon.

<u>Cascades Islands ladder (12/03/10):</u> 10 steelhead, 2 coho, 5 juvenile chinook, 100 peamouth, 35 northern pikeminnow, and 3 suckers.

<u>UMT (12/03/10):</u> 20 steelhead, 10 chinook, 8 juvenile chinook, 4 juvenile steelhead, 115 suckers, 37 peamouth, 15 northern pikeminnow, 1 sculpin, 1 bass, and 1 brown trout.

All fish salvaged on 12/03/10 were released at Hamilton Is. boat launch. 1 chinook, 1 steelhead, and an estimated 6 to 8 coho did not survive. Please see Bon Fisheries MFR 06 Dec 2010 for more information.

<u>Unit 12 tail logs (12/06/10):</u> 4 channel catfish, 25 sturgeon, and 7 sculpin.

<u>PH2 South Monolith and PH2CC from Unit 12 south (12/09/10):</u> 900-1000 sturgeon, 12 coho, and 1 bass. Released into the tailrace near the SUE in good condition.

<u>PH2 North Monolith and PH2CC from Unit 12 north (01/25-28/11):</u> 1600-1700 sturgeon, 2 steelhead, and 2 sculpin. Released into the tailrace near the NUE in good condition.

<u>Navigation Lock (03/02-04/11):</u> 5 chinook fry, 35 juvenile coho, 4 yearling chinook, 3 juvenile steelhead, 4 lamprey ammocoetes, 40 crawdads, 32 sculpin, 1 sandroller, 4 stickleback, 9 smallmouth bass, 3 crappie, and 1 juvenile pikeminnow.

Navigation Lock – Upstream sill (03/20/11): 2 yearling chinook.

Unit 5 Headgates (04/20/11): 14 juvenile steelhead, 2 chinook yearlings, 1 juvenile Coho.

Unit 6 Headgates (04/28/11): 1 juvenile steelhead, 3 chinook yearlings.

Unit 5 Headgates (05/04/11): 23 chinook yearlings.

Unit 3 Headgates (06/23/11): 2 juvenile steelhead, 2 subyearling chinook, 1 smallmouth bass.

Navlock Tainter Valve 3 (8/9/11): 1 sturgeon, 8 shad.

AFF (08/16/11): 2 chinook, 5 sturgeon.

Unit 9 Draft tube (09/08/11): 2 sturgeon, 1 catfish.

Unit 17 Scroll case (09/13/11): 1 dead sturgeon.

B-ranch from Junction pool to tailwater (09/17/11): 19 salmonids, 3 sturgeon

B-branch diffuser pools (09/22/11): 2 Coho, 1 Chinook, 7 Steelhead.

FV 4-3, 4-4 Screen pit (09/26/11): 1 carp, 1 sucker.

Diffuser pool FG 3-18 (09/26/11): 1 juvenile Chinook, 1 Rainbow trout.

B-branch ladder (09/28/11): 2 lamprey.

Unit 15 Draft tube (10/04/11): 25 sturgeon, 3 channel catfish.

B-branch entrance (10/05/11): 3 lamprey.

AFF (10/14/11): 5 sturgeon, 1 chinook.

Washington shore ladder (weir 50 to tailwater): 1 juvenile salmonid.

Powerhouse 2 south monolith (10/20/11): 1 sturgeon.

Unit 9 Tail logs (10/28-29/11): 20 sturgeon, 2 bass, 1 walleye.

DSM2 (11/03/11): 1 steelhead.

Powerhouse 2 north monolith (11/08/11): 5 coho, 1 steelhead, 1 lamprey, 1 shad, 1 sculpin, 1 sturgeon.

Unit 15 Tail logs (11/16/11): 1 smallmouth bass, 1 catfish.

TABLE 5

MONTHLY TOTALS OF SALMONID, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER BONNEVILLE DAM.
2011

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*	0	13	161	35,139	182,779	107,352	52,378	68,563	372,184	43,169	1,408	55	863,201
STEELHEAD	805	264	1,267	1,385	1,558	6,807	96,220	172,287	78,963	7,651	1,294	864	369,365
SOCKEYE				1	8	87,794	97,798	195	0				185,796
COHO*							6	12,870	108,156	28,202	644	5	149,883
CHUM							5	0	1	5	39		50
PINK							1	334	3,287	206			3,828
TOTAL	805	277	1,428	36,525	184,345	201,953	246,408	254,249	562,591	79,233	3,385	924	1,572,123
SHAD					1,857	766,135	177,334	2,744					948,070
LAMPREY	1				281	1,210	9,408	5,987	1,314	112	-5	7	18,315
STURGEON	1	0	-1	-1	1	0	3	1	4	12	-1	0	19
BULL TROUT													0

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

TABLE 6

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JANUARY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	0			0				4	3				0	0	169.8	0.5	5.5	39.9
Jan 2	0			0				3	1				0	0	151.6	0.5	5.0	39.9
Jan 3	0			0				2	1				0	0	200.6	0.7	5.0	39.0
Jan 4	0			0				5	3				0	0	188.8	0.7	7.0	39.0
Jan 5	0			0				10	4				0	0	141.2	0.7	7.0	39.0
Jan 6	0			0				7	3				0	0	138.5	0.7	7.0	39.9
Jan 7	0			1				13	8				0	0	140.8	0.6	7.0	39.9
Jan 8	0			0				11	3				0	0	132.2	0.5	7.0	39.9
Jan 9	0			-1				7	1				0	0	164.5	0.5	7.0	39.9
Jan 10	0			0				8	1				0	0	150.8	0.5	7.0	39.0
Jan 11	0			0				7	2				0	0	177.6	0.5	6.5	37.9
Jan 12	0			0				1	1				0	0	187.5	0.8	6.0	37.9
Jan 13	0			0				14	10				0	0	173.0	0.7	7.0	37.0
Jan 14	0			0				52	22				0	0	167.8	0.5	6.0	37.9
Jan 15	0			0				22	10				0	0	188.6	0.6	6.0	37.9
Jan 16	0			0				69	44				0	0	180.9	0.5	1.5	39.0
Jan 17	0			0				8	-1				0	1	228.9	0.7	1.5	39.0
Jan 18	0			0				21	10				1	0	275.0	20.8	1.0	39.9
Jan 19	0			0				23	9				0	0	277.2	24.2	1.0	39.0
Jan 20	0			0				49	26				0	0	254.2	5.8	2.0	39.0
Jan 21	0			0				33	9				0	0	239.4	0.6	1.5	37.9
Jan 22	0			0				34	11				0	0	241.5	7.4	2.0	39.0
Jan 23	0			0				71	38				0	0	263.4	16.6	2.3	39.0
Jan 24	0			0				84	30				0	0	277.8	37.7	3.0	39.0
Jan 25	0			0				87	38				0	0	265.9	21.9	4.0	39.9
Jan 26	1			0				29	10				0	0	232.2	1.8	3.0	39.9
Jan 27	0			-1				37	12				0	0	270.8	26.3	3.0	39.9
Jan 28	0			0				20	5				0	0	261.2	14.3	3.0	39.0
Jan 29	0			0				33	19				0	0	232.8	1.4	2.5	39.9
Jan 30	0			0				17	7				0	0	203.7	0.6	3.0	40.0
Jan 31	0			0				24	7				0	0	238.9	1.6	2.5	39.9
TOTAL	1			-1				805	347				1	1				
AVG	0			0				26	11				0	0	207.0	6.2	4.3	39.2

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

TABLE 7

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

FEBRUARY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	0				0			12	5						244.1	6.2	2.0	39.0
Feb 2	1				0			8	2						211.6	0.5	3.0	39.0
Feb 3	0				1			13	5						206.2	0.5	4.5	39.0
Feb 4	0				-1			6	2						210.3	0.5	4.0	39.0
Feb 5	1				0			12	6						176.6	0.6	5.0	39.0
Feb 6	1				0			16	5						168.2	0.6	5.5	39.9
Feb 7	0				0			18	2						163.4	0.6	2.0	39.9
Feb 8	1				0			16	6						213.9	0.6	2.0	39.9
Feb 9	0				0			5	4						234.1	0.6	2.5	39.9
Feb 10	0				0			6	3						220.0	0.7	2.5	39.0
Feb 11	0				0			4	2						223.8	0.8	3.0	37.9
Feb 12	0				0			11	1						232.5	0.8	3.0	37.9
Feb 13	0				0			8	4						190.3	0.7	4.0	37.9
Feb 14	0				0			9	1						198.5	1.0	4.0	39.0
Feb 15	0				0			24	10						244.0	27.3	4.2	39.0
Feb 16	1				0			7	2						236.3	2.6	5.0	37.9
Feb 17	0				0			10	5						221.7	42.5	5.0	37.9
Feb 18	3				0			9	4						233.2	25.1	5.0	37.9
Feb 19	0				0			3	1						216.5	4.0	5.2	37.9
Feb 20	0				0			6	2						216.7	0.6	6.1	37.9
Feb 21	0				0			3	3						204.5	0.6	6.3	38.0
Feb 22	1				0			5	1						195.3	0.6	5.7	37.9
Feb 23	0				0			8	2						220.1	0.7	5.0	39.0
Feb 24	2				0			12	6						206.1	0.6	5.5	37.9
Feb 25	0				0			7	4						195.4	0.6		37.9
Feb 26	1				0			8	5						191.2	0.6	5.0	37.9
Feb 27	0				0			10	7						204.9	0.6	5.0	37.9
Feb 28	1				0			8	3						203.8	0.7	5.0	37.9
TOTAL	13				0			264	103									
AVG	0				0			9	4						210.1	4.4	4.3	38.6

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

TABLE 8

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

MARCH 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	0			0				7	4					0	239.0	1.3	4.0	37.9
Mar 2	2			0				14	6					0	221.0	1.4	5.0	37.9
Mar 3	1			0				6	4					0	227.1	1.3	6.0	37.9
Mar 4	0			0				9	8					0	223.9	1.2	6.0	37.9
Mar 5	2			0				18	5					0	202.7	1.3	6.0	37.0
Mar 6	3			0				15	10					0	191.2	1.3	5.9	37.0
Mar 7	7			0				11	6					0	215.5	1.5	5.8	37.0
Mar 8	1			0				7	0					0	216.2	1.4	6.0	37.0
Mar 9	2			0				15	3					0	222.5	1.4	6.0	37.9
Mar 10	5			0				80	34					0	225.9	1.4	5.0	39.0
Mar 11	4			0				69	25					0	235.0	1.4	5.0	39.0
Mar 12	5			0				33	15					0	246.3	1.4	6.0	39.0
Mar 13	1			1				17	10					0	202.3	1.4	5.0	39.9
Mar 14	2			1				49	20					0	229.9	1.4	5.0	41.0
Mar 15	1			0				55	26					-1	226.6	1.4	4.0	41.0
Mar 16	9			0				61	29					0	216.3	1.3	4.0	41.0
Mar 17	4			0				35	21					0	243.5	1.4	4.0	41.0
Mar 18	3			0				28	11					0	245.9	1.5	4.0	41.0
Mar 19	2			0				39	11					0	242.1	1.4	4.0	41.0
Mar 20	6			0				36	16					0	208.8	1.4	4.5	41.0
Mar 21	3			0				30	13					0	208.6	1.4	4.3	41.0
Mar 22	10			0				41	10					0	204.7	1.4	4.5	42.1
Mar 23	14			0				42	14					0	246.7	1.4	4.0	42.1
Mar 24	9			0				32	17					0	241.5	1.4	4.0	43.0
Mar 25	15			0				33	15					0	235.1	1.4	4.0	43.0
Mar 26	4			0				43	21					0	233.9	1.4	4.0	42.1
Mar 27	1			0				58	22					0	252.3	1.5	3.0	42.1
Mar 28	6			0				78	44					0	235.9	1.4	3.0	42.1
Mar 29	8			0				92	28					0	225.6	1.4	3.0	42.1
Mar 30	12			0				137	68					0	245.7	3.0	3.5	43.0
Mar 31	17			0				77	30					0	276.4	40.4	3.5	44.1
TOTAL	159			2				1,267	546					-1				
AVG	5			0				41	18					0	228.6	2.7	4.6	40.3

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

Official Spring Chinook run started March 15. January, February, and March 1-14 Chinook counts were not added to spring totals.

TABLE 9

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Apr 1	37			0			0	78	37					0	288.8	52.7	4.0	44.1
Apr 2	42			0			0	73	30					0	331.4	99.8	3.5	44.1
Apr 3	28			0			0	105	49					0	375.1	147.0	3.0	45.0
Apr 4	14			0			0	73	47					0	369.1	142.1	2.5	45.0
Apr 5	44			0			0	70	17					0	390.5	166.8	2.0	46.0
Apr 6	27			0			0	54	20					1	367.4	148.0	2.0	46.0
Apr 7	72			0			0	62	23					0	337.8	116.7	1.5	46.9
Apr 8	84			0			0	47	16					0	307.8	75.2	2.5	46.0
Apr 9	66			0			0	27	8					0	319.9	87.3	3.0	46.0
Apr 10	72			0			0	29	17					0	331.4	99.6	2.0	46.9
Apr 11	50			0			0	22	11					0	323.4	99.6	2.5	46.9
Apr 12	79			0			0	44	25					0	315.7	99.5	2.0	46.9
Apr 13	76			0			0	44	21					0	303.3	99.6	2.0	46.9
Apr 14	85			0			0	40	14					0	283.2	99.5	2.5	46.0
Apr 15	138			1			0	31	14					0	280.8	99.8	2.0	46.0
Apr 16	119			1			0	31	8					0	250.7	99.6	2.0	46.0
Apr 17	113			2			0	27	13					-1	259.2	99.6	2.0	46.0
Apr 18	253			1			0	42	10					0	279.1	99.6	2.5	46.0
Apr 19	231			3			0	26	6					-1	286.2	99.5	3.0	46.0
Apr 20	217			2			0	46	15					0	294.0	99.6	2.5	46.9
Apr 21	361			2			0	19	3					0	284.2	99.8	2.5	46.9
Apr 22	496			0			0	42	14					0	303.7	99.8	3.5	46.9
Apr 23	410			6			0	30	7					0	274.2	99.7	3.0	46.9
Apr 24	539			8			0	29	7					0	263.7	99.6	2.0	46.9
Apr 25	1,019			12			0	29	8					0	271.0	99.6	2.3	48.0
Apr 26	4,787			62			0	59	17					0	256.9	99.7	3.0	48.0
Apr 27	4,690			73			0	55	24					0	282.0	99.7	3.0	48.9
Apr 28	5,846			82			0	50	11					0	271.1	99.8	3.0	48.0
Apr 29	5,927			94			0	57	26					0	260.7	99.5	3.0	48.0
Apr 30	8,657			211			1	44	14					0	231.6	99.6	3.5	48.9
TOTAL	34,579			560			1	1,385	532					-1				
AVG	1,153			19			0	46	18					0	299.8	104.3	2.6	46.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	STURGEON
SPRING	34,703	560	1	2,302	928	-1

TABLE 10

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
May 1	15,766			373			1	72	19			0	0	0	277.5	99.6	3.0	50.0
May 2	8,402			314			1	48	13			0	0	0	262.0	99.6	2.5	50.0
May 3	9,832			460			0	49	10			0	0	0	255.9	99.6	3.5	48.9
May 4	6,478			492			0	43	6			0	0	0	271.0	99.5	3.5	51.1
May 5	7,515			587			0	26	1			0	0	0	267.5	99.3	3.0	51.1
May 6	10,131			1,063			0	32	8			0	0	0	261.3	99.2	4.0	51.1
May 7	7,870			1,323			0	58	13			0	0	0	239.9	99.6	3.5	51.1
May 8	5,839			1,154			0	41	14			0	0	0	252.5	99.6	3.5	51.1
May 9	9,255			2,393			1	40	11			0	0	0	292.7	99.5	3.5	51.1
May 10	9,754			3,930			2	47	10			0	0	0	301.6	99.5	3.5	51.1
May 11	4,625			2,418			0	50	7			5	0	0	280.7	99.7	3.5	52.0
May 12	6,623			3,462			0	35	10			5	0	0	284.6	99.6	3.5	52.0
May 13	4,979			3,659			0	45	17			3	0	0	333.6	102.9	3.0	52.0
May 14	4,392			3,079			0	52	10			9	4	0	358.8	129.2	3.0	52.0
May 15	3,099			2,368			0	52	18			17	2	0	377.0	156.0	3.0	53.1
May 16	2,979			2,802			0	45	12			6	6	0	430.3	214.7	3.0	53.1
May 17	1,788			1,976			0	51	6			9	17	0	447.5	234.7	2.5	53.1
May 18	1,160			1,917			1	44	15			49	11	0	454.3	241.3	2.0	54.0
May 19	912			1,619			0	28	6			117	68	0	458.6	249.0	1.5	55.0
May 20	1,005			1,792			0	50	11			82	16	1	462.1	253.9	2.5	54.0
May 21	1,048			1,707			0	56	18			158	8	0	468.9	258.6	2.0	54.0
May 22	582			1,020			0	59	12			294	11	0	470.7	254.6	1.5	54.0
May 23	603			1,029			0	45	12			14	36	0	483.0	265.2	1.7	54.0
May 24	657			1,284			0	53	7			90	18	0	484.7	268.7	1.5	54.0
May 25	607			937			0	42	10			138	19	0	492.3	275.2	2.0	54.0
May 26	443			502			0	71	18			48	14	0	482.7	274.4	1.0	54.0
May 27	800			1,174			0	67	16			18	12	0	498.1	280.1	2.0	54.0
May 28	1,065			1,385			0	61	14			15	12	0	496.2	275.0	2.0	54.0
May 29	914			1,148			0	67	22			342	4	0	501.5	283.5	3.0	55.0
May 30	1,241			1,233			1	66	13			146	7	0	506.5	293.3	2.0	55.0
May 31	2,030			1,785			1	63	15			292	16	0	504.0	292.9	2.6	53.1
TOTAL	132,394			50,385			8	1,558	374			1,857	281	1				
AVG	4,271			1625			0	50	12			60	9	0	385.7	187.0	2.7	52.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON
SPRING	167,097	50,945	9	3,860	1,302	1,857	281	0

TABLE 11

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1		2,192		1,205			5	85	22			378	11		501.5	289.8	2.5	55.9
Jun 2		1,871		1,062			0	99	23			728	6		492.8	284.3	2.4	55.9
Jun 3		1,842		897			6	69	18			601	12		493.8	282.7	2.0	55.9
Jun 4		2,063		1,083			11	114	39			2,868	14		502.6	287.6	2.5	55.9
Jun 5		2,500		1,205			23	103	25			6,404	6		502.7	290.0	2.0	55.9
Jun 6		2,578		995			39	103	30			3,798	12		502.7	296.1	2.3	55.9
Jun 7		2,559		1,026			57	119	23			3,989	5		499.9	291.5	2.3	55.9
Jun 8		2,374		900			88	117	21			2,189	6		500.4	292.8	2.0	55.9
Jun 9		2,924		1,106			122	153	43			6,301	11		500.5	296.3	2.5	55.9
Jun 10		3,877		1,368			297	157	45			27,802	13		502.0	287.6	2.0	57.0
Jun 11		2,651		1,045			391	127	25			16,609	28		500.2	286.0	2.5	57.0
Jun 12		2,912		1,140			502	161	52			29,532	30		498.8	283.8	2.5	57.9
Jun 13		2,965		1,085			678	187	47			10,964	12		498.4	280.4	2.5	57.9
Jun 14		2,511		975			1,050	188	48			44,028	13		499.2	279.6	2.2	57.9
Jun 15		2,466		1,000			1,124	164	52			38,324	19		500.8	293.6	2.5	57.9
Jun 16		2,758		1,156			1,904	178	67			32,851	25		501.3	303.3	2.3	57.9
Jun 17		2,362		962			1,893	167	54			26,235	37		500.3	300.6	2.5	57.9
Jun 18		2,425		1,021			2,153	197	68			32,732	36		480.9	283.9	2.5	57.9
Jun 19		1,923		1,059			2,589	172	52			29,726	11		461.5	260.1	2.0	57.9
Jun 20		1,965		1,023			2,907	192	49			44,276	13		441.5	258.6	2.1	57.9
Jun 21		2,396		1,252			3,851	168	52			74,951	90		440.6	259.3	3.0	57.9
Jun 22		2,414		1,416			5,352	276	76			94,564	116		449.2	265.6	2.0	59.0
Jun 23		2,104		1,118			6,641	269	99			33,771	126		447.6	260.8	2.0	59.0
Jun 24		2,005		1,191			6,589	310	112			33,266	36		483.0	294.8	2.5	57.9
Jun 25		1,994		1,082			6,824	358	143			30,738	38		480.6	292.9	2.5	59.0
Jun 26		2,388		1,207			7,717	404	154			44,812	67		428.6	240.2	2.7	60.1
Jun 27		2,848		1,426			8,393	434	168			28,484	78		420.3	243.7	3.0	61.0
Jun 28		2,842		1,500			9,078	593	227			22,570	108		409.6	234.5	3.2	61.0
Jun 29		2,806		1,296			8,770	585	268			19,282	144		401.9	209.7	3.0	61.0
Jun 30		1,951		1,085			8,740	558	227			23,362	87		396.4	183.3	3.0	61.0
TOTAL		73,466		33,886			87,794	6,807	2,329			766,135	1,210					
AVG		2,449		1,130			2,926	227	78			25,538	40		474.7	273.8	2.4	57.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	167,097	50,945
SUMMER	73,466	33,886
TOTAL	240,563	84,831

SOCKEYE	STEELHEAD	unclipped STEELHEAD
87,803	10,667	3,631

SHAD	LAMPREY	STURGEON
767,992	1,491	0

TABLE 12

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS — JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		2,116		1,238	0	0	8,918	690	304	0	0	19,834	133	0	426.2	211.2	3.0	61.0
Jul 2		2,051		1,011	0	0	8,915	761	346	0	0	35,623	169	0	439.9	225.6	4.0	62.1
Jul 3		2,175		1,072	0	0	11,685	1,054	476	0	0	24,972	349	0	432.7	217.6	2.5	62.1
Jul 4		1,709		955	0	0	8,147	809	385	0	0	12,635	141	0	433.2	218.6	4.0	62.1
Jul 5		1,906		940	0	0	7,507	993	512	0	0	12,861	150	0	377.7	161.9	3.6	62.1
Jul 6		1,642		852	0	0	8,087	1,065	599	0	0	11,249	257	1	388.6	170.7	3.0	62.1
Jul 7		1,721		869	0	0	7,650	1,210	647	0	0	12,069	309	0	399.5	184.1	3.0	63.0
Jul 8		1,398		634	0	0	5,262	1,074	589	0	0	4,318	182	0	398.1	181.9	2.5	63.0
Jul 9		1,338		624	0	0	4,685	1,102	587	0	0	6,016	111	0	391.9	176.4	3.0	63.0
Jul 10		1,275		598	0	0	4,491	1,288	659	0	0	7,034	137	0	382.4	167.3	2.5	63.0
Jul 11		1,261		631	0	0	3,858	1,308	690	0	0	5,758	131	0	369.7	193.7	3.3	64.0
Jul 12		936		498	0	0	3,329	1,346	756	0	0	3,776	101	0	333.2	165.0	4.0	63.0
Jul 13		927		542	0	0	3,139	1,791	1,008	0	0	2,886	155	0	321.4	149.6	3.5	63.0
Jul 14		1,060		491	0	0	2,514	1,685	943	0	1	2,584	118	0	328.3	152.7	4.5	64.0
Jul 15		1,157		534	0	0	2,252	2,316	1,306	0	0	2,754	179	0	344.2	147.0	4.0	64.0
Jul 16		1,172		466	0	0	1,938	2,461	1,402	0	0	3,891	364	1	304.0	106.6	4.5	64.0
Jul 17		941		389	0	0	1,316	3,086	1,708	0	0	1,171	334	0	291.0	95.6	4.5	64.0
Jul 18		835		357	0	0	826	3,182	1,750	0	0	1,074	276	0	301.6	99.9	4.2	64.0
Jul 19		544		320	0	0	530	2,666	1,411	0	0	1,217	294	1	301.1	123.4	4.0	64.0
Jul 20		836		393	0	0	570	3,193	1,729	0	0	711	426	0	294.9	104.2	5.0	64.0
Jul 21		783		399	0	0	484	3,501	1,831	0	0	1,217	758	0	278.4	95.0	4.5	64.9
Jul 22		694		456	0	0	345	3,626	1,908	0	0	588	383	0	281.7	87.9	4.0	64.9
Jul 23		785		433	1	0	311	3,631	1,887	0	0	575	377	0	268.1	89.8	5.0	64.9
Jul 24		761		360	0	0	248	4,762	2,516	1	2	552	607	0	266.8	89.6	5.0	64.9
Jul 25		590		317	1	0	135	5,118	2,716	0	1	494	594	0	258.5	130.2	5.0	66.0
Jul 26		715		412	2	0	144	6,112	3,293	0	1	321	369	0	255.9	139.4	5.1	66.0
Jul 27		666		425	0	0	119	6,396	3,171	0	0	184	368	0	249.3	133.0	4.0	66.0
Jul 28		718		406	0	0	138	7,172	3,574	0	0	148	299	0	249.3	132.7	5.0	66.0
Jul 29		641		288	0	0	103	5,474	2,536	0	0	334	258	0	225.5	105.6	5.0	66.0
Jul 30		804		345	0	2	85	9,338	4,070	0	0	250	415	0	227.1	89.9	6.0	66.9
Jul 31		656		310	0	0	67	8,010	3,236	0	0	238	664	0	219.4	90.0	6.2	66.9
TOTAL		34,813		17,565	4	2	97,798	96,220	48,545	1	5	177,334	9,408	3				
AVG		1,123		567	0	0	3,155	3,104	1,566	0	0	5,720	303	0	323.9	143.1	4.1	64.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	167,097	50,945
SUMMER	108,279	51,451
TOTAL	275,376	102,396

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
4	2	185,601	106,887	52,176	1	5	945,326	10,899	3

TABLE 13

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1			539	212	0	0	43	8,265	3,300	0		393	311	0	242.1	91.4	6.0	68.0
Aug 2			431	184	0	2	41	6,671	2,428	0		234	192	0	232.1	91.7	5.5	66.9
Aug 3			543	143	1	1	16	7,747	2,816	0		244	509	0	199.7	89.8	6.0	68.0
Aug 4			475	200	2	3	13	6,972	2,336	0		270	392	0	216.9	91.5	5.0	68.0
Aug 5			447	146	1	2	10	6,518	2,243	0		223	538	1	207.5	91.3	6.7	69.1
Aug 6			467	170	4	2	10	5,975	2,152	0		157	378	0	181.5	91.0	5.0	69.1
Aug 7			504	170	4	2	5	6,229	2,260	1		162	214	0	197.1	91.2	5.0	69.1
Aug 8			513	161	9	2	11	6,181	2,131	0		94	210	0	221.9	91.2	5.1	69.1
Aug 9			538	123	11	5	8	5,455	1,797	0		84	350	0	201.4	91.9	4.0	69.1
Aug 10			496	157	5	3	9	5,395	1,705	0		93	199	0	200.1	93.0	6.0	69.1
Aug 11			701	208	10	11	3	6,618	2,099	0		100	187	0	205.0	92.5	4.0	69.1
Aug 12			677	170	16	1	0	5,949	2,001	0		54	85	0	221.6	93.3	4.5	69.1
Aug 13			1,010	244	28	9	0	7,629	2,366	0		126	118	0	195.9	93.0	4.5	69.1
Aug 14			1,052	283	67	13	3	6,180	1,940	1		61	108	0	165.9	93.3	7.0	69.1
Aug 15			1,146	294	98	9	1	7,227	2,194	2		57	110	0	188.2	92.7	5.0	69.1
Aug 16			1,121	261	209	52	1	5,946	1,784	5		58	106	0	206.4	95.8	5.0	69.1
Aug 17			1,285	240	372	23	0	5,988	1,788	8		58	83	0	204.5	95.9	6.0	69.1
Aug 18			1,829	353	634	37	2	6,806	2,048	8		41	112	0	206.3	96.3	5.0	69.1
Aug 19			1,926	260	548	60	4	6,140	1,743	12		25	118	0	217.3	95.6	6.0	69.1
Aug 20			2,423	351	742	54	0	6,302	1,743	14		49	212	0	180.7	96.0	7.0	70.0
Aug 21			2,983	403	972	34	2	6,476	1,637	17		20	156	0	176.6	96.1	4.0	70.0
Aug 22			3,173	377	1,021	44	2	5,771	1,418	20		20	105	0	178.6	95.9	6.0	70.0
Aug 23			1,787	441	628	51	3	4,929	1,217	18		24	134	0	183.4	96.4	6.1	70.0
Aug 24			3,124	542	703	42	4	4,550	1,144	26		24	289	0	196.3	96.4	7.0	71.0
Aug 25			2,153	451	443	23	1	3,636	904	23		27	191	0	199.8	95.3	7.0	71.0
Aug 26			2,573	391	247	24	0	3,118	769	18		12	110	0	182.9	94.3	7.0	71.0
Aug 27			2,786	542	243	14	1	2,686	684	38		11	107	0	174.8	94.3	7.0	71.0
Aug 28			4,506	687	319	11	0	2,545	607	29		8	172	0	176.1	94.1	7.0	71.0
Aug 29			3,938	684	531	25	1	2,113	560	28		6	84	0	160.1	94.3	7.0	71.0
Aug 30			5,712	1,012	1,497	41	1	2,804	792	31		2	64	0	163.7	94.8	7.0	71.0
Aug 31			6,830	1,015	2,848	57	0	3,466	1,030	35		7	43	0	168.9	96.3	6.0	71.0
TOTAL			57,688	10,875	12,213	657	195	172,287	53,636	334		2,744	5,987	1				
AVG			1,861	351	394	21	6	5,558	1,730			89	193	0	195.3	93.8	5.8	69.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
SPRING	167,097	50,945	12,217	659	185,796	279,174	105,812	335	5	948,070	16,886	4
SUMMER	108,279	51,451										
FALL	57,688	10,875										
TOTAL	333,064	113,271										

TABLE 14

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Sep 1			4,914	996	3,053	62		3,995	1,024	57	0		70	0	156.1	4.7	7.0	70.0
Sep 2			7,925	1,016	3,104	50		3,542	892	38	0		95	0	116.8	1.3	7.0	69.0
Sep 3			14,012	1,501	5,251	82		4,104	1,088	55	0		106	0	113.4	1.4	7.0	69.0
Sep 4			17,578	1,683	6,255	114		3,990	1,083	68	0		60	0	102.4	1.3	7.0	69.0
Sep 5			18,549	2,157	8,206	121		4,101	1,090	74	0		19	0	121.6	1.3	7.0	69.0
Sep 6			16,074	2,196	5,786	164		3,908	1,021	129	0		67	0	128.7	1.4	7.0	69.0
Sep 7			16,689	2,074	4,627	111		4,048	1,026	114	0		105	0	131.2	1.4	7.0	70.0
Sep 8			17,108	2,141	3,565	118		3,851	951	109	0		21	0	129.4	1.5	7.0	70.0
Sep 9			16,959	2,016	3,165	116		3,427	926	115	0		4	0	145.8	1.4	6.0	71.0
Sep 10			17,068	2,449	4,120	103		3,243	837	92	1		34	0	133.5	1.3	7.0	71.0
Sep 11			16,803	2,850	4,533	93		2,900	731	151	0		-12	1	118.3	1.3	7.0	70.0
Sep 12			15,766	3,179	4,636	109		3,423	843	167	0		0	1	136.0	2.0	7.0	70.0
Sep 13			12,455	2,873	4,698	84		2,909	717	147	0		125	0	118.4	1.3	7.0	70.0
Sep 14			12,663	2,656	5,070	90		3,265	715	155	0		40	0	111.3	1.3	7.0	70.0
Sep 15			10,625	2,630	3,441	84		2,844	647	142	0		42	1	112.8	1.4	7.0	70.0
Sep 16			8,297	2,211	2,175	66		2,102	468	134	0		67	1	119.1	1.3	6.0	69.0
Sep 17			9,299	2,348	3,298	59		2,353	606	144	0		45	0	110.6	1.3	7.0	68.0
Sep 18			11,085	2,498	3,115	98		2,370	600	120	0		61	0	111.2	1.2	7.0	68.0
Sep 19			11,241	2,873	3,407	94		2,330	537	150	0		6	0	114.7	1.1	7.0	68.0
Sep 20			7,065	2,483	2,892	74		2,079	535	224	0		40	0	130.4	0.8	7.0	68.0
Sep 21			5,064	2,039	2,121	60		1,762	472	195	0		54	0	128.6	1.3	7.0	68.0
Sep 22			6,567	2,305	3,155	94		2,090	500	142	0		32	0	111.8	1.2	7.0	68.0
Sep 23			7,078	2,789	3,986	97		2,321	585	132	0		50	0	114.0	1.2	7.0	68.0
Sep 24			6,847	2,029	2,750	86		1,823	456	139	0		63	0	97.6	1.2	7.0	69.0
Sep 25			5,887	1,682	2,318	96		1,760	422	58	0		24	0	101.0	1.2	7.0	69.0
Sep 26			4,171	1,432	1,671	55		1,149	307	78	0		67	0	126.0	1.1	7.0	69.0
Sep 27			4,092	1,356	1,342	100		981	189	47	0		16	1	114.9	1.1	7.0	68.0
Sep 28			3,633	1,217	1,265	79		905	257	49	0		8	-1	119.8	0.6	7.0	67.0
Sep 29			2,958	1,038	1,283	60		724	193	32	0		11	0	109.5	0.6	7.0	67.0
Sep 30			2,058	937	1,186	63		664	162	30	0		-6	0	109.8	0.6	7.0	65.0
TOTAL			310,530	61,654	105,474	2,682		78,963	19,880	3,287	1		1,314	4				
AVG			10,351	2,055	3,516	89		2,632	663				44	0	119.8	1.3	6.9	68.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	167,097	50,945
SUMMER	108,279	51,451
FALL	368,218	72,529
TOTAL	643,594	174,925

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
117,691	3,341	185,796	358,137	125,692	3,622	6	948,070	18,200	8

TABLE 15

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Oct 1			1,157	501	982	31		496	149	13	0		22	0	90.3	0.6	7.0	66.0
Oct 2			2,687	903	1,371	76		549	129	14	0		22	0	88.7	0.6	7.0	66.0
Oct 3			2,730	770	1,230	77		522	113	14	0		8	1	100.8	0.6	7.0	66.0
Oct 4			3,820	1,069	2,034	83		608	128	9	0		17	0	101.1	0.6	7.0	66.0
Oct 5			2,019	633	1,309	91		521	144	25	0		6	2	117.0	0.6	7.0	66.0
Oct 6			1,746	661	2,017	99		497	133	16	0		1	0	121.8	0.6	7.0	65.0
Oct 7			2,150	679	1,682	79		474	139	21	0		8	0	101.3	0.6	7.0	64.0
Oct 8			2,528	802	1,623	85		482	140	13	0		2	0	113.3	0.6	7.0	64.0
Oct 9			1,074	352	1,387	72		269	63	20	0		5	1	104.2	0.6	7.0	64.0
Oct 10			1,324	420	2,005	68		287	76	7	0		23	1	127.1	0.6	7.0	64.0
Oct 11			1,177	447	1,186	46		355	85	8	0		16	1	125.2	0.6	7.0	63.0
Oct 12			1,439	585	1,902	76		280	79	15	0		2	0	109.9	0.6	7.0	63.0
Oct 13			1,001	366	1,516	55		276	93	10	0		4	1	121.0	0.6	7.0	63.0
Oct 14			706	262	1,171	29		205	53	8	0		0	2	140.5	0.6	7.0	63.0
Oct 15			753	305	1,214	26		239	75	6	0		-1	0	145.3	0.6	7.0	63.0
Oct 16			827	276	847	24		127	38	1	0		-5	0	138.5	0.6	7.0	63.0
Oct 17			509	191	617	27		94	18	1	0		2	0	135.1	0.6	7.0	62.0
Oct 18			594	239	626	34		115	29	3	0		-2	0	131.2	0.3	7.0	62.0
Oct 19			673	207	437	27		162	61	1	0		-4	1	115.9	0.6	7.0	61.0
Oct 20			533	186	284	24		127	52	0	0		-1	0	112.7	0.6	7.0	61.0
Oct 21			462	138	205	10		134	48	0	0		1	0	121.3	0.6	7.0	61.0
Oct 22			424	132	201	13		125	32	0	0		-1	1	125.0	0.6	7.0	61.0
Oct 23			429	119	232	5		145	36	0	0		5	0	104.3	0.6	7.0	61.0
Oct 24			284	104	160	9		91	27	0	0		0	0	106.3	0.5	7.0	61.0
Oct 25			325	115	173	7		93	26	0	1		0	1	136.7	0.5	7.0	61.0
Oct 26			277	101	132	3		76	25	1	0		-1	0	137.7	0.5	7.0	60.0
Oct 27			198	60	114	2		73	18	0	0		0	0	110.7	0.5	7.0	59.0
Oct 28			133	25	75	1		42	14	0	0		-12	0	130.6	0.6	1.5	59.0
Oct 29			144	51	78	4		38	20	0	1		-2	0	134.3	0.5	2.5	58.0
Oct 30			138	40	98	7		59	20	0	1		-1	0	101.4	0.5	2.5	58.0
Oct 31			132	37	96	8		90	31	0	2		-2	0	102.1	0.5	3.0	58.0
TOTAL			32,393	10,776	27,004	1,198		7,651	2,094	206	5		112	12				
AVG			1,045	348	871	39		247	68		0		4	0	117.8	0.6	6.4	62.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
SPRING	167,097	50,945	144,695	4,539	185,796	365,788	127,786	3,828	11	948,070	18,312	20
SUMMER	108,279	51,451										
FALL	400,611	83,305										
TOTAL	675,987	185,701										

TABLE 16

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS — NOVEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1			160	45	69	4		74	25		0		4	0	146.0	0.5	3.0	58.0
Nov 2			75	33	35	2		63	27		1		4	0	140.8	8.1	2.5	58.0
Nov 3			126	21	70	4		73	30		1		2	0	129.2	8.6	3.0	56.0
Nov 4			91	28	39	1		63	30		5		-2	0	127.4	5.8	4.0	56.0
Nov 5			73	28	52	7		60	32		1		3	0	127.0	13.0	5.0	56.0
Nov 6			34	8	32	2		59	35		0		0	0	125.5	16.5	5.0	56.0
Nov 7			35	9	26	2		50	20		1		0	0	125.4	17.1	5.0	56.0
Nov 8			45	11	18	0		53	18		1		-1	0	133.4	25.8	6.0	56.0
Nov 9			42	11	15	3		34	22		0		-9	0	125.8	20.6	6.0	55.0
Nov 10			43	14	9	2		40	15		0		-4	0	126.5	14.9	5.0	55.0
Nov 11			138	36	20	0		80	24		1		-5	0	122.5	2.9	6.0	55.0
Nov 12			26	6	11	2		34	11		1		0	0	125.0	1.9	5.0	54.0
Nov 13			31	5	22	1		34	10		3		0	0	122.1	1.3	6.0	54.0
Nov 14			22	8	11	1		16	8		1		1	0	127.9	1.0	5.0	53.0
Nov 15			24	4	14	2		33	16		1		0	0	135.8	1.0	5.6	52.0
Nov 16			30	9	10	2		36	18		4		-1	0	146.5	1.0	5.0	51.0
Nov 17			20	3	15	-2		31	18		5		0	0	145.3	1.0	4.0	51.0
Nov 18			8	5	7	2		35	12		3		0	0	137.9	1.0	5.0	51.0
Nov 19			9	5	15	1		43	16		1		0	0	138.9	1.0	5.0	50.0
Nov 20			9	3	13	0		54	22		2		0	0	139.8	1.0	5.0	50.0
Nov 21			7	2	9	1		38	16		0		0	0	141.7	1.0	5.5	50.0
Nov 22			7	6	13	2		46	22		2		0	0	145.7	1.0	5.5	50.0
Nov 23			6	-2	23	3		41	19		2		2	0	142.3	1.0	4.5	48.0
Nov 24			2	2	16	-1		43	14		1		-1	0	139.9	1.0	4.5	48.0
Nov 25			0	4	19	1		45	15		1		0	-1	124.0	1.0	4.5	48.0
Nov 26			6	4	12	2		31	12		0		0	0	125.6	1.0	6.5	48.0
Nov 27			3	1	0	0		23	3		0		0	0	121.4	1.0	6.0	48.0
Nov 28			12	1	4	0		17	5		1		2	0	134.3	1.0	6.0	48.0
Nov 29			6	1	3	0		24	6		0		0	0	135.4	1.0	7.0	47.0
Nov 30			3	4	-1	-1		21	5		0		0	0	137.1	1.0	7.0	47.0
TOTAL			1,093	315	601	43		1,294	526		39		-5	-1				
AVG			36	11	20	1		43	18		1		0	0	133.2	5.1	5.1	52.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	167,097	50,945
SUMMER	108,279	51,451
FALL	401,576	83,572
TOTAL	676,952	185,968

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
145,138	4,572	185,796	366,554	128,109	3,828	50	948,070	18,305	19

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

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

TABLE 17

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS — DECEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Dec 1			2	2	1	0		20	12				0		143.7	1.0	7.0	48.0
Dec 2			8	1	0	1		28	5				0		128.1	1.0	7.0	47.0
Dec 3			5	1	0	0		30	4				0		131.6	1.0	7.0	47.0
Dec 4			1	1	1	0		33	6				0		136.8	1.0	7.0	46.0
Dec 5			5	0	0	0		31	6				0		143.8	1.0	7.0	46.0
Dec 6			3	2	2	0		34	11				0		147.1	1.0	6.0	46.0
Dec 7			4	2	-1	0		37	14				0		143.5	1.0	6.0	46.0
Dec 8			4	2	1	1		59	17				0		146.6	1.0	7.0	46.0
Dec 9			2	0	-1	-1		42	12				0		145.8	1.0	7.0	45.0
Dec 10			1	1	2	1		19	4				0		145.5	1.0	7.0	45.0
Dec 11			0	0	1	-1		28	8				0		140.9	1.0	7.0	45.0
Dec 12			1	1	0	1		47	14				0		145.4	0.5	7.0	45.0
Dec 13			1	0	1	0		31	12				0		147.5	0.5	7.0	44.0
Dec 14			0	0	-1	0		14	6				0		151.4	0.5	7.0	44.0
Dec 15			0	0	0	0		12	2				4		144.9	0.5	7.0	43.0
Dec 16			0	0	0	0		22	1				2		132.7	0.5	7.0	43.0
Dec 17			2	0	0	0		81	26				0		132.2	0.5	7.0	43.0
Dec 18			0	0	0	0		28	7				1		129.2	0.5	7.0	44.0
Dec 19			3	0	-1	0		17	5				0		130.7	0.5	7.0	43.0
Dec 20			0	0	0	0		11	-1				0		130.0	0.4	7.0	43.0
Dec 21			-1	0	0	0		12	2				0		130.0	0.4	7.0	43.0
Dec 22			0	0	1	0		13	3				0		133.8	0.5	7.0	42.0
Dec 23			0	0	0	0		1	1				0		131.0	0.5	7.0	42.0
Dec 24			1	0	0	0		2	1				0		134.0	0.5	7.0	42.0
Dec 25			0	0	0	0		10	1				0		130.7	0.5	7.0	42.0
Dec 26			0	0	0	0		7	3				0		141.3	0.5	7.0	42.0
Dec 27			0	0	-1	0		16	5				0		142.8	0.5	7.0	41.0
Dec 28			0	0	-1	0		30	7				0		143.6	0.5	7.0	42.0
Dec 29			0	0	0	0		97	37				0		134.2	0.5	5.0	42.0
Dec 30			0	0	-1	0		27	11				0		165.5	0.5	2.5	42.0
Dec 31			0	0	0	0		25	12				0		148.3	0.5	3.0	42.0
TOTAL			42	13	3	2		864	254				7					
AVG			1	0	0	0		28	8				0		139.8	0.7	6.6	43.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	167,097	50,945
SUMMER	108,279	51,451
FALL	401,576	83,572
TOTAL	676,952	185,968

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
145,138	4,572	185,796	366,554	128,109	3,828	50	948,070	18,305	19

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

Official Fall Chinook run ended November 15. December counts were not added to fall totals. Pink, chum, and sturgeon counts are totals for the entire calendar year.

TABLE 18a

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1938 - 2011

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 18a
(continued)

YEARLY TOTALS OF SALMONIDS COUNTED OVER BONNEVILLE DAM

1981 - 2011

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
Total	30,966,379	15,614,769	6,612,852	3,623,721	40,396	6,943	56,865,060
10-Year Average	740,722	391,906	131,195	131,239	137	468	1,395,666

*Jacks included

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

2011 - Changes to previous years reflect corrections and updates to fish count numbers.

TABLE 18b

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

1938 - 2011

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 18b
(continued)

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

1938 - 2011

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
Total	30,814,523	15,483,702	6,594,803	3,601,798	40,396	6,943	56,542,165
10-Year Average	736,655	388,869	131,036	130,645	137	468	1,387,809

*Jacks included

Note: These totals are for daytime counts and do not include night counting or 24 hour video counts.
Changes in counts to years (2008 -steelhead, 2009-chum) reflect updates to fish count numbers.

TABLE 19

MONTHLY COUNT OF CHINOOK SALMON

BONNEVILLE DAM - 1938 - 2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING Jan 1- May 31	SUMMER Jun 1- Jul 31	FALL 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 19

(Continued)

MONTHLY COUNT OF CHINOOK SALMON

BONNEVILLE DAM - 1938-2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING Jan 1- May 31	SUMMER Jun 1- Jul 31	FALL 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
TOTAL	122	416	101,221	4,273,486	3,502,897	2,576,754	1,769,727	3,636,959	14,258,433	796,771	47,918	1,675	30,966,379	7,878,142	4,346,481	18,741,756
10-Year Average			2,517	68,610	102,766	75,165	34,910	94,651	332,531	27,294	2,138		740,722	173,933	110,076	456,713

***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 - 2011 counts include 16 hour video counts between 0400-2000 PST January 1 through March 31
and November 1 through December 31.

TABLE 20

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM 1938 - 2011

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 20

(Continued)

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM 1938 - 2011

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
TOTAL			76	543	8,603	3,180,804	3,375,018	44,939	2,694	137	37	1	6,612,852
10-Year Average					49	96,900	34,111	127	8				131,195

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.

2003-2011 counts include video counts which took place between 0400-2000 PST January 1 through March 31
and November 1 through December 31.

TABLE 21

MONTHLY COUNT OF COHO SALMON

BONNEVILLE DAM 1938 - 2011

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 21

(Continued)

MONTHLY COUNT OF COHO SALMON

BONNEVILLE DAM 1938 - 2011

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
TOTAL	19	31	6	1	0	179	5,540	329,668	2,483,336	741,846	62,479	616	3,623,721	681,018
10 Year Average							4	11,846	74,936	42,419	1,993		131,239	13,548

***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.

2003-11 counts include 16 hour video counts between 0400-2000 PST January 1 through March 31 and November 1 through December 31.

TABLE 22

MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 -2011

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

TABLE 22

(Continued)

MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM 1938 - 2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Jan 1-Aug 25	Aug 26-Dec 31
1981			1,031	3,812	3,887	12,628	56,787	52,435	25,737	2,650	303		159,270	121,785	37,485
1982			1,239	4,188	5,335	8,636	39,159	51,329	44,456	3,146	152		157,640	103,159	54,481
1983			458	1,253	1,638	6,017	69,036	86,066	48,920	4,636	415		218,439	148,853	69,586
1984			579	2,106	4,216	14,454	92,546	93,866	102,877	4,463	453		315,560	189,365	126,195
1985			977	2,956	3,997	13,036	102,256	152,455	63,575	4,088	647		343,987	251,723	92,264
1986			2,712	3,674	4,500	16,655	136,622	129,089	76,532	9,280	827		379,891	279,154	100,737
1987			1,189	2,112	3,233	12,443	104,615	115,481	58,815	4,331	862		303,081	227,013	79,120
1988			1,158	3,728	5,016	13,615	72,718	113,791	63,864	4,421	761		279,072	190,030	89,042
1989			630	2,213	3,343	10,176	62,913	117,686	84,665	5,419	753		287,798	176,965	110,833
1990			966	2,563	4,501	11,643	37,140	52,327	65,813	7,522	552		183,027	89,144	93,883
1991			640	2,082	2,196	6,601	52,187	110,027	93,152	6,947	713		274,545	150,542	124,003
1992			646	1,964	3,239	9,708	55,090	135,162	103,792	4,918	456		314,975	175,218	139,757
1993			771	1,744	2,691	9,923	34,148	64,062	69,129	5,531	387		188,386	99,941	88,445
1994			422	1,976	3,132	7,511	27,202	59,157	54,856	8,079	789		163,124	83,968	79,156
1995			333	863	1,257	6,419	29,305	112,812	48,781	6,691	1,104	1,506	209,071	126,537	82,534
1996	793	57	1,862	1,776	2,424	6,912	40,813	102,200	48,397	6,143	761	337	212,475	141,999	70,476
1997	342	426	1,966	1,950	2,485	7,696	57,472	127,882	53,571	18,428	2,234	84	274,536	185,381	89,155
1998	161	239	984	883	1,655	7,236	36,437	60,403	76,293	12,136	489	585	197,501	89,413	108,088
1999	15	287	699	833	1,308	5,157	48,278	101,610	46,200	6,509	637	585	212,118	141,245	70,873
2000	340	420	1,495	1,235	2,006	13,864	80,259	106,918	68,407	7,306	510	175	282,935	189,821	93,114
2001	333	239	2,196	2,043	3,331	24,076	199,969	263,518	152,434	21,542	4,343	2,769	676,793	455,422	221,371
2002	1,311	833	1,770	2,918	2,752	19,918	119,923	180,381	151,807	24,004	4,140	923	510,680	294,743	215,937
2003	724	1,728	2,264	1,474	1,714	10,966	95,185	139,612	95,759	12,467	3,115	813	365,821	231,717	134,104
2004	236	646	1,799	1,815	2,947	16,183	66,621	111,886	94,482	15,024	972	767	313,378	178,653	134,725
2005	149	62	103	1,064	1,517	9,286	84,968	110,487	83,450	21,694	2,598	272	315,650	191,275	124,375
2006	1,587	446	944	1,174	1,537	7,172	46,912	154,325	104,659	13,400	5,750	1,395	339,301	180,418	158,883
2007	601	387	1,514	1,020	1,666	6,789	58,362	185,281	54,543	13,096	1,433	758	325,450	232,586	92,864
2008	145	119	780	1,427	1,896	12,509	122,870	102,636	107,693	6,053	1,325	392	357,845	223,943	133,902
2009	167	43	677	1,547	2,395	9,942	119,486	353,478	97,236	17,535	1,620	844	604,970	426,264	178,706
2010	803	685	2,529	2,567	3,388	23,314	157,387	139,354	75,509	8,898	1,318	851	416,603	306,420	110,183
2011	805	264	1,267	1,385	1,558	6,807	96,220	172,287	78,963	7,651	1,294	864	369,365	263,861	105,504
TOTAL	10,077	9,367	77,380	197,959	181,144	541,818	4,458,436	5,685,780	3,976,749	397,510	62,338	16,211	15,614,769	10,142,786	5,475,035
10-Year Average			1,365	1,639	2,137	12,289	96,793	164,973	94,410	13,982	2,357		391,906	252,988	138,918

1994 counts include nighttime video counts during the hours of 2100-0500 PST June 1 through August 16.
1995 counts include nighttime video counts during the hours of 2000 and 0400 PST April 1 through November 15.
24 hour counts November 16 through December 31.
1996 - 2002 counts includes 24 hour video counts January 1 through March 15 and November 16 through Dec 31.
From March 16 through November 15, video counts took place between 2000 and 0400 hours PST.
2003 - 2011 counts include 16 hour video counts between 0400-2000 PST January 1 through March 31
and November 1 through December 31.

TABLE 23

MONTHLY COUNT OF SHAD at BONNEVILLE DAM 1938 - 2011

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 23

(Continued)

MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2011

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
TOTAL			14	457	7,539,906	56,683,370	8,238,844	147,623	4,136	593	36		72,614,979
10 Year - Average					308,238	2,492,362	133,215	3,227					2,937,048

TABLE 24a

MONTHLY COUNT OF LAMPREY at BONNEVILLE DAM 1939[1] - 1969, 1997 – 2011

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. During the 1970s, the count station was changed from a flashboard counting system in which the fish passed over a white board to a vertical slot system in which the fish pass through a lighted window. 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
TOTAL			3	4,085	166,481	773,963	1,786,626	880,223	146,078	12,187	1,255		3,770,926
10-Year Average				1	890	14,361	17,499	6,118	2,198				41,193

[1]No data are available for 1938.

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

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

TABLE 24b

NIGHT COUNT OF LAMPREY - BONNEVILLE DAM

2009

Day	JUN	JUL	AUG	SEP
1		151	-47	15
2		156	11	-26
3		250	6	-32
4		182	-33	-86
5		156	10	-40
6		33	17	-43
7		129	-7	-19
8		139	28	-23
9		200	13	-29
10		229	21	-33
11		179	-5	-13
12		79	19	-14
13		138	41	-25
14		252	46	-14
15	20	228	34	-3
16	-60	287	45	-6
17	126	371	49	-10
18	145	230	67	-23
19	200	188	27	-18
20	-166	212	-32	-14
21	-5	183	-29	-12
22	73	277	-62	-8
23	24	200	-11	-2
24	105	271	-10	-6
25	-1	-15	-13	-11
26	39	73	-21	-11
27	59	48	-9	-1
28	62	153	11	5
29	179	-14	8	-1
30	195	-135	12	3
31		100	38	
TOTALS	995	4,930	224	-500

2010

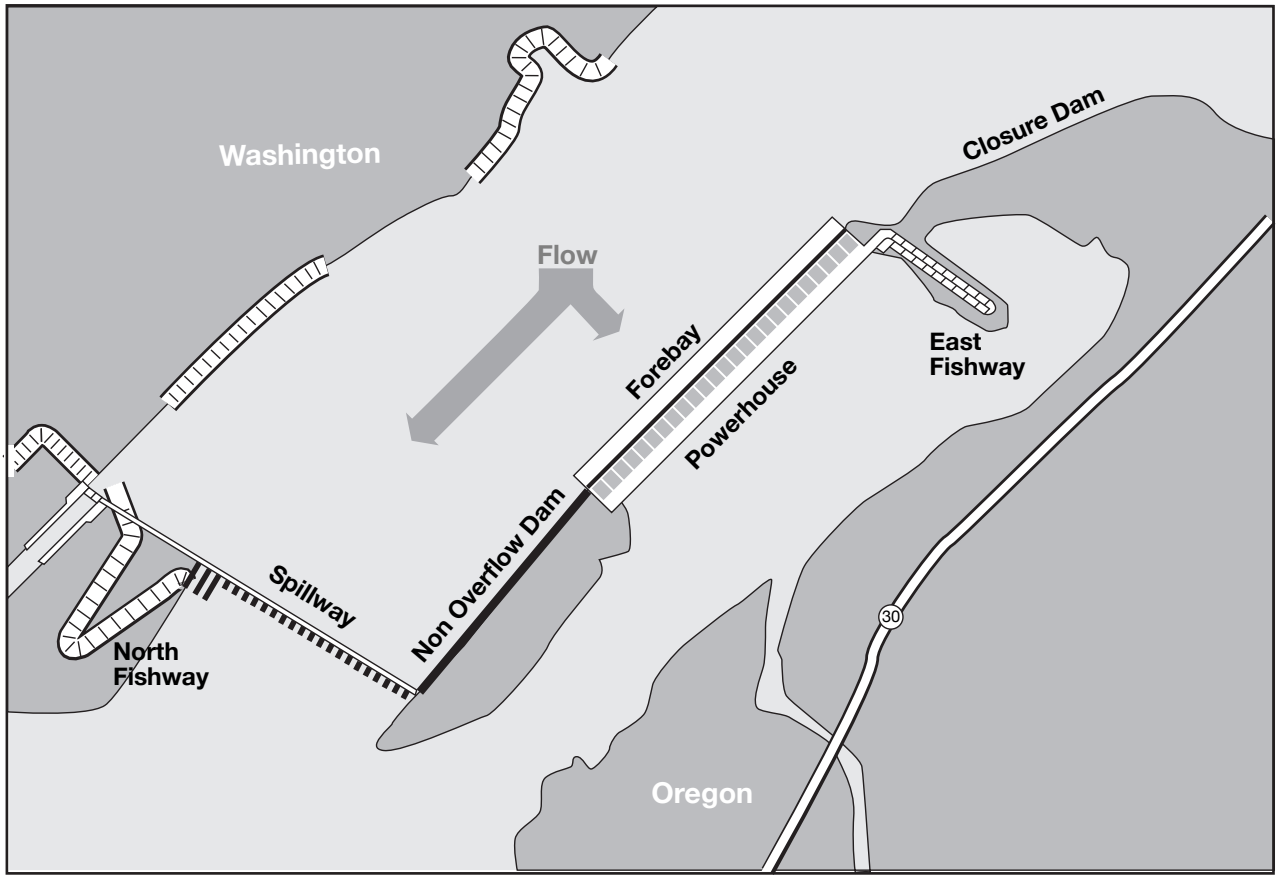
Day	JUN	JUL	AUG	SEP
1		70	49	33
2		49	43	20
3		65	106	27
4		68	65	5
5		104	101	-10
6		279	62	-1
7		189	62	1
8		118	63	4
9		-1	53	2
10		101	23	-2
11		60	16	0
12		-50	39	1
13		-15	36	0
14		31	20	7
15		20	114	19	3
16		12	125	42	1
17		35	119	4	5
18		43	108	11	6
19		7	67	23	7
20		8	17	13	6
21		20	16	7	0
22		48	126	1	3
23		40	89	-4	4
24		87	106	4	2
25		84	52	21	2
26		76	48	23	0
27		63	66	21	0
28		70	40	8	0
29		110	8	11	-1
30		103	29	24	1
31			28	12	
TOTALS		826	2,226	978	126

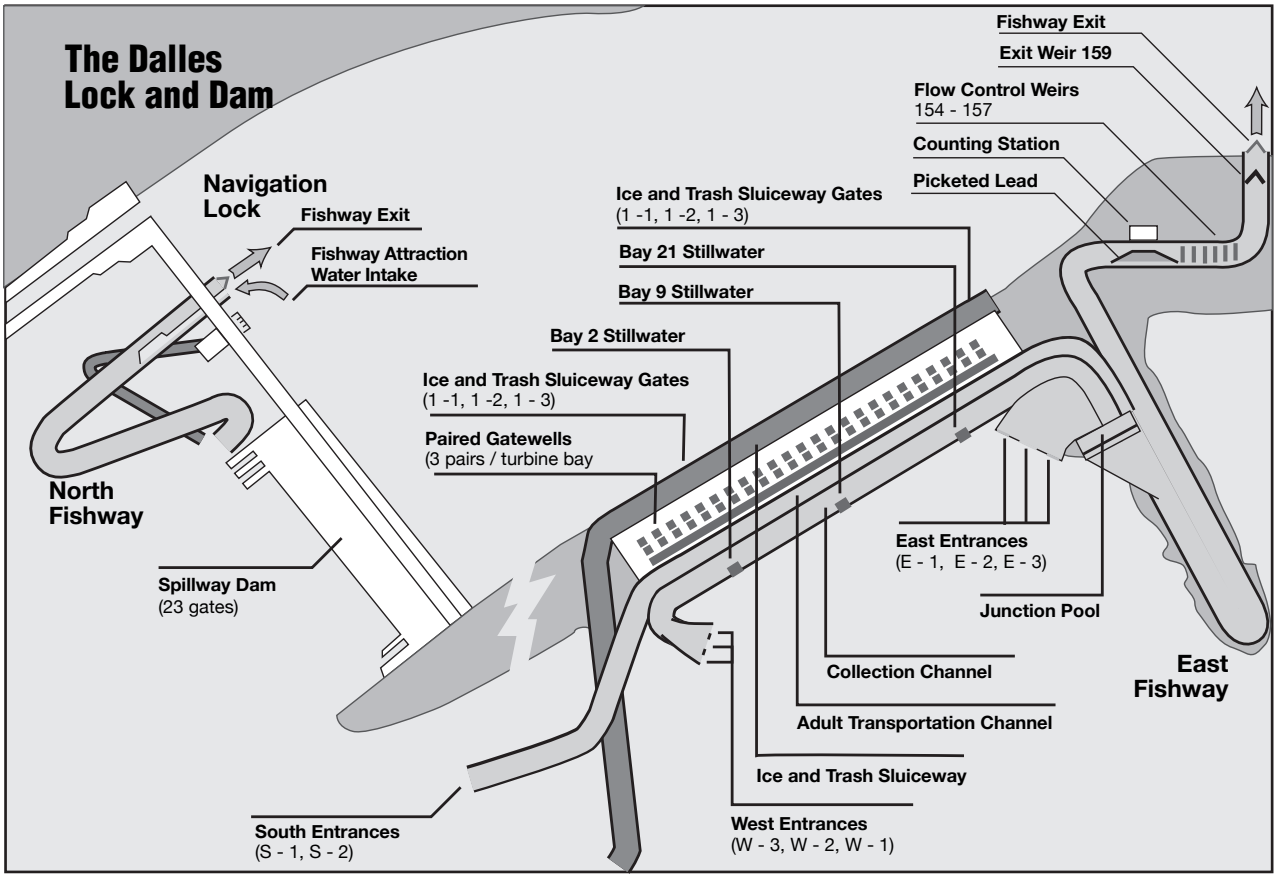
2011

Day	JUN	JUL	AUG	SEP
1		310	284	114
2		284	317	100
3		415	487	112
4		207	505	135
5		402	222	116
6		384	231	72
7		145	272	112
8		24	208	77
9		312	237	77
10		143	197	61
11		241	138	84
12		216	190	105
13		199	121	56
14	-6	354	191	108
15	7	243	167	81
16	13	267	154	39
17	-1	112	118	89
18	-12	414	135	78
19	35	73	167	60
20	20	550	152	55
21	52	416	161	67
22	103	455	87	51
23	102	207	237	76
24	36	425	129	53
25	96	443	153	55
26	175	473	100	40
27	214	436	155	43
28	155	270	131	36
29	188	265	73	16
30	340	245	76	8
31		345	94	
TOTALS	1,517	9,275	5,889	2,176

Note: video counting for night lamprey passage at Bonneville June 15 - September 30
Not included with the Daytime total lamprey counts.
Video is eight hours from 2000 to 0400 Pacific standard time

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.

FISHWAY OPERATING SCHEDULE

The following information includes fishway operation for calendar year 2011. 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 2	In full operation with attraction water
Aug 3	Attraction water off half day for required ROV grating inspection
Dec 2 – Dec 31	Dewatered for winter maintenance

North Adult Fishway

Jan 1- Dec 31	In full operation with attraction water
Aug 3	Attraction water off half day for required ROV grating inspection

Ice/Trash Sluiceway (Juvenile)

Jan 1- Mar 8	OOS, end gate closed
Mar 8 – Dec 2	In service with skimmer gates
Dec 2 -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

FISH RELATED DEWATERINGS

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 entrapped. 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. A follow up inspection is 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 ROV.

Fish Ladder Dewatering Results

Key; adult=a, juvenile=j, carp=cp, catfish=ca, sculpin=sp, shad=sh, small mouth bass=smb, crappie=cr, whitefish=wf

Date	Event	Chinook	Steelhead	Lamprey	Shad	Sturgeon	Other	Note	Morts
2/7	N. upper	1j	3a, 5j	0	0	7	0	1.)	0
12/5	E. upper	0	5a, 6j	12	35	2	3cp, 2wf	2.)	0
12/6	TC, S. chan.	1a	0	18	0	4	0	3.)	0
12/6	E. ent., JP	0	2a	0	10	0	0	4.)	4sh
12/6	S. chan.	1j	0	2	0	0	1wf, 2sp	5.)	0
12/15	S. chan.	0	0	4	0	3	0	None	2lamprey

1.) Sturgeon ranged from 3' to 6' in length. All fish were released to forebay.
2.) At count station; 15 shad, 5 juvenile steelhead, 1 adult steelhead, 2 whitefish, 1 carp, and 12 lamprey released to forebay. Overflow section; 20 shad, 4 adult steelhead, 1 trout, 2 carp, and 1 sturgeon. An 8' sturgeon was lifted by crane out of the ladder and released to tailwater using a man basket.
3.) Transportation Channel and south rock channel; 1 adult Chinook, 4 small sturgeon, and 18 lamprey released to tailwater using a man basket.
4.) East entrance and junction pool; 10 shad and 2 adult steelhead released to tailwater, 4 dead adult shad were in the east entrance junction pool.
5.) Afternoon south rock channel; 2 lamprey, 1 Chinook adult, 1 whitefish, and 12 sculpin released to tailwater.

TURBINE DEWATERING PROCEDURES

Turbine dewatering for routine maintenance usually involves low numbers of fish, due in part to operational guidelines. The most important guideline includes immediate tail log installation after unit shut down. If a turbine unit fails, dewatering 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 (sc) and draft tubes (dt) 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.

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	Chinook	Lamprey	Sturgeon	Other	Note	Morts
1/4	MU 16 sc	0	0	0	1smb, 1sp	1.)	1
1/6	MU16 dt	0	0	0	2ca	2.)	1
4/11	MU 10 sc	0	7juv	0	0	3.)	7
4/11	MU 10 dt	0	0	0	0	None	0
7/6	MU 17 sc	12j	1a	1	6	4.)	33
8/1	MU 21 sc	0	0	0	0	5.)	2
9/13	MU 2 dt	0	0	4	3ca	6.)	0
11/16	SS 1	0	0	0	0	7.)	0
12/15	MU10 sc	0	0	0	0	None	0
12/15	MU10 dt	0	0	1	0	None	0

1.) One sculpin and one small mouth bass released to tailwater. One adult shad mort.
2.) Two channel catfish released to tailwater. One adult shad mort.
3.) Seven juvenile lamprey morts.
4) 16 adult shad morts, 15 sub yearling Chinook morts, two adult sockeye morts. Other species: three live sculpin, and three live yellow perch.
5) One adult lamprey, one sub yearling Chinook morts.
6.) Four sturgeon ~ 1' to 2' in length and three channel catfish ~ 8" to 1' in length released to tailwater.
7.) Station Service 1 (SS1) penstock.

NAVLOCK DEWATERINGS

Tainter valve #1 – On 9/6/2011 one common carp and one smallmouth bass were released to the forebay.

ROV/DIVE INSPECTIONS

On 08/03/11 Project fisheries ROV east fishladder; junction pool (2 smallmouth bass, 1 sculpin) east entrance (3 sturgeon), west entrance, and south entrance (2 sturgeon), and north fishladder, north entrance.

TABLE 25

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

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				8,526	150,084	76,725	47,267	37,941	230,089	41,237			591,869
STEELHEAD				1,098	352	1,611	56,247	127,161	91,517	21,021			299,007
SOCKEYE					1	50,335	87,699	255	3	0			138,293
COHO*							2	3,172	52,196	21,383			76,753
CHUM									1	2			3
PINK								79	928	151			1,158
TOTAL				9,624	150,437	128,671	191,215	168,608	374,734	83,794			1,107,083
LAMPREY					-1	26	1,411	2,946	590	25			4,997
STURGEON						13	62	50	24	9			158
BULL TROUT													0

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

TABLE 26

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2011

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	150.9	0.0	6.0	41.5
Jan 2	139.4	0.0	6.0	42.0
Jan 3	178.6	0.0	6.0	42.0
Jan 4	174.4	0.0	6.0	42.0
Jan 5	136.8	0.0	6.0	41.0
Jan 6	133.6	0.0	6.0	41.0
Jan 7	128.9	0.0	6.0	41.0
Jan 8	127.2	0.0	5.0	41.0
Jan 9	128.7	0.0	5.5	40.0
Jan 10	144.6	0.0	6.0	39.7
Jan 11	156.5	0.0	6.0	39.0
Jan 12	181.9	0.0	6.0	38.6
Jan 13	141.6	0.0	6.0	38.6
Jan 14	159.3	0.0	6.0	39.0
Jan 15	149.3	0.0	6.0	39.1
Jan 16	121.1	0.0	5.5	39.0
Jan 17	179.5	0.0	5.5	39.0
Jan 18	232.1	0.0	3.0	39.0
Jan 19	258.1	0.0	3.0	40.0
Jan 20	237.2	0.0	2.5	40.0
Jan 21	220.3	0.0	2.0	42.0
Jan 22	230.8	0.0	2.0	42.0
Jan 23	256.7	0.0	2.5	40.7
Jan 24	257.8	0.0	2.5	41.1
Jan 25	251.7	0.0	3.0	41.2
Jan 26	229.5	0.0	3.0	41.0
Jan 27	252.4	0.0	3.5	40.6
Jan 28	251.4	0.0	3.0	40.3
Jan 29	222.8	0.0	3.0	40.4
Jan 30	187.6	0.0	3.0	42.0
Jan 31	232.9	0.0	3.0	40.0
AVG.	188.8	0.0	4.5	40.4

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	226.6	0.0	5.0	40.0
Feb 2	207.2	0.0	3.0	40.0
Feb 3	197.1	0.0	3.0	40.0
Feb 4	199.3	0.0	3.0	40.0
Feb 5	163.7	0.0	3.0	40.0
Feb 6	150.4	0.0	3.5	39.0
Feb 7	155.7	0.0	3.5	39.0
Feb 8	211.5	0.0	3.5	39.0
Feb 9	215.7	0.0	3.5	39.0
Feb 10	217.3	0.0	3.5	39.0
Feb 11	219.5	0.0	3.5	39.0
Feb 12	214.0	0.0	5.0	39.0
Feb 13	177.7	0.0	5.0	39.0
Feb 14	203.1	0.0	5.0	39.0
Feb 15	221.2	0.0	3.0	39.0
Feb 16	215.4	0.0	3.0	39.0
Feb 17	220.2	0.0	4.0	40.0
Feb 18	215.0	0.0	4.5	41.0
Feb 19	211.0	0.0	4.5	41.0
Feb 20	201.0	0.0	4.0	39.3
Feb 21	194.8	0.0	4.0	39.5
Feb 22	183.4	0.0	4.0	39.6
Feb 23	214.9	0.0	4.0	39.5
Feb 24	190.1	0.0	4.5	39.3
Feb 25	192.3	0.0	4.0	38.8
Feb 26	183.8	0.0	4.5	38.5
Feb 27	194.9	0.0	5.0	38.0
Feb 28	210.5	0.0	5.5	38.0
AVG.	200.3	0.0	4.0	39.3

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	222.1	0.0	5.0	38.0
Mar 2	214.0	0.0	5.5	38.0
Mar 3	201.9	0.0	5.5	38.0
Mar 4	217.4	0.0	5.0	41.0
Mar 5	186.5	0.0	5.0	41.0
Mar 6	184.2	0.0	5.0	37.9
Mar 7	214.1	3.8	6.0	38.1
Mar 8	191.8	0.0	6.0	38.6
Mar 9	224.6	0.0	5.0	39.2
Mar 10	201.3	0.0	4.5	39.6
Mar 11	204.0	0.0	5.0	39.9
Mar 12	228.0	0.0	5.0	40.0
Mar 13	185.5	0.0	4.0	41.0
Mar 14	220.2	0.0	4.0	41.0
Mar 15	209.2	0.0	4.5	41.0
Mar 16	182.5	0.0	5.0	41.0
Mar 17	224.3	0.0	5.0	41.0
Mar 18	229.6	0.0	3.0	43.0
Mar 19	219.8	0.0	3.0	43.0
Mar 20	198.2	0.0	3.5	41.5
Mar 21	174.3	0.0	3.5	41.5
Mar 22	198.8	0.0	4.0	41.8
Mar 23	237.6	0.0	5.0	42.0
Mar 24	227.5	0.0	4.0	42.2
Mar 25	225.3	0.0	4.5	42.3
Mar 26	213.6	0.0	3.5	42.7
Mar 27	242.8	0.0	3.5	43.0
Mar 28	208.5	0.0	4.0	43.0
Mar 29	225.2	0.0	3.3	43.5
Mar 30	228.2	3.3	4.0	44.0
Mar 31	244.4	25.4	3.0	45.0
AVG.	212.4	1.0	4.4	41.1

TABLE 27

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Apr 1	6			0				82	32					293.2	32.9	3.0	46.0
Apr 2	10			0				103	57					319.5	77.1	3.0	47.0
Apr 3	10			0				106	62					354.2	108.8	2.0	45.6
Apr 4	11			0				94	60					351.3	125.7	2.5	46.0
Apr 5	12			0				89	59					374.8	167.6	2.0	46.3
Apr 6	6			0				88	54					348.1	127.8	2.0	46.3
Apr 7	13			0				70	48					303.6	66.1	2.0	46.2
Apr 8	14			0				61	32					278.6	59.6	3.0	46.4
Apr 9	12			0				48	36					314.1	107.4	2.3	46.3
Apr 10	14			0				25	14					319.3	126.6	2.0	46.3
Apr 11	7			0				20	10					289.1	115.6	3.5	46.4
Apr 12	17			0				26	13					299.6	119.4	3.0	46.5
Apr 13	29			0				14	10					278.7	111.4	2.5	46.5
Apr 14	37			0				19	13					261.0	104.4	2.0	46.5
Apr 15	20			0				27	14					275.7	109.5	2.0	46.5
Apr 16	36			0				20	15					202.9	80.8	2.0	46.6
Apr 17	30			0				10	2					242.9	97.3	2.0	46.6
Apr 18	55			1				16	8					267.9	107.1	2.0	46.7
Apr 19	51			1				21	8					251.2	100.5	1.5	46.8
Apr 20	61			2				15	11					270.8	108.5	2.5	46.8
Apr 21	72			1				8	4					270.2	108.1	2.5	46.8
Apr 22	81			6				12	7					282.1	113.1	2.0	47.0
Apr 23	100			2				15	13					255.6	102.3	2.0	47.5
Apr 24	216			5				19	12					243.8	97.5	2.0	48.1
Apr 25	234			6				15	4					253.7	101.3	2.0	48.2
Apr 26	255			4				11	4					234.9	94.0	2.5	48.3
Apr 27	294			5				17	12					261.8	104.7	2.5	48.6
Apr 28	1,007			40				18	14					257.2	103.3	3.5	48.7
Apr 29	2,680			46				15	9					226.3	90.5	3.0	48.8
Apr 30	2,958			59				14	10					219.3	87.8	3.0	49.1
TOTAL	8,348			178				1,098	647								
AVG.	278			6				37	22					280.0	101.9	2.4	47.0

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

TABLE 28

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
May 1	5,235			72			0	10	4			0		257.1	102.7	3.0	49.4
May 2	6,978			121			0	21	10			0		241.9	96.7	3.0	49.5
May 3	10,357			335			0	19	9			0		246.8	98.8	3.5	49.8
May 4	6,622			305			0	12	8			0		250.2	99.9	3.3	50.0
May 5	7,494			384			0	18	7			0		230.1	92.1	3.0	50.3
May 6	6,493			442			0	11	5			0		254.7	102.0	3.0	50.5
May 7	6,179			530			0	23	5			0		231.2	92.3	2.5	50.7
May 8	9,275			917			0	7	-3			0		238.6	95.5	2.3	51.0
May 9	6,208			1,214			0	16	11			0		267.9	107.3	3.0	51.4
May 10	5,307			1,063			0	13	8			0		289.3	112.0	2.5	51.6
May 11	7,048			1,863			0	15	7			0		248.5	97.8	3.5	52.3
May 12	9,565			3,910			0	13	5			0		270.3	108.3	3.5	52.6
May 13	3,818			2,375			0	19	4			0		335.2	130.5	3.0	52.9
May 14	4,125			2,331			0	13	1			0		338.0	130.7	3.0	53.2
May 15	4,427			3,182			0	10	5			0		366.7	134.1	3.0	53.1
May 16	2,310			2,306			0	15	1			0		423.5	163.9	2.5	53.6
May 17	1,415			1,599			0	14	1			-1		442.3	192.9	2.5	53.6
May 18	1,122			942			0	2	1			0		445.0	201.2	2.0	53.8
May 19	774			877			0	7	2			0		450.0	203.9	2.0	53.9
May 20	851			1,015			0	10	0			0		451.2	200.4	2.0	53.9
May 21	963			1,315			0	16	5			0		461.1	215.4	2.0	54.1
May 22	899			1,083			0	3	3			0		457.1	197.1	1.5	54.3
May 23	724			1,106			0	3	1			0		471.7	209.5	2.0	54.3
May 24	688			1,251			0	7	-1			0		477.8	214.2	2.0	54.1
May 25	508			906			0	4	0			0		476.6	215.3	1.2	53.7
May 26	218			470			0	5	1			0		462.1	209.9	2.0	53.5
May 27	416			856			0	4	2			0		486.5	228.5	2.0	53.6
May 28	771			1,233			1	6	1			0		491.9	234.9	2.0	54.1
May 29	1,048			997			0	8	0			0		497.3	243.8	2.0	54.2
May 30	803			929			0	15	4			0		494.5	247.4	1.5	54.5
May 31	617			897			0	13	2			0		491.7	243.8	2.5	54.7
TOTAL	113,258			36,826			1	352	109			-1					
AVG.	3,653			1188			0	11	4			0		372.5	162.0	2.5	52.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	LAMPREY
SPRING	121,606	37,004	1	1,450	756	-1

TABLE 29

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jun 1	750			1,107			0	6	1			0	0	486.5	233.4	2.0	54.9
Jun 2	765			837			0	11	0			0	1	480.9	225.3	2.0	55.1
Jun 3	1,043			1,198			1	7	1			0	0	481.1	225.7	2.0	55.1
Jun 4		1,238		938			1	9	2			0	0	498.4	243.1	2.0	55.2
Jun 5		1,360		883			0	11	4			0	2	493.3	240.0	2.0	55.3
Jun 6		1,297		806			2	20	1			0	0	491.8	240.4	2.5	55.7
Jun 7		1,352		956			19	14	4			0	0	482.4	227.1	2.5	56.1
Jun 8		1,845		916			40	6	1			0	0	492.3	233.3	2.5	56.2
Jun 9		1,851		797			38	23	5			0	1	494.5	238.1	2.5	56.7
Jun 10		1,857		762			80	10	2			0	0	494.8	241.1	2.0	57.0
Jun 11		1,659		783			112	25	7			0	0	491.1	242.9	2.0	57.3
Jun 12		2,067		836			172	31	5			0	0	478.2	229.7	2.0	57.3
Jun 13		2,374		754			359	22	5			0	0	482.1	241.3	2.5	57.7
Jun 14		2,494		845			485	48	10			0	0	490.0	246.5	2.7	57.8
Jun 15		1,743		773			384	25	5			0	1	489.8	244.2	2.5	57.6
Jun 16		1,487		613			593	32	6			0	1	492.8	261.5	2.5	57.4
Jun 17		1,781		651			602	34	5			1	0	488.4	247.5	2.5	57.3
Jun 18		1,461		692			700	23	11			0	0	463.0	221.9	2.5	57.3
Jun 19		2,044		1,069			1,535	46	6			0	0	440.4	203.0	2.5	57.4
Jun 20		2,176		1,016			1,910	62	14			0	0	426.9	200.9	2.0	58.0
Jun 21		1,562		585			1,284	49	10			0	0	428.5	191.3	3.0	58.5
Jun 22		1,277		754			2,036	54	16			0	0	440.7	199.4	2.3	58.9
Jun 23		1,622		879			2,080	36	10			1	0	432.9	182.9	2.3	58.9
Jun 24		1,913		1,032			4,410	76	31			1	0	480.6	236.2	3.0	59.2
Jun 25		1,926		1,126			4,906	108	28			3	0	451.8	222.7	3.0	59.3
Jun 26		2,166		832			5,592	124	46			1	0	423.1	180.1	2.0	59.6
Jun 27		2,165		1,278			7,092	180	47			7	0	396.5	151.0	2.0	59.9
Jun 28		1,565		789			5,507	155	67			4	1	394.5	150.6	2.0	60.1
Jun 29		1,797		1,006			4,749	188	46			6	3	381.4	138.1	2.0	60.2
Jun 30		1,621		954			5,646	176	72			2	3	388.9	148.5	2.5	60.5
TOTAL	2,558	47,700		26,467			50,335	1,611	468			26	13				
AVG.	853	1767		882			1,678	54	16			1	0	461.9	216.3	2.3	57.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	124,164	40,146
SUMMER	47,700	23,325
TOTAL	171,864	63,471

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
50,336	3,061	1,224

LAMPREY	STURGEON
25	13

TABLE 30

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		2,469		1,072	0		6,134	189	55			2	0	418.3	168.7	2.0	60.9
Jul 2		1,985		886	0		6,672	292	126			16	2	428.2	171.3	2.3	60.2
Jul 3		2,154		749	0		7,447	286	152			14	0	405.7	158.8	2.5	60.5
Jul 4		1,613		821	0		7,466	388	178			21	0	409.4	161.1	2.5	60.6
Jul 5		1,746		805	0		7,524	499	139			20	4	359.3	134.5	2.5	60.8
Jul 6		1,110		560	0		5,262	356	152			12	2	370.3	138.4	3.0	60.9
Jul 7		1,279		689	0		5,491	489	214			23	0	386.0	145.5	3.0	61.4
Jul 8		1,320		711	0		5,858	459	183			23	4	376.3	132.0	3.5	61.8
Jul 9		1,520		643	0		5,688	626	338			12	0	376.3	129.7	3.0	62.0
Jul 10		1,426		598	0		4,879	618	314			20	0	365.4	129.4	3.0	62.6
Jul 11		1,222		562	0		4,327	739	365			29	2	343.2	135.8	3.0	62.5
Jul 12		847		509	0		3,014	546	226			24	2	306.3	121.6	3.5	62.7
Jul 13		745		414	0		2,905	711	431			33	3	295.0	118.3	3.5	63.0
Jul 14		651		478	0		2,752	637	310			38	0	321.0	128.3	3.0	63.2
Jul 15		725		380	0		2,430	836	496			23	1	331.7	129.8	3.5	63.3
Jul 16		1,089		673	0		2,724	1,352	730			35	4	289.7	116.6	4.0	63.5
Jul 17		1,271		434	0		1,905	1,697	988			52	2	269.5	107.4	4.0	63.5
Jul 18		913		439	0		1,246	1,600	906			51	1	289.2	114.1	3.5	63.7
Jul 19		595		194	0		728	1,429	813			50	3	279.2	111.6	3.5	63.9
Jul 20		457		349	0		572	1,759	878			44	4	283.7	113.1	4.0	63.9
Jul 21		535		294	0		564	2,334	1,310			44	3	262.3	105.1	3.5	63.9
Jul 22		661		332	0		497	2,347	1,316			42	1	259.7	103.9	3.0	63.9
Jul 23		729		377	0		427	2,762	1,446			61	2	255.3	102.2	3.0	64.4
Jul 24		724		353	0		251	2,616	1,456			63	0	244.3	97.4	4.0	65.0
Jul 25		682		385	1		263	3,094	1,725			115	6	244.5	97.7	4.0	65.1
Jul 26		535		328	1		168	3,746	2,023			32	2	236.2	94.3	4.0	64.9
Jul 27		476		282	0		136	3,626	1,842			72	3	226.5	90.7	4.5	65.0
Jul 28		420		291	0		98	3,366	1,818			140	2	238.1	94.5	3.8	65.4
Jul 29		514		373	0		74	4,072	1,988			114	2	209.2	83.9	4.2	66.0
Jul 30		524		295	0		107	5,565	2,933			78	2	203.9	81.5	3.5	66.3
Jul 31		667		387	0		90	7,211	3,464			108	5	225.7	89.8	4.0	66.6
TOTAL		31,604		15,663	2		87,699	56,247	29,315			1,411	62				
AVG		1,019		505	0		2,829	1,814	946			46	2	306.8	119.6	3.4	63.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	124,164	40,146
SUMMER	79,304	38,988
TOTAL	203,468	79,134

COHO ADULT
2

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
138,035	59,308	30,539

LAMPREY	STURGEON
1,436	75

TABLE 31

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1		694		296	0	2	80	6,220	2,923	0		106	3	222.0	88.6	4.5	67.0
Aug 2		724		356	0	0	38	7,742	3,432	0		87	0	191.5	76.5	4.5	67.4
Aug 3		401		205	1	1	38	5,706	2,381	0		159	3	198.3	79.1	4.0	67.6
Aug 4			515	166	0	2	20	7,756	3,149	0		143	2	205.5	82.1	4.0	67.9
Aug 5			459	95	2	0	22	6,646	2,502	0		148	0	194.1	77.5	5.0	68.1
Aug 6			456	196	-1	0	11	6,082	2,257	0		195	0	171.0	68.3	4.0	68.1
Aug 7			478	128	0	0	9	5,523	1,989	0		212	0	181.4	72.3	4.0	68.3
Aug 8			402	152	0	0	4	4,249	1,587	0		227	4	197.5	79.0	4.5	68.4
Aug 9			481	144	0	1	11	4,354	1,613	0		190	3	186.0	74.4	4.0	68.3
Aug 10			374	132	1	0	0	3,539	1,300	0		155	2	194.3	77.0	3.5	68.1
Aug 11			357	98	2	1	7	4,078	1,521	0		87	4	196.4	78.6	4.0	68.3
Aug 12			510	174	7	1	0	3,981	1,485	0		89	1	200.3	80.3	4.0	68.6
Aug 13			603	186	6	1	5	4,334	1,494	0		77	4	161.0	64.4	5.0	68.7
Aug 14			739	172	0	7	1	4,416	1,616	0		97	0	149.3	59.6	4.5	68.9
Aug 15			818	206	7	0	0	4,344	1,461	1		46	0	188.7	75.4	5.0	68.8
Aug 16			772	226	14	8	0	4,940	1,513	-1		62	4	189.2	75.9	4.5	68.9
Aug 17			756	235	22	3	0	3,934	1,281	3		56	1	194.9	77.9	5.0	69.0
Aug 18			915	240	49	24	1	4,480	1,404	0		38	1	189.8	75.8	5.2	69.1
Aug 19			1,158	234	93	34	2	3,806	1,181	2		54	1	195.4	78.1	3.5	69.1
Aug 20			1,293	311	221	63	4	4,128	1,329	9		37	0	175.5	70.1	4.0	69.2
Aug 21			1,420	209	201	23	1	4,373	1,375	5		64	0	157.4	62.8	5.0	69.2
Aug 22			1,836	249	251	36	0	4,301	1,378	8		62	5	161.7	64.7	5.0	69.2
Aug 23			1,256	257	236	44	1	3,105	877	3		82	1	173.3	69.1	5.0	69.4
Aug 24			1,158	298	261	44	0	2,755	857	12		87	1	186.9	74.4	4.5	69.6
Aug 25			866	251	234	52	0	2,497	647	1		78	2	195.8	78.2	5.0	70.0
Aug 26			1,741	405	243	48	1	2,434	671	4		44	1	167.1	66.8	4.3	70.2
Aug 27			1,582	347	215	76	-2	2,060	526	2		42	0	169.4	68.1	4.5	70.4
Aug 28			1,795	349	123	47	0	1,741	468	5		59	3	148.4	59.4	4.0	70.6
Aug 29			1,996	384	110	29	1	1,366	338	6		53	0	146.4	58.5	5.0	70.8
Aug 30			1,810	509	111	30	0	999	227	13		56	1	140.4	56.2	5.0	70.9
Aug 31			1,853	513	138	48	0	1,272	347	6		54	3	165.0	66.1	5.0	71.1
TOTAL		1,819	28,399	7,723	2,547	625	255	127,161	45,129	79		2,946	50				
AVG.		606	1,014	249	82	20	8	4102	1456	3		95	2	180.4	72.1	4.5	69.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	124,164	40,146
SUMMER	81,123	39,845
FALL	28,399	6,866
TOTAL	233,686	86,857

COHO ADULTS	COHO JACKS	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
2,549	625	138,290	186,469	75,668	79	4,382	125

TABLE 32

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

THE DALLES PROJECT - FISH COUNTS

SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			2,569	581	458	61	0	2,041	538	6	0	65	2	143.8	0.0	4.5	70.8
Sep 2			3,549	867	1,141	90	0	3,375	807	14	0	44	0	123.2	0.0	5.0	70.5
Sep 3			4,507	875	1,874	155	0	4,361	1,075	6	0	22	2	101.6	0.0	4.5	70.3
Sep 4			6,128	876	1,623	108	0	3,061	687	30	0	36	0	97.7	0.0	5.0	70.1
Sep 5			9,220	1,358	2,160	186	0	3,653	833	28	0	40	0	116.3	0.0	4.5	69.9
Sep 6			10,189	1,447	2,145	106	0	3,277	749	33	0	22	0	117.9	0.0	5.0	69.7
Sep 7			6,947	1,406	1,619	188	0	2,132	473	14	0	30	1	124.3	0.0	5.0	69.5
Sep 8			5,804	1,486	1,291	140	2	1,810	433	8	0	34	1	123.5	0.0	6.0	69.3
Sep 9			5,164	1,286	887	82	0	1,721	384	24	0	20	1	139.5	0.0	5.0	69.0
Sep 10			6,515	1,547	968	94	0	2,125	496	28	0	30	1	120.9	0.0	5.0	68.9
Sep 11			8,317	2,028	949	97	0	2,038	456	20	0	18	3	110.2	0.0	6.0	68.8
Sep 12			10,950	2,232	1,332	114	0	2,800	588	31	0	10	1	128.4	0.0	5.5	68.7
Sep 13			5,724	2,275	1,652	105	1	2,955	578	19	0	22	1	108.4	0.0	6.0	68.5
Sep 14			6,774	2,019	1,758	131	0	4,296	920	22	0	17	0	104.6	0.0	5.5	67.9
Sep 15			6,655	2,086	2,883	126	0	5,275	989	26	0	9	3	109.7	0.0	6.0	67.7
Sep 16			7,345	2,894	2,416	172	0	6,169	1,346	27	0	18	1	116.9	0.0	5.0	67.7
Sep 17			10,150	3,052	2,760	144	0	5,617	1,241	24	1	7	1	109.4	0.0	5.0	67.9
Sep 18			6,528	2,079	1,954	76	0	3,665	815	38	0	12	0	104.1	0.0	5.0	67.5
Sep 19			7,813	2,236	2,146	108	0	3,236	754	39	0	13	0	102.3	0.0	5.0	67.7
Sep 20			6,164	2,003	2,366	102	0	2,706	635	47	0	15	0	122.0	0.0	6.0	67.9
Sep 21			6,016	2,750	3,564	183	0	2,854	689	40	0	17	0	123.3	0.0	6.0	68.0
Sep 22			3,992	2,143	2,369	77	0	2,500	572	72	0	10	1	104.3	0.0	6.0	68.1
Sep 23			3,367	2,106	1,154	77	0	2,440	580	57	0	9	1	103.6	0.0	5.5	68.0
Sep 24			4,536	2,139	1,338	83	0	2,411	523	54	0	18	0	91.7	0.0	6.0	68.0
Sep 25			5,744	2,489	1,412	106	0	2,512	612	54	0	12	0	96.1	0.0	6.0	67.9
Sep 26			4,134	1,656	1,204	80	0	1,885	427	38	0	9	1	117.0	0.0	6.0	67.5
Sep 27			2,691	1,247	671	84	0	1,633	361	26	0	12	1	109.7	0.0	6.0	67.4
Sep 28			3,376	1,529	708	32	0	2,205	509	50	0	6	1	110.7	0.0	6.0	67.2
Sep 29			2,568	1,199	827	161	0	2,459	593	6	0	7	0	101.4	0.0	6.0	67.0
Sep 30			3,510	1,252	1,259	40	0	4,305	1,159	47	0	6	1	105.7	0.0	5.0	66.8
TOTAL			176,946	53,143	48,888	3,308	3	91,517	20,822	928	1	590	24				
AVG.			5,898	1,771	1,630	110	0	3,051	694	31	0	20	1	112.9	0.0	5.4	68.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	124,164	40,146
SUMMER	81,123	39,845
FALL	205,345	60,009
TOTAL	410,632	140,000

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON
51,437	3,933	138,293	277,986	96,490	1,007	1	4,972	149

TABLE 33

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Oct 1			2,634	1147	1,460	85		3,449	958	37	0	1	1	78.4	0.0	5.0	66.5
Oct 2			1,731	785	834	28		1,813	565	9	0	3	0	80.7	0.0	6.0	66.0
Oct 3			1,390	542	647	25		1,492	446	10	0	2	1	90.3	0.0	6.0	65.6
Oct 4			1,393	574	353	12		701	207	4	0	4	1	100.0	0.0	6.0	65.3
Oct 5			1,767	726	306	10		864	264	6	1	3	0	108.3	0.0	6.0	64.8
Oct 6			2,524	858	1,169	48		1,151	317	2	0	1	0	117.2	0.0	6.0	64.2
Oct 7			1,982	717	4,082	89		1,898	605	6	1	1	1	96.9	0.0	6.0	63.3
Oct 8			1,514	490	2,124	66		1,170	355	7	0	1	0	93.9	0.0	6.0	63.0
Oct 9			1,476	452	850	66		897	284	4	0	1	2	94.1	0.0	6.0	62.7
Oct 10			2,032	677	425	18		867	234	11	0	2	1	129.5	0.0	6.0	62.5
Oct 11			949	254	469	14		593	207	10	0	0	0	114.4	0.0	6.0	62.3
Oct 12			1,124	414	2,700	46		793	227	10	0	0	0	100.4	0.0	6.0	62.0
Oct 13			891	397	2,090	45		886	350	8	0	1	1	114.0	0.0	6.0	61.9
Oct 14			1,068	402	495	30		491	190	8	0	1	0	133.0	0.0	6.0	61.8
Oct 15			901	285	299	21		413	154	7	0	0	-1	136.7	0.0	6.0	61.8
Oct 16			734	263	232	14		363	99	6	0	0	0	127.4	0.0	6.0	61.7
Oct 17			741	246	248	8		371	138	2	0	1	0	122.1	0.0	6.0	61.4
Oct 18			720	246	183	13		321	132	2	0	2	0	119.3	0.0	6.0	61.3
Oct 19			413	177	130	5		203	66	1	0	1	1	103.6	0.0	6.0	61.3
Oct 20			545	218	155	8		261	106	0	0	0	0	114.2	0.0	6.5	61.0
Oct 21			553	188	87	2		233	96	0	0	0	0	118.2	0.0	6.0	60.7
Oct 22			570	168	104	2		265	102	0	0	0	0	115.9	0.0	6.3	60.5
Oct 23			459	90	114	0		197	62	0	0	0	0	88.7	0.0	6.0	60.3
Oct 24			413	135	161	1		222	68	0	0	0	0	107.9	0.0	6.0	60.1
Oct 25			459	134	90	3		174	53	0	0	0	0	118.7	0.0	6.0	59.4
Oct 26			206	99	82	4		160	53	1	0	0	1	104.5	0.0	6.0	59.0
Oct 27			268	76	166	4		154	45	0	0	0	0	131.2	0.0	6.0	58.7
Oct 28			199	72	141	7		139	64	0	0	0	0	126.8	0.0	6.0	58.4
Oct 29			204	60	265	20		154	69	0	0	0	0	121.5	0.0	6.0	58.4
Oct 30			203	68	155	5		156	51	0	0	0	0	95.0	0.0	6.0	58.3
Oct 31			167	47	67	1		170	66	0	0	0	0	96.6	0.0	6.0	58.2
TOTAL			30,230	11,007	20,683	700		21,021	6,633	151	2	25	9				
AVG.			975	355	667	23		678	214	5	0	1	0	109.7	0.0	6.0	61.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	124,164	40,146
SUMMER	81,123	39,845
FALL	235,575	71,016
TOTAL	440,862	151,007

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	CHUM	LAMPREY	STURGEON
72,120	4,633	138,293	299,007	103,123	1,158	3	4,997	158

Note: Visual counts ended October 31.

TABLE 34

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2011

N0VEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	131.9	0.0	6.0	57.5
Nov 2	131.3	0.0	6.0	57.3
Nov 3	124.0	0.0	6.0	57.0
Nov 4	116.5	0.0	6.0	56.3
Nov 5	117.3	0.0	6.0	55.7
Nov 6	118.1	0.0	6.0	55.5
Nov 7	118.0	0.0	6.0	55.4
Nov 8	132.4	0.0	6.0	55.0
Nov 9	116.3	0.0	6.0	54.6
Nov 10	115.2	0.0	6.0	54.0
Nov 11	126.8	0.0	6.0	53.3
Nov 12	109.5	0.0	6.0	52.8
Nov 13	112.0	0.0	6.0	51.8
Nov 14	129.4	0.0	6.0	51.4
Nov 15	116.8	0.0	6.0	50.8
Nov 16	143.0	0.0	6.0	51.0
Nov 17	132.1	0.0	6.0	50.4
Nov 18	127.8	0.0	6.0	50.0
Nov 19	122.0	0.0	6.0	49.6
Nov 20	135.3	0.0	6.0	49.2
Nov 21	131.3	0.0	6.0	48.9
Nov 22	128.0	0.0	6.0	48.9
Nov 23	116.7	0.0	6.0	49.0
Nov 24	114.5	0.0	6.0	48.7
Nov 25	113.2	0.0	6.0	48.3
Nov 26	117.3	0.0	6.0	48.1
Nov 27	109.7	0.0	6.0	47.9
Nov 28	123.0	0.0	6.0	47.8
Nov 29	121.9	0.0	6.0	47.6
Nov 30	127.2	0.0	6.0	47.5
AVG.	122.6	0.0	6.0	51.7

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	125.3	0.0	6.0	47.3
Dec 2	122.2	0.0	6.0	47.2
Dec 3	122.2	0.0	6.0	46.9
Dec 4	125.1	0.0	6.0	46.8
Dec 5	136.5	0.0	6.0	46.5
Dec 6	134.7	0.0	6.0	46.2
Dec 7	139.1	0.0	6.0	45.9
Dec 8	131.8	0.0	6.0	45.6
Dec 9	136.6	0.0	6.0	45.2
Dec 10	138.4	0.0	6.0	44.9
Dec 11	122.3	0.0	6.0	44.5
Dec 12	140.8	0.0	6.0	44.2
Dec 13	130.1	0.0	6.0	43.9
Dec 14	141.2	0.0	6.0	43.4
Dec 15	132.3	0.0	6.0	43.2
Dec 16	117.3	0.0	6.0	43.1
Dec 17	133.1	0.0	6.0	42.9
Dec 18	112.7	0.0	6.0	42.7
Dec 19	120.9	0.0	6.0	42.5
Dec 20	134.1	0.0	6.0	42.4
Dec 21	121.0	0.0	6.0	42.2
Dec 22	132.1	0.0	6.0	41.8
Dec 23	124.8	0.0	6.0	41.4
Dec 24	126.0	0.0	6.0	41.3
Dec 25	118.7	0.0	6.0	41.2
Dec 26	131.6	0.0	6.0	41.1
Dec 27	136.9	0.0	6.0	41.2
Dec 28	127.2	0.0	6.0	41.5
Dec 29	112.7	0.0	6.0	41.6
Dec 30	126.1	0.0	6.0	41.6
Dec 31	123.3	0.0	6.0	41.2
AVG.	128.3	0.0	6.0	43.6

TABLE 35

YEARLY TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2011

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
Totals	15,622,285	9,943,637	3,718,460	989,189	254	1,555	30,275,380
10-Year Average	488,342	307,680	109,362	43,226			948,753

*Jacks included

TABLE 36

MONTHLY COUNT OF CHINOOK SALMON
THE DALLES DAM 1957 - 2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING 1 JAN-3 JUN	SUMMER 4 JUN-3 AUG	FALL 4 AUG-31 DEC	JACKS
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	130,511	79,840
1975				18,526	32,869	12,155	26,447	28,973	90,193	8,120			217,283	52,483	39,062	125,738	74,418
1976				20,266	35,434	17,828	20,129	17,278	90,933	14,295			216,163	56,570	38,733	120,860	74,275
1977				72,726	16,672	22,084	22,059	12,266	69,927	9,216			224,950	90,373	44,378	90,199	55,067
1978				52,425	30,472	19,477	15,978	11,251	57,786	11,839			199,228	84,924	34,396	79,908	32,503
1979				13,993	12,569	14,310	17,687	20,458	61,757	9,516	357		150,647	27,297	32,298	91,052	42,886
1980				12,434	15,441	7,948	12,832	12,881	43,675	8,740			113,951	28,237	21,133	64,581	20,016
1981				24,227	16,335	8,491	10,779	15,802	53,840	5,702			135,176	41,160	19,676	74,340	33,919
1982				10,569	33,296	10,058	9,554	17,466	79,487	12,252			172,682	44,750	19,342	108,590	60,165
1983				13,270	22,893	8,766	8,430	12,501	73,942	16,388			156,190	36,856	17,051	102,283	41,335
1984				9,326	23,784	9,992	12,332	23,495	105,786	19,205			203,920	33,848	22,472	147,600	70,798
1985				36,035	39,173	15,785	10,332	37,806	203,470	27,058	1,323		370,982	76,514	25,385	269,083	145,007
1986			175	48,892	36,928	14,175	10,452	22,684	264,091	45,616			443,013	87,004	24,826	331,183	176,461
1987				48,812	27,586	17,923	12,145	50,680	236,216	27,828			421,190	77,453	30,804	312,933	65,115
1988				51,680	20,756	16,644	13,494	66,509	193,490	15,507			378,080	73,663	29,892	274,525	69,631
1989				24,474	27,477	15,539	13,899	58,674	130,931	10,438	736		282,168	53,014	30,555	198,599	28,671
1990			115	36,062	20,749	13,390	9,099	22,152	96,538	9,451			207,556	57,424	22,615	127,517	32,794
1991				14,513	17,313	10,949	7,638	8,384	84,861	9,365			153,023	32,359	18,467	102,197	36,820
1992				38,141	19,414	9,595	5,797	14,589	71,281	9,690			168,507	58,451	14,976	95,080	27,160
1993				42,391	25,824	14,165	6,481	19,297	71,395	5,400			184,953	69,356	20,063	95,534	12,298
1994				6,573	4,938	7,376	8,360	22,910	98,997	12,604			161,758	11,798	15,997	133,963	25,470
1995				3,008	4,244	6,176	7,111	23,094	82,723	15,437			141,793	7,553	13,558	120,682	32,813
1996				5,631	20,896	8,018	6,718	26,505	90,762	9,381			167,911	27,127	14,488	126,296	5,851
1997				25,639	42,467	14,718	8,011	23,666	100,652	8,648			223,801	69,740	21,134	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
Total			9,800	2,015,640	2,227,354	1,577,339	1,195,515	1,517,340	6,336,083	730,264	12,780		15,622,285	4,245,486	2,627,088	8,434,671	3,091,652
10-Year Average				38,433	85,656	63,899	32,247	42,401	197,852	26,125			488,342	129,421	92,857	266,064	73,911

*Jacks included

TABLE 37

MONTHLY COUNT OF SOCKEYE SALMON
THE DALLES DAM
1957 - 2011

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			4	34,180
2004					61	84,332	22,978	94	1				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
Total				2	1,651	1,854,882	1,837,292	23,531	1,068	29	1		3,718,460
10-Year Average					16	75,373	33,853	115	4				109,362

TABLE 38

MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2011

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	75,458
2011							2	3,172	52,196	21,383			76,753	4,633
Total							1,576	43,326	676,226	262,073	5,950	39	989,189	287,034
10-Year Average								1,834	25,192	15,634			43,226	10,789

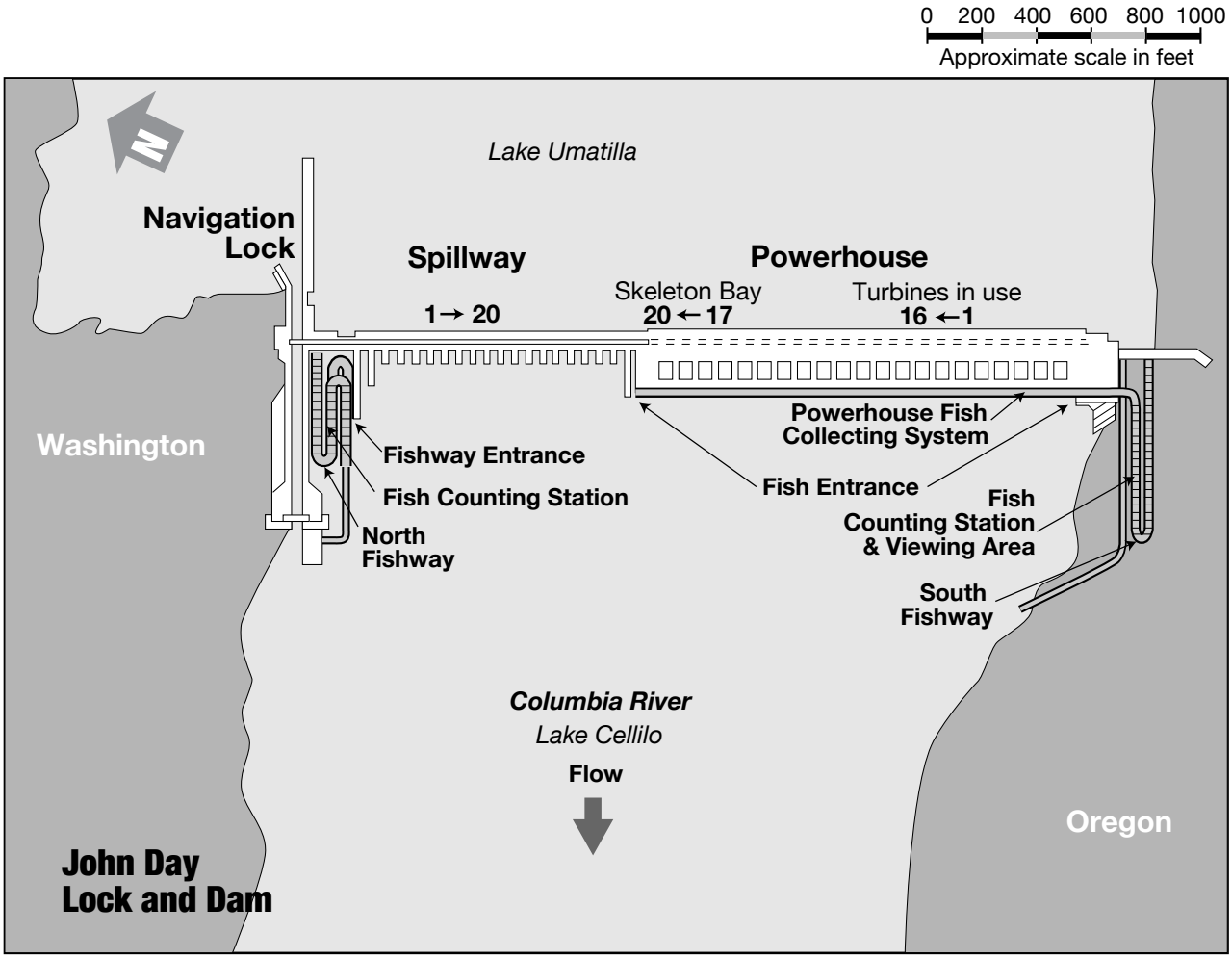
*Includes Jacks

TABLE 39

MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2011

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
Total			12,149	52,547	35,259	176,770	1,936,082	2,310,813	4,431,079	954,373	32,727		9,943,637
10-Year Average				1,181	422	4,889	48,472	68,871	145,296	35,070			307,680

Plate 4 John Day Lock and Dam



JOHN DAY DAM

FISH COUNTING SCHEDULE

Apr 1 – Oct 31	Visual counting daily 0400-2000 hours Pacific Standard Time.

FISHWAY OPERATING SCHEDULE

The following information includes fishway operation for calendar year 2011. Total length of time for annual fishway outages can be determined by referring to the2010 annual report.

North Adult Fishway

Jan 1 – 31	Dewatered for winter maintenance
Feb 1 – Nov 6	In full operation with attraction water
Aug 3	Attraction water off half day for required ROV grating inspection
Nov 7 – Dec 31	Dewatered for winter maintenance

South Adult Fishway

Jan 1 – Mar 30	In full operation with attraction water
Jan 12 – Jan 21	Dewatered for winter maintenance
Jan 22 – Dec 31	In full operation with attraction water
Aug 9	Attraction water off half day for required ROV grating inspection

Smolt Monitoring Facility

Jan 1-March 30	Dewatered
Mar 31 – Aug 25	In full operation with juvenile sampling
Aug 23	Emergency Dewater-PDS 4hours
Aug 26 – Sept 6	Water temperature 70˚ F. Condition sampling of 100 fish on Monday and Thursday. System in bypass at switch gate on other days.
Sep 7 – Sep 8	In full operation with juvenile sampling
Sep 9 – 15	Water temperature 70˚ F. Condition sampling of 100 fish on Monday and Thursday. System in bypass at switch gate on other days.
Sep 16 – Nov 17	System in bypass for full flow PIT tag detection.
Nov 18 – Dec 31	System dewatered for winter maintenance.

Juvenile Bypass System

Jan 1-Mar 31	1/3 gatewell orifice open, rotated twice weekly
Apr 1-Dec 15	Full operation
Dec 15 – 31	1/3 gatewell orifice open, rotated twice weekly

Spillway

Jan 1 – Apr 9	Closed
Apr 10 – Aug 31	30% /40% according to experimental block design. (30% did not occur in summer due to high flows)
Sept 1 – Nov 30	Bay 2 only, 1.5 KCFS daylight hours only (attraction water for north fishway)
Dec 1 – Dec 31	Closed

FISH RELATED DEWATERINGS

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. A follow up inspection is 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 ROV.

Fish Ladder Dewatering Results

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

Date	Event	Chinook	Steelhead	Coho	Lamprey	Shad	Other
1/13	NFL AWS		1 j				(1)
2/3	SFL		6 j			4a,6j	
2/8	SFL Channel		3a, 2j		1j		2ba,1ca
2/9	SE1	2j	6a,4j				1cc,1ca
11/7	NFL upper						
11/8	NFL entrance	1a,1j	1a	2a	7a	90	(2)

(1) 20 catfish, 2 sm bass, 1 walleye, 4 sculpin

(2) 1 whitefish, 3 suckers, 1 sm bass, 6 carp, 3 catfish

(3) 1 adult chinook netted and released from SFL picketed lead pool on 6/30

Smolt Monitoring Facility Dewatering Results

Key:a=adult, j=juvenile catfish=ca, mountain whitefish=mw, common carp=cc, sucker species=su, lamprey=lam

Date	Event	Chinook	Steelhead	Lamprey	Shad	Sturgeon	Other	Morts	Cause
2/10	JBS Channel		7a						
8/23	PDS/mid	10	~90	~20a	70-80	2	20-30 ca	7 lam	adult pipe
11/17	PDS	1j	50-70a	1a	~100		1ba,1ca,5sp		

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.

Turbine Dewatering Results

Key: catfish=ca, mountain whitefish=mw, common carp=cc, sucker species=su, bluegill=bg

Date	Event	Steelhead	Coho	Sturgeon	Other	Comments
2/22	MU 12 sc	0	0	0	1 bg	
9/15	MU 5 sc	0	0	0		NO FISH
9/15	MU5 dt	1j	1a	~30 small	0	
10/13	MU6 sc	0	0	0	5ca	
10/18	MU6 dt	0	0	14	4cs,1ba	
10/22	MU1 sc	0	0	0	12ca	

TABLE 40

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

2011

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				2,856	131,343	70,070	46,154	26,983	182,441	37,924			497,771
STEELHEAD				2,396	408	1,090	32,498	101,526	83,950	35,477			257,345
SOCKEYE						41,854	101,278	471	2	0			143,605
COHO*								2,234	37,683	25,751			65,668
CHUM													0
PINK								17	544	137			698
TOTAL				5,252	131,751	113,014	179,930	131,231	304,620	99,289			965,087
LAMPREY					1	12	767	2,286	497	3			3,566
STURGEON							-1	1	1	2			3
BULL TROUT							1						1

***Jacks Included**

TABLE 41

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2011

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	147.9	0.0	6.0	44.0
Jan 2	134.2	0.0	6.0	44.0
Jan 3	176.7	0.0	6.0	44.0
Jan 4	176.3	0.0	6.0	43.0
Jan 5	133.8	0.0	6.0	43.0
Jan 6	130.1	0.0	6.0	42.0
Jan 7	126.5	0.0	6.0	42.0
Jan 8	126.6	0.0	6.0	42.0
Jan 9	123.5	0.4	4.0	41.0
Jan 10	143.6	0.0	5.0	41.0
Jan 11	156.6	0.0	5.0	39.0
Jan 12	182.0	0.0	6.0	39.0
Jan 13	137.7	0.0	6.0	39.0
Jan 14	157.1	0.0	6.0	39.0
Jan 15	143.9	0.0	6.0	39.0
Jan 16	116.1	0.0	5.5	39.0
Jan 17	166.0	0.0	5.5	39.0
Jan 18	222.5	0.0	4.0	40.0
Jan 19	249.3	0.0	0.5	40.0
Jan 20	230.3	0.0	1.0	39.0
Jan 21	216.2	0.0	1.5	39.0
Jan 22	228.4	0.0	1.5	40.0
Jan 23	253.0	0.0	2.0	40.0
Jan 24	253.4	0.0	1.5	40.0
Jan 25	243.1	0.0	2.0	40.0
Jan 26	227.3	0.0	2.0	41.0
Jan 27	246.0	0.0	2.0	41.0
Jan 28	249.1	0.0	2.0	41.0
Jan 29	218.2	0.0	2.5	41.0
Jan 30	186.8	0.0	2.5	41.0
Jan 31	230.0	0.0	3.0	41.0
AVG.	184.9	0.0	4.0	40.7

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	226.0	0.0	3.5	41.0
Feb 2	204.8	0.0	4.5	40.0
Feb 3	195.6	0.0	3.0	39.0
Feb 4	194.0	0.0	3.0	39.0
Feb 5	159.5	0.0	3.0	39.0
Feb 6	147.1	0.0	3.0	39.0
Feb 7	153.7	0.0	3.0	39.0
Feb 8	210.6	0.0	3.0	39.0
Feb 9	212.7	0.0	3.5	39.0
Feb 10	216.1	0.0	2.5	39.0
Feb 11	218.8	0.0	3.5	39.0
Feb 12	213.0	0.0	4.5	39.0
Feb 13	173.2	0.0	3.0	39.0
Feb 14	203.5	0.0	5.0	40.0
Feb 15	219.6	0.0	4.5	39.0
Feb 16	214.4	0.0	4.5	39.0
Feb 17	221.7	0.0	4.5	39.0
Feb 18	213.8	0.0	4.5	39.0
Feb 19	207.2	0.0	4.5	40.0
Feb 20	198.8	0.0	6.0	40.0
Feb 21	193.0	0.0	4.0	40.0
Feb 22	179.1	0.0	4.5	39.0
Feb 23	214.2	0.0	5.5	40.0
Feb 24	186.1	0.0	6.0	40.0
Feb 25	189.9	0.0	6.0	40.0
Feb 26	185.8	0.0	6.0	39.0
Feb 27	196.5	0.0	6.0	39.0
Feb 28	207.8	0.0	6.0	39.0
AVG.	198.4	0.0	4.3	39.4

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	220.4	0.0	5.5	39.0
Mar 2	212.7	0.0	5.0	38.0
Mar 3	203.0	0.0	5.0	38.0
Mar 4	214.5	0.0	5.5	38.0
Mar 5	183.9	0.0	5.5	38.0
Mar 6	184.0	0.0	5.5	38.0
Mar 7	211.9	0.0	5.5	38.0
Mar 8	192.2	0.0	5.5	38.0
Mar 9	226.5	0.0	5.5	38.0
Mar 10	197.1	0.0	4.5	40.0
Mar 11	203.7	0.0	5.0	39.0
Mar 12	222.0	0.0	5.0	41.0
Mar 13	187.2	0.0	5.0	41.0
Mar 14	214.2	0.0	5.0	40.0
Mar 15	209.5	0.0	5.0	41.0
Mar 16	178.9	0.0	5.0	41.0
Mar 17	222.9	0.0	5.0	41.0
Mar 18	230.5	0.0	5.0	41.0
Mar 19	213.3	0.0	4.0	41.0
Mar 20	198.3	0.0	5.0	41.0
Mar 21	168.7	0.0	4.0	42.0
Mar 22	200.7	0.0	3.0	42.0
Mar 23	235.9	0.0	4.0	42.0
Mar 24	224.4	0.0	4.0	42.0
Mar 25	226.0	0.0	3.5	43.0
Mar 26	211.3	0.0	3.5	43.0
Mar 27	240.3	0.0	3.0	44.0
Mar 28	205.4	0.0	3.5	44.0
Mar 29	222.8	0.0	4.0	44.0
Mar 30	221.3	4.3	3.5	44.0
Mar 31	241.9	21.2	3.5	43.0
AVG.	210.5	0.8	4.6	40.7

TABLE 42

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	unclipped STEELHEAD	STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Apr 1	6			0				241	144				303.1	88.5	4.0	45.0
Apr 2	7			0				254	134				330.9	108.8	4.0	46.0
Apr 3	19			0				303	189				359.2	121.1	5.0	47.0
Apr 4	12			0				191	123				359.9	127.7	3.5	47.0
Apr 5	5			0				148	101				385.6	154.3	4.5	47.0
Apr 6	8			0				103	64				350.2	122.6	3.0	46.0
Apr 7	4			0				114	75				305.0	72.7	3.5	46.0
Apr 8	11			0				126	84				285.0	60.6	3.5	46.0
Apr 9	5			0				54	31				327.1	101.5	3.0	46.0
Apr 10	5			0				61	41				329.8	103.8	3.0	46.0
Apr 11	2			0				67	43				300.4	89.9	3.0	46.0
Apr 12	3			0				75	57				310.4	93.0	3.0	46.0
Apr 13	17			0				94	73				285.3	85.5	3.0	46.0
Apr 14	23			0				41	29				273.2	82.0	3.0	47.0
Apr 15	20			0				53	40				283.0	84.8	2.0	47.0
Apr 16	32			0				55	39				215.1	64.4	2.5	47.0
Apr 17	7			0				57	38				253.4	76.1	3.0	47.0
Apr 18	18			1				39	31				278.8	83.7	2.5	47.0
Apr 19	21			0				24	13				257.7	77.4	2.5	47.0
Apr 20	15			0				41	29				281.5	84.2	2.5	47.0
Apr 21	42			0				24	16				282.9	85.0	3.0	47.0
Apr 22	29			0				22	15				293.5	88.2	3.0	46.0
Apr 23	47			0				19	18				262.5	78.8	3.0	46.0
Apr 24	79			4				33	18				256.2	76.9	2.5	48.0
Apr 25	114			8				12	11				264.6	79.4	2.5	49.0
Apr 26	90			6				22	19				247.0	74.4	3.0	48.0
Apr 27	168			7				29	23				270.1	85.5	3.5	48.0
Apr 28	188			4				31	21				269.8	107.9	2.5	48.0
Apr 29	623			17				29	21				240.5	91.6	3.0	49.0
Apr 30	1,139			50				34	23				229.3	69.0	3.0	49.0
TOTAL	2,759			97				2,396	1,563							
AVG.	92			3				80	52				289.7	90.6	3.1	46.9

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

TABLE 43

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
May 1	2,377			64				27	17		0		266.9	84.4	3.0	49.0
May 2	3,558			77				20	14		0		250.8	100.2	3.0	50.0
May 3	5,412			123				14	7		0		259.4	99.2	3.0	49.0
May 4	7,244			199				23	22		0		261.4	78.7	3.5	49.0
May 5	6,695			279				23	12		0		242.4	77.3	3.0	50.0
May 6	6,217			369				16	10		0		260.4	103.9	3.0	51.0
May 7	4,637			441				26	18		0		245.1	93.7	3.0	50.0
May 8	5,316			468				10	5		0		250.1	75.1	3.0	50.0
May 9	6,814			950				23	10		0		281.8	88.9	3.5	50.0
May 10	5,492			962				22	9		0		299.0	117.6	3.5	51.0
May 11	4,804			1,224				8	6		0		256.3	98.1	4.0	51.0
May 12	6,643			1,759				8	5		0		293.1	88.2	4.0	51.0
May 13	7,143			2,990				9	5		0		347.0	103.7	4.0	52.0
May 14	3,750			2,299				18	8		0		351.8	105.3	4.0	53.0
May 15	4,301			2,503				19	11		0		383.6	122.6	2.5	54.0
May 16	3,776			2,788				16	5		0		438.6	148.7	3.5	54.0
May 17	1,992			1,648				18	1		0		454.9	170.2	3.0	54.0
May 18	1,321			1,587				17	2		0		457.9	187.1	3.0	54.0
May 19	1,057			1,368				11	2		0		463.9	201.5	3.0	54.0
May 20	737			847				5	0		0		467.3	186.9	3.0	53.0
May 21	803			1,055				6	0		0		474.3	194.7	3.0	54.0
May 22	956			1,314				4	1		1		476.7	193.8	3.5	54.0
May 23	843			1,338				8	4		0		493.6	214.9	2.0	54.0
May 24	546			1,134				9	0		0		495.3	220.0	2.5	54.0
May 25	493			1,126				13	5		0		490.8	200.2	3.0	54.0
May 26	522			1,070				6	2		0		483.0	205.7	2.5	54.0
May 27	465			813				5	2		0		501.7	217.4	2.5	54.0
May 28	740			1,020				5	2		0		507.7	223.3	2.5	54.0
May 29	709			1,153				3	2		0		518.3	236.6	2.5	54.0
May 30	732			915				7	1		0		509.1	233.6	2.5	55.0
May 31	587			778				9	-1		0		512.0	235.0	2.5	54.0
TOTAL	96,682			34,661				408	187		1					
AVG.	3119			1118				13	6		0		386.9	151.8	3.0	52.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	unclipped STEELHEAD	LAMPREY
SPRING	99,441	34,758	2,804	1,750	1

TABLE 44

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	unclipped STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jun 1	476			873			0	9	2		0		495.7	235.7	2.5	55.0
Jun 2	786			1,109			0	10	4		0		488.5	221.8	2.5	55.0
Jun 3	817			1,076			0	10	0		0		498.0	225.6	2.5	55.0
Jun 4	879			1,070			0	11	2		0		513.8	230.4	2.0	55.0
Jun 5	1,002			937			1	6	1		1		502.5	224.5	2.0	55.0
Jun 6		844		759			1	11	1		0		505.4	231.6	2.0	55.0
Jun 7		1,611		1,080			2	13	1		1		496.5	230.4	2.0	56.0
Jun 8		1,522		1,091			10	12	1		-1		505.6	233.5	3.0	57.0
Jun 9		1,554		949			35	12	4		0		506.1	239.5	3.0	56.0
Jun 10		1,694		735			31	23	9		4		500.3	232.4	3.0	57.0
Jun 11		1,828		707			44	19	0		4		498.6	229.5	3.0	58.0
Jun 12		1,789		753			60	17	3		0		489.2	223.8	2.5	57.0
Jun 13		1,900		790			163	14	1		0		492.3	223.3	3.5	57.0
Jun 14		1,166		527			237	21	4		0		500.6	239.9	3.0	58.0
Jun 15		2,322		590			217	23	2		-1		507.0	255.4	3.0	57.0
Jun 16		1,241		448			181	26	2		0		505.4	253.6	2.5	58.0
Jun 17		1,310		632			442	30	8		1		500.1	225.5	2.5	57.0
Jun 18		1,623		788			558	44	11		-1		477.0	202.9	2.5	58.0
Jun 19		1,464		722			587	25	9		0		452.0	191.5	3.0	57.0
Jun 20		1,835		1,051			1,502	31	14		1		443.2	193.6	2.5	58.0
Jun 21		1,748		858			1,906	35	16		0		441.9	171.8	2.5	58.0
Jun 22		1,594		758			2,072	31	13		0		454.8	191.0	3.0	59.0
Jun 23		1,435		594			1,831	41	13		0		448.1	185.8	3.0	59.0
Jun 24		1,685		928			2,642	67	28		1		497.0	240.5	3.0	59.0
Jun 25		1,908		999			3,221	58	18		1		463.0	207.9	3.0	59.0
Jun 26		2,161		917			4,550	72	15		4		439.7	175.3	3.0	59.0
Jun 27		2,219		799			5,592	85	27		0		416.5	151.3	4.0	60.0
Jun 28		1,870		942			5,995	104	44		0		408.9	147.4	3.5	60.0
Jun 29		1,360		759			4,907	97	28		-1		394.6	138.0	3.5	60.0
Jun 30		1,397		789			5,067	133	43		-2		405.0	141.3	3.5	60.0
TOTAL	3,960	41,080		25,030			41,854	1,090	324		12					
AVG.	792	1,643		834			1,395	36	11		0		474.9	209.8	2.8	57.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	103,401	39,823
SUMMER	41,080	19,965
TOTAL	144,481	59,788

SOCKEYE	STEELHEAD	unclipped STEELHEAD
41,854	3,894	2,074

LAMPREY
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TABLE 45

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		1,929		834			5,181	137	53		-1	0	436.3	158.7	3.5	60.0
Jul 2		2,004		806			6,534	158	50		-1	0	442.4	149.3	3.5	61.0
Jul 3		2,091		623			5,974	156	64		-1	0	420.8	137.6	3.5	61.0
Jul 4		2,340		887			8,198	240	94		2	0	419.9	131.6	3.5	61.0
Jul 5		1,565		605			7,242	262	94		0	0	376.0	114.2	3.5	61.0
Jul 6		1,496		492			7,125	214	93		6	0	384.2	117.5	2.5	61.0
Jul 7		1,402		478			6,077	265	108		0	0	398.0	135.3	3.0	62.0
Jul 8		1,110		708			6,093	310	145		5	0	397.2	134.2	3.0	63.0
Jul 9		1,287		703			7,423	398	191		3	0	387.8	119.3	3.0	62.0
Jul 10		1,654		734			6,769	466	212		0	0	378.6	122.8	3.0	63.0
Jul 11		1,258		586			5,538	405	195		7	0	357.0	133.5	3.0	62.0
Jul 12		1,102		427			4,425	423	197		14	0	313.8	120.1	3.0	62.0
Jul 13		881		443			4,169	449	197		17	0	314.9	94.6	3.0	63.0
Jul 14		909		339			3,099	454	206		17	0	332.8	106.3	4.0	63.0
Jul 15		603		309			3,013	417	216		7	0	350.1	139.1	3.5	63.0
Jul 16		924		357			2,922	534	275		7	0	299.1	115.6	3.5	64.0
Jul 17		895		527			3,181	714	374		29	0	281.0	84.1	4.0	64.0
Jul 18		1,125		383			2,175	939	466		30	0	298.7	96.1	4.0	64.0
Jul 19		1,037		373			1,174	1,036	568		17	0	295.8	118.9	4.0	64.0
Jul 20		216		185			804	663	377		33	0	296.1	113.1	4.0	64.0
Jul 21		495		292			925	1,230	647		26	0	267.9	80.6	4.0	64.0
Jul 22		440		215			565	1,307	674		42	0	272.2	81.6	4.0	64.0
Jul 23		592		303			578	1,576	856		37	0	267.7	80.3	4.0	64.0
Jul 24		953		410			520	2,061	1,168		31	0	257.8	77.0	4.0	65.0
Jul 25		1,011		382			406	2,359	1,300		52	0	258.5	77.3	4.0	65.0
Jul 26		580		332			302	2,128	1,184		42	-1	243.3	73.0	4.0	65.0
Jul 27		385		236			234	1,776	964		46	0	243.3	72.8	4.0	65.0
Jul 28		370		256			164	2,340	1,301		44	0	250.5	74.9	4.0	65.0
Jul 29		264		247			146	2,299	1,279		69	0	220.3	66.2	4.0	66.0
Jul 30		373		336			129	2,939	1,592		80	0	213.5	64.0	4.5	66.0
Jul 31		665		390			193	3,843	2,063		107	0	238.1	71.2	4.5	66.0
TOTAL		31,956		14,198			101,278	32,498	17,203		767	-1				
AVG		1,031		458			3,267	1,048	555		25	0	319.8	105.2	3.6	63.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	103,401	39,823
SUMMER	73,036	34,163
TOTAL	176,437	73,986

SOCKEYE	STEELHEAD	unclipped STEELHEAD
143,132	36,392	19,277

LAMPREY	STURGEON
780	-1

Note: 1 bull trout was counted on July 3.

TABLE 46

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

JOHN DAY PROJECT - FISH COUNTS

AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Aug 1		460		320	0	1	109	4,300	2,271	0	79	0	227.8	68.3	4.5	66.0
Aug 2		575		360	0	0	84	4,865	2,350	0	124	0	205.1	61.4	4.5	68.0
Aug 3		296		167	0	0	56	3,571	1,686	0	100	0	207.2	62.1	4.0	68.0
Aug 4		492		268	0	0	49	5,597	2,547	0	119	0	219.6	65.9	4.0	67.0
Aug 5		516		266	0	0	35	6,199	2,784	0	157	0	205.1	61.7	4.0	68.0
Aug 6			317	151	35	4	19	5,460	2,184	0	129	0	181.5	54.3	4.0	68.0
Aug 7			344	161	1	0	19	4,776	1,962	0	127	0	188.3	56.3	4.5	69.0
Aug 8			268	118	5	0	19	4,465	1,797	0	137	0	210.0	62.5	4.5	69.0
Aug 9			238	132	0	4	12	3,692	1,413	0	104	0	197.2	59.1	4.5	69.0
Aug 10			275	118	2	2	9	3,054	1,283	0	124	0	208.3	62.0	4.5	68.0
Aug 11			208	127	8	6	10	2,447	911	0	100	0	208.6	62.6	5.0	68.0
Aug 12			243	87	0	5	8	2,990	1,190	0	107	0	208.1	62.3	5.0	68.0
Aug 13			240	115	5	9	4	3,042	1,146	0	78	0	166.1	49.8	5.0	69.0
Aug 14			505	163	4	7	4	4,019	1,480	0	62	0	164.3	49.2	5.0	69.0
Aug 15			411	144	2	2	4	3,234	1,169	0	43	0	199.8	60.0	5.0	69.0
Aug 16			570	158	18	8	1	2,859	1,063	0	45	0	198.3	59.4	5.0	68.0
Aug 17			468	201	0	7	10	2,699	911	0	38	0	204.8	61.2	5.0	69.0
Aug 18			312	175	6	13	1	2,693	846	0	26	0	199.2	59.7	5.0	69.0
Aug 19			687	227	5	3	2	2,903	1,022	0	53	0	203.3	60.9	5.0	68.0
Aug 20			616	205	31	12	0	3,630	1,271	0	55	0	185.8	55.8	5.0	69.0
Aug 21			936	234	59	9	2	3,302	1,170	1	42	0	168.9	50.6	5.0	70.0
Aug 22			1,404	309	206	55	3	3,868	1,273	1	48	0	168.5	50.3	5.0	70.0
Aug 23			649	139	141	32	0	2,612	852	5	46	0	185.4	55.4	5.0	70.0
Aug 24			673	233	169	35	4	2,600	788	1	29	0	198.3	59.4	5.0	70.0
Aug 25			928	209	205	27	4	2,318	718	2	50	0	203.6	60.9	5.0	69.0
Aug 26			510	195	93	23	0	1,994	592	1	46	1	179.9	53.8	5.0	70.0
Aug 27			958	318	140	31	2	2,124	649	0	48	0	176.1	53.1	5.0	70.0
Aug 28			1,702	333	189	15	1	2,110	638	1	46	0	157.7	47.2	6.0	70.0
Aug 29			1,924	336	253	39	0	1,830	574	0	39	0	151.8	45.7	6.0	70.0
Aug 30			1,434	313	133	27	0	1,360	400	5	49	0	150.2	45.0	6.0	71.0
Aug 31			1,180	362	120	28	0	913	240	0	36	0	175.9	52.7	5.0	70.0
TOTAL		2,339	18,000	6,644	1,830	404	471	101,526	39,180	17	2,286	1				
AVG.		468	692	214	59	13	15	3,275	1264	1	74	0	190.5	57.1	4.9	68.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	103,401	39,823
SUMMER	75,375	35,544
FALL	18,000	5,263
TOTAL	196,776	80,630

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
1,830	404	143,603	137,918	58,457	17	3,066	0

TABLE 47

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			576	208	46	12	0	776	206	1	47	0	139.7	0.9	6.0	69.0
Sep 2			2,010	509	191	29	0	1,246	311	2	45	0	122.1	0.9	6.0	70.0
Sep 3			2,908	587	370	51	0	1,543	398	1	12	0	100.0	0.9	6.0	69.0
Sep 4			2,949	576	569	36	0	2,688	672	1	28	0	96.7	0.8	6.0	69.0
Sep 5			3,913	810	634	53	0	2,275	602	9	16	0	115.0	0.9	6.0	70.0
Sep 6			8,019	770	1,159	88	0	2,430	615	4	22	0	116.1	0.9	6.0	69.0
Sep 7			5,851	966	788	44	0	1,700	418	9	16	0	124.0	0.8	6.0	70.0
Sep 8			6,384	1,034	1,545	63	0	1,905	428	10	6	0	120.4	0.8	6.0	70.0
Sep 9			3,702	1,238	1,012	76	1	1,712	446	8	29	0	139.1	0.9	6.0	71.0
Sep 10			5,120	1,393	1,202	103	1	2,346	589	6	20	0	117.6	0.9	6.0	71.0
Sep 11			4,889	1,703	993	64	0	2,197	577	13	20	0	107.0	0.9	6.0	71.0
Sep 12			7,129	1,872	851	130	0	2,641	613	26	12	1	129.2	0.9	6.0	71.0
Sep 13			6,612	1,975	924	70	0	2,469	580	6	19	0	102.7	1.0	6.0	70.0
Sep 14			4,418	1,640	711	89	0	3,567	725	11	18	0	104.3	1.2	6.0	70.0
Sep 15			6,758	3,145	1,975	119	0	6,503	1,500	22	39	0	111.3	1.2	6.0	70.0
Sep 16			7,053	2,820	2,272	53	0	6,534	1,287	25	12	0	114.7	1.0	6.0	69.0
Sep 17			6,503	2,944	2,506	92	0	5,485	1,199	36	19	0	105.7	0.8	6.0	69.0
Sep 18			5,585	2,017	1,545	47	0	4,129	874	27	18	0	102.8	0.9	6.0	69.0
Sep 19			6,023	2,605	1,994	59	0	4,112	914	28	7	0	101.5	0.8	4.5	68.0
Sep 20			5,271	1,772	1,868	95	0	3,183	719	15	11	0	118.5	0.9	6.0	69.0
Sep 21			4,180	1,822	1,760	85	0	2,755	660	19	9	0	125.3	0.8	6.0	68.0
Sep 22			5,497	2,073	2,306	84	0	2,547	583	33	9	0	101.5	0.6	6.0	68.0
Sep 23			2,181	1,544	1,044	14	0	1,935	489	9	7	0	102.5	0.8	6.0	68.0
Sep 24			2,390	1,414	1,165	36	0	2,216	506	12	11	0	90.7	0.1	6.0	68.0
Sep 25			3,601	2,234	1,369	85	0	3,601	844	22	7	0	94.5	0.8	6.0	68.0
Sep 26			4,224	1,926	1,890	36	0	2,977	676	39	2	0	115.2	0.8	5.0	68.0
Sep 27			3,278	2,296	1,228	24	0	2,037	511	55	9	0	109.7	0.8	5.0	67.0
Sep 28			2,403	1,280	765	23	0	2,001	496	33	13	0	108.2	0.3	6.0	67.0
Sep 29			2,302	1,378	473	10	0	1,935	474	26	5	0	103.0	0.8	6.0	67.0
Sep 30			2,910	1,251	726	32	0	2,505	616	36	9	0	103.0	0.8	6.0	67.0
TOTAL			134,639	47,802	35,881	1,802	2	83,950	19,528	544	497	1				
AVG.			4,488	1,593	1,196	60	0	2,798	651		17	0	111.4	0.8	5.9	69.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	103,401	39,823
SUMMER	75,375	35,544
FALL	152,639	53,065
TOTAL	331,415	128,432

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
37,711	2,206	143,605	221,868	77,985	561	3,563	1

TABLE 48

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

JOHN DAY PROJECT - FISH COUNTS

OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Oct 1			3,632	1172	1,488	119		4,196	1,057	24	1	0	76.4	0.8	6.0	66.0
Oct 2			1,851	841	1,265	51		3,498	971	22	3	0	78.8	0.8	6.0	67.0
Oct 3			1,105	609	880	49		2,281	669	20	4	0	87.7	1.1	6.0	66.0
Oct 4			841	499	636	20		1,776	558	11	-1	0	98.2	0.8	6.0	66.0
Oct 5			1,058	462	448	6		1,596	476	7	1	0	107.6	1.1	6.0	65.0
Oct 6			1,039	461	379	6		1,459	498	4	1	0	116.6	0.8	6.0	65.0
Oct 7			2,725	973	2,309	39		2,653	851	7	-4	0	95.8	0.8	6.0	64.0
Oct 8			1,881	654	3,459	76		2,293	682	2	-1	0	89.7	0.8	6.0	64.0
Oct 9			1,320	463	2,331	29		1,549	501	2	0	0	93.6	0.8	6.0	64.0
Oct 10			1,119	459	1,179	28		1,277	423	5	-1	0	128.2	0.8	6.0	64.0
Oct 11			1,742	480	1,041	31		1,446	519	5	0	1	111.5	0.8	6.0	63.0
Oct 12			803	238	681	24		1,391	525	2	0	0	98.4	0.7	5.5	64.0
Oct 13			1,194	332	2,499	69		2,364	973	4	-1	0	113.4	0.8	5.5	64.0
Oct 14			965	304	2,470	44		2,175	943	1	-1	0	130.8	0.8	5.5	63.0
Oct 15			700	241	1,028	20		730	256	6	0	0	136.9	0.8	6.0	63.0
Oct 16			762	309	446	14		547	205	7	0	0	126.6	0.8	6.0	63.0
Oct 17			607	220	324	10		443	155	1	0	0	118.0	0.7	6.0	63.0
Oct 18			303	205	290	2		336	110	1	1	1	118.4	1.1	6.0	62.0
Oct 19			260	100	150	2		315	123	0	0	0	103.4	1.1	6.0	62.0
Oct 20			516	185	196	4		303	123	1	0	0	111.0	1.1	6.0	61.0
Oct 21			341	113	186	1		394	186	1	1	0	116.2	0.8	6.0	61.0
Oct 22			388	158	172	1		422	205	2	0	0	115.0	0.8	6.0	61.0
Oct 23			292	123	135	1		358	169	1	0	0	84.6	0.7	6.0	63.0
Oct 24			558	116	162	7		318	139	1	0	0	105.4	1.1	6.0	63.0
Oct 25			194	51	167	0		262	110	0	0	0	119.7	0.8	6.0	62.0
Oct 26			463	88	117	1		191	74	0	0	0	102.6	0.9	6.0	62.0
Oct 27			343	108	103	2		202	74	0	0	0	132.0	0.9	6.0	61.0
Oct 28			296	58	116	2		134	67	0	0	0	128.4	0.0	6.0	61.0
Oct 29			131	58	140	2		169	71	0	0	0	119.0	0.0	6.0	61.0
Oct 30			145	31	179	5		167	73	0	0	0	94.4	0.0	6.0	56.0
Oct 31			191	48	108	2		232	102	0	0	0	94.5	0.0	6.0	57.0
TOTAL			27,765	10,159	25,084	667		35,477	11,888	137	3	2				
AVG.			896	328	809	22		1,144	383	4	0	0	108.2	0.8	6.0	62.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	103,401	39,823
SUMMER	75,375	35,544
FALL	180,404	63,224
TOTAL	359,180	138,591

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
62,795	2,873	143,605	257,345	89,873	698	3,566	3

Note: Visual counts ended October 31.

TABLE 49

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2011

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	131.1	0.7	6.0	57.0
Nov 2	131.2	0.8	6.0	58.0
Nov 3	124.8	0.6	6.0	57.0
Nov 4	114.3	0.0	6.0	57.0
Nov 5	115.4	0.0	6.0	56.0
Nov 6	119.8	0.0	6.0	56.0
Nov 7	111.8	0.0	6.0	56.0
Nov 8	134.0	0.0	6.0	55.0
Nov 9	110.8	0.0	6.0	55.0
Nov 10	118.9	0.0	6.0	54.0
Nov 11	127.8	0.0	6.0	54.0
Nov 12	105.9	0.0	6.0	53.0
Nov 13	111.8	0.0	6.0	53.0
Nov 14	128.5	0.0	6.0	53.0
Nov 15	116.1	0.0	6.0	53.0
Nov 16	142.4	0.0	6.0	51.0
Nov 17	129.7	0.0	6.0	51.0
Nov 18	127.7	0.0	6.0	50.0
Nov 19	121.9	0.0	6.0	50.0
Nov 20	137.0	0.0	6.0	49.0
Nov 21	127.6	0.0	6.0	49.0
Nov 22	127.8	0.0	6.0	49.0
Nov 23	114.7	0.0	5.5	49.0
Nov 24	114.8	0.0	6.0	49.0
Nov 25	111.8	0.0	6.0	48.0
Nov 26	113.9	0.0	6.0	48.0
Nov 27	108.4	0.0	6.0	48.0
Nov 28	123.1	0.0	6.0	48.0
Nov 29	120.6	0.0	6.0	48.0
Nov 30	126.1	0.0	6.0	48.0
AVG.	121.7	0.1	6.0	52.1

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	128.5	0.0	6.0	48.0
Dec 2	122.4	0.0	6.0	48.0
Dec 3	122.1	0.0	6.0	48.0
Dec 4	124.9	0.0	6.0	48.0
Dec 5	132.6	0.0	6.0	48.0
Dec 6	138.1	0.0	6.0	47.0
Dec 7	141.5	0.0	6.0	47.0
Dec 8	132.9	0.0	6.0	46.0
Dec 9	137.9	0.1	6.0	46.0
Dec 10	139.1	0.0	6.0	46.0
Dec 11	124.7	0.0	6.0	46.0
Dec 12	141.8	0.0	6.0	45.0
Dec 13	130.7	0.0	6.0	44.0
Dec 14	143.5	0.0	6.0	44.0
Dec 15	131.6	0.0	6.0	43.0
Dec 16	115.7	0.0	6.0	43.0
Dec 17	130.4	0.0	6.0	44.0
Dec 18	111.4	0.0	6.0	44.0
Dec 19	121.3	0.0	6.0	44.0
Dec 20	134.3	0.0	6.0	43.0
Dec 21	118.0	0.0	6.0	43.0
Dec 22	134.9	0.0	6.0	43.0
Dec 23	127.0	0.0	6.0	43.0
Dec 24	127.5	0.0	6.0	42.0
Dec 25	118.6	0.0	6.0	42.0
Dec 26	132.4	0.0	6.0	42.0
Dec 27	136.0	0.0	6.0	42.0
Dec 28	126.5	0.0	6.0	42.0
Dec 29	111.8	0.0	6.0	42.0
Dec 30	123.8	0.0	6.0	42.0
Dec 31	118.0	0.0	6.0	42.0
AVG.	128.4	0.0	6.0	44.4

TABLE 50

YEARLY TOTALS OF SALMONIDS COUNTED OVER JOHN DAY DAM 1968 - 2011

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
TOTALS	10,773,283	7,784,960	2,998,816	750,227	22,308,001
10-Year Average	402,393	302,971	113,881	40,314	859,630

*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

TABLE 51

MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING Apr 1-Jun 5	SUMMER Jun 6-Aug 5	FALL Aug 6-Oct 31	JACKS
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
TOTAL			4,123	1,122,194	1,756,089	1,082,949	817,938	809,164	4,478,676	691,660	10,066		10,773,283	3,005,342	1,836,562	5,920,834	2,409,728
10-Year Average				27,998	75,472	58,229	32,924	26,340	155,723	24,655			402,393	109,834	86,577	204,928	70,039

*Jacks included

TABLE 52

MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM
1968 - 2011

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
TOTAL					101	1,501,943	1,479,202	16,866	627	76	1		2,998,816
10-Year Average						71,510	42,179	176	9				113,881

TABLE 53

MONTHLY COUNT OF COHO SALMON
JOHN DAY DAM 1968 - 2011

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
TOTAL				0	2	1	109	19,261	476,180	246,381	8,231		750,227
10-Year Average								995	22,802	15,740			40,314

*Jacks included

TABLE 54

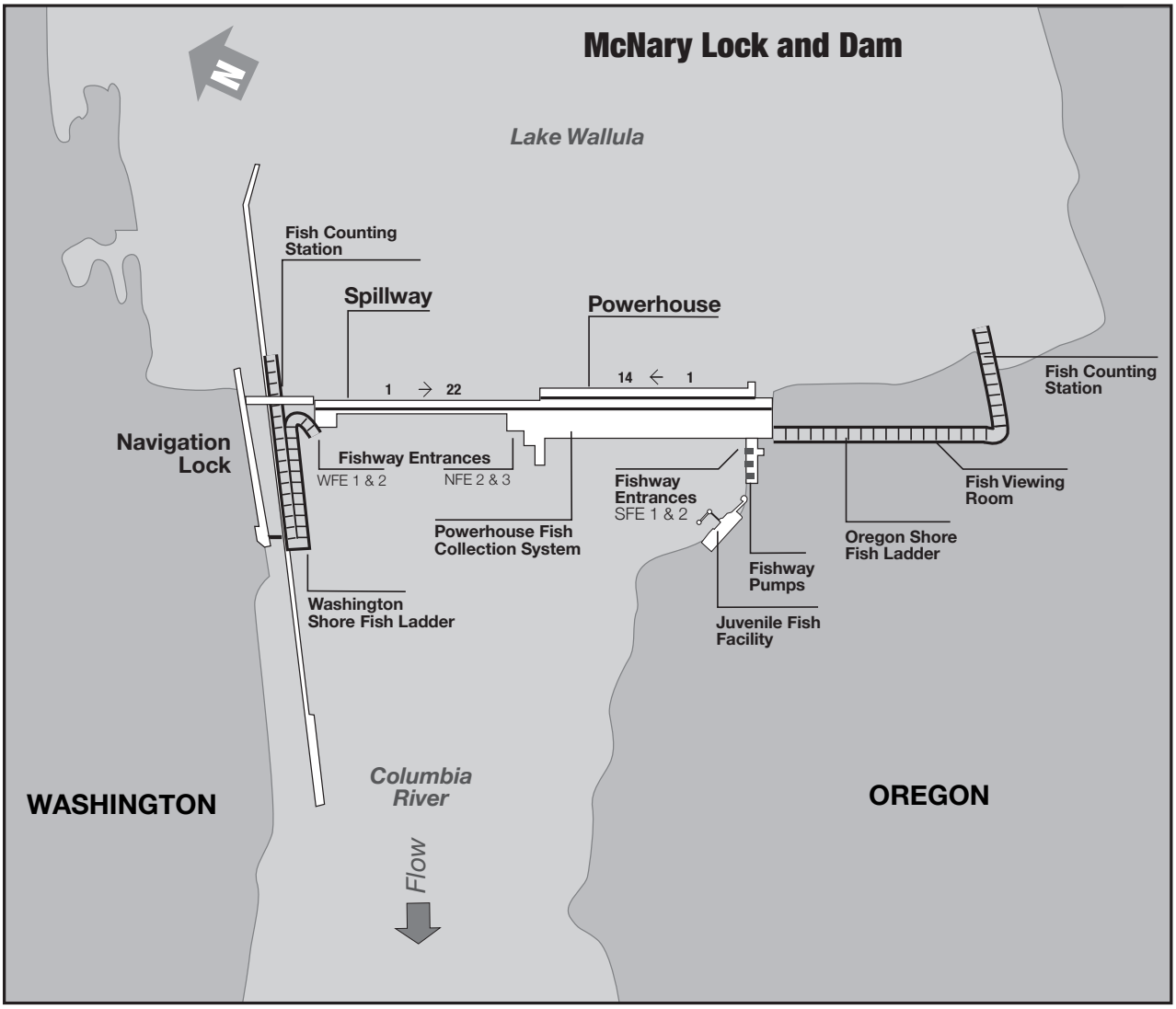
MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2011

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
TOTAL			23,715	115,297	41,328	110,181	844,043	1,305,905	3,764,867	1,527,573	48,905		7,784,960
10-YR Average				2,405	570	4,584	34,239	55,062	146,886	53,367			302,971

Plate 5 McNary Lock and Dam

600 0 600 1200

SCALE IN FEET



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	Night Video Lamprey counts.
1 November – 31 December	No counting.

Oregon Ladder Schedule

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

FISH LADDER OPERATING SCHEDULE

Washington Ladder

1 January - 15 February	Ladder in service.
15 February – 26 February	Ladder dewatered for annual maintenance.
26 February - 31 December	Ladder in service.

Oregon Ladder

1 January - 11 January	Ladder in service.
11 January – 15 February	Ladder dewatered for annual maintenance.
15 February - 31 December	Ladder in service.

FISHWAY ACTIVITIES

Washington ladder maintenance activities included a dive inspection of diffuser gratings and maintenance of all above-water structures to the tailwater elevation. We still cannot dewater the junction pool due to problems with the concrete spillway bulkheads. The Wasco county PUD unit was out of service from 26 January to 28 February due to failure of the bypass gates, and for maintenance.

Oregon ladder maintenance activities included installation of new exit traveling screens. Crews maintained the ladder above and below water structures and regulating equipment. They completed video and physical inspections of all diffuser gratings, and re-attached one lamprey passage improvement plate.

The project operated three fish pumps from 1 January to 3 January. From 23 February to 31 December, only two pumps were in use due to fish pump 2 being out of

service for major overhaul. The 1000 cfs gravity conduit operated from 1 January to 6 February and 1 March to 31 December.

The project operated the juvenile bypass channel, for both juvenile and adult fallback passage, from 27 March to 21 December. On 31 March crews dewatered the channel for eight hours, after closing orifices, to examine the rectangular screen cleaning mechanism. On 11 April crews closed the orifices for 8.5 hours to repair the mechanism. On September 13, crews closed the orifices for three hours to remove debris from the inclined floor screen. On 18 November, staff switched the system to emergency bypass due to failure of the rectangular screen brush.

TABLE 55

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

2011

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				683	118,537	64,599	46,170	21,482	144,223	44,733			440,427
STEELHEAD				2,283	348	714	17,533	94,372	87,138	43,681			246,069
SOCKEYE						20,773	92,461	703	15	0			113,952
COHO*								917	24,682	18,705			44,304
CHUM													0
PINK								5	367	133			505
TOTAL				2,966	118,885	86,086	156,164	117,479	256,425	107,252			845,257
SHAD					13	53,861	161,616	9,415					224,905
LAMPREY						-1	65	532	266	6			868
STURGEON													0
BULL TROUT													0

***Jacks Included**

Count began March 31.

TABLE 56

DISCHARGE AND WATER QUALITY DATA

MCNARY PROJECT 2011

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	133.4	0.0	6.+	42.0
Jan 2	145.7	0.0	6.+	42.0
Jan 3	170.8	0.0	6.+	41.0
Jan 4	153.5	0.0	6.+	41.0
Jan 5	141.9	0.0	6.+	41.0
Jan 6	146.1	0.0	6.+	41.0
Jan 7	128.8	0.0	6.+	41.0
Jan 8	126.4	0.0	6.+	40.0
Jan 9	118.6	0.0	6.+	40.0
Jan 10	139.1	0.0	6.+	40.0
Jan 11	147.3	0.0	6.+	39.0
Jan 12	172.9	0.0	6.+	39.0
Jan 13	153.7	0.0	6.+	38.0
Jan 14	140.2	0.0	6.+	38.0
Jan 15	136.4	0.0	6.+	38.0
Jan 16	120.4	0.0	6.+	39.0
Jan 17	163.1	0.0	6.+	39.0
Jan 18	193.0	6.5	6.+	39.0
Jan 19	223.6	34.1	6.+	39.0
Jan 20	227.3	47.2	5.0	39.0
Jan 21	220.2	47.0	2.8	40.0
Jan 22	234.0	61.3	2.2	40.0
Jan 23	248.6	74.6	2.4	40.0
Jan 24	246.1	69.1	2.8	40.0
Jan 25	219.2	42.5	2.6	40.0
Jan 26	214.3	40.1	3.2	40.0
Jan 27	249.9	77.3	3.0	40.0
Jan 28	247.3	73.1	4.0	40.0
Jan 29	215.4	43.8	4.5	40.0
Jan 30	219.9	45.6	3.2	40.0
Jan 31	213.5	39.2	2.3	39.0
AVG.	181.0	22.6	4.9	39.8

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Feb 1	215.9	43.4	2.5	39.0
Feb 2	200.7	41.4	2.4	39.0
Feb 3	204.9	46.8	2.6	39.0
Feb 4	200.4	31.5	1.9	39.0
Feb 5	159.1	0.0	2.3	39.0
Feb 6	153.7	0.0	2.2	38.0
Feb 7	159.1	0.0	3.2	38.0
Feb 8	202.0	26.0	4.0	38.0
Feb 9	222.3	47.6	5.0	38.0
Feb 10	212.0	37.2	3.5	38.0
Feb 11	219.6	43.6	4.0	38.0
Feb 12	218.5	45.6	3.8	38.0
Feb 13	189.3	22.1	4.8	38.0
Feb 14	207.8	61.8	5.0	38.0
Feb 15	228.2	90.5	5.8	38.0
Feb 16	228.3	83.0	5.3	38.0
Feb 17	227.2	66.5	4.6	38.0
Feb 18	227.4	51.4	5.2	38.0
Feb 19	209.1	32.5	3.2	38.0
Feb 20	203.2	26.2	5.6	38.0
Feb 21	194.7	16.7	NA	38.0
Feb 22	174.7	17.6	5.2	38.0
Feb 23	194.9	45.2	6.0+	38.0
Feb 24	200.3	47.6	5.2	38.0
Feb 25	198.5	47.7	4.9	38.0
Feb 26	198.7	47.9	5.3	38.0
Feb 27	201.6	48.6	5.4	37.0
Feb 28	212.3	56.7	5.2	36.0
AVG.	202.3	40.2	4.2	38.1

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	228.7	72.0	6.0+	36.0
Mar 2	215.1	57.7	6.0	36.0
Mar 3	194.3	39.9	NA	36.0
Mar 4	208.9	53.0	5.2	36.0
Mar 5	208.7	52.7	6.0	36.0
Mar 6	206.4	47.8	5.4	38.0
Mar 7	207.0	47.8	5.0	38.0
Mar 8	206.5	47.7	5.2	38.0
Mar 9	208.8	47.7	5.5	41.0
Mar 10	209.9	47.2	5.0	39.0
Mar 11	199.4	38.9	4.5	39.0
Mar 12	204.8	48.0	4.7	40.0
Mar 13	205.0	50.1	4.3	40.0
Mar 14	203.1	48.0	2.7	40.0
Mar 15	217.7	62.3	3.2	40.0
Mar 16	209.8	53.9	3.5	40.0
Mar 17	229.4	70.9	3.0	40.0
Mar 18	222.6	62.9	3.5	40.0
Mar 19	209.2	48.2	3.3	40.0
Mar 20	188.4	24.3	2.9	40.0
Mar 21	188.2	26.1	4.1	41.0
Mar 22	184.3	12.1	3.8	41.0
Mar 23	224.6	50.5	2.5	41.0
Mar 24	220.5	50.5	2.3	41.0
Mar 25	234.6	59.5	2.6	41.0
Mar 26	233.5	60.4	2.8	41.0
Mar 27	233.5	57.1	3.0	42.0
Mar 28	210.2	47.7	2.9	42.0
Mar 29	224.7	55.4	3.4	42.0
Mar 30	235.1	59.4	3.1	42.0
Mar 31	245.6	70.7	3.7	42.0
AVG.	213.5	50.7	3.9	39.6

TABLE 57

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Apr 1	7			0				152	70				307.3	158.3	3.2	42.0
Apr 2	4			0				101	59				319.7	170.9	3.3	42.0
Apr 3	4			0				181	130				345.3	196.5	4.2	45.0
Apr 4	9			0				169	89				336.5	187.7	2.9	45.0
Apr 5	2			0				150	90				349.8	206.0	2.1	45.0
Apr 6	7			0				143	98				332.4	193.3	2.8	44.0
Apr 7	5			0				162	113				306.5	164.5	3.2	44.0
Apr 8	5			0				131	81				282.1	132.9	3.4	44.0
Apr 9	5			0				120	74				298.7	150.3	3.5	44.0
Apr 10	7			0				102	48				308.4	159.6	2.4	45.0
Apr 11	2			0				91	49				296.1	151.3	2.5	45.0
Apr 12	6			0				105	64				283.4	145.2	2.1	45.0
Apr 13	4			0				50	34				290.2	154.8	2.3	45.0
Apr 14	7			0				55	32				270.4	139.8	2.0	45.0
Apr 15	4			0				53	38				262.1	124.2	2.9	45.0
Apr 16	9			0				59	40				224.3	90.0	2.7	45.0
Apr 17	3			0				46	33				248.4	100.1	3.2	45.0
Apr 18	8			0				42	29				260.7	114.7	2.5	45.0
Apr 19	10			0				45	30				252.7	103.7	3.1	45.0
Apr 20	16			0				64	57				275.1	125.9	3.3	46.0
Apr 21	15			0				45	30				277.7	127.4	3.0	47.0
Apr 22	13			0				39	24				271.1	121.1	3.1	46.0
Apr 23	16			1				28	22				263.4	113.4	3.0	47.0
Apr 24	26			2				24	16				250.4	101.5	3.2	47.0
Apr 25	38			1				18	13				257.4	112.8	3.5	47.0
Apr 26	50			5				32	22				258.3	113.1	3.3	47.0
Apr 27	87			4				23	16				258.4	109.8	3.4	47.0
Apr 28	63			2				20	12				255.8	106.6	3.1	47.0
Apr 29	98			3				20	12				246.0	98.9	3.2	47.0
Apr 30	132			3				13	7				230.6	92.6	3.2	47.0
TOTAL	662			21				2,283	1,432							
AVG.	22			1				76	48				280.6	135.6	3.0	45.3

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 58

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	402			11				25	18		0		248.0	99.3	3.7	48.0
May 2	735			26				21	10		0		255.9	106.9	4.0	48.5
May 3	1,742			24				17	14		0		251.3	102.4	3.2	49.0
May 4	3,017			67				21	14		0		248.6	99.4	3.5	49.0
May 5	4,273			78				8	2		0		247.5	99.0	3.5	49.0
May 6	7,082			213				21	15		0		249.1	99.9	2.5	50.0
May 7	5,524			262				21	12		0		249.7	100.1	2.8	50.0
May 8	5,236			311				14	6		0		249.3	99.8	3.4	50.0
May 9	3,825			291				17	8		0		277.5	129.0	3.2	50.0
May 10	5,807			456				22	11		0		265.6	118.9	4.0	50.0
May 11	6,980			706				9	5		0		256.7	112.1	4.6	50.0
May 12	5,032			783				19	7		0		295.4	151.1	3.8	50.0
May 13	5,460			777				21	9		0		325.3	188.8	4.1	53.0
May 14	6,188			928				6	2		0		347.3	209.8	4.2	52.0
May 15	7,652			1635				11	5		0		385.8	250.3	NA	53.0
May 16	3,359			1734				7	1		1		422.9	293.5	3.4	53.0
May 17	2,964			1901				7	1		0		437.8	299.4	3.1	52.0
May 18	3,251			2155				6	2		0		422.0	279.6	3.1	52.0
May 19	2,026			1702				16	2		0		421.5	279.6	1.8	52.0
May 20	1,995			1120				2	1		0		416.4	273.4	2.2	53.0
May 21	1,451			1019				7	0		0		443.0	298.1	2.0	53.0
May 22	1,497			825				5	1		0		452.2	305.4	1.9	52.0
May 23	1,153			693				3	1		0		480.2	333.0	1.8	52.0
May 24	1,114			881				1	0		0		473.1	325.5	2.0	52.0
May 25	1,356			953				5	0		0		470.1	321.4	2.3	52.0
May 26	1,221			991				10	1		12		461.7	312.5	2.2	52.0
May 27	772			881				3	-1		0		481.9	331.7	3.0	52.0
May 28	693			1171				7	0		0		495.5	346.4	2.6	52.0
May 29	474			791				6	2		0		499.4	349.9	2.5	53.0
May 30	581			813				4	0		0		480.6	337.6	2.4	53.0
May 31	780			697				6	-2		0		473.5	324.0	2.5	53.0
TOTAL	93,642			24,895				348	147		13					
AVG.	3,021			803				11	5		0		370.5	225.1	3.0	51.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD
SPRING	94,304	24,916	0	2,631	1,579	13

TABLE 59

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	918			848			0	5	-2		0	0	476.1	328.0	3.0	54.0
Jun 2	848			905			0	4	2		0	0	468.4	319.8	2.3	54.0
Jun 3	711			744			0	5	1		8	0	476.7	332.6	2.8	53.0
Jun 4	720			493			0	2	0		0	0	486.1	340.4	2.2	53.0
Jun 5	908			865			1	3	2		1	0	477.6	329.9	2.5	55.0
Jun 6	867			860			0	9	2		5	0	485.8	337.8	2.5	55.0
Jun 7	1,169			1,364			0	15	1		1	0	493.6	342.9	2.3	55.0
Jun 8	800			755			0	8	1		7	0	510.3	356.0	2.5	55.0
Jun 9		928		773			0	10	-1		0	0	500.9	339.8	2.7	55.0
Jun 10		1,843		997			0	11	0		2	0	486.5	327.5	2.7	56.0
Jun 11		1,687		798			4	13	2		1	0	484.3	325.3	2.5	56.0
Jun 12		1,829		893			26	10	2		0	0	481.6	320.4	2.6	56.0
Jun 13		1,359		639			21	12	1		8	0	484.3	325.2	2.8	56.0
Jun 14		1,484		542			8	12	0		2	0	494.8	342.1	2.0	56.0
Jun 15		1,909		641			44	16	1		18	0	501.5	343.3	1.7	56.0
Jun 16		1,784		718			71	19	1		12	0	495.7	329.1	1.8	56.0
Jun 17		1,331		599			92	23	5		60	0	478.5	304.2	2.1	56.0
Jun 18		1,613		715			130	19	2		192	0	455.9	289.7	2.8	56.0
Jun 19		985		459			202	22	4		264	0	442.0	269.9	2.1	57.0
Jun 20		1,191		541			290	28	4		2,681	0	437.2	271.7	2.5	57.0
Jun 21		1,581		685			370	56	7		2,935	0	431.4	260.1	2.8	57.0
Jun 22		1,469		592			557	28	10		1,934	0	445.7	282.2	3.2	57.0
Jun 23		1,719		747			848	26	5		423	0	453.2	290.8	2.4	57.0
Jun 24		1,682		767			1,480	38	7		2,346	0	493.6	327.8	2.3	57.0
Jun 25		1,629		620			1,340	41	11		9,299	-1	425.3	262.5	2.0	57.0
Jun 26		1,651		569			1,099	20	6		3,754	0	434.4	274.5	2.4	58.0
Jun 27		2,176		666			2,060	67	11		7,130	0	413.0	259.7	2.8	58.0
Jun 28		2,053		731			3,570	71	24		10,710	0	401.9	244.1	3.2	59.0
Jun 29		2,007		638			3,893	46	12		7,064	0	401.0	242.8	3.0	59.0
Jun 30		1,864		720			4,667	75	23		5,004	0	404.8	253.6	2.2	59.0
TOTAL	6,941	35,774		21,884			20,773	714	144		53,861	-1				
AVG.	868	1,626		729			692	24	5		1,795	0	464.1	305.8	2.5	56.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	101,245	31,750
SUMMER	35,774	15,050
TOTAL	137,019	46,800

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
20,773	3,345	1,723

SHAD	LAMPREY
53,874	-1

TABLE 60

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		1,389		542			3,704	135	34		6,392	0	430.4	281.0	2.4	60.0
Jul 2		1,565		603			3,882	77	23		7,788	0	433.5	283.9	2.2	60.0
Jul 3		1,617		620			4,367	103	20		5,446	0	422.1	275.4	2.2	60.0
Jul 4		1,868		684			4,735	156	45		17,376	0	407.2	261.2	2.5	60.0
Jul 5		2,244		753			6,046	170	49		16,494	0	381.5	237.3	3.0	60.0
Jul 6		1,861		599			5,548	169	57		13,970	0	386.9	238.3	3.5	61.0
Jul 7		1,780		644			5,215	309	85		5,575	0	400.0	254.2	3.5	61.0
Jul 8		1,487		615			6,175	203	68		5,873	0	395.2	254.3	3.5	61.0
Jul 9		1,032		360			4,364	195	62		6,814	0	386.0	243.0	3.5	61.0
Jul 10		1,433		528			5,748	289	116		8,005	2	363.2	213.4	3.8	62.0
Jul 11		1,442		549			6,024	253	95		7,575	0	358.8	217.8	3.8	62.0
Jul 12		1,576		648			6,337	337	124		9,491	0	319.7	182.6	4.6	63.0
Jul 13		1,357		527			5,227	415	157		5,332	0	314.6	189.7	4.5	63.0
Jul 14		1,158		402			4,422	385	184		4,874	1	336.3	218.1	4.6	62.0
Jul 15		826		310			3,196	345	149		4,058	0	334.4	207.4	4.9	62.0
Jul 16		845		313			2,427	424	166		5,331	1	295.9	171.8	5.3	62.0
Jul 17		895		312			2,921	489	190		2,852	3	288.4	165.1	4.9	62.0
Jul 18		980		255			2,435	468	192		3,489	1	295.9	179.6	5.0	63.0
Jul 19		1,037		318			2,835	623	279		4,550	1	298.0	188.4	4.7	63.0
Jul 20		965		327			1,859	579	257		4,747	1	290.3	173.5	4.6	63.0
Jul 21		940		274			1,137	678	299		2,582	2	274.8	151.2	4.6	63.0
Jul 22		604		186			902	697	333		1,604	2	277.3	151.3	4.2	63.0
Jul 23		467		121			665	585	262		1,725	2	272.0	134.4	4.7	63.0
Jul 24		689		156			512	610	256		1,323	1	272.4	136.4	5.1	63.0
Jul 25		719		177			548	919	419		1,521	2	273.3	148.9	5.0	64.0
Jul 26		759		231			385	1,048	494		1,230	5	245.5	126.3	5.0	64.0
Jul 27		599		219			311	1,337	612		1,388	8	247.9	123.8	5.0	64.0
Jul 28		465		192			199	1,258	532		1,306	8	256.5	128.5	4.8	65.0
Jul 29		675		138			132	1,640	810		1,094	2	237.5	117.8	5.2	65.0
Jul 30		500		149			113	1,224	585		830	16	235.5	118.1	6.0+	66.0
Jul 31		489		155			90	1,413	653		981	7	236.4	118.1	NA	66.0
TOTAL		34,263		11,907			92,461	17,533	7,607		161,616	65				
AVG.		1105		384			2,983	566	245		5,213	2	321.5	190.0	4.2	62.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	101,245	31,750
SUMMER	70,037	26,957
TOTAL	171,282	58,707

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
113,234	20,878	9,330

SHAD	LAMPREY
215,490	64

TABLE 61

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Aug 1		502		170	0	0	107	1,696	810	0	997	9	232.6	128.7	5.5	66.0
Aug 2		867		203	0	0	136	2,792	1,264	0	623	9	217.9	131.7	6.0+	66.0
Aug 3		717		175	0	0	87	2,558	1,143	0	939	15	225.4	141.5	5.8	66.0
Aug 4		590		167	0	0	90	2,828	1,254	0	871	12	227.2	137.1	5.8	66.0
Aug 5		440		116	0	0	77	3,678	1,678	0	519	16	208.1	120.4	5.5	67.0
Aug 6		544		171	0	0	43	3,514	1,622	0	490	1	201.4	114.6	5.8	67.0
Aug 7		547		121	0	0	28	3,731	1,597	0	757	5	201.9	101.4	6.0+	68.0
Aug 8		377		85	0	0	25	3,019	1,224	0	372	6	213.1	119.8	6.0+	68.0
Aug 9			461	142	0	0	18	5,216	2,035	0	523	12	213.9	107.2	4.9	68.0
Aug 10			316	90	0	0	11	4,156	1,567	0	519	23	211.2	105.8	6.0+	68.0
Aug 11			306	72	0	1	17	3,781	1,351	0	221	19	215.0	108.0	4.7	68.0
Aug 12			334	94	1	0	13	4,198	1,424	0	322	35	222.2	110.1	5.2	68.0
Aug 13			362	132	0	0	10	2,762	993	0	343	17	181.0	90.7	6.0	68.0
Aug 14			310	77	-2	0	4	2,762	900	0	275	12	188.4	93.5	5.8	68.0
Aug 15			296	82	0	0	4	2,477	896	0	235	13	205.2	103.2	6.0	68.0
Aug 16			440	85	1	0	8	2,723	924	0	155	24	209.4	103.6	6.0	68.0
Aug 17			459	87	1	1	5	2,557	868	0	138	9	217.0	108.5	6.0	68.0
Aug 18			536	97	1	0	6	2,872	905	0	185	19	207.9	104.6	5.8	68.0
Aug 19			447	79	5	1	2	2,958	979	0	92	20	208.6	105.0	6.0	68.0
Aug 20			426	150	2	7	1	2,975	977	0	137	24	199.0	99.9	5.5	68.0
Aug 21			464	114	11	2	0	2,434	763	1	122	25	182.6	91.5	6.0+	68.0
Aug 22			613	134	10	6	4	3,193	1,031	0	64	30	191.5	96.0	5.8	68.0
Aug 23			928	102	24	7	3	2,861	864	0	60	29	193.5	97.2	5.6	68.0
Aug 24			640	166	48	10	1	3,397	1,086	0	69	17	211.1	105.7	6.0	68.0
Aug 25			582	84	87	25	2	3,312	1,056	0	51	28	202.0	101.4	6.0+	68.0
Aug 26			547	107	65	11	0	3,158	915	0	50	20	200.7	100.5	6.0+	68.0
Aug 27			1,049	152	109	6	1	2,643	802	1	40	21	185.0	92.6	6.0+	69.0
Aug 28			577	119	76	6	0	2,844	830	1	52	23	167.3	84.0	6.0+	70.0
Aug 29			768	129	74	6	0	2,200	660	0	78	19	164.5	82.7	6.0+	70.0
Aug 30			1,326	250	102	11	0	2,731	901	0	68	10	166.5	83.9	6.0+	70.0
Aug 31			778	181	164	38	0	2,346	701	2	48	10	181.8	91.4	6.0+	69.0
TOTAL		4,584	12,965	3,933	779	138	703	94,372	34,020	5	9,415	532				
AVG.		573	564	127	25	4	23	3,044	1,097	0	304	17	201.7	105.2	5.8	67.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	101,245	31,750
SUMMER	74,621	28,165
FALL	12,965	2,725
TOTAL	188,831	62,640

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
779	138	113,937	115,250	43,350	5	224,905	596

TABLE 62

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			842	214	141	29	0	2,504	749	0		19	139.0	2.2	6.0+	69.0
Sep 2			818	148	88	54	1	1,470	430	0		21	132.1	0.0	6.0+	68.0
Sep 3			797	125	84	42	-1	1,467	382	0		22	104.2	0.0	6.0+	68.0
Sep 4			1,720	276	145	77	1	1,022	291	1		14	101.4	0.0	6.0+	68.0
Sep 5			2,951	354	139	64	2	1,295	357	0		20	118.3	0.0	6.0+	68.0
Sep 6			2,591	270	199	19	2	1,890	534	2		9	113.5	3.8	6.0+	68.0
Sep 7			4,122	328	385	58	1	2,634	692	4		19	128.7	0.0	6.0+	68.0
Sep 8			3,535	562	435	39	1	2,356	618	10		13	129.9	0.1	6.0+	68.0
Sep 9			3,783	684	667	55	0	2,326	563	18		10	136.3	0.0	6.0+	68.0
Sep 10			3,719	802	628	37	2	1,988	444	7		16	123.0	0.0	6.0+	69.0
Sep 11			3,616	1,091	759	37	0	2,099	530	7		8	110.2	0.0	6.0+	69.0
Sep 12			5,430	1,348	873	36	0	1,917	462	11		17	126.7	0.0	6.0+	69.0
Sep 13			5,334	1,111	966	76	0	2,447	603	10		12	107.3	0.6	6.0+	69.0
Sep 14			4,369	1,241	868	53	0	3,267	806	11		13	114.3	0.0	6.0+	69.0
Sep 15			6,001	1,604	1,035	90	1	3,795	934	11		3	122.2	5.6	5.3	69.0
Sep 16			3,912	1,182	664	34	0	3,239	744	7		3	116.9	2.6	5.2	69.0
Sep 17			6,156	2,061	763	28	0	4,494	1,038	8		6	108.1	0.0	6.0	69.0
Sep 18			8,456	1,805	1,145	34	0	6,960	1,574	18		2	107.4	0.0	6.0	68.0
Sep 19			7,076	1,186	1,560	20	1	6,351	1,338	24		4	101.2	0.0	6.0	68.0
Sep 20			5,317	1,512	1,687	65	0	5,148	991	25		6	119.2	0.0	6.0	67.0
Sep 21			3,433	1,418	1,225	48	1	3,068	719	26		1	120.7	1.0	5.1	67.0
Sep 22			3,312	1,292	845	42	0	2,878	664	19		12	107.5	0.0	5.1	66.0
Sep 23			4,321	1,257	1,026	33	1	2,945	729	20		3	105.0	0.0	5.0	66.0
Sep 24			4,322	1,385	1,131	49	0	2,748	636	18		5	99.5	0.0	5.4	66.0
Sep 25			3,584	1,056	1,024	32	0	2,660	647	17		1	105.1	0.0	5.8	66.0
Sep 26			3,852	1,389	1,394	59	0	2,913	660	28		2	114.2	0.0	6.0	66.0
Sep 27			3,125	808	873	65	0	2,853	697	21		2	116.7	0.0	6.0	66.0
Sep 28			3,601	1,281	1,202	7	2	3,965	914	16		2	97.2	0.0	6.0	66.0
Sep 29			2,309	770	642	6	0	2,365	515	14		0	111.6	0.0	5.1	66.0
Sep 30			2,164	1,095	758	43	0	2,074	493	14		1	106.1	0.0	NA	NA
TOTAL			114,568	29,655	23,351	1,331	15	87,138	20,754	367		266				
AVG.			3,819	989	778	44	1	2,905	692			9	114.8	0.5	5.8	67.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	101,245	31,750
SUMMER	74,621	28,165
FALL	127,533	32,380
TOTAL	303,399	92,295

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
24,130	1,469	113,952	202,388	64,104	372	224,905	862

TABLE 63

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Oct 1			2,493	847	598	87		2,034	522	12		1	105.8	0.0	5.0	65.0
Oct 2			3,076	1,141	799	73		2,872	644	28		0	102.6	0.0	5.2	65.0
Oct 3			2,693	1,038	596	43		3,306	770	20		0	111.3	0.3	5.7	64.0
Oct 4			3,345	1,058	1,302	66		5,479	1,394	20		1	104.2	0.0	5.3	64.0
Oct 5			889	477	648	23		2,490	572	9		1	117.5	0.0	5.8	64.0
Oct 6			841	388	379	15		1,546	386	13		0	117.8	0.0	6.0	64.0
Oct 7			1,131	455	436	12		2,772	789	2		0	91.4	0.0	5.8	63.0
Oct 8			1,105	414	257	9		2,159	573	2		0	105.6	0.0	6.0	63.0
Oct 9			2,469	482	639	7		1,787	516	2		0	111.3	0.0	5.3	63.0
Oct 10			1,256	255	966	24		1,014	283	1		0	128.8	0.0	5.2	62.0
Oct 11			2,019	430	2,103	26		2,018	634	7		0	107.7	0.0	5.6	62.0
Oct 12			1,727	507	2,053	68		2,700	828	4		1	92.4	0.0	6.0+	62.0
Oct 13			905	393	896	38		1,544	420	1		0	119.8	0.0	6.0+	62.0
Oct 14			1,636	236	478	4		798	238	3		0	138.8	0.0	6.0+	62.0
Oct 15			1,018	178	544	6		1,136	374	0		0	137.9	0.0	6.0+	62.0
Oct 16			1,273	244	1,305	30		1,995	696	2		0	122.2	0.0	6.0+	62.0
Oct 17			1,212	210	1,338	24		1,811	595	2		0	108.7	1.1	6.0+	61.0
Oct 18			714	187	791	11		1,188	379	2		1	114.7	0.0	6.0+	61.0
Oct 19			754	100	333	3		883	332	1		0	113.3	0.0	6.0+	61.0
Oct 20			531	108	225	2		554	177	0		0	118.9	0.0	5.1	61.0
Oct 21			337	109	235	8		606	212	1		1	114.8	0.0	4.8	61.0
Oct 22			372	111	159	11		403	149	0		0	112.0	0.0	4.9	61.0
Oct 23			498	116	190	6		468	161	1		0	85.5	0.0	6.0+	60.0
Oct 24			313	130	154	8		348	138	0		0	98.4	0.0	6.0+	60.0
Oct 25			338	101	125	6		359	133	0		1	114.4	0.3	5.8	60.0
Oct 26			450	99	101	1		299	115	0		-1	111.8	0.0	6.0+	60.0
Oct 27			443	79	88	1		243	87	0		0	116.4	0.0	6.0+	60.0
Oct 28			210	46	101	2		211	78	0		0	132.5	0.1	6.0+	59.0
Oct 29			237	60	86	1		216	85	0		0	119.6	0.0	6.0+	59.0
Oct 30			235	46	81	0		257	93	0		0	86.7	0.0	6.0+	58.0
Oct 31			138	30	84	0		185	83	0		0	102.5	0.0	6.0+	57.0
TOTAL			34,658	10,075	18,090	615		43,681	12,456	133		6				
AVG.			1118	325	584	20		1,409	402			0	111.8	0.1	5.7	61.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	101,245	31,750
SUMMER	74,621	28,165
FALL	162,191	42,455
TOTAL	338,057	102,370

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
42,220	2,084	113,952	246,069	76,560	505	224,905	868

Note: Visual counts ended October 31.

Official Fall Chinook run ended October 31.

TABLE 64

DISCHARGE AND WATER QUALITY DATA

MCNARY PROJECT 2011

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	109.0	0.0	6.0+	57.0
Nov 2	120.3	0.0	6.0+	57.0
Nov 3	127.0	0.0	6.0+	56.0
Nov 4	127.3	1.5	6.0+	56.0
Nov 5	101.3	0.0	6.0+	55.0
Nov 6	118.9	0.0	6.0+	54.0
Nov 7	129.6	0.0	6.0+	54.0
Nov 8	121.2	0.0	6.0+	53.0
Nov 9	124.0	0.0	6.0+	53.0
Nov 10	112.8	0.0	6.0+	53.0
Nov 11	129.6	0.0	6.0+	53.0
Nov 12	113.8	0.0	6.0+	53.0
Nov 13	123.5	0.0	6.0+	52.0
Nov 14	124.3	0.0	6.0+	52.0
Nov 15	118.6	0.0	NA	51.0
Nov 16	149.1	13.1	NA	51.0
Nov 17	129.4	0.0	NA	50.0
Nov 18	125.9	0.0	5.8	50.0
Nov 19	121.8	0.0	6.0+	50.0
Nov 20	135.0	0.0	6.0+	49.0
Nov 21	134.9	0.0	6.0+	49.0
Nov 22	129.6	0.0	6.0+	49.0
Nov 23	116.6	0.0	6.0+	49.0
Nov 24	110.1	0.0	6.0+	49.0
Nov 25	114.7	0.0	6.0+	49.0
Nov 26	108.8	0.0	6.0+	49.0
Nov 27	115.2	0.0	6.0+	49.0
Nov 28	108.1	0.0	6.0+	49.0
Nov 29	131.3	0.0	6.0+	49.0
Nov 30	123.7	0.0	NA	49.0
AVG.	121.8	0.5	6.0+	51.6

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	124.2	0.0	6.0+	48.0
Dec 2	115.6	0.0	6.0+	48.0
Dec 3	130.9	0.0	6.0+	47.0
Dec 4	120.9	0.0	6.0+	47.0
Dec 5	137.6	0.0	6.0+	47.0
Dec 6	132.7	0.0	6.0+	47.0
Dec 7	144.8	0.0	6.0+	47.0
Dec 8	133.6	0.0	6.0+	47.0
Dec 9	145.0	0.0	6.0+	47.0
Dec 10	132.7	0.0	6.0+	47.0
Dec 11	141.0	0.0	6.0+	44.0
Dec 12	129.8	0.0	6.0+	44.0
Dec 13	146.0	0.0	6.0+	44.0
Dec 14	143.4	0.0	6.0+	43.0
Dec 15	133.0	0.0	6.0+	43.0
Dec 16	114.3	0.0	6.0+	43.0
Dec 17	103.2	0.0	6.0+	43.0
Dec 18	112.3	0.0	6.0+	43.0
Dec 19	131.3	0.0	6.0+	43.0
Dec 20	127.7	0.0	6.0+	43.0
Dec 21	116.4	0.0	6.0+	43.0
Dec 22	132.3	0.1	6.0+	43.0
Dec 23	130.4	0.0	6.0+	42.0
Dec 24	132.4	0.0	6.0+	42.0
Dec 25	141.3	0.0	6.0+	41.0
Dec 26	132.4	0.0	6.0+	41.0
Dec 27	116.9	0.0	6.0+	41.0
Dec 28	117.6	0.0	6.0+	41.0
Dec 29	117.1	0.0	6.0+	41.0
Dec 30	123.6	0.0	6.0+	42.0
Dec 31	114.8	0.0	6.0+	42.0
AVG.	128.2	0.0	6.0+	44.0

TABLE 65

YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2011

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
Totals	11,656,954	7,812,654	3,706,086	663,135	23,838,829
10-Year Average	342,480	253,642	93,353	21,981	711,455

*Jacks included

TABLE 66

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2011

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

TABLE 66

(Continued)

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING MAR 15-JUN 8	SUMMER JUN 9-AUG 8	FALL AUG 9-OCT 31
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
Total			995	987,220	2,216,111	1,451,927	1,356,660	746,377	3,998,877	884,667	13,443	682	11,656,959	3,503,250	2,714,188	5,459,946
10-Year Average				19,425	70,944	52,027	34,067	16,655	120,534	27,912			342,480	102,940	79,283	162,300

*Jacks included

TABLE 67

MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM: 1954 - 2011

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 67

(Continued)

MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM; 1954 - 2011

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	0			113,952
Total				1	218	1,033,337	2,572,302	86,982	9,442	3,798	5	1	3,706,086
10-Year Average					3	48,607	44,573	165	5				93,353

TABLE 68

MONTHLY COUNT OF COHO SALMON
McNARY DAM: 1954 - 2011

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 68

(Continued)

MONTHLY COUNT OF COHO SALMON
McNARY DAM; 1954 - 2011

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
TOTAL				1	14	50	515	22,353	462,403	171,955	5,806	38	663,135
10-Year Average								244	12,344	9,144			21,981

*Jacks included

TABLE 69

MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2011

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 69

(Continued)

MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954 - 2011

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
Total	1,059	925	33,723	115,221	41,533	78,617	699,362	1,350,821	3,697,889	1,709,157	69,280	15,067	7,812,654
10-Year Avg.				2,011	309	2,355	22,095	38,731	125,118	55,708			253,642

TABLE 70

NIGHT COUNTS OF LAMPREY AT MCNARY DAM

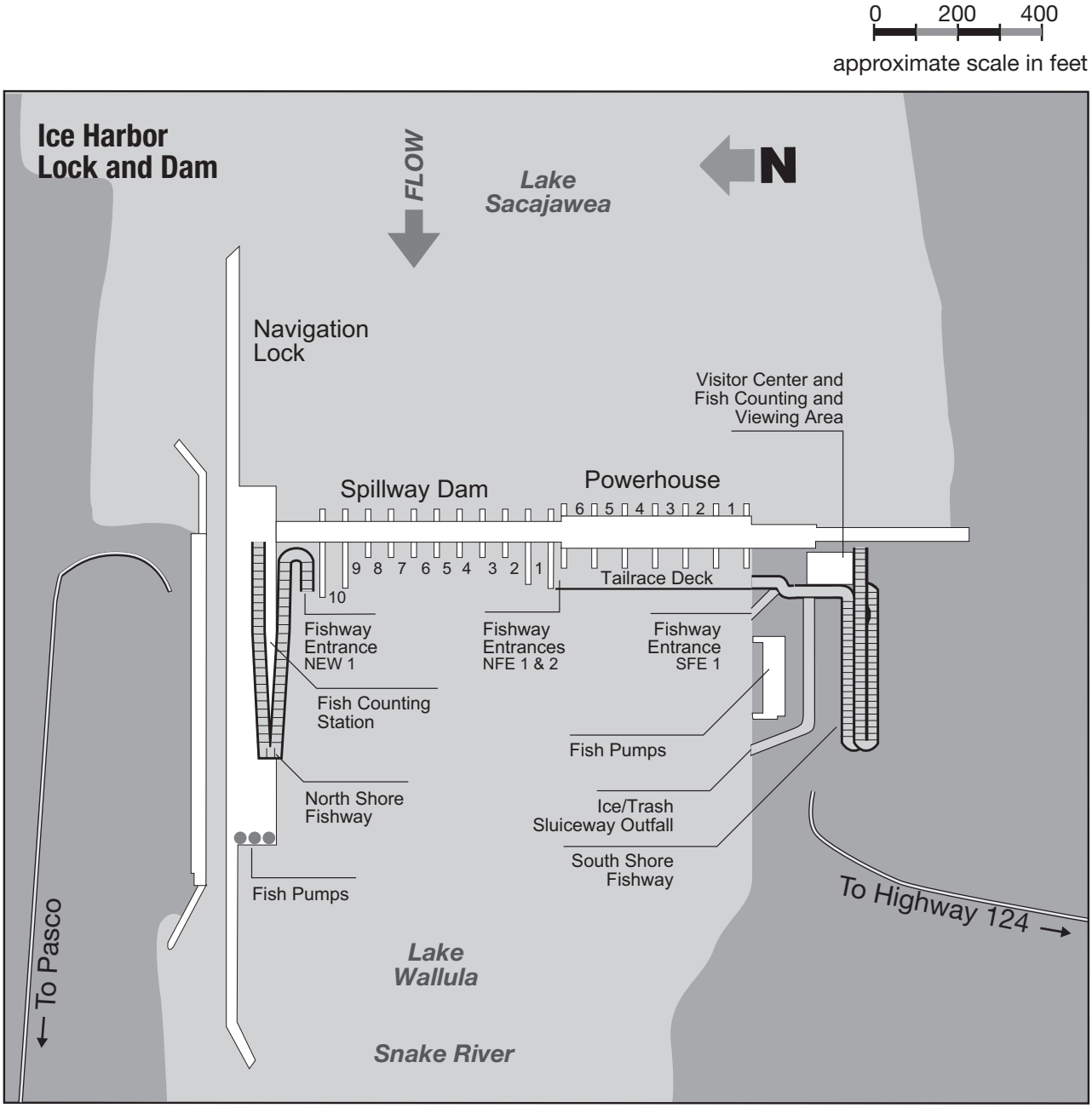
	2009		
Day	JUL	AUG	SEP
1	1	28	4
2	3	30	7
3	7	18	2
4	7	14	4
5	5	6	3
6	1	25	4
7	6	14	7
8	4	13	1
9	3	12	5
10	2	13	2
11	3	25	2
12	6	11	2
13	13	18	2
14	9	23	0
15	1	12	3
16	9	7	1
17	11	23	4
18	14	14	3
19	8	6	5
20	2	11	2
21	16	15	1
22	16	21	2
23	18	28	2
24	15	22	2
25	24	11	0
26	19	8	0
27	22	10	1
28	28	9	2
29	8	4	0
30	20	2	1
31	24	8	
TOTALS	325	461	74

	2010		
Day	JUL	AUG	SEP
1	0	1	3
2	0	17	3
3	0	11	5
4	0	3	2
5	0	0	3
6	0	16	2
7	0	12	1
8	0	19	1
9	0	9	1
10	0	12	1
11	0	8	5
12	1	17	3
13	1	12	6
14	0	8	3
15	2	12	2
16	0	12	1
17	0	10	0
18	0	7	1
19	1	10	2
20	0	2	0
21	2	9	0
22	1	4	1
23	3	3	0
24	0	7	1
25	2	10	0
26	2	6	0
27	6	8	0
28	14	3	0
29	5	1	1
30	2	2	0
31	0	4	
TOTALS	42	255	48

	2011		
Day	JUL	AUG	SEP
1	0	3	8
2	0	1	15
3	0	9	26
4	0	16	14
5	0	6	18
6	0	10	9
7	0	4	19
8	0	10	16
9	0	1	11
10	0	10	19
11	0	3	7
12	0	9	9
13	0	9	8
14	0	15	8
15	0	12	9
16	0	10	8
17	1	6	3
18	0	8	2
19	0	9	9
20	0	10	2
21	2	7	3
22	0	7	4
23	3	2	3
24	0	2	8
25	3	1	9
26	1	14	5
27	1	11	0
28	1	13	1
29	0	8	1
30	2	7	1
31	7	9	
TOTALS	21	242	255

Note: video counting for night lamprey passage at McNaryDam (July 1 - September 30)
Not included in daytime count totals for lamprey.

Plate 6 Ice Harbor Lock and Dam



ICE HARBOR DAM

FISH COUNTING SCHEDULE

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

FISH LADDER OPERATING SCHEDULE

North Ladder

1 January – 2 January	Ladder in service
3 January – 14 January	Ladder dewatered for annual maintenance
15 January – 31 December	Ladder in service

South Ladder

1 January – 17 January	Ladder in service
18 January – 2 March	Ladder dewatered for annual maintenance
3 March – 31 December	Ladder in service

FISHWAY ACTIVITIES

Water temperatures were recorded hourly from fish ladder exit pool and the downstream end of the juvenile channels. Hourly readings were taken June to October.

Idaho Cooperative Fisheries Research Unit conducted an evaluation of adult salmon and steelhead migration past the Snake and Columbia River Dams.

The RSW operated 1 April until the end of the spill season 31 August.

The juvenile fish facility was operated for juvenile fish bypass and adult fallbacks from 1 April to 17 December. Juvenile fish were sampled April 11 – July 7.

TABLE 71

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

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				374	74,309	38,699	12,109	5,817	39,184	7,094			177,586
STEELHEAD				2,691	360	201	9,931	55,460	86,211	43,951			198,805
SOCKEYE						49	1,056	34	2				1,141
COHO*								37	4,130	2,560			6,727
PINK									34	4			38
TOTAL				3,065	74,669	38,949	23,096	61,348	129,561	53,609			384,297
SHAD					1	1,380	35,187	841					37,409
LAMPREY						10	19	101	117	22			269
STURGEON										1			1
BULL TROUT						1							1

***Jacks included**

TABLE 72

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2011

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	24.3	0.0	7.5	40.0
Jan 2	30.5	0.0	7.5	39.0
Jan 3	39.8	0.0	7.5	39.0
Jan 4	39.6	0.0	7.5	38.0
Jan 5	24.1	0.0	7.5	38.0
Jan 6	15.1	0.0	8.2	38.0
Jan 7	28.3	0.0	8.2	38.0
Jan 8	31.1	0.0	8.2	38.0
Jan 9	24.3	0.0	8.2	38.0
Jan 10	32.7	0.0	8.2	38.0
Jan 11	35.3	0.0	8.2	38.0
Jan 12	27.4	0.0	8.2	38.0
Jan 13	35.0	0.0	8.2	38.0
Jan 14	30.9	0.0	8.2	38.0
Jan 15	45.6	0.0	8.2	38.0
Jan 16	50.9	0.0	8.2	38.0
Jan 17	95.0	0.0	8.2	38.0
Jan 18	105.9	0.0	8.0	38.0
Jan 19	80.8	0.0	6.9	39.0
Jan 20	67.4	0.0	6.9	39.0
Jan 21	70.0	0.0	6.9	39.0
Jan 22	66.3	0.0	6.9	39.0
Jan 23	67.6	0.0	2.5	39.0
Jan 24	71.2	0.0	1.6	39.0
Jan 25	65.5	0.0	2.1	39.0
Jan 26	69.2	0.0	1.9	39.0
Jan 27	64.4	0.0	1.9	39.0
Jan 28	51.4	0.0	1.9	39.0
Jan 29	56.2	0.0	1.9	40.0
Jan 30	40.6	0.0	1.9	40.0
Jan 31	53.5	0.0	1.9	40.0
AVG.	49.7	0.0	6.1	38.6

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	55.7	0.0	1.6	39.0
Feb 2	43.5	0.0	1.6	39.0
Feb 3	39.0	0.0	1.6	39.0
Feb 4	40.9	0.0	1.8	39.0
Feb 5	37.3	0.0	1.8	39.0
Feb 6	33.6	0.0	1.8	39.0
Feb 7	52.3	0.0	1.8	39.0
Feb 8	45.2	0.0	1.8	39.0
Feb 9	47.4	0.0	2.6	39.0
Feb 10	43.5	0.0	3.0	39.0
Feb 11	43.0	0.0	3.0	39.0
Feb 12	29.6	0.0	3.0	39.0
Feb 13	43.6	0.0	3.0	39.0
Feb 14	51.4	0.0	3.0	39.0
Feb 15	58.0	0.0	3.3	39.0
Feb 16	50.6	0.0	3.3	39.0
Feb 17	57.9	0.0	3.3	39.0
Feb 18	53.6	0.0	4.2	40.0
Feb 19	56.0	0.0	4.5	39.0
Feb 20	46.1	0.0	4.5	39.0
Feb 21	53.4	0.0	4.5	39.0
Feb 22	52.4	0.0	4.6	39.0
Feb 23	48.6	0.0	4.6	39.0
Feb 24	44.4	0.0	4.6	39.0
Feb 25	48.5	0.0	4.8	39.0
Feb 26	41.8	0.0	4.8	39.0
Feb 27	42.7	0.0	4.8	39.0
Feb 28	45.0	0.0	4.8	39.0
AVG.	46.6	0.0	3.3	39.0

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	59.9	0.0	4.8	39.0
Mar 2	51.4	0.0	4.9	39.0
Mar 3	54.3	0.0	4.9	39.0
Mar 4	58.5	0.0	4.9	39.0
Mar 5	51.2	0.0	4.9	39.0
Mar 6	53.5	0.0	4.9	39.0
Mar 7	59.4	0.0	4.9	39.0
Mar 8	54.7	0.0	3.9	40.0
Mar 9	59.1	0.0	3.6	40.0
Mar 10	45.9	0.0	3.6	40.0
Mar 11	67.9	0.0	3.6	40.0
Mar 12	66.8	0.0	3.6	40.0
Mar 13	43.1	0.0	3.6	40.0
Mar 14	60.6	0.0	3.6	40.0
Mar 15	70.0	0.0	3.6	40.0
Mar 16	62.9	0.0	3.3	40.0
Mar 17	88.4	12.5	3.3	40.0
Mar 18	82.8	6.9	3.0	41.0
Mar 19	80.0	5.1	3.0	42.0
Mar 20	76.2	3.6	3.0	42.0
Mar 21	81.9	7.6	3.0	42.0
Mar 22	74.3	0.0	2.4	42.0
Mar 23	79.0	4.2	2.4	42.0
Mar 24	77.4	3.3	2.4	43.0
Mar 25	86.0	12.0	2.4	43.0
Mar 26	85.9	11.1	2.4	43.0
Mar 27	77.7	1.9	2.4	43.0
Mar 28	79.8	8.9	2.4	43.0
Mar 29	81.3	15.3	2.4	43.0
Mar 30	82.3	25.2	2.4	44.0
Mar 31	112.9	49.0	3.1	45.0
AVG.	69.8	5.4	3.4	41.0

TABLE 73

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Apr 1	2			0				158	70					132.8	107.0	3.1	45.0
Apr 2	0			0				333	134					137.7	87.1	3.1	46.0
Apr 3	7			0				161	61					149.3	91.1	3.1	46.0
Apr 4	0			0				224	74					125.1	72.4	3.1	46.0
Apr 5	1			0				153	60					141.9	79.6	3.1	46.0
Apr 6	3			0				91	14					147.0	87.7	2.4	46.0
Apr 7	8			0				71	8					136.1	74.8	1.6	46.0
Apr 8	1			0				35	1					120.6	67.6	1.6	46.0
Apr 9	1			0				32	2					113.9	71.1	1.6	46.0
Apr 10	1			0				85	13					116.1	68.4	1.6	46.0
Apr 11	3			0				59	11					103.5	64.4	1.6	46.0
Apr 12	4			0				56	2					110.0	67.0	1.6	46.0
Apr 13	7			0				43	18					104.4	65.7	1.4	46.0
Apr 14	11			0				101	37					100.1	66.6	1.4	46.0
Apr 15	13			0				145	58					94.1	60.8	1.4	46.0
Apr 16	7			0				92	30					84.2	59.8	1.4	46.0
Apr 17	5			0				101	48					90.4	61.4	1.4	46.0
Apr 18	4			0				94	54					98.0	65.5	1.4	46.0
Apr 19	5			0				62	39					108.3	70.5	1.4	47.0
Apr 20	6			0				58	36					106.2	66.5	1.4	47.0
Apr 21	7			0				53	31					113.0	67.4	1.4	47.0
Apr 22	12			0				105	45					107.3	67.5	2.8	48.0
Apr 23	12			0				82	28					101.6	65.6	2.8	48.0
Apr 24	11			0				59	23					99.3	64.1	2.8	48.0
Apr 25	13			0				42	22					94.0	61.5	2.8	48.0
Apr 26	36			1				35	13					99.1	63.8	2.7	49.0
Apr 27	24			2				49	30					96.0	65.6	2.4	49.0
Apr 28	48			3				44	22					95.2	41.5	2.4	49.0
Apr 29	61			2				33	24					91.9	27.4	2.4	49.0
Apr 30	50			3				35	22					93.3	50.1	2.4	49.0
TOTAL	363			11				2,691	1,030								
AVG.	12			0				90	34					110.3	67.7	2.1	46.8

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

South shore ladder was counted by direct observation while the north shore ladder was by closed circuit TV.

Official Spring Chinook run started April 1.

TABLE 74

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	76			5				36	16		0			90.5	61.5	2.4	49.0
May 2	165			7				33	24		0			84.3	57.1	2.4	49.0
May 3	431			12				43	18		0			84.1	56.7	2.4	49.0
May 4	893			14				27	16		0			92.4	39.7	2.4	50.0
May 5	1,866			24				16	5		0			89.8	27.1	3.2	50.0
May 6	2,999			66				21	16		0			87.1	49.9	3.2	50.0
May 7	4,516			111				30	11		0			87.7	62.9	3.2	50.0
May 8	4,637			80				1	1		0			94.3	41.7	3.4	51.0
May 9	4,560			270				19	11		0			104.7	36.0	3.9	51.0
May 10	3,673			221				8	6		0			99.3	34.7	3.9	52.0
May 11	3,869			194				18	13		0			102.9	34.1	3.9	52.0
May 12	5,027			356				19	9		0			104.9	54.1	3.2	52.0
May 13	4,067			387				28	11		0			117.7	67.6	3.2	52.0
May 14	4,021			487				23	5		0			143.2	72.0	3.2	52.0
May 15	5,000			802				7	5		0			175.2	93.6	3.2	52.0
May 16	2,916			582				6	0		0			213.8	131.0	3.2	54.0
May 17	2,526			780				9	1		0			202.1	120.8	3.2	54.0
May 18	1,614			727				2	1		0			178.7	97.0	3.2	54.0
May 19	1,857			853				3	1		0			166.9	87.2	2.3	54.0
May 20	726			401				0	0		1			160.9	82.7	2.5	54.0
May 21	279			267				1	0		0			168.6	93.4	2.5	54.0
May 22	503			359				0	0		0			174.3	92.5	2.5	53.0
May 23	794			593				1	0		0			186.9	103.3	2.5	54.0
May 24	1,608			988				4	2		0			191.9	108.6	1.5	54.0
May 25	1,511			1,145				-2	-1		0			198.4	114.9	1.5	54.0
May 26	654			619				-5	-4		0			204.2	121.5	2.3	54.0
May 27	466			422				9	4		0			209.2	127.6	2.5	54.0
May 28	166			223				2	0		0			190.9	109.1	2.5	54.0
May 29	148			259				0	0		0			178.3	95.5	2.5	54.0
May 30	401			544				0	0		0			163.8	83.6	2.5	52.0
May 31	261			281				1	0		0			156.4	81.6	2.5	53.0
TOTAL	62,230			12,079				360	171		1						
AVG.	2007			390				12	6		0			145.3	78.7	2.8	52.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	62,593	12,090

STEELHEAD	unclipped STEELHEAD	SHAD
3,051	1,201	1

TABLE 75

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	466			527			0	3	1		0	0		160.4	79.8	2.5	54.0
Jun 2	677			634			0	2	0		0	0		157.3	75.9	2.5	54.0
Jun 3	782			656			0	1	0		0	0		175.2	93.6	2.5	54.0
Jun 4	789			662			0	5	0		0	0		164.7	84.3	2.6	54.0
Jun 5	571			663			0	7	1		0	0		159.3	83.0	2.8	54.0
Jun 6	510			613			0	4	2		0	0		162.1	81.1	2.8	54.0
Jun 7	468			527			0	2	0		0	0		189.3	105.2	2.9	54.0
Jun 8	352			394			0	1	-4		1	0		214.6	131.5	2.9	54.0
Jun 9	598			553			0	1	1		0	0		215.7	134.9	2.2	55.0
Jun 10	769			484			0	2	2		0	0		202.9	122.1	2.2	55.0
Jun 11	731			358			1	5	0		0	0		186.7	106.2	2.2	55.0
Jun 12		532		221			0	1	0		0	0		181.6	99.0	2.2	55.0
Jun 13		608		181			1	8	6		0	7		184.7	101.1	2.2	55.0
Jun 14		829		212			1	20	4		0	1		191.6	108.5	2.2	55.0
Jun 15		1,269		369			0	0	-1		0	0		196.6	113.6	2.2	55.0
Jun 16		1,532		444			6	3	1		2	-1		187.6	105.1	2.2	55.0
Jun 17		1,869		600			2	6	1		1	1		178.9	96.4	2.2	55.0
Jun 18		1,192		365			1	10	2		2	1		161.0	80.0	2.2	56.0
Jun 19		1,439		360			4	14	4		2	0		155.5	75.9	2.2	56.0
Jun 20		1,059		334			0	13	1		1	0		165.1	82.4	2.2	56.0
Jun 21		771		421			1	7	0		8	0		162.8	85.4	2.2	56.0
Jun 22		814		395			2	4	2		49	0		168.5	85.9	2.2	56.0
Jun 23		894		372			0	8	1		24	0		183.0	99.0	2.2	56.0
Jun 24		682		232			2	7	0		19	0		195.0	112.1	2.6	56.0
Jun 25		999		401			0	12	0		22	1		191.1	108.0	2.6	56.0
Jun 26		942		543			5	3	-4		167	0		173.4	91.4	2.6	56.0
Jun 27		992		560			4	17	2		420	0		168.4	86.9	2.6	56.0
Jun 28		919		404			8	13	5		277	0		163.3	80.9	2.5	57.0
Jun 29		768		359			5	18	2		224	0		162.6	79.6	2.5	57.0
Jun 30		700		332			6	4	2		161	0		171.9	89.6	2.5	57.0
TOTAL	6,713	18,810		13,176			49	201	31		1,380	10					
AVG.	610	990		439			2	7	1		46	0		177.7	95.9	2.4	55.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,306	18,161
SUMMER	18,810	7,105
TOTAL	88,116	25,266

SOCKEYE	STEELHEAD	unclipped STEELHEAD
49	3,252	1,232

SHAD	LAMPREY
1,381	10

Note: 1 Bull trout upstream on the 7th.

TABLE 76

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		642		414			21	19	4		100	0		179.6	96.6	2.0	57.0
Jul 2		528		453			24	45	8		606	0		153.9	73.6	2.0	57.0
Jul 3		672		516			31	68	15		1,514	2		149.3	75.4	2.0	58.0
Jul 4		513		417			30	40	13		1,344	0		143.8	73.0	2.0	58.0
Jul 5		478		317			32	68	18		948	0		142.5	74.2	2.0	58.0
Jul 6		436		255			54	114	18		833	0		141.0	71.1	2.6	59.0
Jul 7		304		205			35	101	19		1,795	0		131.6	63.0	2.6	59.0
Jul 8		341		215			44	111	19		2,070	0		125.6	57.0	2.6	60.0
Jul 9		350		169			47	95	24		1,745	3		118.3	58.5	2.6	60.0
Jul 10		238		178			57	114	19		1,321	0		110.1	62.3	2.6	60.0
Jul 11		270		195			62	178	32		3,274	0		102.3	48.7	2.6	60.0
Jul 12		263		294			68	175	65		3,979	0		92.8	37.8	2.6	61.0
Jul 13		218		288			83	200	59		2,400	0		93.9	53.0	2.6	61.0
Jul 14		221		214			68	222	77		1,969	0		93.6	62.1	3.4	62.0
Jul 15		163		82			55	212	55		1,310	0		92.2	61.3	4.0	62.0
Jul 16		117		66			45	297	78		1,313	0		89.5	62.0	4.0	62.0
Jul 17		117		57			27	292	72		1,165	1		85.3	58.5	4.0	63.0
Jul 18		200		64			26	209	66		1,295	1		84.4	56.8	4.0	63.0
Jul 19		134		94			51	406	115		1,095	0		83.0	56.5	4.0	63.0
Jul 20		90		87			57	318	97		960	0		74.5	51.1	4.0	63.0
Jul 21		100		133			61	457	150		840	0		78.7	53.8	2.6	63.0
Jul 22		66		56			18	464	174		704	1		73.8	52.2	2.6	64.0
Jul 23		73		54			12	399	162		540	0		75.1	55.2	2.6	64.0
Jul 24		54		31			6	485	171		453	0		72.2	52.2	2.6	64.0
Jul 25		74		51			7	548	197		301	2		63.1	48.7	2.6	64.0
Jul 26		62		24			7	473	165		262	1		64.0	48.2	2.6	64.0
Jul 27		83		30			8	588	233		216	0		59.1	46.8	4.0	64.0
Jul 28		68		30			8	577	193		286	1		62.5	47.7	4.0	65.0
Jul 29		54		40			3	915	326		214	2		58.2	45.8	4.6	65.0
Jul 30		63		19			9	909	342		189	3		53.3	42.7	4.6	66.0
Jul 31		43		26			0	832	321		146	2		55.0	43.8	4.6	66.0
TOTAL		7,035		5,074			1,056	9,931	3,307		35,187	19					
AVG.		227		164			34	320	107		1,135	1		96.8	57.7	3.1	61.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,306	18,161
SUMMER	25,845	12,179
TOTAL	95,151	30,340

SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,105	13,183	4,539

SHAD	LAMPREY
36,568	29

TABLE 77

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Aug 1		47		29	0	0	2	882	319		174	7		48.5	38.7	4.0	65.0
Aug 2		40		19	0	0	5	1,069	362		81	4		59.5	48.1	4.7	65.0
Aug 3		63		12	0	0	5	1,258	450		37	6		54.6	45.0	4.6	65.0
Aug 4		82		17	0	0	2	1,498	532		45	8		57.1	46.7	4.6	65.0
Aug 5		69		35	0	0	4	1,198	333		75	7		41.4	31.3	3.6	67.0
Aug 6		67		21	0	0	0	1,453	456		44	4		44.2	34.2	3.6	67.0
Aug 7		69		14	0	0	1	1,500	503		23	5		43.2	33.0	4.6	67.0
Aug 8		119		13	0	0	3	1,943	600		36	2		42.5	32.3	4.6	68.0
Aug 9		106		10	0	0	2	1,920	663		69	2		47.5	37.4	6.0	68.0
Aug 10		155		23	0	0	2	2,482	803		72	2		44.7	34.7	6.0	68.0
Aug 11		96		6	0	0	0	2,820	955		18	1		36.3	26.3	6.2	68.0
Aug 12			64	7	0	0	0	2,142	675		13	4		41.3	31.1	6.2	69.0
Aug 13			74	7	0	0	1	2,061	625		16	5		41.3	31.1	6.2	69.0
Aug 14			93	10	0	0	0	2,622	763		36	2		38.3	28.2	6.2	69.0
Aug 15			74	12	0	0	0	2,432	729		19	6		35.8	25.9	6.0	69.0
Aug 16			66	6	0	0	0	1,250	303		12	5		40.9	30.9	6.0	70.0
Aug 17			102	8	0	0	0	1,015	230		6	1		40.0	29.9	6.0	70.0
Aug 18			225	30	0	0	7	1,864	491		4	4		35.7	25.7	6.0	70.0
Aug 19			201	9	0	0	1	1,741	399		6	4		37.1	27.1	6.0	70.0
Aug 20			248	23	0	0	-1	1,537	395		1	3		36.9	27.1	6.0	70.0
Aug 21			206	34	0	0	0	1,373	273		5	2		36.9	26.8	6.0	70.0
Aug 22			202	22	0	0	0	1,501	364		2	1		37.0	27.1	6.0	70.0
Aug 23			231	30	0	0	0	1,739	443		12	4		36.0	26.0	6.0	70.0
Aug 24			244	36	0	0	0	2,141	551		2	2		38.1	28.1	6.0	70.0
Aug 25			231	40	1	0	0	1,763	399		2	1		45.0	34.5	5.8	70.0
Aug 26			219	36	2	0	0	1,444	309		2	4		33.9	24.0	5.8	70.0
Aug 27			179	28	2	0	0	1,988	502		1	2		38.2	28.6	5.8	70.0
Aug 28			388	99	5	5	0	1,727	344		2	0		32.7	22.5	5.8	70.0
Aug 29			213	33	0	2	0	1,614	350		1	2		33.6	23.3	5.8	70.0
Aug 30			313	93	8	0	0	2,417	568		4	1		38.8	28.6	6.1	70.0
Aug 31			457	112	11	1	0	3,066	762		21	0		38.8	28.5	6.9	70.0
TOTAL		913	4,030	874	29	8	34	55,460	15,451		841	101					
AVG.		83	202	28	1	0	1	1,789	498		27	3		41.2	31.1	5.6	68.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,306	18,161
SUMMER	26,758	12,378
FALL	4,030	675
TOTAL	100,094	31,214

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
29	8	1,139	68,643	19,990

SHAD	LAMPREY
37,409	130

TABLE 78

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			415	150	6	1	1	2,961	702	0		1		29.2	0.2	6.9	70.0
Sep 2			276	111	5	1	0	1,210	242	0		7		25.3	0.0	6.9	69.0
Sep 3			207	106	8	5	0	1,106	246	0		12		27.4	0.0	6.9	68.0
Sep 4			306	120	6	2	0	1,265	264	0		0		33.6	0.0	6.9	68.0
Sep 5			429	177	8	1	0	1,447	327	1		2		38.8	0.0	6.9	68.0
Sep 6			766	271	18	19	0	1,715	335	0		6		36.8	0.0	6.5	68.0
Sep 7			1,015	275	11	4	0	1,813	435	0		5		27.4	0.0	6.5	68.0
Sep 8			760	220	23	2	0	2,392	522	0		5		38.4	0.0	6.5	68.0
Sep 9			1,140	382	35	14	1	3,087	740	0		10		43.3	0.0	6.5	67.0
Sep 10			1,038	504	96	26	0	2,989	731	2		9		38.7	0.0	6.5	67.0
Sep 11			1,117	589	130	26	0	2,411	590	0		8		27.1	0.0	6.5	67.0
Sep 12			822	514	55	19	0	1,911	442	0		0		39.3	0.0	6.5	67.0
Sep 13			1,025	660	83	5	0	2,432	538	1		4		41.0	0.0	6.5	67.0
Sep 14			1,099	731	90	13	0	2,582	603	2		3		41.0	0.0	7.1	67.0
Sep 15			929	672	135	7	0	2,516	590	1		4		41.4	0.0	7.1	67.0
Sep 16			1,017	557	360	231	0	3,201	791	2		5		41.8	0.0	7.1	67.0
Sep 17			620	440	234	135	0	3,213	676	0		3		40.9	0.0	7.1	67.0
Sep 18			1,151	528	104	73	0	3,156	720	0		4		41.9	0.0	7.1	67.0
Sep 19			1,594	1,163	136	14	0	5,086	960	5		2		39.8	0.0	7.1	67.0
Sep 20			1,310	827	202	12	0	4,915	1,082	1		4		31.7	0.0	7.1	67.0
Sep 21			1,056	522	114	4	0	4,690	1,106	1		4		36.4	0.0	7.1	67.0
Sep 22			816	529	143	5	0	4,916	1,001	2		0		29.3	0.0	7.1	67.0
Sep 23			662	605	218	13	0	3,523	665	2		5		25.6	0.0	7.1	67.0
Sep 24			646	648	156	16	0	3,072	593	0		6		20.9	0.0	7.1	67.0
Sep 25			709	900	150	13	0	4,017	924	2		1		21.7	0.0	5.4	67.0
Sep 26			573	721	228	17	0	3,721	843	5		1		32.4	0.0	5.4	67.0
Sep 27			742	850	171	8	0	2,822	579	5		0		28.7	0.0	6.5	67.0
Sep 28			477	601	187	10	0	2,596	541	0		0		31.8	0.0	6.5	66.0
Sep 29			438	562	123	6	0	2,237	463	1		1		32.8	0.0	6.5	66.0
Sep 30			487	607	181	12	0	3,209	684	1		5		36.1	0.0	7.2	66.0
TOTAL			23,642	15,542	3,416	714	2	86,211	18,935	34		117					
AVG.			788	518	114	24	0	2,874	631			4		34.0	0.0	6.7	67.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,306	18,161
SUMMER	26,758	12,378
FALL	27,672	16,217
TOTAL	123,736	46,756

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
3,445	722	1,141	154,854	38,925	34	37,409	247

TABLE 79

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F*
Oct 1			368	449	146	15		2,675	591	0		1	0	25.4	0.0	7.2	66.0
Oct 2			309	392	104	8		2,368	589	1		5	0	28.6	0.0	7.2	66.0
Oct 3			350	378	75	5		1,923	463	0		0	0	32.0	0.0	7.2	66.0
Oct 4			408	432	123	4		4,055	911	0		1	0	32.6	0.0	7.2	65.0
Oct 5			232	289	104	10		3,527	751	0		0	0	28.4	0.0	7.2	65.0
Oct 6			133	180	146	4		3,582	818	0		1	0	33.4	0.0	7.2	65.0
Oct 7			161	112	78	6		2,018	441	0		4	0	30.4	0.0	7.2	65.0
Oct 8			167	59	65	0		1,710	396	0		0	0	33.0	0.0	7.2	64.0
Oct 9			102	92	27	2		1,760	384	0		2	0	30.9	0.0	7.2	64.0
Oct 10			197	71	60	1		1,647	330	0		1	0	30.5	0.0	7.2	64.0
Oct 11			191	125	81	6		1,834	481	0		1	0	22.9	0.0	7.2	63.0
Oct 12			209	108	170	11		1,719	445	0		1	0	27.5	0.0	6.9	63.0
Oct 13			177	109	185	1		2,150	533	0		1	0	24.3	0.0	6.9	63.0
Oct 14			86	100	147	5		1,628	364	0		0	0	19.7	0.0	5.6	63.0
Oct 15			56	58	86	1		1,343	362	0		0	0	31.5	0.0	5.6	63.0
Oct 16			62	43	88	1		997	239	0		1	0	26.4	0.0	5.6	63.0
Oct 17			49	52	107	2		1,330	367	0		0	0	32.8	0.0	5.6	62.0
Oct 18			56	41	109	0		1,213	308	0		0	1	28.2	0.0	5.8	62.0
Oct 19			70	43	138	0		1,146	287	0		1	0	22.3	0.0	6.2	62.0
Oct 20			50	38	101	0		966	261	-1		2	0	20.9	0.0	6.2	61.0
Oct 21			30	31	77	2		846	241	1		1	0	27.7	0.0	6.2	61.0
Oct 22			42	35	60	4		747	211	0		0	0	27.7	0.0	6.2	61.0
Oct 23			37	23	35	0		514	139	0		0	0	24.3	0.0	6.2	61.0
Oct 24			19	14	25	1		331	72	0		-1	0	26.3	0.0	6.2	61.0
Oct 25			30	18	23	0		415	101	0		0	0	22.6	0.0	5.6	61.0
Oct 26			25	25	31	1		327	91	0		0	0	25.9	0.0	5.6	60.0
Oct 27			17	16	25	1		252	89	0		0	0	26.9	0.0	5.6	60.0
Oct 28			17	5	10	0		209	36	0		0	0	16.7	0.0	5.6	60.0
Oct 29			39	6	20	0		261	54	1		0	0	24.5	0.0	5.6	60.0
Oct 30			15	6	11	0		199	56	2		0	0	26.8	0.0	5.6	59.0
Oct 31			29	11	12	0		259	58	0		0	0	23.7	0.0	5.6	59.0
TOTAL			3,733	3,361	2,469	91		43,951	10,469	4		22	1				
AVG.			120	108	80	3		1,418	338	0		1	0	26.9	0.0	6.4	62.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,306	18,161
SUMMER	26,758	12,378
FALL	31,405	19,578
TOTAL	127,469	50,117

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON
5,914	813	1,141	198,805	49,394	38	37,409	269	1

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 by closed circuit TV.

TABLE 80

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT - 2011

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	25.7	0.0	5.6	59.0
Nov 2	29.3	0.0	5.6	59.0
Nov 3	17.8	0.0	5.6	58.0
Nov 4	23.2	0.0	5.6	57.0
Nov 5	26.8	0.0	5.6	57.0
Nov 6	27.6	0.0	5.6	56.0
Nov 7	21.1	0.0	5.6	56.0
Nov 8	24.8	0.0	5.6	56.0
Nov 9	27.2	0.0	5.6	55.0
Nov 10	17.4	0.0	5.7	54.0
Nov 11	19.9	0.0	5.8	54.0
Nov 12	15.2	0.0	5.8	54.0
Nov 13	25.0	0.0	5.8	53.0
Nov 14	29.2	0.0	5.8	53.0
Nov 15	28.1	0.0	5.8	53.0
Nov 16	26.0	0.0	5.8	51.0
Nov 17	12.7	0.0	5.8	51.0
Nov 18	22.8	0.0	5.8	51.0
Nov 19	26.2	0.0	5.8	51.0
Nov 20	28.3	0.0	5.8	50.0
Nov 21	19.5	0.0	5.8	50.0
Nov 22	26.3	0.0	5.8	50.0
Nov 23	28.4	0.0	5.8	49.0
Nov 24	24.7	0.0	5.8	49.0
Nov 25	20.1	0.0	5.8	48.0
Nov 26	16.1	0.0	5.8	48.0
Nov 27	27.1	0.0	5.8	48.0
Nov 28	24.7	0.0	5.8	48.0
Nov 29	16.1	0.0	5.8	48.0
Nov 30	19.1	0.0	5.8	47.0
AVG.	23.2	0.0	5.7	52.4

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	27.3	0.0	5.8	47.0
Dec 2	18.4	0.0	5.8	47.0
Dec 3	17.7	0.0	5.8	47.0
Dec 4	22.4	0.0	5.8	47.0
Dec 5	28.2	0.0	5.8	46.0
Dec 6	24.7	0.0	7.2	46.0
Dec 7	21.0	0.0	7.2	45.0
Dec 8	21.0	0.0	7.2	44.0
Dec 9	28.4	0.0	7.2	44.0
Dec 10	19.4	0.0	6.8	44.0
Dec 11	9.7	0.0	6.8	43.0
Dec 12	28.2	0.0	6.8	43.0
Dec 13	36.1	0.0	6.8	43.0
Dec 14	9.0	0.0	7.2	43.0
Dec 15	16.0	0.0	7.2	42.0
Dec 16	19.4	0.0	7.2	42.0
Dec 17	25.9	0.0	7.2	42.0
Dec 18	22.5	0.0	7.2	42.0
Dec 19	22.9	0.0	7.2	42.0
Dec 20	19.3	0.0	7.2	42.0
Dec 21	27.3	0.0	7.2	42.0
Dec 22	18.9	0.0	7.2	41.0
Dec 23	25.6	0.0	7.2	41.0
Dec 24	21.9	0.0	7.2	41.0
Dec 25	23.0	0.0	7.2	41.0
Dec 26	21.9	0.0	7.2	40.0
Dec 27	24.2	0.0	7.2	40.0
Dec 28	28.5	0.0	7.2	40.0
Dec 29		0.0	7.2	40.0
Dec 30		0.0		
Dec 31		0.0		
AVG.	22.5	0.0	6.9	43.0

TABLE 81

YEARLY TOTALS OF SALMONIDS COUNTED OVER ICE HARBOR DAM 1962 - 2011

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
Totals	3,302,333	5,154,856	14,755	73,764	8,545,708
10-Year Average	127,106	192,049	416	2,688	322,259

*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 82

MONTHLY COUNT OF CHINOOK SALMON
ICE HARBOR DAM
1962 - 2011

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING 1 APR-11 JUN	SUMMER 12 JUN-11 AUG	FALL 12 AUG-31 OCT
1962				2,579	28,951	23,250	8,315	3,547	20,578	7,081			94,301	33,613	30,639	30,049
1963				3,434	21,790	14,001	7,591	1,415	9,342	2,918	677	22	61,190	26,778	20,875	13,537
1964		1	2	4,048	19,611	5,409	18,832	2,161	8,159	1,701	156	17	60,097	24,304	24,696	11,097
1965			4	1,677	9,649	5,072	10,209	803	9,318	2,152	349		39,233	12,178	14,701	12,354
1966				23,382	19,294	10,611	7,166	1,933	10,756	2,740			75,882	43,881	16,983	15,018
1967				15,973	18,137	9,020	22,218	820	11,947	6,815			84,930	35,593	30,315	19,022
1968				1,595	41,398	12,119	17,751	3,433	16,588	5,275	493	29	98,681	44,773	29,531	24,377
1969			195	697	43,181	24,918	12,861	2,369	12,027	3,555	708	3	100,514	52,090	30,917	17,507
1970				12,167	33,881	12,338	8,185	1,747	7,702	1,456	219	3	77,698	47,931	19,382	10,385
1971				1,104	25,089	19,265	13,364	873	8,960	1,593			70,248	32,638	26,606	11,004
1972				14,535	34,734	7,544	15,177	1,869	6,089	2,684			82,632	50,350	22,846	9,436
1973				34,277	23,627	10,925	4,254	840	6,657	1,241			81,821	60,639	12,829	8,353
1974				842	16,670	5,315	6,494	483	2,066	574			32,444	19,361	10,269	2,814
1975				1,314	17,796	5,817	3,972	506	1,875	406			31,686	21,401	7,727	2,558
1976				3,146	19,269	8,544	3,921	349	1,123	204			36,556	25,056	10,026	1,474
1977				24,003	17,626	9,328	3,606	297	1,370	284			56,514	44,421	10,337	1,756
1978				14,891	29,333	9,999	4,888	892	1,064	269	16		61,352	49,303	10,440	1,609
1979				1,731	6,528	2,234	1,216	379	1,489	333	19		13,929	9,247	2,608	2,074
1980				1,678	7,321	2,285	1,569	301	1,034	504	25		14,717	9,668	3,305	1,744
1981			1	6,744	8,542	2,884	1,751	161	1,530	470	9		22,092	16,167	3,814	2,111
1982			3	656	11,543	4,522	2,347	283	2,601	691			22,646	14,600	4,527	3,519
1983				1,925	9,418	4,132	1,921	316	1,945	602			20,259	12,602	4,922	2,735
1984				823	7,292	5,353	1,943	223	1,762	361			17,757	9,183	6,307	2,267
1985				12,245	18,334	6,885	1,294	546	5,414	3,263			47,981	33,527	5,290	9,164
1986			1	14,764	22,025	8,299	1,672	169	3,664	2,021			52,615	39,087	7,745	5,783
1987				11,141	18,821	6,550	2,437	329	6,089	2,110			47,477	32,083	6,982	8,412
1988				14,274	17,196	8,609	1,904	702	3,621	1,760			48,066	34,394	7,790	5,882
1989				3,307	11,724	4,946	1,143	776	3,917	1,421			27,234	17,029	4,215	5,990
1990				7,578	12,166	5,353	1,337	320	3,314	1,773			31,841	20,730	5,794	5,317
1991				1,639	7,953	5,367	2,101	155	4,053	1,907			23,175	11,288	5,861	6,026
1992				11,462	12,001	5,791	1,189	228	3,716	1,634			36,021	26,114	4,377	5,530
1993				5,776	15,879	8,705	1,405	338	2,087	801			34,991	24,935	6,919	3,137
1994				717	2,268	1,183	289	170	1,693	1,257			7,577	3,472	1,003	3,102
1995				256	1,253	928	315	387	2,920	1,931			7,990	1,873	915	5,202
1996				97	6,254	3,954	1,367	792	2,983	928	44	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
TOTAL		1	344	509,768	1,210,265	610,771	264,578	70,977	501,140	131,046	3,356	87	3,302,333	1,917,706	695,181	689,205
10-Year Average				12,711	46,467	26,639	5,738	3,506	27,050	4,970			127,106	68,520	23,421	35,140

***Jacks include**

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

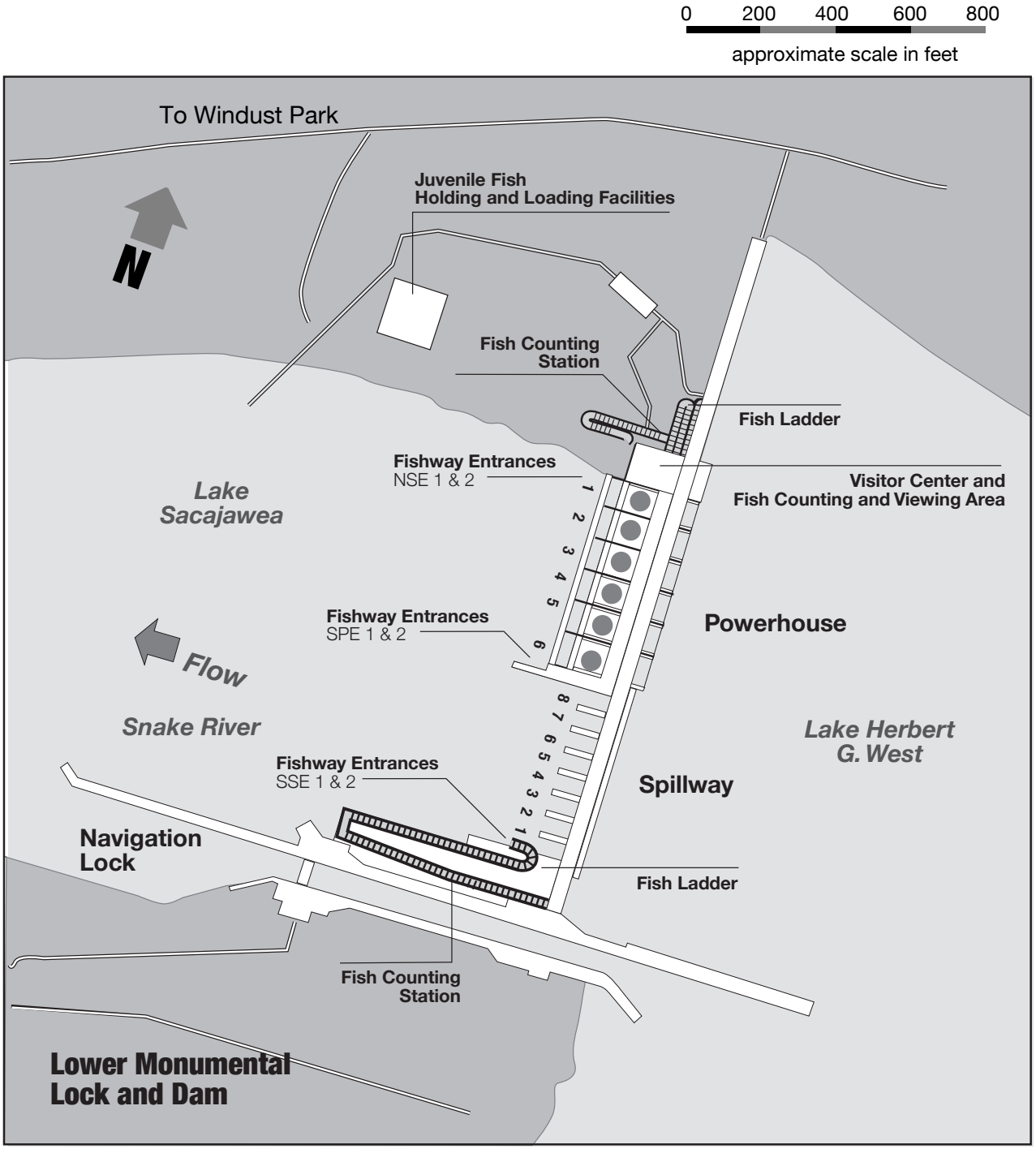
TABLE 83

MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2011

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
Totals	268	287	25,574	114,806	22,449	24,329	253,257	504,853	2,569,009	1,544,452	81,529	14,043	5,154,856
10-Year Average				2,507	168	985	11,363	22,589	99,417	52,637			192,049

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

Plate 7 Lower Monumental Lock and Dam



LOWER MONUMENTAL DAM

FISH COUNTING SCHEDULE

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

FISH LADDER OPERATING SCHEDULE

North Ladder

1 Jan – 4 Jan	Ladder in service.
4 Jan – 2 Feb	Ladder dewatered for annual maintenance.
2 Feb– 31 Dec	Ladder in service.

South Ladder

1 Jan – 2 Feb	Ladder in service.
2 Feb– 2 Mar	Ladder dewatered for annual maintenance.
2 Mar – 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 20 to October 18. The purpose is to determine if summer spill has any effects on exit pool temperatures.

Fish pumps were out of service from 2 January through 2 February. Fish pump 1 was out of service for repair of a shaft oil leak from April 14 through 19.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 1 April to 19 December.

LoMo's RSW was in service.

TABLE 84

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER MONUMENTAL DAM
2011

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				193	71,045	44,773	15,764	4,502	34,401	7,603			178,281
STEELHEAD				3,331	548	196	7,342	45,999	82,453	47,403			187,272
SOCKEYE						12	1,340	42	1	0			1,395
COHO*								5	1,998	2,826			4,829
PINK									23	10			33
TOTAL				3,524	71,593	44,981	24,446	50,548	118,876	57,842			371,810
LAMPREY							11	54	31	3			99
STURGEON													0
BULL TROUT				8	11	6	13	2					40

*Jacks included

TABLE 85

DISCHARGE AND WATER OUALITY DATA

LOWER MONUMENTAL PROJECT 2011

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	25.2	0.0	4.0	40.0
Jan 2	27.6	0.0	4.0	40.0
Jan 3	36.9	0.0	4.0	39.0
Jan 4	37.7	0.0	4.0	38.0
Jan 5	26.8	0.0	4.0	38.0
Jan 6	16.7	0.0	4.0	38.0
Jan 7	27.2	0.0	4.0	38.0
Jan 8	30.8	0.0	4.0	38.0
Jan 9	25.6	0.0	4.0	38.0
Jan 10	32.0	0.0	4.0	38.0
Jan 11	33.9	0.0	4.0	37.0
Jan 12	30.1	0.0	4.0	37.0
Jan 13	33.5	0.0	4.0	37.0
Jan 14	30.1	0.0	4.0	37.0
Jan 15	44.3	0.0	4.0	38.0
Jan 16	52.5	0.0	4.0	38.0
Jan 17	93.3	0.0	4.0	40.0
Jan 18	103.7	0.0	4.0	40.0
Jan 19	79.8	0.0	4.0	40.0
Jan 20	69.1	0.0	4.0	40.0
Jan 21	69.8	0.0	4.0	40.0
Jan 22	68.3	0.0	4.0	40.0
Jan 23	64.9	0.0	4.0	39.0
Jan 24	72.4	0.0	4.0	39.0
Jan 25	64.6	0.0	4.0	39.0
Jan 26	72.4	0.0	0.8	39.0
Jan 27	62.3	0.0	0.8	39.0
Jan 28	51.9	0.0	0.8	39.0
Jan 29	58.7	0.0	0.5	39.0
Jan 30	40.2	0.0	0.5	39.0
Jan 31	51.4	0.0	0.5	39.0
AVG	49.5	0.0	3.4	38.7

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	57.8	0.0	0.5	38.0
Feb 2	43.9	0.0	0.5	38.0
Feb 3	40.3	0.0	0.5	38.0
Feb 4	39.5	0.0	1.0	38.0
Feb 5	38.1	0.0	1.0	38.0
Feb 6	34.2	0.0	1.0	38.0
Feb 7	50.7	0.0	1.0	38.0
Feb 8	43.5	0.0	1.0	39.0
Feb 9	47.0	0.0	1.0	39.0
Feb 10	44.0	0.0	1.0	39.0
Feb 11	44.6	0.0	1.0	38.0
Feb 12	31.9	0.0	1.0	39.0
Feb 13	43.4	0.0	1.0	39.0
Feb 14	49.3	0.0	1.0	39.0
Feb 15	58.9	0.0	1.0	39.0
Feb 16	49.1	0.0	1.0	39.0
Feb 17	59.8	0.0	1.0	39.0
Feb 18	54.3	0.0	1.0	38.0
Feb 19	57.1	0.0	1.0	38.0
Feb 20	46.4	0.0	1.0	38.0
Feb 21	52.2	0.0	1.0	39.0
Feb 22	55.7	0.0	1.0	39.0
Feb 23	45.3	0.8	1.0	39.0
Feb 24	44.9	0.0	1.0	39.0
Feb 25	48.6	0.0	1.0	39.0
Feb 26	41.6	0.0	1.0	39.0
Feb 27	43.7	0.0	1.0	38.0
Feb 28	47.3	0.0	1.0	38.0
AVG	46.9	0.0	0.9	38.5

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	57.4	0.0	1.0	38.0
Mar 2	51.4	0.0	2.0	38.0
Mar 3	55.0	0.0	2.5	38.0
Mar 4	61.0	0.0	2.0	38.0
Mar 5	49.9	0.0	2.0	38.0
Mar 6	55.3	0.0	2.0	38.0
Mar 7	58.5	0.0	2.5	38.0
Mar 8	55.6	0.0	2.0	40.0
Mar 9	57.9	0.0	2.0	40.0
Mar 10	50.1	0.0	2.0	40.0
Mar 11	68.7	0.0	2.0	40.0
Mar 12	68.0	0.0	2.0	40.0
Mar 13	41.6	0.0	2.0	40.0
Mar 14	62.7	0.0	2.0	40.0
Mar 15	68.1	0.0	1.5	41.0
Mar 16	61.9	0.0	1.5	41.0
Mar 17	88.1	0.0	1.5	41.0
Mar 18	81.9	0.0	1.5	41.0
Mar 19	82.5	0.0	1.5	41.0
Mar 20	78.4	0.0	1.5	41.0
Mar 21	80.7	0.0	1.5	41.0
Mar 22	73.3	0.0	1.8	42.0
Mar 23	78.8	0.0	1.8	42.0
Mar 24	79.8	0.0	1.8	43.0
Mar 25	88.8	0.0	1.8	44.0
Mar 26	81.8	0.0	1.8	44.0
Mar 27	77.0	0.0	1.8	44.0
Mar 28	83.2	0.0	1.5	44.0
Mar 29	78.7	0.0	1.5	44.0
Mar 30	88.0	3.7	1.5	44.0
Mar 31	111.8	11.6	1.5	44.0
AVG	70.2	0.5	1.8	40.9

TABLE 86

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Apr 1	0			0				167	98			0		130.2	16.1	1.5	45.0
Apr 2	0			0				146	69			0		136.8	28.2	1.0	46.0
Apr 3	2			0				257	135			0		143.3	31.2	0.5	46.0
Apr 4	1			0				154	72			0		125.9	26.4	0.5	47.0
Apr 5	0			0				57	10			0		138.5	27.6	0.5	47.0
Apr 6	0			0				66	18			0		144.3	33.3	0.5	47.0
Apr 7	0			0				34	6			0		131.5	29.8	0.5	47.0
Apr 8	0			0				50	4			0		116.9	28.9	0.5	45.0
Apr 9	0			0				115	20			0		113.4	27.9	0.5	44.5
Apr 10	0			0				84	17			0		112.1	26.1	0.5	44.8
Apr 11	0			0				122	35			0		100.5	25.0	0.5	45.0
Apr 12	1			0				167	90			0		108.6	26.2	0.5	45.0
Apr 13	2			0				154	90			0		100.5	27.9	0.5	45.0
Apr 14	5			0				185	118			1		98.3	27.0	0.5	45.0
Apr 15	5			0				229	130			0		91.7	26.9	0.5	45.0
Apr 16	5			0				162	95			0		82.2	27.9	0.5	46.0
Apr 17	5			0				151	91			1		89.3	27.9	0.5	46.0
Apr 18	2			0				84	59			0		96.1	27.9	0.5	46.0
Apr 19	1			0				97	68			0		106.1	28.2	0.5	46.0
Apr 20	2			0				113	66			1		104.7	29.7	0.5	46.0
Apr 21	6			0				73	47			2		110.2	30.6	0.5	47.0
Apr 22	8			0				121	89			0		104.9	30.0	0.5	47.0
Apr 23	7			0				126	90			0		99.5	29.5	1.0	47.0
Apr 24	10			0				74	52			0		97.3	28.3	1.0	47.0
Apr 25	7			0				71	50			1		92.8	28.1	1.0	47.0
Apr 26	7			0				58	38			0		95.8	28.5	1.0	47.0
Apr 27	16			4				65	48			1		94.3	29.4	1.0	48.0
Apr 28	18			0				51	39			0		94.1	29.8	1.0	48.0
Apr 29	30			1				36	28			0		90.9	29.9	1.5	48.0
Apr 30	44			4				62	51			1		90.5	29.7	1.5	48.0
TOTAL	184			9				3,331	1,823			8					
AVG.	6			0				111	61			0		108.0	28.1	0.7	46.3

Note: Official Spring Chinook run started April 1.

TABLE 87

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
May 1	49			2				36	24			0		88.3	29.6	1.5	48.0
May 2	38			4				29	21			0		81.1	29.7	1.5	49.0
May 3	90			4				41	28			0		83.4	29.8	1.5	49.0
May 4	301			2				33	24			0		88.8	29.9	1.5	50.0
May 5	648			12				47	31			0		88.5	29.9	1.5	50.0
May 6	1,402			29				36	29			0		87.2	29.9	2.0	50.0
May 7	2,649			43				37	26			1		84.8	29.7	2.0	50.0
May 8	3,504			74				30	24			1		92.8	29.6	2.0	50.0
May 9	3,963			76				28	20			0		101.9	27.8	2.5	50.0
May 10	3,111			117				30	23			2		100.0	28.1	2.5	51.0
May 11	4,119			253				26	15			0		101.0	27.9	2.5	51.0
May 12	3,476			230				17	9			1		103.6	27.1	2.5	51.0
May 13	5,124			334				20	14			0		116.3	27.0	2.5	52.0
May 14	3,957			341				18	12			0		139.0	28.7	2.5	53.0
May 15	3,579			404				13	8			2		173.5	57.9	2.5	53.0
May 16	3,610			628				21	16			2		209.7	93.2	1.5	53.0
May 17	2,947			454				9	7			0		198.7	83.5	1.5	53.0
May 18	3,242			736				5	4			0		173.2	64.7	1.5	53.0
May 19	1,013			232				2	1			0		160.6	48.9	1.5	52.0
May 20	723			266				0	0			0		155.4	46.9	1.5	52.0
May 21	1,163			419				1	0			0		162.2	55.8	1.5	52.0
May 22	1,920			773				11	3			0		169.9	54.9	0.5	51.0
May 23	1,826			699				12	6			1		180.8	64.3	0.5	51.0
May 24	1,649			806				9	2			0		189.2	72.6	0.5	54.0
May 25	1,125			818				5	2			0		193.5	76.7	1.0	54.0
May 26	1,752			1,194				13	7			0		200.2	83.8	1.0	54.0
May 27	695			441				6	4			0		206.8	91.9	1.0	54.0
May 28	622			366				0	1			0		184.4	68.9	1.0	54.0
May 29	676			372				3	0			0		171.1	55.4	1.0	52.0
May 30	443			243				8	2			0		158.4	44.6	1.0	52.0
May 31	609			648				2	1			1		151.7	58.2	2.0	52.0
TOTAL	60,025			11,020				548	364			11					
AVG.	1,936			355				18	12			0		141.8	49.3	1.6	51.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	unclipped STEELHEAD	BULL TROUT
SPRING	60,209	11,029	3,879	2,187	19

TABLE 88

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Jun 1	751			612			0	7	1			0		154.1	40.8	2.0	52.0
Jun 2	979			726			0	4	0			2		152.0	40.7	1.0	52.5
Jun 3	765			694			0	1	0			0		168.7	55.5	1.0	53.0
Jun 4	801			713			0	14	2			0		158.2	44.0	1.0	53.0
Jun 5	1,143			963			0	6	1			0		155.0	43.0	1.0	54.0
Jun 6	795			728			0	5	1			0		156.0	48.6	1.0	55.0
Jun 7	708			606			0	8	1			0		185.2	76.2	1.5	54.0
Jun 8	671			489			0	7	0			0		215.2	104.0	1.5	55.0
Jun 9	615			314			0	0	-1			0		211.2	96.9	1.5	55.0
Jun 10	526			455			0	6	1			0		199.5	84.8	1.5	54.0
Jun 11	380			173			0	2	0			0		180.5	65.4	1.5	53.0
Jun 12	653			247			0	4	0			0		177.2	60.2	1.0	53.0
Jun 13	836			345			0	0	0			1		178.3	61.3	1.0	54.0
Jun 14		688		306			0	8	1			0		188.7	71.6	1.5	54.0
Jun 15		1,202		464			1	6	0			0		190.2	73.2	1.5	54.0
Jun 16		1,396		470			1	14	3			1		180.9	64.6	1.5	55.0
Jun 17		1,887		542			0	7	1			0		172.6	56.3	1.5	55.0
Jun 18		2,219		690			0	3	1			0		154.4	40.6	1.5	55.0
Jun 19		1,710		469			1	4	1			0		150.2	37.6	1.5	55.0
Jun 20		1,378		445			0	-22	-21			0		159.2	44.5	1.5	55.0
Jun 21		1,313		456			1	11	3			1		155.9	41.1	1.5	55.0
Jun 22		888		433			0	12	0			0		162.5	45.8	2.0	57.0
Jun 23		1,124		457			0	10	2			0		178.2	61.2	2.0	56.0
Jun 24		880		427			0	16	9			0		189.9	73.0	2.0	56.0
Jun 25		1,045		450			2	13	2			0		182.7	66.0	2.0	56.0
Jun 26		989		468			1	11	2			1		167.5	51.0	2.0	57.0
Jun 27		871		494			0	14	2			0		161.7	54.8	2.0	57.0
Jun 28		808		380			2	2	0			0		157.1	55.0	2.0	57.0
Jun 29		971		386			0	12	3			0		158.1	61.3	2.0	57.0
Jun 30		964		415			3	11	0			0		168.0	70.6	2.0	57.0
TOTAL	9,623	20,333		14,817			12	196	15			6					
AVG.	740	1,196		494			0	7	1			0		172.3	59.7	1.6	54.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,832	18,094
SUMMER	20,333	7,752
TOTAL	90,165	25,846

SOCKEYE	STEELHEAD	unclipped STEELHEAD
12	4,075	2,202

BULL TROUT
25

TABLE 89

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Jul 1		736		447			1	24	1			0	0	171.7	74.2	2.0	57.0
Jul 2		984		486			5	5	2			0	0	147.6	50.7	2.0	57.0
Jul 3		714		383			17	26	2			1	0	141.9	44.8	2.5	57.0
Jul 4		838		407			23	43	6			1	0	137.6	40.8	2.5	60.0
Jul 5		669		424			24	51	10			0	0	136.8	46.2	2.5	59.0
Jul 6		554		346			18	51	14			0	0	135.9	53.9	2.0	59.0
Jul 7		697		382			67	77	16			0	0	126.4	43.1	2.0	61.0
Jul 8		540		261			75	91	18			0	0	120.1	23.8	2.0	61.0
Jul 9		528		288			72	123	36			1	0	111.6	21.0	2.0	61.0
Jul 10		477		240			88	109	27			0	0	105.6	21.7	2.4	62.0
Jul 11		408		208			100	130	46			0	0	96.0	19.5	2.4	62.0
Jul 12		272		180			90	144	31			2	0	90.8	16.9	3.0	62.0
Jul 13		361		229			56	132	32			1	0	89.8	17.0	3.0	62.0
Jul 14		335		232			96	164	41			0	0	89.4	17.2	3.0	62.0
Jul 15		247		188			65	207	83			0	0	86.8	17.0	3.0	62.0
Jul 16		211		137			99	238	83			0	1	84.8	17.4	3.0	63.0
Jul 17		102		133			81	196	64			0	0	81.3	17.0	3.0	63.0
Jul 18		87		110			56	202	65			0	0	80.2	17.0	3.0	63.0
Jul 19		217		128			37	264	95			2	1	78.5	16.9	3.0	64.0
Jul 20		163		66			70	272	88			1	0	69.4	16.9	3.0	64.0
Jul 21		134		59			37	319	105			0	0	74.5	16.9	3.0	64.0
Jul 22		102		73			42	380	135			0	0	68.9	16.6	3.0	64.0
Jul 23		69		63			39	343	108			0	0	69.8	17.0	3.0	64.0
Jul 24		70		50			16	332	121			0	0	68.6	17.0	2.5	64.0
Jul 25		64		37			14	380	144			0	1	59.0	17.0	2.5	65.0
Jul 26		74		46			9	394	143			0	0	60.4	16.9	3.0	65.0
Jul 27		88		47			6	393	142			2	2	54.2	17.0	3.0	65.0
Jul 28		62		45			12	460	189			1	3	57.6	16.8	3.0	65.0
Jul 29		81		28			14	641	240			0	1	54.6	17.0	3.0	66.0
Jul 30		51		18			8	504	191			0	2	49.2	16.8	3.0	66.0
Jul 31		66		22			3	647	243			1	0	52.6	17.0	3.0	66.0
TOTAL		10,001		5,763			1,340	7,342	2,521			13	11				
AVG.		323		186			43	237	81			0	0	92.0	25.1	2.7	62.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,832	18,094
SUMMER	30,334	13,515
TOTAL	100,166	31,609

SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,352	11,417	4,723

BULL TROUT	LAMPREY
38	11

TABLE 90

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Aug 1		66		30	0	0	3	784	301			0	1	46.3	16.6	3.0	66.0
Aug 2		33		14	0	0	4	549	202			1	0	53.8	17.0	3.0	68.0
Aug 3		54		9	0	0	5	671	244			1	1	51.5	16.5	3.0	67.0
Aug 4		60		14	0	0	1	750	313			0	1	52.2	17.1	3.0	67.0
Aug 5		44		15	0	0	11	650	260			0	0	40.3	16.8	3.0	67.0
Aug 6		68		20	0	0	2	938	370			0	5	42.7	17.0	3.0	68.0
Aug 7		53		14	0	0	3	1,148	449			0	0	41.9	16.7	3.5	68.0
Aug 8		67		10	0	0	4	1,299	492			0	3	40.8	17.0	3.5	68.0
Aug 9		95		23	0	0	2	1,551	585			0	1	45.7	16.7	3.5	68.0
Aug 10		64		12	0	0	1	1,857	690			0	4	43.9	16.9	3.0	68.0
Aug 11		78		14	0	0	2	1,862	700			0	3	34.8	16.5	3.0	69.0
Aug 12		104		34	0	0	3	1,695	659			0	4	41.0	17.1	3.0	69.0
Aug 13		56		6	0	0	0	1,639	516			0	0	39.0	16.4	3.0	69.0
Aug 14			73	9	0	0	0	1,685	566			0	2	37.1	17.0	3.0	69.0
Aug 15			93	30	0	0	1	1,998	665			0	1	35.3	16.5	3.0	69.0
Aug 16			68	10	0	0	0	1,917	519			0	1	40.3	16.9	3.4	69.0
Aug 17			86	6	0	0	0	2,179	661			0	1	38.2	17.0	4.0	70.0
Aug 18			64	12	0	0	0	1,503	430			0	1	35.2	17.0	4.0	68.0
Aug 19			124	12	0	0	0	1,487	467			0	2	36.0	16.9	4.0	68.0
Aug 20			136	16	0	0	0	1,730	470			0	3	35.6	17.1	4.0	68.0
Aug 21			118	16	0	0	0	1,608	424			0	2	35.3	17.0	4.0	68.0
Aug 22			151	13	0	0	0	1,269	327			0	2	36.6	17.0	4.0	68.0
Aug 23			128	22	0	0	0	1,463	343			0	1	38.4	16.9	4.0	68.0
Aug 24			189	22	0	0	0	1,337	331			0	5	37.4	16.9	4.0	68.0
Aug 25			199	24	0	1	0	1,685	409			0	0	41.2	17.0	4.0	69.0
Aug 26			170	20	1	0	0	1,439	400			0	2	35.0	17.0	4.0	69.0
Aug 27			231	36	0	0	0	1,776	439			0	2	36.3	17.0	4.0	68.0
Aug 28			184	33	0	0	0	1,369	367			0	4	31.4	17.0	4.0	68.0
Aug 29			338	96	1	0	0	2,182	526			0	1	34.3	17.0	4.0	68.0
Aug 30			283	64	1	0	0	1,852	454			0	0	37.4	17.0	4.0	68.0
Aug 31			292	77	0	1	0	2,127	535			0	1	38.7	17.0	4.0	69.0
TOTAL		842	2,927	733	3	2	42	45,999	14,114			2	54				
AVG.		65	163	24	0	0	1	1,484	455			0	2	39.8	16.9	3.5	68.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,832	18,094
SUMMER	31,176	13,730
FALL	2,927	518
TOTAL	103,935	32,342

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
3	2	1,394	57,416	18,837

BULL TROUT	LAMPREY
40	65

TABLE 91

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Sep 1			334	92	4	1	0	3,107	757	0			1	29.5	0.1	4.0	69.0
Sep 2			144	59	3	0	0	1,833	379	0			1	28.0	0.0	4.0	67.0
Sep 3			223	68	1	1	0	1,664	360	0			0	28.0	0.0	4.0	67.0
Sep 4			178	80	5	0	0	1,768	343	0			1	34.6	0.0	4.0	67.0
Sep 5			383	114	10	1	0	2,022	443	0			4	35.9	0.0	4.0	68.0
Sep 6			316	126	3	0	0	1,091	229	0			2	37.1	0.0	4.0	68.0
Sep 7			389	214	2	1	0	1,471	334	0			2	28.4	0.0	4.0	68.0
Sep 8			641	297	3	6	0	1,292	269	0			4	39.4	0.0	4.0	68.0
Sep 9			861	149	13	0	1	1,665	402	0			0	43.6	0.0	4.0	68.0
Sep 10			1,063	247	24	3	0	2,813	665	0			1	40.4	0.0	4.0	68.0
Sep 11			831	256	33	6	0	2,011	463	1			0	28.0	0.0	4.0	68.0
Sep 12			906	324	45	11	0	2,613	563	0			1	43.4	0.0	4.0	68.0
Sep 13			800	381	31	0	0	1,770	341	1			0	37.3	0.2	4.0	68.0
Sep 14			1,340	453	35	5	0	2,105	398	0			4	41.6	0.1	4.0	68.0
Sep 15			1,494	653	79	5	0	3,607	752	0			1	40.5	0.0	4.0	68.0
Sep 16			797	674	75	21	0	2,744	601	1			1	43.5	0.0	4.0	68.0
Sep 17			778	797	84	22	0	3,012	675	1			1	41.9	0.0	4.0	68.0
Sep 18			723	758	90	27	0	2,851	630	2			-1	38.5	0.0	4.0	67.0
Sep 19			677	708	108	18	0	3,057	632	1			1	39.6	0.0	4.0	66.0
Sep 20			498	486	43	7	0	2,227	444	3			1	32.5	0.0	4.0	66.0
Sep 21			839	733	62	12	0	3,680	707	1			2	36.1	0.0	4.0	67.0
Sep 22			1,428	771	143	2	0	4,536	943	1			1	27.8	0.0	4.0	67.0
Sep 23			650	566	76	4	0	4,446	798	0			1	30.9	0.0	4.0	66.0
Sep 24			426	407	77	1	0	4,098	730	1			0	20.4	0.0	4.0	66.0
Sep 25			664	656	110	0	0	3,289	574	0			0	22.7	0.0	4.0	66.0
Sep 26			1,209	792	183	1	0	3,877	792	1			0	31.9	0.0	4.0	66.0
Sep 27			236	456	108	1	0	2,770	511	0			1	30.1	0.0	4.0	66.0
Sep 28			853	1,025	101	1	0	4,468	860	4			1	32.9	0.0	4.0	66.0
Sep 29			462	678	125	19	0	3,326	687	0			0	32.8	0.0	4.0	66.0
Sep 30			733	505	135	11	0	3,240	687	5			0	31.7	0.0	4.0	66.0
TOTAL			20,876	13,525	1,811	187	1	82,453	16,969	23			31				
AVG.			696	451	60	6		2,748	566	1			1	34.3	0.0	4.0	67.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,832	18,094
SUMMER	31,176	13,730
FALL	23,803	14,043
TOTAL	124,811	45,867

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
1,814	189	1,395	139,869	35,806	23

BULL TROUT	LAMPREY
40	96

TABLE 92

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Oct 1			475	304	132	15		2,527	541	2			0	27.0	0.0	4.0	66.0
Oct 2			324	364	138	6		2,655	545	4			0	30.8	0.0	4.0	66.0
Oct 3			291	282	88	5		2,910	593	2			0	33.4	0.0	4.0	66.0
Oct 4			209	216	78	0		1,918	444	0			0	30.9	0.0	4.0	66.0
Oct 5			209	185	82	1		2,022	432	2			0	29.5	0.0	4.0	66.0
Oct 6			395	229	128	0		3,550	756	1			1	32.9	0.0	4.0	66.0
Oct 7			142	232	114	6		3,121	609	0			0	30.4	0.0	3.5	65.0
Oct 8			155	197	131	1		3,025	678	0			1	31.5	0.0	3.5	65.0
Oct 9			120	131	107	1		2,405	531	0			1	32.2	0.0	3.5	65.0
Oct 10			100	151	70	1		1,881	457	0			0	31.1	0.0	3.5	64.0
Oct 11			75	156	68	2		1,838	399	0			-1	22.2	0.0	3.4	64.0
Oct 12			217	245	104	3		2,310	583	0			2	28.5	0.0	3.5	63.0
Oct 13			52	86	75	5		956	236	0			0	25.5	0.0	3.5	63.0
Oct 14			79	84	111	0		1,239	263	0			0	21.0	0.0	3.5	63.0
Oct 15			100	166	92	0		1,470	366	0			-1	30.1	0.0	3.5	63.0
Oct 16			184	197	152	0		1,811	359	0			0	27.5	0.0	3.5	63.0
Oct 17			73	88	154	0		1,350	291	0			0	31.5	0.0	3.2	63.0
Oct 18			67	62	123	1		1,188	302	0			0	25.7	0.0	3.2	62.0
Oct 19			56	59	119	2		1,637	372	0			0	24.3	0.0	3.5	62.0
Oct 20			50	59	153	5		1,362	329	0			0	23.6	0.0	3.5	62.0
Oct 21			78	56	132	2		1,187	345	0			0	26.6	0.0	3.5	62.0
Oct 22			57	32	104	1		1,154	291	0			0	26.4	0.0	3.0	61.0
Oct 23			48	38	80	1		871	241	0			0	23.0	0.0	3.0	61.0
Oct 24			31	17	28	1		405	118	0			0	26.7	0.0	3.0	61.0
Oct 25			28	36	39	0		565	157	0			0	26.0	0.0	3.0	60.0
Oct 26			63	24	26	-1		445	115	-1			0	27.2	0.0	3.0	60.0
Oct 27			57	16	41	0		540	139	0			0	25.7	0.0	3.0	60.0
Oct 28			18	36	24	1		310	97	0			0	18.2	0.0	3.0	58.0
Oct 29			14	24	25	1		262	82	0			0	24.8	0.0	3.0	58.0
Oct 30			9	14	21	1		222	52	0			0	25.6	0.0	3.0	57.0
Oct 31			15	26	26	0		267	94	0			0	23.6	0.0	3.0	57.0
TOTAL			3,791	3,812	2,765	61		47,403	10,817	10			3				
AVG.			122	123	89	2		1,529	349	0			0	27.2	0.0	3.4	62.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	69,832	18,094
SUMMER	31,176	13,730
FALL	27,594	17,855
TOTAL	128,602	49,679

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK
4,579	250	1,395	187,272	46,623	33

BULL TROUT	LAMPREY
40	99

TABLE 93

DISCHARGE AND WATER QUALITY DATA

LOWER MONUMENTAL PROJECT 2011

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	24.9	0.0	3.0	57.0
Nov 2	28.4	0.0	3.0	57.0
Nov 3	18.6	0.0	3.0	57.0
Nov 4	23.9	0.0	3.0	56.0
Nov 5	27.6	0.0	3.0	56.0
Nov 6	27.5	0.0	3.0	55.0
Nov 7	19.5	0.0	3.0	55.0
Nov 8	23.8	0.0	3.0	55.0
Nov 9	26.6	0.0	3.0	53.0
Nov 10	20.1	0.0	3.0	53.0
Nov 11	21.1	0.0	3.5	50.0
Nov 12	16.4	0.0	3.5	52.0
Nov 13	19.9	0.0	3.5	51.0
Nov 14	30.3	0.0	3.5	51.0
Nov 15	24.9	0.0	3.5	50.0
Nov 16	28.4	0.0	3.5	50.0
Nov 17	15.1	0.0	3.5	49.0
Nov 18	22.0	0.0	3.5	48.0
Nov 19	25.4	0.0	3.5	48.0
Nov 20	28.1	0.0	3.5	48.0
Nov 21	20.0	0.0	3.5	47.0
Nov 22	27.7	0.0	3.5	48.0
Nov 23	27.0	0.0	3.5	48.0
Nov 24	24.2	0.0	3.5	48.0
Nov 25	20.9	0.0	3.5	48.0
Nov 26	17.4	0.0	3.0	46.0
Nov 27	24.9	0.0	3.0	46.0
Nov 28	23.6	0.0	3.0	46.0
Nov 29	18.1	0.0	3.0	46.0
Nov 30	19.0	0.0	3.0	46.0
AVG.	23.2	0.0	3.3	50.7

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	24.7	0.0	3.0	45.0
Dec 2	20.6	0.0	3.0	44.0
Dec 3	18.6	0.0	3.0	44.0
Dec 4	19.6	0.0	3.0	44.0
Dec 5	27.3	0.0	3.0	44.0
Dec 6	24.9	0.0	3.0	44.0
Dec 7	21.4	0.0	3.0	44.0
Dec 8	21.4	0.0	3.0	43.0
Dec 9	27.1	0.0	3.0	43.0
Dec 10	20.5	0.0	3.0	43.0
Dec 11	10.6	0.0	3.0	42.0
Dec 12	27.7	0.0	3.0	42.0
Dec 13	35.1	0.0	3.5	42.0
Dec 14	12.1	0.0	4.0	42.0
Dec 15	16.8	0.0	4.0	42.0
Dec 16	19.2	0.0	4.0	42.0
Dec 17	24.4	0.0	4.0	41.0
Dec 18	23.3	0.0	4.0	41.0
Dec 19	23.0	0.0	4.0	41.0
Dec 20	19.7	0.0	4.0	41.0
Dec 21	26.3	0.0	4.0	40.0
Dec 22	20.1	0.0	4.0	40.0
Dec 23	25.3	0.0	4.0	40.0
Dec 24	23.9	0.0	4.0	40.0
Dec 25	22.5	0.0	4.0	40.0
Dec 26	22.0	0.0	4.5	39.0
Dec 27	26.6	0.0	4.5	39.0
Dec 28	25.1	0.0	4.5	39.0
Dec 29	32.8	0.0	4.5	39.0
Dec 30	35.8	0.0	4.0	39.0
Dec 31	35.6	0.0	4.0	39.0
AVG.	23.7	0.0	3.7	41.5

TABLE 94

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER MONUMENTAL DAM
1969 - 2011

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
Total	2,652,541	4,390,958	10,072	45,866	7,099,437
10-Year Average	122,775	192,682	515	2,740	318,711

*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 95

MONTHLY COUNT OF CHINOOK SALMON

LOWER MONUMENTAL DAM

1969-2011

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
Total	2	0	60	363,011	1,035,855	561,858	195,186	44,742	348,585	100,732	1,487	23	2,651,541
10-Year Average				9,677	44,267	28,415	7,184	2,654	24,738	5,770			122,775

*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 96

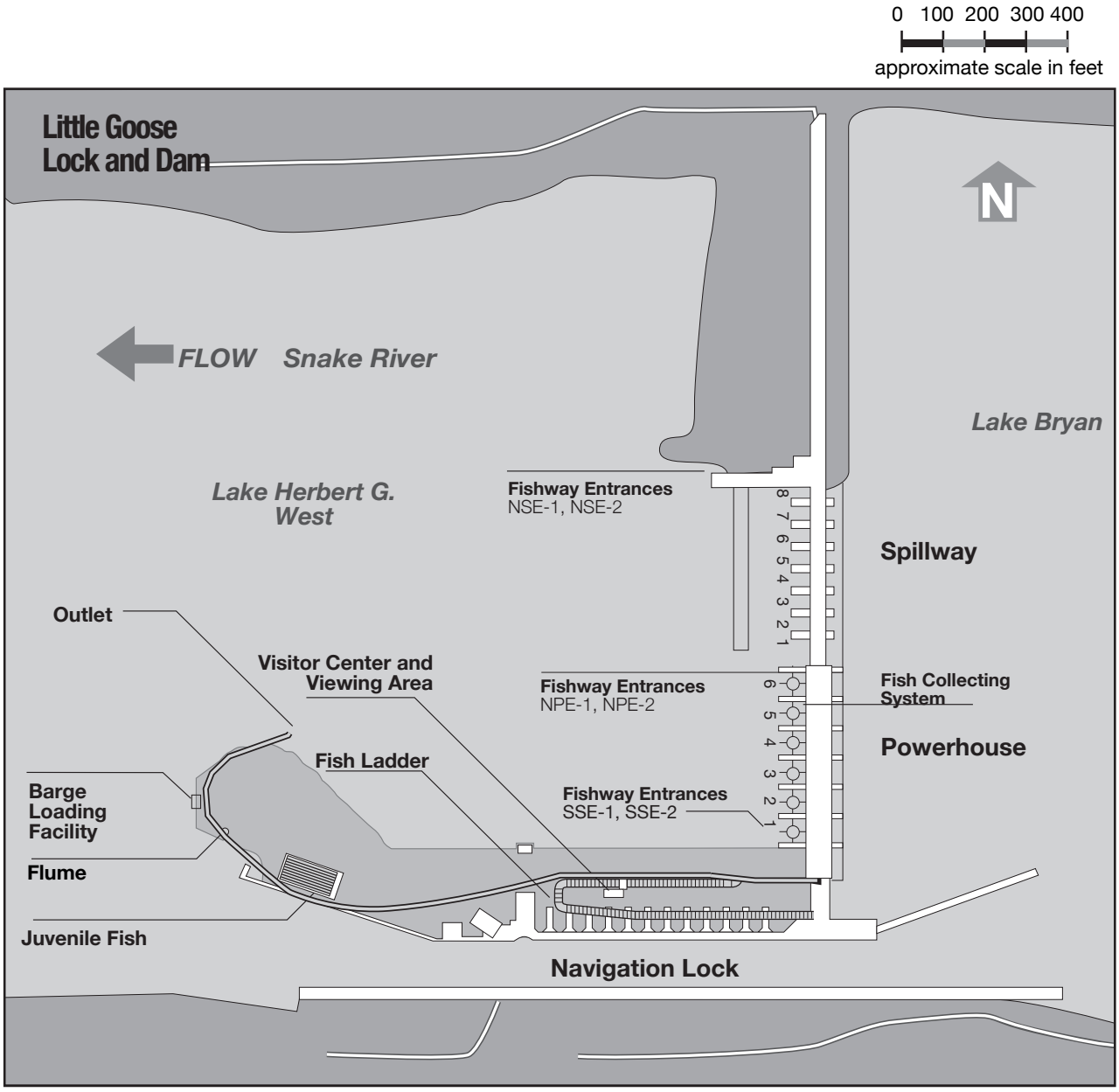
MONTHLY COUNT OF STEELHEAD

LOWER MONUMENTAL DAM
1969 - 2011

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
Total	4,829	7,610	14,839	103,750	20,966	16,483	194,029	392,355	2,045,177	1,527,306	49,239	14,375	4,390,958
10-Year Average				2,870	276	850	9,129	17,924	94,799	62,407			192,682

Includes 2001 extended season counts for November and December 0600-1600 PST.
Includes 2002, '03, and '04 extended season counts for January through March 0800-1600 PST and November and December 0600-1600 PST.

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 – 2 January	Ladder in service.
3 January – 1 March	Ladder dewatered for annual maintenance and contracted repairs to the collection channel.
02 March – 31 December	Ladder in service.

FISHWAY ACTIVITIES

As in previous years water temperature at the ladder exit was recorded on an hourly basis and reported monthly to determine if summer spill had an effect on ladder temperature.

Using substrate monitors located near the ladder exit, the COE continued to monitor for invasive species with particular attention to Zebra and Quagga mussels. Reports are submitted monthly to district.

NSE 1 and NSE 2 operator failed in 2010. In 2011, these weirs were fixed at approximately 631.5 feet to maintain best adult fish passage conditions throughout the year.

In February of 2011, NPE 3 and NSE 3 were permanently sealed and closed off with concrete.

In January 2011, the adult fish fall-out fence was repaired. New chain link fabric was installed.

In February of 2011, new lamps were installed in the spillway section of the adult fish channel.

TABLE 97

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

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				145	60,525	67,803	21,088	5,064	31,454	11,345			197,424
STEELHEAD				5,505	697	151	4,283	29,183	83,281	52,228			175,328
SOCKEYE						16	1,364	55	1	0			1,436
COHO								1	1,991	2,859			4,851
PINK									9	3			12
TOTAL				5,650	61,222	67,970	26,735	34,303	116,736	66,435			379,051
LAMPREY							2	58	14	6			80
STURGEON													0
BULL TROUT				2	34	40	8	1					85

*Jacks included

TABLE 98

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2011

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	22.9	0.0		38.6
Jan 2	25.2	0.0		39.2
Jan 3	35.5	0.0		38.7
Jan 4	34.9	0.0		38.2
Jan 5	26.3	0.0		37.5
Jan 6	16.2	0.0		37.2
Jan 7	25.1	0.0		37.3
Jan 8	28.7	0.0		37.2
Jan 9	24.6	0.0		37.3
Jan 10	30.7	0.0		37.4
Jan 11	31.0	0.0		37.5
Jan 12	28.9	0.0		37.7
Jan 13	30.3	0.0		37.7
Jan 14	27.7	0.0		37.9
Jan 15	40.4	0.0		37.7
Jan 16	47.5	0.0		37.9
Jan 17	82.9	0.0		38.5
Jan 18	89.9	0.0		39.1
Jan 19	71.2	0.0		38.8
Jan 20	62.5	0.0		38.8
Jan 21	62.6	0.0		38.9
Jan 22	63.9	0.0		38.8
Jan 23	60.5	0.0		38.8
Jan 24	63.7	0.0		38.6
Jan 25	61.1	0.0		38.5
Jan 26	66.3	0.0		38.3
Jan 27	55.5	0.0		38.1
Jan 28	48.2	0.0		38.1
Jan 29	52.5	0.0		38.2
Jan 30	37.5	0.0		38.3
Jan 31	49.8	0.0		38
AVG.	45.3	0.0		38.2

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	51.7	0.0		38.2
Feb 2	39.8	0.0		38.3
Feb 3	35.9	0.0		38.3
Feb 4	35.6	0.0		38.3
Feb 5	36.9	0.0		38.5
Feb 6	32.2	0.0		38.6
Feb 7	45.3	0.0		38.7
Feb 8	40.7	0.0		38.7
Feb 9	43.5	0.0		38.5
Feb 10	39.0	0.0		38.1
Feb 11	43.5	0.0		37.5
Feb 12	29.9	0.0		37.1
Feb 13	40.1	0.0		37.0
Feb 14	46.4	0.0		37.0
Feb 15	53.3	0.0		37.5
Feb 16	45.5	0.0		38.5
Feb 17	57.6	0.0		38.4
Feb 18	50.8	0.0		38.6
Feb 19	50.4	0.0		38.6
Feb 20	43.0	0.0		38.7
Feb 21	47.0	0.0		38.9
Feb 22	51.5	0.0		39.3
Feb 23	41.7	0.0		39.3
Feb 24	42.4	0.0		39.1
Feb 25	44.2	0.0		38.8
Feb 26	38.3	0.0		38.5
Feb 27	40.4	0.0		38.3
Feb 28	45.6	0.0		38.2
AVG.	43.3	0.0		38.3

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	54.1	0.0		38.3
Mar 2	46.9	0.0		38.4
Mar 3	51.5	0.0	3.0	38.5
Mar 4	58.7	0.0		38.6
Mar 5	46.0	0.0		38.6
Mar 6	52.6	0.0		38.4
Mar 7	54.2	0.0		38.1
Mar 8	50.1	0.0	3.5	38.3
Mar 9	52.3	0.0	4.3	38.9
Mar 10	47.5	0.0	3.0	39.6
Mar 11	59.9	0.0		40.1
Mar 12	61.6	0.0		40.6
Mar 13	34.0	0.0		41.0
Mar 14	57.8	0.0	3.5	41.2
Mar 15	60.2	0.0		41.4
Mar 16	56.0	0.0	2.9	41.5
Mar 17	75.8	0.0	3.3	41.6
Mar 18	74.8	0.0		41.6
Mar 19	73.9	0.0		41.8
Mar 20	70.3	0.0		42.2
Mar 21	72.8	0.0	2.8	42.4
Mar 22	61.1	0.0	2.5	42.3
Mar 23	67.7	0.0		42.4
Mar 24	77.2	0.0	2.6	42.9
Mar 25	78.2	0.0		43.2
Mar 26	74.0	0.0		43.1
Mar 27	74.6	0.0		43.4
Mar 28	71.8	0.0	3.2	43.8
Mar 29	74.0	0.0		44.3
Mar 30	83.0	4.2	3.0	44.9
Mar 31	100.1	12.6	3	45.5
AVG.	63.6	0.5	3.1	41.2

*All water temps from Columbia River DART

TABLE 99

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Apr 1	0			0				359	155		0		113.9	10.6		46.0
Apr 2	0			0				309	145		0		123.3	31.2		45.9
Apr 3	0			0				200	54		0		130.7	31.5		45.4
Apr 4	0			0				155	30		0		118.3	32.8		45.1
Apr 5	1			0				170	54		0		129.7	37.8	1.0	45.4
Apr 6	0			0				113	47		0		132.4	40.0	1.0	44.6
Apr 7	0			0				194	82		0		121.8	36.5	1.2	44.2
Apr 8	0			0				225	70		0		111.4	33.5	1.2	44.6
Apr 9	0			0				168	47		0		108.5	35.0		44.9
Apr 10	0			0				253	119		0		107.0	35.5		44.7
Apr 11	1			0				274	148		0		99.4	29.9		44.7
Apr 12	0			0				304	168		0		104.2	31.1	1.8	45.2
Apr 13	4			0				245	156		0		98.3	29.4	2.5	45.7
Apr 14	6			0				225	124		0		95.6	28.6		46.2
Apr 15	0			0				196	113		0		88.3	26.5	2.4	46.4
Apr 16	1			0				261	169		0		79.1	23.8		46.5
Apr 17	6			0				245	130		0		87.5	26.3		46.7
Apr 18	6			0				188	103		0		92.9	27.8		46.7
Apr 19	5			0				158	90		0		102.6	30.7	2.5	46.7
Apr 20	0			0				114	66		0		102.0	30.6	2.9	47.2
Apr 21	2			0				165	106		0		105.6	31.7		47.9
Apr 22	1			0				123	77		0		102.4	30.6	2.1	47.6
Apr 23	6			0				99	53		0		97.1	29.0		47.5
Apr 24	13			0				114	65		0		95.6	28.7		47.8
Apr 25	6			0				115	74		0		90.7	27.3		48.1
Apr 26	12			0				114	67		0		93.7	28.2	2.6	48.2
Apr 27	10			0				103	71		0		91.7	27.5	2.5	48.1
Apr 28	14			1				119	83		0		91.1	27.4		48.6
Apr 29	25			1				104	73		1		88.3	26.5	2.8	49.0
Apr 30	22			2				93	67		1		87.2	26.2		49.3
TOTAL	141			4				5,505	2,806		2					
AVG.	5			0				184	94		0		103.0	29.7	2.0	46.5

*Water temps from DART

TABLE 100

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	37			2				69	56		0		86.6	26.0	2.8	49.6
May 2	34			4				50	34		0		79.9	23.9	2.8	49.8
May 3	38			4				61	44		0		83.4	25.0		49.7
May 4	58			8				40	23		0		85.7	25.6		49.3
May 5	199			16				43	37		0		86.3	25.8		49.3
May 6	626			6				49	38		0		84.9	25.4	2.8	49.8
May 7	1,088			43				51	44		1		84.2	25.3		50.3
May 8	2,638			78				50	40		0		91.4	27.4	3.5	50.6
May 9	3,091			92				41	29		0		98.7	29.6		51.4
May 10	2,659			126				23	19		5		96.8	38.8	2.7	51.9
May 11	2,418			107				23	17		0		97.7	29.2		52.4
May 12	3,858			241				22	16		1		101.8	32.7		52.4
May 13	3,534			298				30	17		0		113.8	41.7	2.7	52.1
May 14	1,973			229				25	17		0		134.2	62.8		52.1
May 15	2,231			223				23	19		1		167.7	97.0		53.1
May 16	2,899			330				11	11		0		195.4	124.7	2.3	52.8
May 17	2,250			558				9	8		4		183.4	112.6	1.5	52.4
May 18	724			342				9	4		-1		164.3	93.1		50.8
May 19	887			342				1	0		1		152.6	79.0		50.1
May 20	852			280				3	1		0		147.0	104.4	0.5	50.5
May 21	1,432			574				7	5		0		155.9	82.5		51.6
May 22	2,100			683				14	13		3		163.0	91.7		53.1
May 23	3,094			972				13	8		-1		173.2	98.7		54.1
May 24	2,273			997				6	2		3		174.1	151.1	2.0	54.0
May 25	3,043			1,042				7	6		2		178.4	172.6		53.4
May 26	1,169			738				3	1		5		182.7	177.2		52.4
May 27	803			624				2	2		0		186.8	181.3	1.4	51.5
May 28	629			816				1	0		3		167.3	161.6	2.1	51.7
May 29	589			542				2	1		3		158.7	153.2		51.8
May 30	838			853				6	5		3		148.2	142.7		51.7
May 31	763			528				3	2		1		142.5	136.9	1.8	52.5
TOTAL	48,827			11,698				697	519		34					
AVG.	1,575			377				22	17		1		134.4	83.9	2.2	51.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	48,968	11,702

STEELHEAD	unclipped STEELHEAD	BULL TROUT
6,202	3,325	36

TABLE 101

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	4,393			1,224			0	2	1		1		142.9	105.2		53.0
Jun 2	2,743			1,135			0	2	1		0		146.2	56.3		53.0
Jun 3	1,153			952			0	3	1		1		161.6	71.5	2.0	53.2
Jun 4	1,224			1,061			0	13	7		2		152.8	64.8	2.0	53.4
Jun 5	874			893			0	1	0		1		149.0	63.2		53.0
Jun 6	2,336			1,268			0	3	1		8		151.7	61.5		53.3
Jun 7	1,025			900			0	6	2		3		177.1	87.1	2.6	54.1
Jun 8	802			698			0	4	2		3		200.8	111.4		54.6
Jun 9	742			610			0	2	0		1		195.0	105.3		53.9
Jun 10	409			490			0	1	0		-1		188.6	98.7	1.8	53.0
Jun 11	240			294			0	1	0		0		173.1	83.1		52.4
Jun 12	259			438			0	0	0		0		169.0	78.8		52.7
Jun 13	294			454			0	1	0		1		172.9	83.3		53.4
Jun 14	714			697			0	2	2		1		180.0	91.2	1.5	54.5
Jun 15	1,145			676			0	5	0		1		180.6	90.5	1.7	55.0
Jun 16		672		490			0	2	1		3		174.0	83.4		54.5
Jun 17		624		420			0	1	0		0		166.2	75.8	1.5	54.4
Jun 18		1,638		604			0	5	1		1		149.2	59.0		54.3
Jun 19		2,228		842			0	6	4		0		144.7	53.8		53.9
Jun 20		1,142		594			1	5	1		2		153.7	62.2		54.6
Jun 21		580		353			0	3	1		0		152.3	74.3	1.9	55.0
Jun 22		5,032		1,202			0	7	2		0		154.7	47.5		55.3
Jun 23		1,522		559			0	7	1		4		170.5	61.9	2.0	55.7
Jun 24		929		620			0	12	5		0		179.5	70.8	2.6	56.7
Jun 25		1,070		556			1	12	4		2		173.3	63.8		57.0
Jun 26		3,071		778			1	5	0		1		159.4	50.5		56.3
Jun 27		2,986		905			2	8	2		0		154.4	46.8		56.1
Jun 28		3,455		668			2	15	4		1		148.2	40.9	1.7	56.4
Jun 29		1,560		648			5	14	4		1		152.2	47.1	2.2	57.0
Jun 30		1,330		582			4	3	1		3		160.4	52.7		57.4
TOTAL	18,353	27,839		21,611			16	151	48		40					
AVG.	1,224	1856		720			1	5	2		1		164.5	71.4	2.0	54.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	67,321	23,492
SUMMER	27,839	9,821
TOTALS	95,160	33,313

SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT
16	6,353	3,373	76

TABLE 102

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		1,246		568			2	11	0		2	0	161.1	52.1	2.2	58.2
Jul 2		902		456			2	11	1		1	0	143.4	40.2		58.3
Jul 3		822		516			8	11	5		-1	0	136.8	40.7		58.1
Jul 4		775		514			16	13	6		0	0	134.5	40.6		58.4
Jul 5		647		580			12	12	1		0	0	133.5	41.8	2.4	58.9
Jul 6		622		426			24	15	1		2	0	132.1	41.3		59.8
Jul 7		811		524			28	37	13		0	0	123.9	37.5	2.9	60.4
Jul 8		824		598			55	42	11		2	0	118.0	36.3	3.2	60.7
Jul 9		848		479			76	45	11		0	0	109.9	34.9		60.8
Jul 10		538		306			77	58	18		0	0	103.7	34.8	2.6	61.1
Jul 11		532		366			101	77	22		0	0	95.3	29.9		61.2
Jul 12		301		218			73	69	25		0	0	91.3	27.3	3.3	66.5
Jul 13		308		203			77	92	28		0	0	91.8	27.4		61.2
Jul 14		524		304			67	129	37		0	0	88.8	26.5		61.3
Jul 15		389		337			106	141	35		1	0	87.2	26.1	2.8	61.5
Jul 16		292		220			64	119	48		0	0	85.7	26.3		62.3
Jul 17		161		161			89	160	64		0	0	82.7	24.9		62.8
Jul 18		110		157			72	159	55		0	0	79.4	23.7		62.8
Jul 19		134		128			74	134	50		0	0	79.0	23.6	5.2	62.8
Jul 20		143		124			54	145	62		0	0	70.6	21.0		63.4
Jul 21		161		149			50	198	76		0	0	76.4	23.0	3.3	63.5
Jul 22		143		119			60	219	97		0	0	68.4	20.4	5.2	63.9
Jul 23		86		77			49	231	100		0	0	69.2	20.8		64.6
Jul 24		108		55			26	225	103		1	0	69.5	21.0		65.1
Jul 25		96		29			23	218	96		0	1	60.0	17.8		65.1
Jul 26		566		168			26	393	169		0	1	60.8	18.0	4.2	65.4
Jul 27		240		66			10	292	126		0	0	54.6	16.3		65.8
Jul 28		306		78			7	255	121		0	0	58.2	17.4	4.5	66.0
Jul 29		169		48			17	222	96		0	0	55.1	16.4	4.3	66.0
Jul 30		122		28			11	266	115		0	0	50.2	14.9		66.3
Jul 31		108		52			8	284	120		0	0	51.7	15.5		66.5
TOTAL		13,034		8,054			1,364	4,283	1,712		8	2				
AVG.		420		260			44	138	55		0	0	91.1	27.7	3.5	62.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	67,321	23,492
SUMMER	40,873	17,875
TOTAL	108,194	41,367

SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,380	10,636	5,085

BULL TROUT	LAMPREY
84	2

TABLE 103

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1		24		18	0		2	174	52		0	0	45.9	26.9		67.0
Aug 2		19		6	0		12	180	79		0	0	53.9	32.8	5.1	67.4
Aug 3		62		23	0		6	540	218		0	0	52.5	15.8	4.6	67.3
Aug 4		78		31	0		2	428	211		0	2	53.3	15.9		67.9
Aug 5		121		46	0		8	618	301		1	6	40.0	12.0	4.8	67.6
Aug 6		146		35	0		8	591	293		0	1	42.7	12.8	5.1	67.7
Aug 7		112		30	0		2	459	190		0	1	42.0	12.7		68.5
Aug 8		126		28	0		4	543	212		0	0	42.3	12.7		68.7
Aug 9		104		6	0		0	732	318		0	4	44.9	14.2	6.0	68.7
Aug 10		67		20	0		2	761	317		0	4	46.1	13.8	5.4	68.5
Aug 11		131		38	0		2	961	377		0	4	36.4	10.9		68.8
Aug 12		101		11	0		1	979	391		0	2	40.3	12.0	4.8	68.8
Aug 13		78		17	0		2	831	323		0	4	39.5	11.8		68.2
Aug 14		96		14	0		0	1,072	398		0	1	36.7	11.0		67.3
Aug 15		73		16	0		0	1,017	334		0	0	36.9	11.0		67.0
Aug 16			139	17	0		4	1,498	514		0	0	39.5	11.8	5.8	67.9
Aug 17			108	14	0		0	1,090	382		0	0	38.9	11.6		67.8
Aug 18			80	7	0		0	860	266		0	4	36.2	10.9	5.0	67.0
Aug 19			77	8	0		0	1,072	292		0	4	36.2	10.9	5.8	66.8
Aug 20			148	6	0		0	1,124	350		0	0	36.1	10.9		67.0
Aug 21			152	13	0		0	1,078	350		0	5	37.1	11.1		67.0
Aug 22			160	7	0		0	1,158	362		0	1	36.3	10.8	5.2	66.7
Aug 23			161	17	0		0	1,209	383		0	2	39.0	11.6	5.8	66.2
Aug 24			127	23	0		0	979	283		0	1	38.7	11.5		67.1
Aug 25			226	23	0		0	1,232	367		0	1	41.0	12.2		67.2
Aug 26			251	53	0		0	1,085	287		0	2	36.7	10.9	5.7	67.0
Aug 27			199	10	0		0	980	282		0	1	37.5	11.2		67.0
Aug 28			199	54	0		0	1,053	268		0	1	32.7	9.8		66.8
Aug 29			211	35	0		0	1,042	308		0	1	36.0	10.9		66.5
Aug 30			365	52	1		0	1,614	446		0	2	38.0	11.3	5.8	66.4
Aug 31			374	71	0		0	2,223	568		0	4	37.9	11.3	5.3	66.9
TOTAL		1,338	2,977	749	1		55	29,183	9,722		1	58				
AVG.		89	186	24	0		2	941	314		0	2	40.4	13.1	5.3	67.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
SPRING	67,321	23,492	1	1,435	39,819	14,807	85	60
SUMMER	42,211	18,214						
FALL	2,977	410						
TOTALS	112,509	42,116						

TABLE 104

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			350	78	6	4	0	5,584	1,636	0		0	31.4	3.1		67.5
Sep 2			344	76	0	1	0	3,511	1,105	0		1	28.2	0.0		67.6
Sep 3			164	43	0	0	0	2,253	638	0		2	29.5	0.0	3.6	67.2
Sep 4			232	91	2	1	0	1,846	492	0		0	32.9	0.0		66.9
Sep 5			170	66	0	1	0	1,592	403	0		-1	33.1	0.0		66.9
Sep 6			360	130	2	0	0	2,195	505	0		1	35.7	0.0	6.0	66.9
Sep 7			320	95	1	2	0	1,781	419	0		0	28.9	0.0		67.0
Sep 8			404	162	2	0	0	1,157	263	0		0	39.7	0.0	>6.0	67.1
Sep 9			536	203	17	7	0	1,350	310	0		0	40.5	0.0	6.0	67.1
Sep 10			582	190	29	2	0	1,637	360	0		1	40.1	0.0		66.9
Sep 11			922	233	30	6	0	2,062	496	0		0	29.9	0.0	>6.0	66.4
Sep 12			779	240	42	10	0	2,189	510	1		1	42.0	0.0		66.2
Sep 13			772	277	34	59	0	2,184	497	0		1	35.8	0.0	>6.0	67.8
Sep 14			634	382	19	2	1	2,011	426	0		0	40.9	0.0		66.3
Sep 15			1,200	563	44	2	0	2,254	472	0		0	38.9	0.0	>6.0	67.7
Sep 16			1,475	856	68	11	0	3,834	887	0		1	39.8	0.0	>6.0	67.9
Sep 17			871	590	100	17	0	3,132	743	1		2	38.8	0.0		66.3
Sep 18			1,188	750	96	7	0	2,861	689	0		4	35.7	0.0		66.2
Sep 19			689	577	72	14	0	2,965	665	0		0	37.8	0.0		66.1
Sep 20			599	595	86	16	0	2,832	646	0		1	33.0	0.0	5.0	66.1
Sep 21			611	586	64	10	0	2,434	492	0		-2	34.1	0.0		66.3
Sep 22			766	730	60	5	0	3,480	691	0		0	28.7	0.0	>6.0	66.5
Sep 23			1,376	520	56	10	0	3,823	757	1		0	31.9	0.0	>6.0	66.8
Sep 24			527	430	101	5	0	3,799	728	0		0	31.9	0.0		67.0
Sep 25			308	346	76	6	0	3,075	559	1		0	20.6	0.0	>6.0	66.7
Sep 26			888	536	120	6	0	4,271	790	1		0	33.8	0.0		66.6
Sep 27			900	661	122	16	0	2,929	566	2		0	30.1	0.0	5.0	66.5
Sep 28			443	404	169	24	0	3,347	665	0		0	30.6	0.0		66.4
Sep 29			745	776	112	12	0	3,351	706	1		1	31.3	0.0	5.2	66.3
Sep 30			541	572	158	47	0	3,542	739	1		1	30.0	0.0	4.5	66.3
TOTAL			19,696	11,758	1,688	303	1	83,281	18,855	9		14				
AVG.			657	392	56	10	0	2,776	629	0		0	33.9	0.1	>6.0	66.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	67,321	23,492
SUMMER	42,211	18,214
FALL	22,673	12,168
TOTALS	132,205	53,874

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY
1,689	303	1,436	123,100	33,662	9	85	74

TABLE 105

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Oct 1			628	455	166	18		3,228	670	0		2	25.6	0.0		66.3
Oct 2			384	390	115	5		3,500	774	0		0	31.8	0.0		66.2
Oct 3			256	307	101	4		2,283	490	0		-1	34.1	0.0		66.2
Oct 4			210	154	62	5		1,873	397	0		0	29.2	0.0	4.9	65.9
Oct 5			149	139	41	2		1,691	354	0		0	28.1	0.0		65.9
Oct 6			251	301	49	4		2,222	468	0		0	32.1	0.0	>6.0	65.5
Oct 7			596	589	88	1		3,825	844	0		1	30.3	0.0	4.0	65.1
Oct 8			481	420	136	0		3,901	866	1		0	31.7	0.0		64.9
Oct 9			186	190	60	1		1,985	510	0		1	30.8	0.0		64.5
Oct 10			289	212	56	1		1,855	420	0		0	29.8	0.0	3.7	64.1
Oct 11			196	198	131	2		3,129	757	1		1	20.8	0.0	3.8	63.7
Oct 12			341	272	157	2		2,926	672	0		0	27.0	0.0		63.4
Oct 13			178	116	34	0		897	164	0		0	26.3	0.0		63.1
Oct 14			78	71	41	2		647	157	0		0	21.9	0.0		62.9
Oct 15			202	164	131	6		1,618	384	0		0	28.6	0.0	4.0	62.9
Oct 16			138	84	160	7		1,923	467	0		1	27.4	0.0		62.9
Oct 17			206	118	224	10		2,340	556	0		0	29.4	0.0		62.7
Oct 18			160	108	149	2		1,604	354	0		0	26.1	0.0	5.5	62.5
Oct 19			128	84	139	8		1,314	289	0		0	23.8	0.0	4.0	62.1
Oct 20			199	150	84	0		1,472	372	0		0	21.9	0.0		61.8
Oct 21			137	82	112	5		1,390	323	0		1	24.3	0.0	4.4	61.4
Oct 22			124	64	133	6		1,465	325	0		0	26.0	0.0		61.0
Oct 23			120	55	119	1		1,211	319	1		0	22.6	0.0		60.7
Oct 24			68	35	91	2		778	185	0		0	25.6	0.0		60.3
Oct 25			114	66	42	2		692	181	0		0	22.1	0.0	4.0	59.8
Oct 26			71	53	22	2		385	116	0		0	26.3	0.0	3.5	59.5
Oct 27			119	56	36	0		481	132	0		0	24.4	0.0		59.0
Oct 28			58	50	26	1		504	157	0		0	18.8	0.0	4.3	58.4
Oct 29			77	52	18	4		376	100	0		0	24.3	0.0		58.0
Oct 30			65	26	13	0		388	112	0		0	24.1	0.0		57.5
Oct 31			40	35	20	0		325	97	0		0	22.7	0.0		56.9
TOTAL			6,249	5,096	2,756	103		52,228	12,012	3		6				
AVG.			202	164	89	3		1,685	387			0	26.4	0.0	4.2	62.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	67,321	23,492
SUMMER	42,211	18,214
FALL	28,922	17,264
TOTALS	138,454	58,970

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	BULL TROUT	LAMPREY
4,445	406	1,436	175,328	45,674	12	85	80

TABLE 106

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2011

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	24.2	0.0	5.4	56.6
Nov 2	25.1	0.0	5.1	56.2
Nov 3	19.6	0.0		55.8
Nov 4	23.4	0.0		55.3
Nov 5	24.6	0.0		54.6
Nov 6	26.9	0.0	4.4	54.3
Nov 7	19.6	0.0	6.0	53.9
Nov 8	22.4	0.0	5.8	53.6
Nov 9	25.5	0.0	4.5	53.1
Nov 10	19.3	0.0		52.7
Nov 11	20.7	0.0		52.2
Nov 12	16.8	0.0		51.6
Nov 13	19.8	0.0		51.2
Nov 14	28.8	0.0		50.6
Nov 15	24.4	0.0	5.3	50.0
Nov 16	24.7	0.0	5.3	49.2
Nov 17	15.9	0.0	5.6	48.7
Nov 18	21.5	0.0		50.0
Nov 19	24.1	0.0		47.7
Nov 20	26.4	0.0		47.2
Nov 21	18.9	0.0	5.3	46.7
Nov 22	24.6	0.0	5.7	46.4
Nov 23	25.2	0.0	5.3	46.2
Nov 24	21.8	0.0		46.0
Nov 25	20.0	0.0		45.7
Nov 26	17.3	0.0		45.5
Nov 27	21.1	0.0	5.8	45.5
Nov 28	24.4	0.0		45.4
Nov 29	16.4	0.5		45.3
Nov 30	18.8	0.0	>6.0	45.2
AVG.	22.1	0.0	5.3	50.1

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	22.9	0.0	5.8	45.0
Dec 2	18.0	0.0		44.9
Dec 3	18.5	0.0		44.6
Dec 4	16.8	0.0		44.2
Dec 5	25.8	0.0	5.5	43.9
Dec 6	22.4	0.0		43.6
Dec 7	19.4	0.0	5.6	43.3
Dec 8	19.1	0.0	6.0	43.1
Dec 9	25.2	0.0		42.9
Dec 10	17.3	0.0		42.6
Dec 11	10.3	0.0		42.3
Dec 12	25.7	0.0	6.0	42.1
Dec 13	30.0	0.0		41.9
Dec 14	12.7	0.0	>6.0	41.8
Dec 15	15.3	0.0	>6.0	41.6
Dec 16	19.1	0.0		41.3
Dec 17	22.8	0.0		40.9
Dec 18	21.6	0.0		40.6
Dec 19	21.7	0.0		40.4
Dec 20	17.9	0.0	6.0	40.3
Dec 21	24.6	0.0	6.0	39.9
Dec 22	18.9	0.0	>6.0	39.6
Dec 23	24.0	0.0		39.3
Dec 24	20.4	0.0		38.9
Dec 25	20.8	0.0		38.7
Dec 26	19.4	0.0		38.5
Dec 27	25.0	0.0	>6.0	38.4
Dec 28	24.0	0.0	>6.0	38.6
Dec 29	29.4	0.0	>6.0	38.7
Dec 30	33.7	0.0		38.6
Dec 31	32.5	0.0		38.5
AVG.	21.8	0.0	>6.0	41.3

TABLE 107

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2011

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
Total	2,110,343	3,288,321	9,163	36,767	5,444,594
10-Yr Avg	114,637	178,900	497	2,505	296,538

*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 108

MONTHLY COUNT OF CHINOOK SALMON
LITTLE GOOSE DAM; 1970-1981, 1991-2011

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
Total			3	247,677	807,602	497,655	177,047	31,032	261,626	85,941	1,732	28	2,110,343
10-Year Average				7,400	40,169	29,704	7,922	2,010	21,156	6,194			114,637

**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 December 0600-1600 PST.

TABLE 109

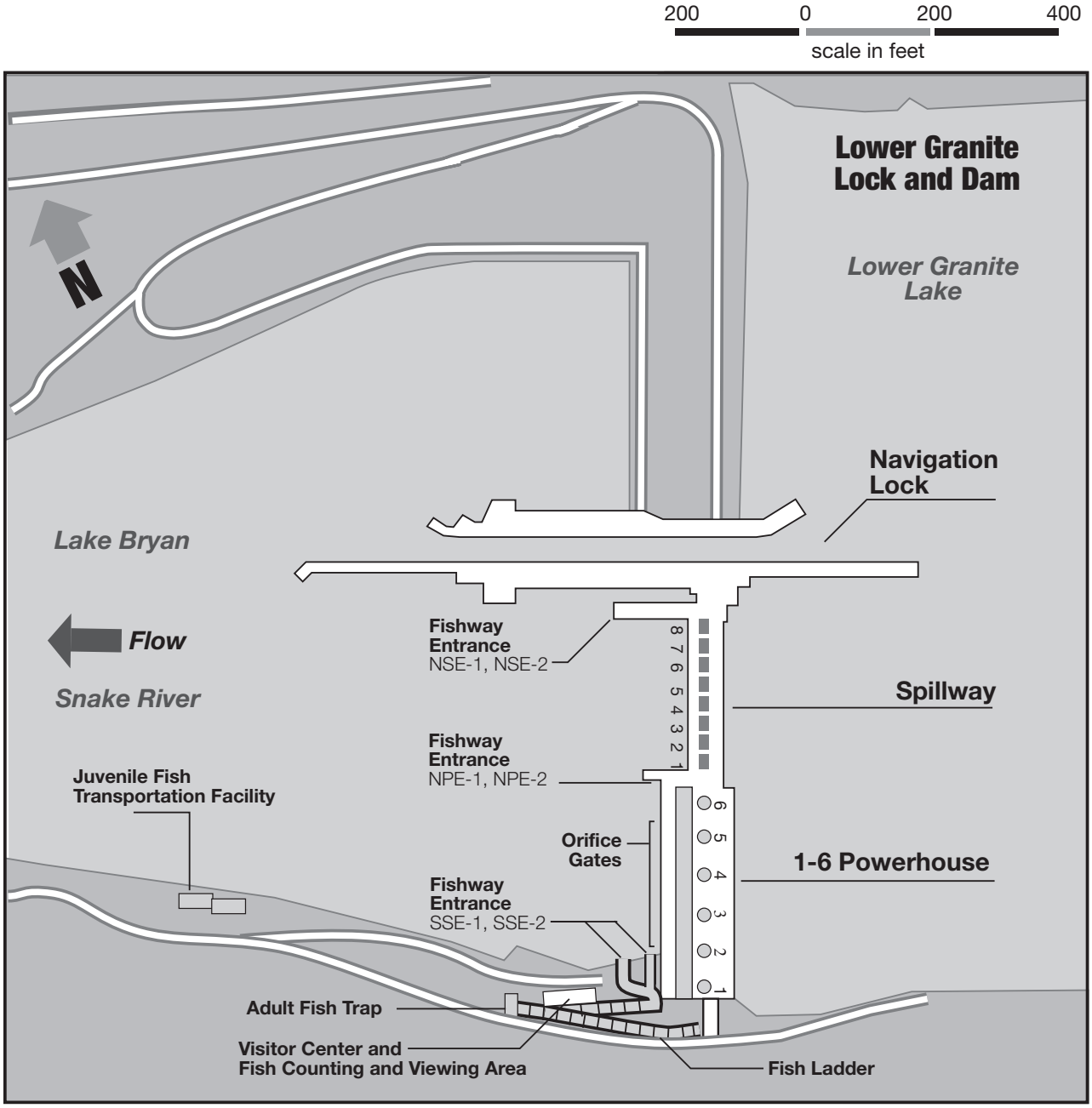
MONTHLY COUNT OF STEELHEAD
LITTLE GOOSE DAM

1970 - 1981, 1991 - 2011

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
Total	1,084	5,065	19,315	64,540	12,514	8,079	86,774	229,203	1,481,757	1,297,970	68,316	13,704	3,288,321
10-Year Average				3,048	304	408	4,417	12,355	87,320	67,424			178,900

** 1981 was the last year visual counts were made at Little Goose Project until 1991.
Includes 2001 extended season counts for November and December 0600-1600 PST.
Includes 2002 extended season counts for February and March 0800-1600 PST and November and December 0600-1600 PST.
Includes 2003 and 2004 extended season counts for January, February, and March 0800-1600 PST and November and December 0600-1600 PST.

Plate 9 Lower Granite Lock and Dam



LOWER GRANITE DAM

FISH COUNTING SCHEDULE

1 January – 28 February	No counting.
1 March – 31 March	Video counting daily 0600 – 1600 hours PST.
1 April – 31 October	Visual counting daily 0400 – 2000 hours PST.
15 June – 31 August	Night video counts for sockeye 2000 – 0400 hours PST.
1 July – 30 September	Night video counts for lamprey 2000 – 0400 PST
1 November – 30 December	Video counting daily 0600 – 1600 hours PST.

FISH LADDER OPERATING SCHEDULE

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

FISHWAY ACTIVITIES

Water temperatures were monitored hourly by hobo from the fish ladder exit pool and the downstream end of the juvenile fish collection channel. During 2011, hourly readings were taken continuously from June 14 to October 6. In addition, substrate media at the ladder exit pool was examined monthly for zebra and quagga mussels from March 1 through December 31.

Normal maintenance activities on the adult fish ladder complex took place during the January 4 – February 2 fishway outage. A visual inspection was conducted on all diffuser gratings, gate valves were checked and repaired, fish pumps were serviced, adult fish counting machinery was serviced, picketed leads were refurbished, windows were cleaned and the viewing room window cleaning brush was checked.

Problems developed with the weir motor and cable control system on north shore fishway entrance number 1 (NSE-1) on the morning of May 31. Inspection revealed that the cable had broken and the weir gate had dropped to the sill. The weir motor was also burned up. A temporary adjustment was done on the weir gate by crane on June 7 and the gate was dogged off at 635.0 feet by cables. This setting was maintained until July 22 when an A-frame and chain hoist system was put in place to adjust the weir depth relative (at this point 628.5 feet) to the tailwater elevation.

During 2011, the adult fish trap was operated from March 7 through November 20. The initial sample rate of 10% was maintained throughout the traps' operating season. Scale samples were taken from one out of every 20 hatchery steelhead. All wild steelhead captured were PIT-tagged and scale and genetic samples taken. Any previously PIT-tagged steelhead (either

hatchery or wild) had both scale and genetic samples taken for verification purposes. In addition to the previously mentioned work, one of every seven hatchery chinook were PIT-tagged and scale samples and genetic materials taken.

Two sort-by-code projects were also continued from 2010: 1) diversion of up to 15 Lemhi-Origin chinook for radio-tagging, and 2) recovery of chinook that were acoustic-tagged in the estuary to check the recovery status of the surgery and take reference photos. Beginning in early June, all hatchery coded wire tagged chinook were also scale sampled.

Idaho Fish and Game personnel began the transport of sockeye adults from the adult fish trap to Eagle Hatchery on July 1. This work was continued through July 15. Transport of fall chinook to Lyon's Ferry Hatchery and the Nez Perce Hatchery at Cherry Lane began in late August. Seventy percent of the chinook were transported to Lyon's Ferry and the remaining 30% went to Cherry Lane. The Nez Perce hauled fish on Sundays and Mondays and Lyon's Ferry hauled fish Tuesday through Saturday. The Nez Perce met their quota in late September. Transport operations to Lyon's Ferry continued when numbers warranted. This operation ended in mid November.

The juvenile fish facility was operated for fish transport/bypass from March 25 to October 31 and for monitoring and bypass of adult fallbacks and juvenile PIT-tagged fish from March 25 to December 15.

TABLE 110

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER GRANITE DAM
2011

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				71	52,580	56,837	23,502	3,837	30,091	12,011	557	11	179,497
STEELHEAD			5,017	6,443	830	73	3,309	21,163	84,732	58,065	3,355	661	183,648
SOCKEYE						3	1,444	53	1	1			1,502
COHO*									1,553	3,702	86	10	5,351
PINK													
TOTAL			5,017	6,514	53,410	56,913	28,255	25,053	116,377	73,779	3,998	682	369,998
SHAD				1	1	3	145	24	0				174
LAMPREY							1	25	19	3			48
STURGEON													0
BULL TROUT							1						1

*Jacks included

These counts include the extended season videotaped counts that were made between 0600 and 1600 hours in November and December.

TABLE 111

DISCHARGE AND WATER DATA

LOWER GRANITE PROJECT 2011

JANUARY

	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	26.4	0.0		
Jan 2	26.4	0.0		
Jan 3	33.0	0.0		
Jan 4	28.7	0.0		
Jan 5	29.9	0.0		
Jan 6	24.8	0.0		
Jan 7	26.5	0.0		
Jan 8	25.4	0.0		
Jan 9	25.6	0.0		
Jan 10	30.9	0.0		
Jan 11	30.2	0.0		
Jan 12	29.1	0.0		
Jan 13	31.8	0.0		
Jan 14	29.4	0.0		
Jan 15	40.7	0.0		
Jan 16	50.7	0.0		
Jan 17	89.0	0.0		
Jan 18	93.5	0.0		
Jan 19	71.8	0.0		
Jan 20	69.3	0.0		
Jan 21	64.1	0.0		
Jan 22	67.5	0.0		
Jan 23	63.5	0.0		
Jan 24	63.5	0.0		
Jan 25	61.2	0.0		
Jan 26	64.1	0.0		
Jan 27	56.2	0.0		
Jan 28	50.0	0.0		
Jan 29	56.6	0.0		
Jan 30	47.2	0.0		
Jan 31	52.5	0.0		
AVG.	47.1	0.0		

FEBRUARY

	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	50.5	0.0		
Feb 2	42.2	0.0		
Feb 3	37.7	0.0		
Feb 4	36.9	0.0		
Feb 5	39.7	0.0		
Feb 6	36.9	0.0		
Feb 7	44.3	0.0		
Feb 8	40.0	0.0		
Feb 9	42.2	0.0		
Feb 10	39.9	0.0		
Feb 11	48.2	0.0		
Feb 12	37.1	0.0		
Feb 13	41.9	0.0		
Feb 14	46.1	0.0		
Feb 15	52.3	0.0		
Feb 16	50.4	0.0		
Feb 17	60.2	0.0		
Feb 18	53.0	0.0		
Feb 19	52.1	0.0		
Feb 20	46.3	0.0		
Feb 21	49.2	0.0		
Feb 22	51.6	2.5		
Feb 23	43.5	0.0		
Feb 24	44.9	0.0		
Feb 25	47.6	0.0		
Feb 26	40.6	0.0		
Feb 27	44.5	0.0		
Feb 28	46.6	0.0		
AVG.	45.2	0.1		

TABLE 112

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

MARCH 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1								19	1				54.9	0.0	3.0	41.5
Mar 2								13	5				48.4	0.0	3.6	41.4
Mar 3								20	4				53.0	0.0	3.0	40.6
Mar 4								50	13				59.2	0.0		
Mar 5								67	24				49.4	0.0		
Mar 6								110	40				56.4	0.0		
Mar 7								126	34				58.4	0.0	3.0	43.1
Mar 8								77	22				50.9	0.0	2.0	43.7
Mar 9								86	21				53.8	0.0	2.4	43.3
Mar 10								83	29				50.6	0.0		
Mar 11								91	26				56.3	0.0		
Mar 12								96	29				61.0	0.0		
Mar 13								189	56				48.9	0.0		
Mar 14								229	58				58.5	0.0	2.0	44.0
Mar 15								179	49				61.0	0.0	1.8	43.9
Mar 16								147	42				64.1	0.0	2.2	45.6
Mar 17								283	69				74.6	0.0		
Mar 18								271	71				73.6	0.0		
Mar 19								288	106				78.9	0.0		
Mar 20								182	61				80.3	0.0		
Mar 21								167	60				71.4	0.0		
Mar 22								105	38				72.3	0.0	2.2	45.8
Mar 23								111	46				75.2	0.0	2.7	45.5
Mar 24								202	77				80.7	0.0	2.3	45.8
Mar 25								254	102				81.8	0.0		
Mar 26								273	86				82.7	0.0	2.6	46.8
Mar 27								324	122				77.3	0.0	3.1	47.1
Mar 28								240	91				79.7	0.0	2.6	47.5
Mar 29								173	67				77.9	0.0	3.1	48.0
Mar 30								256	117				88.9	9.5		
Mar 31								306	136				108.7	19.9		
TOTAL								5,017	1,702							
AVG.								162	55				67.4	0.9	2.6	46.6

Note: March counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST.

TABLE 113

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Apr 1	0			0				488	223	0			123.9	50.6	1.6	47.5
Apr 2	0			0				538	240	0			130.6	57.4	1.1	47.8
Apr 3	1			0				547	241	0			137.8	64.3	1.3	47.7
Apr 4	0			0				211	85	0			124.3	51.2	0.9	47.5
Apr 5	1			0				198	102	0			138.6	65.2	1.0	47.3
Apr 6	1			0				164	68	0			137.4	64.5		
Apr 7	1			0				200	97	0			127.3	54.8		
Apr 8	1			0				282	155	0			117.0	44.5	1.5	47.0
Apr 9	1			0				414	206	0			113.2	42.4	1.8	46.6
Apr 10	0			0				358	196	0			108.9	40.3	2.3	47.2
Apr 11	0			0				331	169	0			105.3	33.2	2.6	47.4
Apr 12	1			0				279	152	0			106.7	34.5	2.0	48.5
Apr 13	0			0				246	144	0			101.0	29.0	2.3	49.0
Apr 14	0			0				200	112	0			98.8	26.9		
Apr 15	2			0				182	100	0			89.9	21.5		
Apr 16	1			0				148	80	0			82.6	20.1	2.5	48.7
Apr 17	1			0				215	137	0			89.4	21.1	2.5	48.9
Apr 18	0			0				154	96	1			96.6	25.0	3.0	49.8
Apr 19	4			0				148	89	0			104.8	33.0	2.6	51.5
Apr 20	1			0				101	65	0			106.8	35.9		
Apr 21	1			0				113	64	0			109.8	37.7	1.8	49.6
Apr 22	2			0				118	83	0			104.9	38.4	2.2	51.0
Apr 23	0			0				136	77	0			102.0	30.3	2.5	49.9
Apr 24	6			0				126	67	0			98.2	26.4	2.7	50.4
Apr 25	4			0				89	59	0			93.8	25.1		
Apr 26	4			0				94	66	0			95.8	27.0	2.4	51.6
Apr 27	8			0				111	73	0			96.4	24.6	2.2	52.0
Apr 28	2			0				95	72	0			93.6	21.7		
Apr 29	8			1				79	61	0			92.0	20.2		
Apr 30	17			2				78	54	0			90.3	20.2	2.9	51.9
TOTAL	68			3				6,443	3,433	1						
AVG.	2			0				215	114	0			107.3	36.2	2.1	49.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
	68	3

STEELHEAD	unclipped STEELHEAD	SHAD
11,460	5,135	1

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

TABLE 114

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	14			1				75	56	0			88.5	20.2	3.1	51.5
May 2	24			4				24	13	0			84.8	20.1	2.6	51.1
May 3	26			2				78	60	0			86.0	20.2	2.7	52.5
May 4	30			7				52	40	0			87.1	20.1	2.5	52.3
May 5	54			4				66	48	0			90.0	20.1	3.4	52.7
May 6	132			7				57	35	1			86.0	20.1		
May 7	390			12				40	28	0			87.3	20.2	3.0	53.0
May 8	852			20				59	47	0			95.3	23.8	2.6	53.9
May 9	2,078			41				54	46	0			101.7	24.4	2.9	54.0
May 10	2,510			42				56	44	0			101.1	20.1	3.1	55.5
May 11	2,488			61				26	19	0			99.0	20.0	2.5	53.4
May 12	3,574			96				34	24	0			104.8	22.2		
May 13	3,700			168				28	24	0			119.8	34.9	2.1	54.7
May 14	2,792			157				25	23	0			140.2	49.9	3.2	54.6
May 15	2,150			108				30	26	0			175.3	84.0	2.8	54.2
May 16	1,058			116				20	16	0			203.4	111.3	1.9	54.3
May 17	346			64				5	1	0			188.7	97.5		
May 18	317			62				4	0	0			173.0	83.7	1.0	52.3
May 19	1,088			239				9	8	0			158.6	64.7	1.0	52.2
May 20	3,421			636				18	17	0			158.7	55.7	1.3	54.0
May 21	2,438			670				7	6	0			163.2	60.3		
May 22	1,770			677				8	8	0			171.0	61.2	2.2	54.3
May 23	943			541				9	7	0			182.6	74.8	1.8	55.1
May 24	2,455			1,072				12	10	0			187.6	77.2		
May 25	1,127			542				6	4	0			196.1	85.2	2.0	56.0
May 26	996			527				2	1	0			200.0	95.8	1.6	56.4
May 27	1,333			449				9	8	0			201.7	91.2	1.8	53.5
May 28	1,566			740				0	1	0			182.3	72.1	1.5	53.6
May 29	1,309			1,030				11	5	0			171.7	61.6	2.1	53.3
May 30	856			960				4	2	0			162.1	51.7	1.6	54.0
May 31	835			853				2	2	0			157.2	51.0	2.1	54.2
TOTAL	42,672			9,908				830	629	1						
AVG.	1377			320				27	20	0			142.1	52.1	2.2	53.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	42,740	9,911

STEELHEAD	unclipped STEELHEAD	SHAD
12,290	5,764	2

TABLE 115

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	775			798			0	2	2	0			154.5	44.3	2.1	54.4
Jun 2	2,190			869			0	6	5	0			154.3	45.4		
Jun 3	2,828			1201			0	0	0	0			169.6	59.6	2.1	54.1
Jun 4	1,506			901			0	3	1	0			160.4	51.0		
Jun 5	1,079			895			0	2	1	1			158.2	50.1	2.7	54.6
Jun 6	862			796			0	0	0	0			161.8	52.7		
Jun 7	1,018			833			0	5	5	0			188.1	77.6		
Jun 8	764			632			0	1	1	0			211.2	99.5	2.1	55.7
Jun 9	431			431			0	0	0	0			206.5	97.1		
Jun 10	256			377			0	0	0	0			197.0	86.4	1.3	54.0
Jun 11	942			832			0	4	4	0			182.6	72.0	1.5	54.3
Jun 12	756			708			0	1	1	0			178.8	70.2		
Jun 13	578			658			0	0	0	0			183.2	72.5	2.0	55.0
Jun 14	383			461			0	1	0	0			188.9	77.9		
Jun 15	337			427			0	1	0	0			189.4	78.5	1.8	56.1
Jun 16	830			677			0	2	2	0			184.5	74.5		
Jun 17	1,067			656			0	1	1	0			173.4	63.3	1.9	55.3
Jun 18		703		506			0	2	0	0			158.7	50.3		
Jun 19		1031		547			0	2	0	0			154.2	44.7	2.5	56.4
Jun 20		1228		593			0	1	0	0			161.8	51.7	2.5	57.0
Jun 21		1096		503			0	3	2	0			158.6	48.0	1.7	56.0
Jun 22		617		458			0	1	0	0			167.4	56.5		
Jun 23		2840		676			0	4	0	0			181.6	70.2		
Jun 24		2368		708			0	5	0	0			191.6	80.2	1.8	57.9
Jun 25		1585		587			0	2	0	0			182.8	71.7	2.0	57.6
Jun 26		839		410			1	3	1	0			172.6	62.5		
Jun 27		1273		590			0	7	2	0			163.6	53.3	1.5	57.1
Jun 28		2339		660			0	1	1	0			159.1	48.6		
Jun 29		2846		805			0	1	0	2			162.1	51.6		
Jun 30		1716		559			2	12	2	0			171.8	73.9	2.0	59.7
TOTAL	16,602	20,481		19,754			3	73	31	3						
AVG.	977	1575		658			0	2	1	0			174.3	64.5	2.0	56.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	20,481	7,602
TOTAL	79,823	29,665

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD
3	12,363	5,795	5

TABLE 116

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jul 1		2,116		671			2	5	1	0	0	0	168.1	75.8	1.9	60.5
Jul 2		1,182		420			1	6	1	1	0	0	151.4	42.2	2.1	58.7
Jul 3		1,355		443			7	7	0	0	0	0	145.5	38.3	2.3	59.3
Jul 4		1,019		472			5	6	0	0	0	0	142.0	34.4	2.3	60.3
Jul 5		500		434			7	10	2	0	0	0	141.7	45.4		
Jul 6		642		539			17	10	4	2	0	0	138.6	46.6		
Jul 7		820		518			24	21	11	0	0	0	131.7	39.5		
Jul 8		962		560			30	33	10	1	0	0	122.8	34.0		
Jul 9		850		540			40	21	2	1	0	0	114.7	27.6	3.0	62.0
Jul 10		698		392			52	40	12	0	0	0	106.3	26.3	3.2	61.7
Jul 11		378		281			60	20	2	1	0	0	96.9	21.3	3.6	61.9
Jul 12		432		355			86	61	18	0	0	0	93.8	18.5		
Jul 13		431		311			78	63	29	0	0	0	94.1	18.6	3.5	62.6
Jul 14		260		236			110	65	24	0	0	0	89.5	18.6		
Jul 15		502		396			97	112	36	5	0	0	89.5	18.5		
Jul 16		361		277			67	84	23	10	0	0	86.8	19.8	3.8	63.4
Jul 17		284		202			89	83	22	1	0	0	83.8	18.5	4.4	63.3
Jul 18		194		152			88	104	31	29	-1	0	81.2	18.5	5.0	63.6
Jul 19		124		158			72	132	52	13	0	0	80.0	18.5		
Jul 20		82		142			73	119	37	2	0	0	72.3	18.6	4.6	64.8
Jul 21		118		136			55	117	44	8	0	0	75.9	18.6		
Jul 22		121		136			85	134	50	1	0	0	71.6	18.5		
Jul 23		156		122			66	166	59	12	1	0	70.5	18.5	4.2	65.5
Jul 24		152		97			78	166	68	4	0	0	69.4	18.4	4.6	65.0
Jul 25		86		79			44	181	85	5	0	0	62.5	18.7	5.0	65.9
Jul 26		84		68			31	233	113	1	0	0	62.1	18.9		
Jul 27		292		113			28	265	122	13	0	0	54.8	18.7	5.0	67.6
Jul 28		250		67			18	351	146	20	0	0	58.1	18.6		
Jul 29		197		62			11	228	109	6	0	0	55.4	18.7		
Jul 30		176		79			10	261	127	7	0	0	50.8	18.7	4.8	66.8
Jul 31		172		48			13	205	97	2	1	1	54.5	18.7	5.0	66.5
TOTAL		14,996		8,506			1,444	3,309	1,337	145	1	1				
AVG.		484		274			47	107	43	5		0	94.1	26.0	3.8	63.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	35,477	16,108
TOTAL	94,819	38,171

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
1,447	15,672	7,132	150	1	1

TABLE 117

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Aug 1		83		30			10	165	74	0	0		46.3	35.8		
Aug 2		83		24			0	235	98	1	0		51.5	46.2		
Aug 3		31		16			7	221	90	2	0		52.8	47.4		
Aug 4		44		13			1	197	88	0	0		49.8	44.3		
Aug 5		62		38			1	376	170	0	0		40.9	35.4		
Aug 6		64		32			2	430	215	1	1		41.2	35.7	5.0	
Aug 7		104		30			6	601	263	4	0		40.3	35.0	5.0	67.5
Aug 8		86		36			4	520	248	0	1		40.6	35.1	5.0	67.8
Aug 9		120		19			1	445	192	0	0		43.0	31.8	5.0	66.5
Aug 10		94		16			1	470	211	0	2		44.0	26.8		
Aug 11		53		10			1	401	190	0	0		36.6	19.3		
Aug 12		37		7			0	513	229	1	1		39.0	21.8		
Aug 13		68		11			1	477	212	2	0		40.0	22.6	5.0	66.1
Aug 14		155		17			7	1,018	442	2	0		35.8	18.6	5.0	65.8
Aug 15		60		2			0	462	179	1	1		36.3	28.0	4.7	65.3
Aug 16		58		10			2	510	193	1	0		35.7	30.3	5.0	66.5
Aug 17		85		6			2	1,205	478	0	1		38.7	30.1		
Aug 18			102	20			0	842	328	0	1		35.5	18.4	5.0	65.3
Aug 19			76	6			0	662	253	0	1		35.5	22.5		
Aug 20			138	17			2	1,386	508	1	0		33.8	18.4	4.6	65.3
Aug 21			35	5			1	642	215	0	0		36.7	18.4	5.0	65.6
Aug 22			97	19			1	808	264	2	1		35.5	18.5	5.0	65.2
Aug 23			158	24			0	1,113	361	1	4		39.3	18.5		
Aug 24			157	8			1	983	329	2	4		38.2	18.5	5.0	65.2
Aug 25			126	18			0	990	329	1	1		39.2	18.5		
Aug 26			126	17			0	693	202	1	2		37.6	18.7	4.7	65.5
Aug 27			181	20			1	913	272	1	2		36.1	18.6	5.0	66.1
Aug 28			121	8			0	682	210	0	1		32.6	18.5	5.0	66.1
Aug 29			162	26			0	741	208	0	0		35.1	18.5	5.0	66.1
Aug 30			239	53			1	942	270	0	1		36.9	18.5		
Aug 31			234	40			0	1,520	402	0	0		37.4	18.5		
TOTAL		1,287	1,952	598			53	21,163	7,723	24	25					
AVG		76	139	19			2	683	249	1	1		39.4	26.0	4.9	66.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	36,764	16,425
FALL	1,952	281
TOTAL	98,058	38,769

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
1,500	36,835	14,855	174	26	1

TABLE 118

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			386	95	0	0	0	5,560	1,592		4		36.9	0.0		
Sep 2			438	72	0	0	0	3,279	896		1		35.0	0.0	4.2	67.1
Sep 3			257	58	0	0	2	3,350	985		0		36.4	0.1	5.0	67.0
Sep 4			175	54	0	0	0	2,464	782		1		36.9	0.0	5.0	67.2
Sep 5			256	78	0	0	0	2,617	794		0		33.1	0.0	5.0	66.0
Sep 6			167	80	4	0	0	1,994	534		0		34.2	0.0		
Sep 7			193	89	0	0	0	1,551	374		0		36.8	0.0		
Sep 8			238	136	1	1	0	1,966	496		1		40.8	0.0		
Sep 9			569	186	7	0	0	2,708	674		0		45.1	0.0	5.0	66.1
Sep 10			604	223	4	0	0	1,638	421		1		41.5	0.0	5.0	66.2
Sep 11			726	269	6	1	0	1,658	398		0		38.8	0.0	5.0	66.4
Sep 12			1,063	325	16	2	0	1,853	456		0		42.0	0.0		
Sep 13			656	352	7	0	0	2,085	517		1		38.6	0.0		
Sep 14			830	338	17	2	0	2,632	593		0		40.8	0.0		
Sep 15			532	350	22	10	-1	2,117	509		0		35.2	0.0		
Sep 16			1,040	648	74	12	0	3,363	688		4		36.5	0.0	5.0	67.6
Sep 17			1,234	899	115	16	0	3,270	755		0		39.0	0.0		
Sep 18			701	527	82	4	0	3,042	661		-1		36.3	0.0	4.2	67.5
Sep 19			725	595	120	17	0	2,748	625		1		38.6	0.0	4.5	67.7
Sep 20			482	475	62	7	0	2,333	498		1		36.0	0.0		
Sep 21			599	653	98	23	0	2,503	535		0		35.3	0.0	4.5	67.3
Sep 22			541	781	70	4	0	2,800	626		1		31.4	0.0		
Sep 23			695	613	59	6	0	2,866	587		0		35.5	0.0	5.0	67.8
Sep 24			1,324	965	88	1	0	3,437	682		2		29.7	0.0	4.8	67.6
Sep 25			611	678	72	2	0	3,536	715		1		30.8	0.0		
Sep 26			341	426	103	1	0	4,584	820		0		37.4	0.0		
Sep 27			526	427	84	2	0	2,973	487		0		30.1	0.0		
Sep 28			961	894	118	8	0	3,912	732		1		32.6	0.0	4.4	67.3
Sep 29			366	468	85	1	0	2,928	570		0		35.8	0.0		
Sep 30			553	548	108	11	0	2,965	541		0		26.0	0.0	4.9	67.1
TOTAL			17,789	12,302	1,422	131	1	84,732	19,543		19					
AVG.			593	410	47	4	0	2,824	651		1		36.1	0.0	4.8	67.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	36,764	16,425
FALL	19,741	12,583
TOTAL	115,847	51,071

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
1,422	131	1,501	121,567	34,398	174	45	1

TABLE 119

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Oct 1			619	654	112	7	0	3,349	679		0		30.9	0.0		
Oct 2			620	733	173	0	0	4,281	862		0		34.9	0.0	5.0	66.6
Oct 3			325	503	95	2	0	2,474	457		0		35.6	0.0		
Oct 4			233	590	106	0	0	2,862	604		0		30.7	0.0		
Oct 5			186	376	95	5	0	2,323	509		0		27.5	0.0	3.8	68.0
Oct 6			180	306	104	10	0	2,024	414		0		33.1	0.0	4.3	66.5
Oct 7			192	335	101	4	0	2,448	478		0		31.3	0.0	3.9	67.0
Oct 8			282	344	108	18	0	2,905	618		1		32.4	0.0	5.0	65.2
Oct 9			150	324	107	7	0	2,720	547		0		34.9	0.0		
Oct 10			134	234	120	8	0	3,077	592		0		31.3	0.0	4.5	64.3
Oct 11			110	180	122	6	0	2,235	484		1		21.2	0.0	3.7	65.5
Oct 12			110	234	162	11	0	3,090	708		0		26.9	0.0	5.0	62.9
Oct 13			188	251	118	5	0	2,123	487		0		30.4	0.0		
Oct 14			128	148	59	0	0	1,566	313		0		24.2	0.0	4.7	63.1
Oct 15			80	128	98	1	0	1,228	256		0		28.1	0.0		
Oct 16			156	152	101	0	0	1,115	256		0		27.7	0.0	5.0	62.2
Oct 17			174	170	113	1	0	1,646	358		0		31.1	0.0	5.0	62.1
Oct 18			182	210	263	8	0	2,471	616		0		25.4	0.0		
Oct 19			85	136	181	6	0	1,681	380		1		23.9	0.0	4.9	62.5
Oct 20			70	120	158	16	0	1,687	385		0		28.0	0.3		
Oct 21			128	120	188	0	0	1,725	386		0		26.9	0.0	5.0	60.2
Oct 22			130	142	185	10	0	1,970	484		0		25.9	0.0	5.0	59.7
Oct 23			170	114	220	6	0	1,900	486		0		22.6	0.0	5.0	59.5
Oct 24			78	68	97	2	1	911	223		0		26.9	0.0	5.0	58.8
Oct 25			73	66	90	7	0	865	221		0		25.4	0.0		
Oct 26			62	53	65	0	0	799	197		0		28.4	0.0		
Oct 27			55	49	59	1	0	504	122		0		26.2	0.0		
Oct 28			32	40	34	1	0	626	162		0		22.0	0.0		
Oct 29			56	70	48	6	0	570	162		0		25.6	0.0	4.5	57.8
Oct 30			54	54	30	4	0	532	149		0		24.4	0.0	3.8	57.6
Oct 31			36	29	36	2	0	358	110		0		24.7	0.0		
TOTAL			5,078	6,933	3,548	154	1	58,065	12,705		3					
AVG.			164	224	114	5		1,873	410				28.0	0.0	4.6	62.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	36,764	16,425
FALL	24,819	19,516
TOTAL	120,925	58,004

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
4,970	285	1,502	179,632	47,103	174	48	1

Note: Visual counts ended October 31.

TABLE 120

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

NOVEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1			**	**	**	**		**	**				24.3	0.0	5.0	56.2
Nov 2			44	13	19	0		312	56				27.6	0.0		
Nov 3			3	0	1	0		3	1				24.0	0.0		
Nov 4			39	4	2	0		170	18				23.7	0.0		
Nov 5			35	7	6	0		164	19				27.1	0.0	5.0	54.2
Nov 6			29	8	3	0		225	45				24.9	0.0		
Nov 7			28	9	7	0		111	23				21.2	0.0	5.0	53.4
Nov 8			25	8	6	0		153	21				27.1	0.0		
Nov 9			19	16	12	2		143	29				25.8	0.0	5.0	52.4
Nov 10			18	10	5	0		194	42				23.1	0.0		
Nov 11			1	0	0	0		4	-1				25.2	0.0	5.0	51.0
Nov 12			32	7	1	0		148	17				18.5	0.0	5.0	50.3
Nov 13			20	12	3	0		198	32				20.8	0.0		
Nov 14			23	6	2	1		121	23				28.8	0.0	5.0	49.8
Nov 15			19	4	1	0		182	35				24.7	0.0		
Nov 16			18	6	4	0		122	34				25.5	0.0		
Nov 17			8	4	3	0		74	28				19.4	0.0	5.0	51.0
Nov 18			12	8	2	0		78	24				22.8	0.0		
Nov 19			13	3	1	2		150	46				24.1	0.0		
Nov 20			2	0	0	0		77	23				28.8	0.0		
Nov 21			5	2	0	0		35	12				23.2	0.0	5.0	50.4
Nov 22			8	1	0	0		47	11				25.5	0.0	5.0	50.1
Nov 23			3	2	1	0		46	19				23.1	0.0	5.0	50.0
Nov 24			0	2	0	0		100	32				21.8	0.0		
Nov 25			6	2	2	0		71	23				21.0	0.0		
Nov 26			3	1	0	0		92	28				22.1	0.0		
Nov 27			2	1	0	0		171	45				23.4	0.0		
Nov 28			6	1	0	0		70	26				23.7	0.0		
Nov 29			0	0	0	0		59	23				19.5	0.0	5.0	47.5
Nov 30			-1	0	0	0		35	12				20.4	2.1	5.0	47.2
TOTAL			420	137	81	5		3,355	746							
AVG.			14	5	3	0		116	26				23.7	0.1	5.0	51.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	36,764	16,425
FALL	25,239	19,653
TOTAL	121,345	58,141

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
5,051	290	1,502	182,987	47,849	174	48	1

Note: From November 1 to December 31, counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST.
No counts on the 1st.

TABLE 121

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

DECEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Dec 1			1	0	1	0		109	42				25.1	0.0	5.0	47.3
Dec 2			1	0	1	0		33	9				20.4	0.0		
Dec 3			5	1	0	0		71	28				21.1	0.0		
Dec 4			1	0	0	0		99	40				19.0	0.0		
Dec 5			2	0	0	0		54	22				26.7	0.0	5.0	46.1
Dec 6			0	0	0	0		23	10				21.3	0.0	5.0	45.8
Dec 7			1	0	2	0		40	14				20.4	0.0		
Dec 8			0	0	1	0		24	8				20.8	0.0	5.0	45.2
Dec 9			0	0	0	1		7	1				26.9	0.0		
Dec 10			0	0	0	0		15	5				20.9	0.4		
Dec 11			0	0	1	0		26	11				21.4	0.0		
Dec 12			0	0	0	0		19	8				22.2	0.0		
Dec 13			0	1	0	0		3	2				24.8	0.0	5.0	43.0
Dec 14			-1	0	0	0		8	3				25.0	0.0	5.0	42.6
Dec 15			0	0	0	0		4	3				18.9	0.0	5.0	42.3
Dec 16			0	0	0	0		4	2				23.9	0.0		
Dec 17			0	0	0	0		6	1				23.1	0.0		
Dec 18			0	0	0	0		11	5				22.7	0.0		
Dec 19			0	0	0	0		4	1				22.3	0.0		
Dec 20			0	0	0	0		8	2				20.0	0.0	5.0	42.3
Dec 21			0	0	0	0		5	2				24.3	0.0	5.0	42.2
Dec 22			0	0	0	0		5	2				22.4	0.0	5.0	42.2
Dec 23			0	0	1	0		11	5				26.1	0.0		
Dec 24			0	0	0	0		12	5				22.4	0.0		
Dec 25			0	0	0	0		10	3				20.0	0.0		
Dec 26			0	0	2	0		18	7				20.7	0.0		
Dec 27			0	0	1	0		12	6				25.7	0.0	5.0	42.1
Dec 28			-1	0	0	0		6	1				24.2	0.0	5.0	42.0
Dec 29			0	0	0	0		9	5				33.4	0.0	5.0	42.3
Dec 30			0	0	-1	0		5	3				33.5	0.0		
Dec 31			**	**	**	**		**	**				34.7	0.0		
TOTAL			9	2	9	1		661	256							
AVG.			0	0	0	0		22	9				23.7	0.0	5.0	43.5

RUN YEAR TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	59,342	22,063
SUMMER	36,764	16,425
FALL	25,249	19,655
TOTAL	121,355	58,143

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
5,057	291	1,502	183,522	48,055	174	48	1

Note: From November 1 to December 31, counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST.
Official Fall Chinook run ended December 15.

TABLE 122

YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER GRANITE DAM
1975 - 2011

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
Total	2,059,493	4,100,481	8,651	33,864	6,202,489
10-Year Average	115,865	190,261	610	2,891	309,627

*Jacks included

TABLE 123

MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 - 2011

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
Total			16	203,227	797,881	509,693	172,217	24,298	249,727	96,439	5,923	72	2,059,493
10-Year Average				6,210	39,896	30,734	9,108	1,563	20,921	7,076	352		115,865

*Jacks included

TABLE 124

MONTHLY COUNT OF STEELHEAD

LOWER GRANITE DAM
1975 - 2011

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
Total	539	790	114,102	115,895	14,981	6,199	74,114	195,355	1,564,738	1,728,211	253,104	32,453	4,100,481
10-Yr Average			5,482	4,160	381	304	3,523	9,181	82,141	75,331	8,698	1,060	190,261

TABLE 125

Night Count of Sockeye at Lower Granite Dam

2009

Day	JUN	JUL	AUG	SEP
1		7	0	0
2		9	0	0
3		11	0	0
4		14	0	0
5		13	0	0
6		14	0	0
7		13	0	0
8		12	0	0
9		8	0	0
10		8	0	0
11		7	0	0
12		6	0	0
13		4	0	0
14		3	0	0
15		3	0	0
16		2	0	0
17		6	0	0
18		5	0	0
19	0	6	0	0
20	0	4	0	0
21	0	2	2	0
22	0	0	0	0
23	1	0	0	0
24	0	1	0	0
25	0	1	0	0
26	3	0	0	0
27	4	0	0	0
28	6	0	0	0
29	7	0	0	0
30	5	0	0	0
31		0	0	
TOTALS	26	159	2	0

2010

Day	JUN	JUL	AUG
1		6	3
2		14	0
3		6	1
4		12	0
5		9	0
6		9	0
7		5	0
8		8	0
9		9	0
10		3	0
11		8	*
12		6	*
13		11	*
14		11	*
15	0	12	*
16	0	9	0
17	0	4	0
18	0	7	0
19	0	7	1
20	0	4	0
21	0	9	0
22	2	6	0
23	0	3	0
24	0	0	0
25	0	1	0
26	1	3	0
27	2	2	0
28	1	2	0
29	3	0	0
30	4	0	0
31		1	
TOTALS	13	187	5

2011

Day	JUN	JUL	AUG
1		0	4
2		0	1
3		0	0
4		1	2
5		2	1
6		1	0
7		0	0
8		1	0
9		3	0
10		6	0
11		1	0
12		6	0
13		12	0
14		11	0
15	0	2	0
16	0	11	0
17	0	21	0
18	0	12	0
19	0	11	0
20	0	9	0
21	0	10	0
22	0	10	0
23	0	12	0
24	0	8	0
25	0	5	0
26	0	6	0
27	0	1	0
28	0	2	0
29	0	0	0
30	0	3	0
31		1	0
TOTALS	0	168	8

Note: video counting for night sockeye passage at Lower Granite June 19 - September 30
Not included with the Daytime total sockeye counts.

TABLE 126

Night Count of Lamprey at Lower Granite Dam

2009

Day	JUN	JUL	AUG	SEP
1		0	0	0
2		0	1	1
3		0	1	1
4		0	1	1
5		1	2	0
6		0	0	1
7		0	2	0
8		0	0	-1
9		0	1	2
10		1	0	1
11		0	2	0
12		0	2	0
13		0	3	0
14		0	0	1
15		0	3	0
16		0	0	1
17		4	0	2
18	0	0	1	1
19	0	0	2	0
20	0	1	1	1
21	0	1	1	0
22	0	3		0
23	0	1	1	2
24	0	1	1	-1
25	0	3	1	0
26	0	1	0	0
27	1	0	2	0
28	0	0	0	0
29	0	1	1	0
30	0	3	0	0
31		2	1	
TOTALS	1	23	30	13

2010

Day	JUN	JUL	AUG	SEP
1		0	0	2
2		0	1	4
3		0	1	0
4		0	0	1
5		0	3	1
6		0	1	-1
7		0	0	1
8		0	2	1
9		0	1	3
10		0	2	0
11		0	*	1
12		0	*	2
13		0	*	0
14		0	*	0
15	0	0	*	1
16	0	0	9	0
17	0	1	3	1
18	0	0	4	0
19	0	0	8	0
20	0	0	0	1
21	0	0	3	0
22	0	0	1	2
23	0	1	0	0
24	0	0	2	0
25	0	0	0	0
26	0	0	7	0
27	0	0	1	1
28	0	0	3	0
29	0	0	-1	0
30	0	0	2	0
31		0	1	
TOTALS	0	2	54	21

*Data unavailable

2011

Day	JUN	JUL	AUG	SEP
1		0	0	2
2		0	0	8
3		0	0	5
4		0	0	8
5		0	1	3
6		0	0	3
7		0	0	2
8		0	1	1
9		-1	6	4
10		0	7	4
11		0	3	2
12		0	1	5
13		0	5	6
14		0	3	9
15	0	0	2	5
16	0	0	4	9
17	0	0	8	7
18	0	0	4	3
19	0	0	2	10
20	0	0	3	5
21	0	0	1	1
22	0	0	6	4
23	0	0	5	8
24	0	0	7	10
25	0	0	6	1
26	0	0	5	1
27	0	0	5	5
28	0	0	13	4
29	0	0	6	1
30	0	0	6	1
31		1	12	
TOTALS	0	0	122	137

Note: video counting for night lamprey passage at Lower Granite from June 18 - September 30
Not included with the Daytime total lamprey counts.

PRIEST RAPIDS AND WANAPUM DAMS

FISH COUINTING SCHEDULE – PRIEST RAPIDS DAM

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

FISH COUNTING SCHEDULE – WANAPUM DAM

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

FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – PRIEST RAPIDS DAM

Left Bank Ladder

01 Jan – 03 Jan	Out of criteria for annual inspection, maintenance, and repairs.
04 Jan – 31 Mar	Out of criteria (fish passage at Ladder Flow due to approved pump house dredging project).
01 Feb – 20 Nov	In service.
21 Nov – 31 Dec	Out of criteria for annual inspection, maintenance, and repairs.

Right Bank Ladder

01 Jan – 31 Mar	Out of criteria for annual inspection, maintenance, and repairs.
01 Feb – 20 Nov	In service.
21 Nov – 31 Dec	Out of criteria (fish passage at Ladder Flow due to LB shutdown).

FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – WANAPUM DAM

Left Bank Ladder

01 Jan – 10 Feb	Out of criteria for annual inspection, maintenance, and repairs.
11 Feb – 22 Nov	In service.
23 Nov – 31 Dec	Out of criteria for annual inspection, maintenance, and repairs.

Right Bank Ladder

01 Jan – 14 Feb	In service.
15 Feb – 30 Mar	Out of criteria for annual inspection, maintenance, and repairs.
31 Mar – 31 Dec	In service.

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

FISHWAY ACTIVITIES

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 digital video recorders at each dam. The fish counting staff then playback these images on computers in a fast-forward mode to identify when fish are passing and then slowed to identify and count fish. At the end of each day all counts are 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.gcpud.org/naturalResources/fishWaterWildlife/fishCounts.php. This site provides several years of fish counts and a Priest Rapids Dam fish count summary. The fish-counting season for both hydroelectric projects runs from April 15 through November 15, annually.

Adult PIT- Tag Detection

The PIT-tag detection array at Priest Rapids Dam is operated continuously when the fishways are operational. There is no PIT-tag array at Wanapum Dam.

Off Ladder Adult Fish Trap (OLAFT)

The adult fish trap is located off the left bank fish ladder at Priest Rapids Dam. Washington Department of Fish and Wildlife (WDFW) operated the trap for 17 days between June 1 and June 18 for Chelan County PUD's spring Chinook salmon parental-based tagging feasibility test, for 36 days from July 12 to October 20 as part of its steelhead stock assessment, for 25 days between September 14 and November 16 as part of its fall Chinook salmon age composition and spawning site location studies, and 28 days from September 6 to November 16 for Priest Rapids Hatchery broodstock collection feasibility program. The Yakama Nation trapped adult sockeye salmon for a total of 11 days from July 5 to July 20 for the Lake Cle Elum and Cooper Lake sockeye reintroduction program.

Adult Lamprey Passage Study

Grant County PUD is conducting a study to identify and address hydro project impacts to upstream migrating adult Pacific lamprey. Priest Rapids Dam video cameras were used to asses lamprey passage at ladder weir orifices, installed aluminum plating and fish counting stations. Strategically placed HDX-PIT arrays are being used to evaluate passage success and travel time within the Priest Rapids and Wanapum Dam fish ladders.

TABLE 127

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

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				87	16,193	12,273	38,567	14,965	25,805	8,472	552		116,914
STEELHEAD				14	27	29	1,089	10,012	7,780	1,740	66		20,757
SOCKEYE					2	4,694	138,588	1,786	0	0			145,070
COHO*								113	3,121	19,299	859		23,392
PINK													
TOTAL				101	16,222	16,996	178,244	26,876	36,706	29,511	1,477		306,133
SHAD						8	164	88	13	3	-5		271
LAMPREY					1	4	24	1,387	2,003	440	9		3,868

*Jacks included

TABLE 128

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Apr 1	BEGIN COUNTING APRIL 15										175.8	17.8	41.3
Apr 2											159.7	59.3	41.3
Apr 3											174.7	48.8	41.3
Apr 4											200.9	65.8	41.1
Apr 5											182.7	46.0	41.1
Apr 6											168.1	56.9	40.9
Apr 7											130.1	20.8	41.1
Apr 8											180.7	66.3	41.2
Apr 9											181.7	69.9	41.3
Apr 10											182.3	61.4	41.7
Apr 11											175.2	52.2	42.0
Apr 12											167.5	24.2	42.2
Apr 13											169.0	30.6	42.4
Apr 14											155.1	14.4	42.5
Apr 15	1			0				0			144.9	0.0	42.6
Apr 16	0			0				0			155.8	0.0	42.9
Apr 17	11			0				1			146.6	0.0	43.4
Apr 18	0			0				1			149.0	0.0	43.4
Apr 19	1			0				1			137.7	0.0	43.6
Apr 20	6			0				0			144.9	0.0	43.8
Apr 21	0			0				1			146.3	0.0	44.3
Apr 22	0			0				4			151.8	0.0	44.9
Apr 23	8			0				1			155.8	0.0	45.6
Apr 24	0			0				0			152.9	0.0	45.4
Apr 25	14			1				1			136.4	0.0	45.4
Apr 26	10			0				2			148.9	28.4	45.3
Apr 27	7			0				0			157.6	39.5	45.7
Apr 28	7			0				0			143.2	26.9	45.7
Apr 29	9			0				1			149.8	27.6	45.8
Apr 30	12			0				1			149.9	27.0	46.1
TOTAL	86			1				14					
AVG.	5			0				1			159.2	26.1	43.2

TABLE 129

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
May 1	12			0			0	0		0	149.4	26.7	46.7
May 2	22			0			0	2		0	153.0	26.9	46.6
May 3	16			0			0	2		0	156.2	25.0	46.6
May 4	35			0			0	3		0	145.4	25.1	47.2
May 5	70			0			0	0		0	148.1	25.1	47.3
May 6	107			0			0	2		0	147.5	28.7	47.6
May 7	246			0			0	0		0	151.4	28.8	47.9
May 8	328			1			0	2		0	159.9	24.4	48.0
May 9	676			3			0	4		0	160.7	22.7	48.3
May 10	666			5			0	0		0	128.6	23.8	49.1
May 11	708			19			0	4		0	185.0	74.2	49.0
May 12	925			20			0	0		0	206.0	100.0	49.2
May 13	540			24			0	2		0	207.6	100.2	
May 14	696			32			0	3		0	211.1	105.6	
May 15	820			40			0	0		0	216.1	112.2	
May 16	517			55			0	0		0	216.3	83.4	
May 17	572			76			0	0		0	215.5	83.5	
May 18	457			102			0	0		0	222.6	111.1	
May 19	449			109			2	1		0	233.4	121.3	
May 20	602			186			0	0		0	252.6	130.8	
May 21	581			186			0	0		0	283.2	151.0	
May 22	500			240			0	1		1	292.1	179.1	
May 23	416			258			0	0		0	295.1	172.9	
May 24	459			354			0	2		0	271.7	147.9	
May 25	366			415			0	0		0	266.8	148.1	51.3
May 26	659			332			0	0		0	262.3	159.9	51.4
May 27	274			311			0	0		0	299.9	195.3	51.5
May 28	186			190			0	-1		0	314.8	200.7	51.6
May 29	226			170			0	0		0	329.1	202.7	51.7
May 30	202			244			0	0		0	343.8	220.0	51.8
May 31	254			234			0	0		0	325.7	205.2	52.2
TOTAL	12,587			3,606			2	27		1			
AVG.	406			116			0	1		0	224.2	105.2	49.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	LAMPREY
SPRING	12,673	3607	2	41	1

TABLE 130

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jun 1	145			226			0	0	0	0	337.0	199.5	52.3
Jun 2	228			266			0	1	0	0	314.9	200.2	52.4
Jun 3	106			201			0	1	0	0	330.0	208.7	52.8
Jun 4	290			348			0	0	0	1	281.4	213.8	53.0
Jun 5	145			210			0	0	0	0	342.4	217.5	
Jun 6	252			283			0	0	0	0	332.1	205.7	
Jun 7	325			241			0	1	0	0	301.1	193.1	54.5
Jun 8	178			87			0	1	0	0	317.3	200.9	54.0
Jun 9	204			51			0	0	0	0	290.5	166.9	54.0
Jun 10	82			164			0	0	0	0	275.0	175.8	54.1
Jun 11	280			72			0	0	0	0	314.0	227.3	54.1
Jun 12	104			201			0	0	0	0	328.8	222.1	53.9
Jun 13	234			73			0	0	0	0	289.5	179.5	53.9
Jun 14		219		171			8	0	0	0	322.3	214.7	54.4
Jun 15		303		103			8	1	0	0	322.0	208.4	54.5
Jun 16		208		89			10	2	0	0	315.6	199.9	54.6
Jun 17		215		128			8	2	0	0	292.1	184.1	55.0
Jun 18		256		80			4	2	0	0	304.4	182.2	54.8
Jun 19		270		87			20	2	0	0	309.7	195.8	55.0
Jun 20		320		79			13	1	3	0	276.5	161.1	55.4
Jun 21		326		59			47	2	2	0	287.8	165.0	55.8
Jun 22		416		56			138	1	0	1	277.7	174.5	56.3
Jun 23		313		71			168	1	1	0	290.6	180.9	56.2
Jun 24		251		15			174	0	0	0	286.4	163.9	56.1
Jun 25		350		55			198	0	0	0	255.2	147.4	56.3
Jun 26		322		86			334	0	0	0	262.6	146.9	56.5
Jun 27		422		32			543	1	1	1	240.8	133.4	56.6
Jun 28		574		50			797	3	0	0	248.7	117.7	56.7
Jun 29		563		10			1,065	0	0	0	270.4	130.9	56.7
Jun 30		757		21			1,159	7	1	1	237.1	101.0	56.7
TOTAL	2,573	6,085		3,615			4,694	29	8	4			
AVG.		358		121			156	1	0	0	295.1	180.6	54.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,246	6,030
SUMMER	6,085	1,192
TOTAL	21,331	7,222

SOCKEYE	STEELHEAD	SHAD	LAMPREY
4,696	70	8	5

TABLE 131

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jul 1		560		19			1,714	3	0	1	272.5	129.2	56.9
Jul 2		1,066		36			2,509	3	1	0	273.5	129.6	57.3
Jul 3		1,458		58			5,238	9	2	0	280.6	141.5	57.5
Jul 4		1,492		33			6,365	6	0	1	247.4	109.6	57.7
Jul 5		1,201		50			6,358	6	0	1	241.2	121.1	57.8
Jul 6		1,494		50			6,581	15	1	1	284.4	169.4	58.4
Jul 7		946		60			3,991	11	0	2	272.2	148.2	58.8
Jul 8		975		90			5,370	11	1	0	279.2	143.1	58.7
Jul 9		1,756		7			6,310	21	0	2	257.9	125.4	58.4
Jul 10		2,270		96			9,561	18	1	-1	255.1	136.9	58.6
Jul 11		1,806		6			8,970	17	1	1	256.5	136.1	59.2
Jul 12		1,839		84			9,655	27	2	0	242.9	129.8	59.2
Jul 13		1,508		102			6,992	13	1	0	214.6	139.4	59.0
Jul 14		1,251		27			6,449	23	0	0	250.8	130.9	58.8
Jul 15		1,547		52			7,025	40	3	0	237.4	102.4	59.5
Jul 16		1,726		49			8,730	34	5	3	210.6	101.1	60.1
Jul 17		1,408		39			6,871	38	18	1	211.2	89.0	60.3
Jul 18		1,246		75			5,316	47	18	0	226.9	106.2	60.4
Jul 19		855		108			4,102	37	19	0	206.9	105.4	60.4
Jul 20		1,033		27			3,028	39	6	0	225.6	113.0	60.4
Jul 21		506		4			1,669	22	5	0	197.8	110.7	60.7
Jul 22		1,499		47			3,644	40	8	2	198.6	80.8	60.9
Jul 23		1,003		52			2,907	52	7	2	188.8	57.3	61.2
Jul 24		1,034		98			2,498	52	9	-1	147.7	79.6	61.4
Jul 25		1,008		112			1,884	57	14	0	193.9	71.1	61.6
Jul 26		571		14			1,177	60	7	0	171.1	56.4	61.8
Jul 27		562		24			967	74	10	3	192.8	77.7	62.2
Jul 28		631		105			818	71	6	1	173.1	41.2	62.6
Jul 29		906		37			674	74	7	1	189.7	49.4	62.6
Jul 30		817		54			653	74	3	3	176.3	48.2	62.9
Jul 31		935		43			562	95	9	1	150.6	37.0	63.6
TOTAL		36,909		1,658			138,588	1,089	164	24			
AVG.		1,191		53			4,471	35	5	1	223.5	103.8	60.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,246	6,030
SUMMER	42,994	2,850
TOTAL	58,240	8,880

SOCKEYE	STEELHEAD	SHAD	LAMPREY
143,284	1,159	172	29

TABLE 132

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Aug 1		711		128	0	0	332	98	7	9	175.7	39.2	63.9
Aug 2		600		46	0	0	310	145	4	5	193.5	62.7	63.8
Aug 3		504		109	0	0	195	142	4	6	169.3	39.2	64.1
Aug 4		547		42	0	0	257	149	17	10	159.6	26.8	64.1
Aug 5		820		136	0	0	166	158	11	8	149.0	25.5	64.7
Aug 6		907		157	0	0	171	141	4	15	145.8	37.4	65.0
Aug 7		677		91	0	0	69	206	7	15	165.2	38.0	65.0
Aug 8		585		142	0	0	58	262	2	12	175.9	28.3	64.9
Aug 9		658		87	0	0	47	317	3	25	152.6	29.3	65.1
Aug 10		544		95	0	0	38	322	3	33	159.1	34.6	65.2
Aug 11		609		211	0	0	27	319	3	34	159.0	35.9	65.2
Aug 12		404		45	0	0	13	315	1	20	172.0	41.3	65.5
Aug 13		305		84	0	0	35	287	2	27	144.3	28.6	65.8
Aug 14			217	45	0	0	22	353	3	20	94.2	29.4	65.7
Aug 15			195	22	0	0	4	370	0	31	153.3	27.4	65.2
Aug 16			381	60	0	0	10	445	1	46	153.2	34.4	65.5
Aug 17			209	74	0	0	3	358	2	49	162.4	47.2	65.7
Aug 18			211	40	0	0	13	348	0	49	155.4	34.6	65.6
Aug 19			210	52	0	0	2	439	0	77	159.2	30.1	65.8
Aug 20			268	72	0	0	4	436	1	71	149.5	28.2	66.0
Aug 21			258	62	0	0	3	347	1	64	144.8	28.0	66.3
Aug 22			302	90	0	0	1	428	-1	58	136.5	28.4	66.1
Aug 23			334	106	0	0	1	355	3	83	139.7	40.3	65.7
Aug 24			247	87	1	0	1	397	4	96	152.8	31.2	66.7
Aug 25			302	43	0	0	0	441	0	105	145.5	22.9	66.7
Aug 26			220	65	0	0	1	419	2	98	131.4	24.0	66.6
Aug 27			182	40	0	0	0	292	0	61	146.9	14.5	66.7
Aug 28			360	95	0	0	1	488	1	103	117.5	1.1	66.8
Aug 29			256	144	6	0	1	540	3	63	127.2	8.6	67.2
Aug 30			247	78	30	19	1	359	0	28	113.4	1.4	67.0
Aug 31			104	43	40	17	0	336	0	66	109.1	8.1	66.4
TOTAL		7,871	4,503	2,591	77	36	1,786	10,012	88	1,387			
AVG.		605	250	84			58	323	3	45	148.8	29.2	65.6

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,246	6,030
SUMMER	50,865	4,223
FALL	4,503	1,218
TOTAL	70,614	11,471

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
77	36	145,070	11,171	260	1,416

TABLE 133

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Sep 1			267	36	15	2		410	0	31	136.7	9.3	66.1
Sep 2			228	110	43	23		379	0	65	74.7	0.8	66.2
Sep 3			204	39	20	3		338	0	50	63.2	0.8	
Sep 4			236	56	48	0		244	1	77	64.9	0.9	
Sep 5			402	77	29	12		396	1	77	68.7	1.2	
Sep 6			303	99	56	4		248	0	81	94.5	0.9	
Sep 7			184	41	24	9		362	1	82	99.7	1.2	66.7
Sep 8			304	61	26	11		278	1	46	108.5	1.1	66.7
Sep 9			425	43	47	7		361	0	57	82.0	0.7	66.7
Sep 10			709	149	47	3		238	1	51	83.6	0.7	67.2
Sep 11			726	50	90	45		282	0	63	41.0	0.8	67.2
Sep 12			948	133	101	7		254	0	48	70.4	1.1	67.3
Sep 13			1,008	150	131	18		408	0	53	68.6	0.7	67.2
Sep 14			849	121	41	6		323	0	53	81.4	5.1	66.9
Sep 15			1,186	141	79	4		286	1	82	76.8	1.0	66.6
Sep 16			884	79	36	26		268	0	86	70.6	1.0	65.9
Sep 17			802	105	25			127	0	46	68.9	1.1	65.0
Sep 18			436	100	79	5		145	0	66	45.7	0.9	64.9
Sep 19			904	143	58	10		209	0	71	82.2	1.1	65.1
Sep 20			771	101	62	4		234	0	84	80.2	1.1	65.4
Sep 21			957	142	84	26		228	0	102	69.7	0.7	65.6
Sep 22			1,218	147	51	7		176	1	86	66.3	2.0	65.7
Sep 23			976	115	77	14		216	1	95	84.3	0.8	65.8
Sep 24			1,251	160	56	3		206	2	106	89.5	1.2	65.9
Sep 25			1,608	177	201	23		220	0	92	58.2	1.1	65.5
Sep 26			1,385	156	185	8		262	1	83	80.5	0.7	65.1
Sep 27			840	149	335	10		197	1	51	79.3	0.8	64.8
Sep 28			652	133	200	26		137	0	22	68.2	1.0	64.4
Sep 29			828	107	393	7		231	1	52	85.2	1.0	64.4
Sep 30			1,061	133	150	9		117	0	45	74.3	1.1	64.4
TOTAL			22,552	3,253	2,789	332		7,780	13	2,003			
AVG.			752	108	93	11		259	0	67	77.3	1.4	65.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,246	6,030
SUMMER	50,865	4,223
FALL	27,055	4,471
TOTAL	93,166	14,724

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
2,866	368	145,070	18,951	273	3,419

TABLE 134

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Oct 1			1,000	95	163	33		84	0	60	58.7	1.2	64.4
Oct 2			997	132	195	8		145	0	43	84.1	1.1	64.2
Oct 3			929	95	293	16		109	0	41	62.1	1.0	63.9
Oct 4			673	105	385	9		132	0	33	84.4	1.1	63.7
Oct 5			123	31	813	81		58	0	27	84.0	1.0	63.4
Oct 6			339	49	837	63		118	0	22	65.0	0.9	62.7
Oct 7			197	11	610	61		51	2	14	56.7	1.1	61.8
Oct 8			309	80	923	69		138	0	7	88.2	1.1	61.6
Oct 9			166	15	777	42		42	0	10	75.9	1.0	62.1
Oct 10			116	42	466	17		65	1	23	91.8	1.7	62.3
Oct 11			173	5	699	45		61	0	31	62.0	0.5	62.0
Oct 12			173	34	614	20		66	0	27	89.3	1.1	61.9
Oct 13			55	8	667	32		49	0	7	109.9	1.2	61.7
Oct 14			161	13	1,086	35		87	0	9	116.7	1.0	61.6
Oct 15			58	0	1,541	47		41	0	17	70.7	0.8	61.7
Oct 16			55	8	1,248	8		39	0	17	67.8	0.6	61.8
Oct 17			84	25	867	33		60	0	6	77.8	0.1	61.6
Oct 18			93	19	657	7		50	0	2	90.8	0.8	61.3
Oct 19			20	0	740	32		28	0	11	97.8	0.9	61.0
Oct 20			13	0	1,051	20		32	0	1	89.8	0.5	60.8
Oct 21			52	7	844	27		23	0	5	75.2	0.5	60.8
Oct 22			101	46	568	0		82	0	7	72.6	0.5	60.8
Oct 23			83	4	619	55		21	0	3	59.6	0.6	60.7
Oct 24			361	61	330	2		49	0	2	87.2	0.4	60.3
Oct 25			162	7	360	32		13	0	2	81.9	0.3	59.5
Oct 26			200	18	205	20		26	0	2	96.4	0.5	59.3
Oct 27			159	8	372	38		16	0	5	100.2	0.6	59.4
Oct 28			300	57	138	0		24	0	1	98.1	0.9	59.0
Oct 29			43	5	198	16		5	0	1	79.7	0.7	58.4
Oct 30			107	8	111	4		9	1	4	63.2	0.5	58.2
Oct 31			166	16	50	0		17	-1	0	72.7	0.8	57.6
TOTALS			7,468	1,004	18,427	872		1,740	3	440			
AVG.			241	32	594	28		56	0	14	81.0	0.8	61.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,246	6,030
SUMMER	50,865	4,223
FALL	34,523	5,475
TOTAL	100,634	15,728

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
21,293	1,240	145,070	20,691	276	3,859

TABLE 135

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — NOVEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Nov 1			64	1	136	16		7	0	1	86.2	0.8	56.6
Nov 2			129	15	49	0		16	0	2	97.6	1.0	56.2
Nov 3			32	2	131	8		3	-1	-1	101.8	0.8	56.5
Nov 4			59	5	91	1		6	-1	1	71.5	0.8	56.1
Nov 5			26	2	78	2		3	-2	2	69.8	0.8	55.4
Nov 6			26	4	82	10		2	0	0	102.0	0.9	55.0
Nov 7			32	0	61	6		2	0	1	95.3	0.7	54.8
Nov 8			31	4	46	1		4	0	1	98.0	0.8	54.5
Nov 9			10	0	46	5		2	0	0	101.5	0.9	54.4
Nov 10			29	6	25	0		7	0	1	104.2	0.9	54.4
Nov 11			14	0	18	2		5	0	1	102.5	1.0	54.2
Nov 12			39	-1	1	0		2	-1	0	97.2	0.8	53.5
Nov 13			8	0	19	2		3	0	0	81.9	0.8	53.1
Nov 14			9	1	8	-1		2	0	0	100.8	0.7	52.9
Nov 15			5	0	14	2		2	0	0	103.1	0.1	52.4
Nov 16											110.7	0.0	52.0
Nov 17											105.0	0.0	51.8
Nov 18											92.4	0.0	51.8
Nov 19											100.0	0.0	51.5
Nov 20											105.6	0.0	51.0
Nov 21											122.1	0.0	50.9
Nov 22											95.5	0.0	51.0
Nov 23											83.7	0.0	51.0
Nov 24											88.5	0.0	50.8
Nov 25											86.5	0.0	50.2
Nov 26											97.9	0.0	50.1
Nov 27											67.6	0.0	49.9
Nov 28											99.1	0.0	49.6
Nov 29											106.6	0.0	49.6
Nov 30											102.8	0.0	49.6
TOTALS			513	39	805	54		66	-5	9			
AVG.			34	3	54	4		4	0	1	95.9	0.4	52.7

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	15,246	6,030
SUMMER	50,865	4,223
FALL	35,036	5,514
TOTAL	101,147	15,767

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
22,098	1,294	145,070	20,757	271	3,868

TABLE 136

YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
1982 - 2011

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
Totals	2,190,907	480,342	2,373,469	87,863	4,826,448
10-Year Average	117,767	19,439	118,772	7,314	263,292

*Jacks included

TABLE 137

MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2011

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
TOTAL	40	56	288	4,117	9,001	7,334	70,495	200,618	284,339	72,260	4,460	63	653,071
10-Year Average				20	35	182	2,710	6,534	8,279	1,591	87		19,439

ROCK ISLAND DAM

Fish Counting Schedule

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

Fish Ladder Operating Schedule

Left Bank Ladder

Jan 1 – Jan 13	Fishway in service.
Jan 14 – Jan 20	Fishway out of service for 2011 annual maintenance.
Jan 20 – Dec 31	Fishway in service (Operations resumed late afternoon on Jan 20).

Middle Ladder

Jan 1 – Jan 20	Fishway in service.
Jan 21 – Feb 28	Fishway out of service for 2011 annual maintenance.
Mar 1 – Dec 31	Fishway in service.

Right Bank Ladder

Jan 1 – Feb 6	Fishway in service.
Feb 7 – Mar 3	Fishway out of service for 2011 annual maintenance.
Mar 4 – Dec 31	Fishway in service.

Fish Facility Activities

The Rock Island Bypass Trap was operated by Chelan County PUD Natural Resource Department employees from 1 April through 31 August 2011. Juvenile fish were sampled daily during that time period.

The adult fish PIT tag system was operational throughout the 2011 adult fish migration. PIT tag detections from all three fishways were uploaded daily to PTAGIS.

TABLE 138

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2010

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				30	13,219	13,053	41,520	16,703	6,337	3,210	418		94,490
STEELHEAD				42	32	11	849	8,146	8,153	1,711	80		19,024
SOCKEYE						1,070	141,413	3,616	12				146,111
COHO								8	6,190	23,645	1,202		31,045
PINK													0
TOTAL				72	13,251	14,134	183,782	28,473	20,692	28,566	1,700		290,670
LAMPREY							2	172	642	70			886
BULL TROUT					7	31	9	1	0	1			49

TABLE 139

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Apr 1												150.7	14.4	40.5
Apr 2												156.6	22.0	40.5
Apr 3												152.3	24.5	40.4
Apr 4												162.4	20.7	40.4
Apr 5												148.4	8.7	40.9
Apr 6												153.1	0.0	40.7
Apr 7												157.6	0.0	40.9
Apr 8												165.8	0.0	41.1
Apr 9												165.7	7.9	41.3
Apr 10												160.0	4.9	41.6
Apr 11												156.5	0.0	41.9
Apr 12												157.5	0.0	42.2
Apr 13												158.1	0.0	42.5
Apr 14	0							4	4			150.4	0.0	42.6
Apr 15	0							2	2			147.6	0.0	42.6
Apr 16	0							2	1			136.3	0.0	42.9
Apr 17	2							2	1			133.7	14.3	43.3
Apr 18	1							6	4			136.7	13.2	43.6
Apr 19	3							3	2			144.2	14.0	43.9
Apr 20	0							1	1			149.0	13.9	43.8
Apr 21	1							2	0			139.3	13.8	44.0
Apr 22	1							1	1			147.9	14.2	44.2
Apr 23	3							3	2			151.4	14.4	44.3
Apr 24	2							6	4			138.8	14.4	44.6
Apr 25	0							3	2			139.5	14.4	44.8
Apr 26	2							3	2			143.5	14.4	44.9
Apr 27	0							2	2			142.8	14.0	44.9
Apr 28	5							1	1			136.1	14.1	45.0
Apr 29	5							0	0			140.9	13.6	45.0
Apr 30	5							1	1			137.8	12.1	45.2
TOTAL	30							42	30					
AVG.	2							2	2			148.7	9.9	42.8

TABLE 140

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
May 1	9			0				2	2	0		149.7	12.1	45.3
May 2	11			0				1	1	0		148.2	13.8	45.6
May 3	2			0				3	2	0		136.9	13.3	45.9
May 4	7			0				1	1	0		134.9	12.6	45.4
May 5	8			0				1	1	0		128.2	14.0	46.3
May 6	27			0				3	0	0		146.3	14.4	46.7
May 7	35			0				2	1	0		149.1	13.9	46.8
May 8	56			0				2	1	0		150.3	14.2	46.9
May 9	103			8				1	1	0		120.7	15.4	47.2
May 10	216			17				0	0	0		159.0	16.0	47.8
May 11	334			6				1	1	0		185.0	37.0	47.9
May 12	431			11				1	1	0		189.1	40.0	47.7
May 13	563			8				2	2	0		199.6	40.0	47.8
May 14	634			19				0	0	0		200.2	42.9	48.0
May 15	408			16				1	1	0		200.0	42.8	47.9
May 16	112			11				0	0	0		199.2	43.2	47.4
May 17	285			26				0	0	0		189.2	23.5	47.3
May 18	547			43				1	1	0		218.4	24.8	48.2
May 19	430			52				1	1	1		233.0	31.4	48.9
May 20	479			63				3	1	1		239.0	54.8	49.5
May 21	896			152				2	0	0		267.8	84.4	49.9
May 22	807			169				1	1	0		270.3	96.4	50.0
May 23	502			360				0	0	0		263.2	76.2	50.2
May 24	545			256				0	0	1		248.8	55.0	50.5
May 25	487			245				1	1	2		241.4	46.4	50.5
May 26	408			300				0	0	1		242.9	45.2	50.5
May 27	384			288				0	0	0		279.7	76.5	50.4
May 28	313			372				0	0	0		290.3	94.3	50.5
May 29	287			354				1	0	1		297.8	107.7	50.7
May 30	297			336				1	1	0		299.1	101.2	51.1
May 31	281			203				0	0	0		308.5	112.2	51.3
TOTAL	9,904			3,315				32	21	7				
AVG.	319			107				1	1	0		209.2	45.7	48.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	9,934	3,315

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
0	74	51	7

TABLE 141

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jun 1	247			304			0	1	1	0		317.3	113.4	51.4
Jun 2	206			393			0	0	0	1		295.3	109.4	51.8
Jun 3	252			377			0	1	1	2		299.9	115.8	52.4
Jun 4	310			347			0	0	0	1		292.5	104.8	52.9
Jun 5	151			372			0	1	1	1		310.5	119.8	53.0
Jun 6	177			342			0	0	0	2		304.3	117.0	53.2
Jun 7	196			388			1	0	0	2		282.0	100.1	53.2
Jun 8	143			270			0	0	0	1		276.3	97.4	52.8
Jun 9	138			225			0	0	0	0		253.9	79.1	52.5
Jun 10	235			288			0	0	0	1		264.6	78.7	52.5
Jun 11	109			208			0	0	0	2		286.7	93.3	52.5
Jun 12	136			278			0	0	0	0		289.7	105.6	52.8
Jun 13	180			272			0	0	0	0		269.6	96.9	53.3
Jun 14	140			249			0	0	0	2		295.0	112.6	53.8
Jun 15	166			289			0	0	0	1		282.9	108.0	53.9
Jun 16	171			235			0	0	0	0		291.3	101.0	53.8
Jun 17	198			242			0	0	0	1		275.6	94.6	53.7
Jun 18	136			218			4	0	0	4		277.8	96.4	54.0
Jun 19	221			288			8	0	0	3		271.1	89.8	54.2
Jun 20	158			181			3	2	1	0		264.4	93.2	54.6
Jun 21	233			286			13	0	0	2		257.1	97.9	55.1
Jun 22	220			185			17	0	0	1		261.5	75.6	55.2
Jun 23	163			144			22	1	1	1		271.9	80.9	55.3
Jun 24		205		234			43	1	1	0		261.8	84.3	55.3
Jun 25		267		133			86	0	0	0		205.7	65.3	55.2
Jun 26		199		148			126	0	0	0		234.2	65.4	55.4
Jun 27		122		177			112	2	2	1		228.2	65.3	55.2
Jun 28		143		107			125	0	0	0		234.2	62.9	55.3
Jun 29		265		116			222	1	1	1		235.4	64.0	55.7
Jun 30		148		122			288	1	0	1		234.6	73.5	56.1
TOTAL	4,286	1,349		7,418			1,070	11	9	31				
AVG.	186	193		247			36	0	0	1		270.8	92.1	53.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	14,220	9,696
SUMMER	1,349	1,037
TOTALS	15,569	10,733

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
1,070	85	60	38

TABLE 142

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jul 1		237		240			502	2	1	0	0	251.2	97.2	56.1
Jul 2		286		193			809	2	1	0	0	263.1	99.2	56.3
Jul 3		385		195			999	2	1	0	0	255.8	98.9	56.3
Jul 4		616		167			1,442	1	1	0	0	235.0	69.3	56.4
Jul 5		1,003		172			2,365	2	2	1	0	236.5	70.1	57.2
Jul 6		853		302			3,535	5	3	0	1	264.8	74.1	57.7
Jul 7		1,082		318			4,456	11	10	0	0	254.2	70.0	57.5
Jul 8		875		419			5,300	6	6	0	0	254.1	69.1	57.6
Jul 9		1,119		367			4,747	6	2	0	0	239.5	70.0	57.8
Jul 10		1,360		337			6,368	9	8	1	0	244.5	70.0	58.0
Jul 11		975		296			5,545	9	5	0	0	233.1	76.2	57.7
Jul 12		1,479		405			6,768	9	4	2	0	221.5	52.8	57.7
Jul 13		2,053		462			8,050	30	17	1	0	230.1	44.7	58.2
Jul 14		1,607		436			9,204	16	13	1	0	225.2	46.8	58.8
Jul 15		1,475		473			8,459	8	7	0	0	223.6	46.7	59.1
Jul 16		1,407		402			7,941	21	11	0	0	203.9	44.6	59.1
Jul 17		1,876		356			7,959	29	18	0	0	196.3	43.8	59.2
Jul 18		1,250		469			8,033	36	30	1	0	203.5	41.3	59.4
Jul 19		1,203		385			6,566	28	23	0	0	208.7	39.2	59.6
Jul 20		1,270		336			6,576	28	18	0	0	198.5	45.6	60.0
Jul 21		1,044		257			5,989	27	18	1	0	193.0	44.6	60.0
Jul 22		687		230			3,968	31	15	0	0	183.9	39.8	60.1
Jul 23		752		183			4,037	42	24	0	0	190.9	38.3	60.3
Jul 24		1,046		282			5,275	50	32	0	0	194.5	37.5	60.9
Jul 25		1,422		269			5,058	43	23	0	0	179.6	36.7	61.3
Jul 26		1,387		270			3,415	54	36	0	0	165.9	36.3	61.0
Jul 27		935		261			2,833	74	43	0	0	179.8	34.7	61.1
Jul 28		704		152			1,789	72	36	1	0	166.9	33.7	61.4
Jul 29		710		176			1,376	62	26	0	1	175.5	32.7	62.0
Jul 30		637		152			1,127	59	36	0	0	164.5	32.6	62.2
Jul 31		654		169			922	75	41	0	0	152.1	32.5	62.4
TOTAL		32,389		9,131			141,413	849	511	9	2			
AVG.		1,045		295			4,562	27	16	0	0	212.6	53.8	59.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	14,220	9,696
SUMMER	33,738	10,168
TOTALS	47,958	19,864

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
142,483	934	571	47	2

TABLE 143

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Aug 1		766		129	0		717	91	52	0	0	164.5	31.5	62.6
Aug 2		847		177	0		655	105	49	0	0	158.1	32.3	62.8
Aug 3		703		193	0		401	104	68	0	0	162.6	32.1	63.0
Aug 4		683		156	0		334	94	61	0	2	149.2	32.2	63.3
Aug 5		624		128	0		253	148	91	0	0	143.0	26.1	63.4
Aug 6		496		217	0		230	142	76	0	1	159.2	25.8	63.4
Aug 7		573		234	0		245	127	66	0	0	153.2	26.1	64.1
Aug 8		742		129	0		153	131	87	0	3	144.9	26.3	64.2
Aug 9		669		228	0		139	161	105	0	3	147.4	26.3	64.3
Aug 10		699		82	0		129	194	121	0	0	153.6	26.3	64.2
Aug 11		602		173	0		100	177	100	0	2	153.2	26.3	64.3
Aug 12		540		255	0		58	247	143	0	1	161.0	26.2	64.3
Aug 13		481		228	0		45	282	154	0	1	135.5	24.8	64.6
Aug 14		310		198	0		38	273	151	0	3	133.5	28.1	64.6
Aug 15		342		104	0		26	278	171	0	1	151.1	26.4	64.6
Aug 16		247		73	0		17	254	142	0	3	153.8	26.3	64.5
Aug 17		239		125	0		16	302	142	0	6	154.7	27.5	64.6
Aug 18		195		130	0		10	267	136	0	6	153.7	28.1	64.5
Aug 19		259		171	0		13	356	184	0	4	150.2	29.6	64.4
Aug 20		165		100	0		5	293	145	0	0	135.3	24.1	64.4
Aug 21		243		129	0		10	346	179	0	11	143.9	24.1	64.8
Aug 22		254		98	0		1	353	163	0	6	141.2	27.7	65.1
Aug 23		189		78	0		4	278	112	0	8	152.6	28.1	65.0
Aug 24		174		152	0		2	448	196	0	8	149.9	25.5	65.0
Aug 25		94		110	0		4	390	192	0	12	132.4	2.5	65.2
Aug 26		201		116	0		2	330	164	1	16	136.9	0.0	65.7
Aug 27		165		173	0		1	362	195	0	17	132.8	0.0	65.8
Aug 28		108		109	1		2	359	156	0	11	116.1	0.0	65.8
Aug 29		179		100	1		3	400	188	0	17	116.4	0.0	66.1
Aug 30		219		159	2		3	478	208	0	16	113.2	0.0	66.2
Aug 31		159		82	4		0	376	175	0	14	124.8	8.8	65.9
TOTAL		12,167		4,536	8		3,616	8,146	4,172	1	172			
AVG.		392		146	0		117	263	135	0	6	144.4	21.6	64.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	14,220	9,696
SUMMER	45,905	14,704
TOTALS	60,125	24,400

COHO ADULT
8

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
146,099	9,080	4,743	48	174

TABLE 144

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	*DEG F
Sep 1		132		102	4	4	0	430	174		30	104.6	2.8	65.7
Sep 2			124	98	14	1	1	329	145		19	82.3	0.0	65.5
Sep 3			121	44	8	1	0	301	123		20	73.0	0.0	65.5
Sep 4			67	64	13	5	0	256	104		18	67.6	0.0	65.3
Sep 5			105	80	19	1	1	245	108		29	61.8	0.0	65.5
Sep 6			74	28	17	1	0	318	122		39	94.7	0.0	65.7
Sep 7			81	66	25	4	1	331	145		25	100.0	0.0	
Sep 8			79	99	18	5	8	331	139		27	88.0	0.0	
Sep 9			94	52	24	9	0	336	115		20	81.8	0.0	
Sep 10			78	56	19	7	0	268	104		24	79.2	0.0	
Sep 11			49	65	39	12	0	248	94		38	77.4	0.0	
Sep 12			118	55	36	17	0	229	101		23	69.6	0.0	
Sep 13			171	65	37	5	0	337	150		18	79.0	0.0	
Sep 14			188	86	67	14	0	341	155		19	81.8	0.0	
Sep 15			245	68	143	20	0	351	132		24	68.7	0.0	
Sep 16			253	128	117	4	0	301	102		26	69.5	0.0	
Sep 17			163	57	188	20	1	405	144		20	64.8	0.0	
Sep 18			125	88	199	1	0	231	79		35	50.7	0.0	
Sep 19			84	68	161	23	0	179	57		21	76.9	0.0	
Sep 20			118	73	215	10	0	151	65		6	73.7	0.0	
Sep 21			78	87	239	20	0	207	73		22	77.5	0.0	
Sep 22			99	108	265	19	0	236	86		31	80.0	0.0	
Sep 23			232	163	225	10	0	261	114		32	87.2	0.0	
Sep 24			176	98	366	39	0	224	75		16	80.1	0.0	
Sep 25			119	85	505	27	0	209	76		16	46.8	0.0	
Sep 26			127	58	500	16	0	244	94		12	87.2	0.0	
Sep 27			245	142	693	7	0	293	89		11	69.3	0.0	
Sep 28			147	66	454	11	0	177	60		7	74.1	0.0	
Sep 29			150	66	650	15	0	200	73		7	78.8	0.0	
Sep 30			111	69	580	22	0	184	55		7	81.5	0.0	
TOTAL		132	3,821	2,384	5,840	350	12	8,153	3,153		642			
AVG.			132	79	195	12	0	272	105		21	76.9	0.1	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	14,220	9,696
SUMMER	46,037	14,806
FALL	3,821	2,282
TOTALS	64,078	26,784

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
5,848	350	146,111	17,233	7,896	48	816

TABLE 145

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	*DEG F
Oct 1			60	67	782	32		125	46	0	4	61.9	0.0	
Oct 2			89	96	802	7		128	43	0	4	60.8	0.0	
Oct 3			73	87	1,034	18		138	50	0	5	82.0	0.0	
Oct 4			152	63	808	15		99	24	0	7	73.7	0.0	
Oct 5			58	52	822	23		86	22	0	4	75.4	0.0	
Oct 6			152	56	443	7		87	31	0	13	68.7	0.0	
Oct 7			72	45	561	10		67	23	0	2	65.8	0.0	
Oct 8			59	61	835	10		94	30	0	5	83.5	0.0	
Oct 9			40	57	819	9		88	42	0	1	72.4	0.0	
Oct 10			54	69	711	9		64	21	0	2	81.3	0.0	
Oct 11			45	37	908	13		51	15	0	3	76.2	0.0	
Oct 12			44	44	802	9		52	14	0	1	96.9	0.0	
Oct 13			75	48	718	7		52	21	0	0	106.2	0.0	
Oct 14			74	46	937	18		68	31	0	1	86.6	0.0	
Oct 15			40	44	637	8		50	14	0	0	65.8	0.0	
Oct 16			43	41	707	9		38	10	0	1	57.1	0.0	
Oct 17			92	23	1,053	29		35	13	1	2	94.5	0.0	
Oct 18			43	16	1,381	8		42	19	0	3	97.8	0.0	
Oct 19			60	24	1,286	17		53	25	0	3	89.1	0.0	
Oct 20			29	33	937	22		43	14	0	1	71.7	0.0	
Oct 21			98	18	1,000	5		41	14	0	1	77.2	0.0	
Oct 22			38	22	723	10		24	10	0	1	51.2	0.0	
Oct 23			41	26	987	2		24	15	0	1	63.7	0.0	
Oct 24			46	14	754	6		25	11	0	3	93.8	0.0	
Oct 25			51	36	723	21		30	12	0	0	100.9	0.0	
Oct 26			69	24	570	2		21	11	0	0	95.9	0.0	
Oct 27			50	16	370	3		19	10	0	0	92.8	0.0	
Oct 28			58	17	305	3		7	4	0	0	87.0	0.0	
Oct 29			48	15	248	4		10	8	0	1	60.8	0.0	
Oct 30			36	8	151	1		10	4	0	1	60.7	0.0	
Oct 31			71	45	490	4		40	16	0	0	83.7	0.0	
TOTAL			1,960	1,250	23,304	341		1,711	623	1	70			
AVG.			63	40	752	11		55	20		2	78.5	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	14,220	9,696
SUMMER	46,037	14,806
FALL	5,781	3,532
TOTALS	66,038	28,034

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
29,152	691	146,111	18,944	8,519	49	886

TABLE 146

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — NOVEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	* DEG F
Nov 1			30	14	203	2		8	4			88.7	0.0	
Nov 2			26	7	215	2		15	6			107.0	0.0	
Nov 3			35	13	119	1		5	3			73.0	0.0	
Nov 4			19	8	120	2		10	4			75.3	0.0	
Nov 5			19	10	90	1		2	1			86.6	0.0	
Nov 6			34	1	98	2		5	3			88.6	0.0	
Nov 7			30	2	69	1		0	0			96.2	0.0	
Nov 8			50	5	49	0		6	6			97.3	0.0	
Nov 9			14	3	47	1		7	1			94.9	0.0	
Nov 10			23	5	35	0		1	0			105.0	0.0	
Nov 11			5	4	45	0		6	3			97.6	0.0	
Nov 12			18	2	45	0		3	2			87.8	0.0	
Nov 13			8	5	17	0		3	0			83.3	0.0	
Nov 14			14	1	15	1		3	0			110.4	0.0	
Nov 15			11	2	22	0		6	2			98.1	0.0	
Nov 16												102.0	0.0	
Nov 17												89.9	0.0	
Nov 18												93.8	0.0	
Nov 19												113.2	0.0	
Nov 20												89.5	0.0	
Nov 21												106.4	0.0	
Nov 22												82.5	0.0	
Nov 23												78.5	0.0	
Nov 24												86.0	0.0	
Nov 25												75.4	0.0	
Nov 26												93.4	0.0	
Nov 27												76.9	0.0	
Nov 28												101.1	0.0	
Nov 29												103.5	0.0	
Nov 30												90.9	0.0	
TOTAL			336	82	1,189	13		80	35					
AVG.			22	5	79	1		5	2			92.4	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	14,220	9,696
SUMMER	46,037	14,806
FALL	6,117	3,614
TOTALS	66,374	28,116

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
30,341	704	146,111	19,024	8,554	49	886

TABLE 147

MONTHLY COUNT OF STEELHEAD

ROCK ISLAND DAM 1981 - 2011

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
Total				1,989	2,222	3,647	44,454	133,318	202,877	57,407	5,482		451,396
10-Year Average				59	42	114	1,855	5,685	8,692	1,718	106		18,272

ROCKY REACH DAM

Fish Counting Schedule

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

Fish Ladder Operating Schedule

Jan 1 to Feb 28	Fishway out of service for 2010/2011 annual maintenance.
Mar 1 to Dec 4	Fishway in service.
Dec 5 to Dec 31	Fishway out of service for 2011/2012 annual maintenance.

Fish Facility Activities

The adult fish PIT tag system was operational throughout the 2011 adult fish migration. PIT tag detections from the fishway were uploaded daily to PTAGIS.

The juvenile fish bypass system was operated for fish passage from 1 April to 31 August 2011. Juvenile fish sampling occurred over the same time frame. The annual bypass (biological) evaluation included an acoustic tag survival study for juvenile spring Chinook salmon and collection of species composition, fish condition and diel passage data.

TABLE 148

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				2	5,434	6,744	32,394	16,415	4,531	2,552	470		68,542
STEELHEAD				327	263	25	516	5,368	6,566	2,105	110		15,280
SOCKEYE						770	127,020	4,299	7				132,096
COHO									1,080	6,422	449		7,951
PINK													0
TOTAL				329	5,697	7,539	159,930	26,082	12,184	11,079	1,029		223,869
LAMPREY								85	482	51			618
BULL TROUT					26	95	22	11	2	3	8		167

TABLE 149

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

APRIL 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Apr 1												142.8	11.8	40.4
Apr 2												150.1	6.9	40.2
Apr 3												151.4	10.3	40.2
Apr 4												157.3	10.3	40.3
Apr 5												145.5	1.4	40.5
Apr 6												149.2	0.0	40.7
Apr 7												154.4	13.4	40.9
Apr 8												162.5	5.3	41.0
Apr 9												165.3	0.0	41.2
Apr 10												158.5	0.0	41.5
Apr 11												153.1	0.0	41.8
Apr 12												154.7	0.0	42.2
Apr 13												155.1	0.0	42.5
Apr 14	0							47	38	0		145.7	0.0	42.5
Apr 15	1							30	29	0		143.2	0.0	42.6
Apr 16	0							10	8	1		131.3	0.0	42.8
Apr 17	0							18	18	0		129.3	0.0	43.3
Apr 18	0							14	13	0		133.6	0.0	43.6
Apr 19	0							14	13	0		140.6	0.0	43.8
Apr 20	0							27	25	0		142.9	0.0	43.8
Apr 21	0							28	24	0		137.8	0.0	44.0
Apr 22	0							27	24	0		142.8	0.0	44.0
Apr 23	0							26	22	0		145.3	0.0	44.2
Apr 24	1							11	10	0		134.0	0.0	44.5
Apr 25	0							9	8	0		135.0	0.0	44.7
Apr 26	0							20	17	0		140.2	0.0	44.7
Apr 27	0							17	14	0		138.8	0.0	44.7
Apr 28	0							10	9	0		133.7	0.0	44.9
Apr 29	0							17	16	0		139.4	0.0	45.1
Apr 30	0							2	1	0		133.4	0.0	45.1
TOTAL	2							327	289	1				
AVG.	0							19	17	0		144.9	2.0	42.7

TABLE 150

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
May 1	0			0				3	2	0		144.4	0.0	45.2
May 2	0			0				5	4	0		145.2	0.0	45.7
May 3	0			0				3	3	0		132.9	0.0	45.7
May 4	1			0				16	15	0		132.0	0.0	45.8
May 5	2			0				20	19	0		123.5	0.0	46.2
May 6	5			0				18	15	0		143.7	0.0	46.6
May 7	2			0				17	16	1		144.2	0.0	46.8
May 8	9			0				11	10	0		145.4	0.0	46.9
May 9	15			0				14	11	0		114.5	0.0	47.1
May 10	27			0				18	17	1		162.3	0.0	47.6
May 11	33			0				14	12	1		182.0	0.0	47.7
May 12	131			3				6	6	0		184.5	0.0	47.7
May 13	185			1				15	13	0		194.2	0.0	47.8
May 14	194			2				7	7	0		194.6	0.0	48.1
May 15	138			4				5	5	0		191.0	0.0	48.1
May 16	223			20				13	10	0		186.1	6.0	47.7
May 17	52			3				11	10	0		178.0	0.0	47.6
May 18	128			4				6	4	0		215.8	14.9	48.3
May 19	196			14				10	8	1		233.3	34.1	49.0
May 20	190			24				4	3	2		238.0	38.9	49.6
May 21	179			14				4	4	2		265.8	80.8	50.1
May 22	331			31				10	9	2		269.1	80.4	50.1
May 23	419			62				12	9	1		262.5	65.9	50.3
May 24	254			73				5	5	1		249.6	53.1	50.5
May 25	300			45				4	4	0		240.1	45.0	50.6
May 26	236			129				4	1	0		246.1	47.5	50.6
May 27	155			147				3	3	3		286.7	88.0	50.5
May 28	201			80				0	0	3		299.7	103.1	50.5
May 29	222			99				0	0	3		304.6	115.7	50.8
May 30	238			169				1	1	0		305.2	109.7	51.1
May 31	213			231				4	4	5		308.3	109.9	51.3
TOTAL	4,279			1,155				263	230	26				
AVG.	138			37				8	7	1		207.2	32.0	48.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	WILD STEELHEAD	BULL TROUT
SPRING	4,281	1,155	590	519	27

TABLE 151

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jun 1	166			101			0	3	3	2		299.4	112.9	51.5
Jun 2	211			85			0	1	1	2		299.9	107.2	51.9
Jun 3	144			152			0	1	1	0		308.1	112.6	52.5
Jun 4	167			163			0	1	0	9		296.6	115.6	52.9
Jun 5	219			155			2	2	2	3		312.7	123.6	53.1
Jun 6	149			203			0	1	1	5		307.9	118.0	53.2
Jun 7	185			207			0	1	1	6		284.1	106.8	53.2
Jun 8	108			172			0	0	0	4		281.7	95.5	53.0
Jun 9	92			183			0	0	0	2		251.1	74.4	52.4
Jun 10	94			129			0	0	0	1		262.3	81.0	52.5
Jun 11	63			128			0	0	0	3		283.1	119.0	52.5
Jun 12	76			66			0	0	0	5		286.0	127.4	53.0
Jun 13	229			37			0	0	0	0		265.3	93.1	53.5
Jun 14	159			84			1	0	0	4		292.3	119.0	53.9
Jun 15	153			128			0	0	0	4		280.2	115.4	54.0
Jun 16	109			53			3	0	0	4		286.0	112.2	53.8
Jun 17	132			119			1	1	1	4		277.5	91.8	53.8
Jun 18	135			114			0	0	0	6		272.8	139.5	54.1
Jun 19	117			57			0	2	0	4		265.0	134.3	54.2
Jun 20	194			76			6	4	4	8		260.3	113.1	54.7
Jun 21	92			88			5	1	1	0		254.9	91.1	55.2
Jun 22	137			83			8	1	1	2		253.8	88.9	55.4
Jun 23	108			46			11	2	2	1		267.3	99.4	55.3
Jun 24		107		39			24	1	0	2		250.9	77.5	55.4
Jun 25		114		50			42	0	0	2		227.6	45.2	55.4
Jun 26		97		25			74	0	0	2		247.0	59.7	55.5
Jun 27		93		19			115	1	1	3		225.3	43.7	55.3
Jun 28		70		37			131	0	0	4		230.7	88.5	55.4
Jun 29		45		26			120	1	0	2		230.3	97.1	55.9
Jun 30		140		14			227	1	1	1		231.3	94.9	56.3
TOTAL	3,239	666		2,839			770	25	20	95				
AVG.	141	95		95			26	1	1	3		269.7	99.9	54.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,520	3,784
SUMMER	666	210
TOTALS	8,186	3,994

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
770	615	539	122

TABLE 152

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jul 1		69		13			212	2	1	1		244.4	78.7	56.2
Jul 2		112		43			419	0	0	1		262.0	67.3	56.3
Jul 3		141		38			601	0	0	3		248.6	75.5	56.2
Jul 4		226		44			957	1	0	2		228.5	50.9	56.7
Jul 5		369		60			1,095	2	1	1		234.7	55.1	57.4
Jul 6		394		83			1,286	3	2	3		262.9	106.0	57.6
Jul 7		847		884			1,506	3	2	2		249.2	99.0	57.4
Jul 8		672		168			3,878	6	4	0		247.0	100.8	57.9
Jul 9		937		80			5,846	5	1	1		234.6	70.7	58.0
Jul 10		813		146			4,422	4	4	0		245.1	72.8	58.1
Jul 11		1,023		242			3,758	3	1	2		233.6	75.4	57.7
Jul 12		740		155			5,539	7	4	0		220.4	50.3	57.8
Jul 13		1,299		169			6,629	9	6	1		228.6	50.2	58.5
Jul 14		1,792		293			8,783	15	7	2		222.3	62.2	59.1
Jul 15		1,470		245			7,625	10	6	0		219.2	62.2	59.1
Jul 16		1,146		248			8,600	10	6	0		202.0	31.7	59.2
Jul 17		983		290			6,184	10	4	0		191.7	28.0	59.4
Jul 18		1,541		230			7,555	25	7	1		199.9	46.2	59.5
Jul 19		969		262			7,242	16	9	0		205.1	41.8	59.9
Jul 20		1,088		289			7,024	19	14	0		191.3	33.1	60.1
Jul 21		1,229		190			6,302	21	15	1		190.5	17.9	60.2
Jul 22		961		236			5,123	17	11	0		181.4	26.8	60.2
Jul 23		795		165			4,170	18	11	0		186.5	37.9	60.5
Jul 24		942		104			3,660	26	13	0		191.2	36.5	61.1
Jul 25		779		163			4,510	23	11	1		175.0	41.2	61.3
Jul 26		1,027		143			3,694	35	15	0		168.0	27.9	61.0
Jul 27		1,110		220			3,338	38	21	0		174.9	26.4	61.2
Jul 28		997		137			3,005	42	19	0		161.6	17.5	61.7
Jul 29		799		93			1,838	58	26	0		173.4	48.9	62.0
Jul 30		680		197			1,239	42	19	0		161.7	22.6	62.2
Jul 31		654		160			980	46	22	0		148.4	18.4	62.4
TOTALS		26,604		5,790			127,020	516	262	22				
AVG.		858		187			4,097	17	8	1		209.1	51.0	59.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,520	3,784
SUMMER	27,270	6,000
TOTAL	34,790	9,784

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
127,790	1,131	801	144

TABLE 153

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Aug 1		791		75			766	38	20	1	0	156.8	18.9	62.6
Aug 2		723		115			818	66	28	1	0	156.6	14.4	62.9
Aug 3		666		174			571	55	30	0	0	157.9	17.6	63.0
Aug 4		731		25			414	67	31	0	0	144.5	14.3	63.2
Aug 5		628		49			279	51	34	2	0	139.0	12.0	63.2
Aug 6		686		82			227	77	46	0	0	154.0	12.0	63.5
Aug 7		833		83			253	98	43	0	0	147.6	13.0	64.1
Aug 8		759		94			247	81	37	0	0	142.0	11.7	64.1
Aug 9		605		135			155	108	64	0	0	142.7	12.9	64.3
Aug 10		633		75			93	84	49	1	0	150.7	11.8	64.2
Aug 11		689		85			111	105	64	1	0	152.3	12.4	64.2
Aug 12		644		78			100	152	70	0	2	161.5	14.3	64.3
Aug 13		689		169			65	178	101	0	0	131.2	0.0	64.5
Aug 14		492		131			45	162	77	0	1	131.0	0.5	64.5
Aug 15		466		44			29	171	84	0	1	145.7	0.0	64.7
Aug 16		249		97			28	187	100	0	3	151.0	0.0	64.5
Aug 17		237		49			17	153	69	1	0	150.1	0.9	64.6
Aug 18		291		68			24	207	97	0	7	151.2	5.2	64.3
Aug 19		248		210			4	182	70	1	2	146.3	1.4	64.3
Aug 20		205		170			12	242	120	0	2	131.2	0.0	64.3
Aug 21		170		31			6	156	76	0	3	138.7	0.0	64.8
Aug 22		240		107			9	306	145	0	2	139.0	0.9	65.0
Aug 23		212		94			5	254	116	0	2	148.1	8.5	64.7
Aug 24		165		75			4	250	96	1	3	145.1	0.4	64.8
Aug 25		197		101			4	274	124	1	5	128.7	0.0	65.2
Aug 26		157		59			4	259	112	0	5	136.5	0.0	65.8
Aug 27		188		67			3	266	109	1	7	126.8	0.0	66.0
Aug 28		250		238			0	295	129	0	6	113.7	0.0	65.9
Aug 29		159		45			2	260	95	0	11	112.9	0.0	66.2
Aug 30		238		55			0	213	74	0	13	112.1	0.0	66.2
Aug 31		234		60			4	371	161	0	10	123.1	0.0	66.0
TOTAL		13,475		2,940			4,299	5,368	2,471	11	85			
AVG.		435		95			139	173	80	0	3	140.9	5.9	64.5

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,520	3,784
SUMMER	40,745	8,940
TOTALS	48,265	12,724

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
132,089	6,499	3,272	155	85

TABLE 154

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Sep 1		108		48	1	0	6	261	111	0	9	0.6	96.8	65.7
Sep 2			118	80	0	0	0	161	70	0	10	0.0	73.1	65.5
Sep 3			161	44	0	0	0	271	102	0	10	0.0	72.2	65.3
Sep 4			120	30	0	0	0	132	39	1	10	0.0	67.3	65.5
Sep 5			73	45	0	0	0	120	46	0	16	0.0	58.6	65.9
Sep 6			106	50	10	1	0	263	105	0	10	0.0	97.6	65.8
Sep 7			47	40	1	0	0	245	98	0	7	0.0	98.9	
Sep 8			66	56	4	0	1	228	77	0	10	0.0	82.2	
Sep 9			38	81	0	0	0	226	90	0	27	0.0	80.8	
Sep 10			44	60	4	1	0	238	102	0	13	0.0	75.2	
Sep 11			47	33	3	0	0	204	72	0	19	0.0	73.8	
Sep 12			100	11	13	5	0	279	93	0	19	0.0	68.0	
Sep 13			62	44	8	4	0	123	59	0	32	0.8	83.0	
Sep 14			134	76	4	1	0	294	109	0	22	0.1	79.8	
Sep 15			131	72	8	0	0	256	91	0	16	0.0	62.6	
Sep 16			100	45	8	2	0	224	84	0	19	0.0	68.9	
Sep 17			99	106	15	3	0	231	88	0	26	0.0	65.0	
Sep 18			55	63	28	1	0	96	23	0	15	2.0	47.3	
Sep 19			213	32	31	1	0	333	120	0	35	0.1	72.3	
Sep 20			54	59	32	2	0	270	72	0	11	0.0	75.1	
Sep 21			94	43	43	5	0	172	48	0	17	0.0	73.5	
Sep 22			76	59	50	0	0	203	63	0	13	0.0	79.0	
Sep 23			85	50	71	1	0	166	50	0	14	0.0	88.1	
Sep 24			75	51	64	0	0	233	68	0	11	0.0	72.9	
Sep 25			103	65	57	3	0	206	71	0	16	0.0	45.1	
Sep 26			203	73	136	3	0	333	121	0	23	0.0	85.6	
Sep 27			75	43	82	2	0	177	61	1	26	0.0	63.8	
Sep 28			106	54	105	3	0	239	57	0	15	0.0	72.6	
Sep 29			124	73	123	7	0	229	75	0	6	0.0	79.1	
Sep 30			88	40	129	5	0	153	64	0	5	0.0	78.1	
TOTAL		108	2,797	1,626	1,030	50	7	6,566	2,329	2	482			
AVG.			96	54	34	2	0	219	78	0	16	0.1	74.5	65.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,520	3,784
SUMMER	40,853	8,988
FALL	2,797	1,578
TOTALS	51,170	14,350

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
1,030	50	132,096	13,065	5,601	157	567

TABLE 155

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	* DEG F
Oct 1			54	56	139	0		141	39	0	7	58.9	0.0	
Oct 2			46	45	168	10		144	45	0	12	59.4	0.0	
Oct 3			93	56	176	7		100	37	0	4	78.8	0.0	
Oct 4			65	67	229	0		143	43	0	2	71.6	0.0	
Oct 5			75	25	340	5		153	44	0	1	72.3	0.0	
Oct 6			48	46	264	1		138	41	0	4	66.1	0.0	
Oct 7			31	20	244	3		100	27	0	1	63.1	0.0	
Oct 8			8	20	45	0		34	7	0	5	80.2	0.0	
Oct 9			44	50	170	1		96	33	0	2	69.8	0.0	
Oct 10			55	45	202	1		99	37	0	1	77.8	0.0	
Oct 11			19	38	205	0		55	19	0	0	74.4	0.0	
Oct 12			71	40	256	6		103	46	0	0	95.1	0.0	
Oct 13			51	20	221	4		140	43	0	0	103.5	0.0	
Oct 14			14	21	276	10		89	40	0	5	83.8	0.0	
Oct 15			46	37	259	11		80	25	0	5	61.7	0.0	
Oct 16			26	16	153	3		34	16	0	0	54.6	0.0	
Oct 17			41	22	220	1		41	14	0	0	94.4	0.0	
Oct 18			71	17	210	1		34	14	0	0	95.0	0.0	
Oct 19			34	19	264	1		38	17	0	0	86.5	0.0	
Oct 20			32	21	279	2		37	15	0	1	70.8	0.1	
Oct 21			38	48	316	5		35	12	0	0	74.6	0.0	
Oct 22			112	55	252	1		49	19	0	1	49.3	0.0	
Oct 23			94	20	251	1		32	13	1	0	62.3	0.0	
Oct 24			54	33	250	2		57	19	0	0	90.4	0.0	
Oct 25			61	12	261	1		22	8	0	0	98.1	0.0	
Oct 26			64	10	176	2		30	18	0	0	93.1	0.0	
Oct 27			51	10	173	2		24	11	0	0	89.8	0.0	
Oct 28			63	22	126	0		17	14	0	0	85.6	0.0	
Oct 29			32	15	93	2		13	8	1	0	58.9	0.0	
Oct 30			80	13	71	2		14	10	0	0	57.8	0.0	
Oct 31			50	10	48	0		13	5	1	0	82.1	0.0	
TOTAL			1,623	929	6,337	85		2,105	739	3	51			
AVG.			52	30	204	3		68	24	0	2	76.1	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,520	3,784
SUMMER	40,853	8,988
FALL	4,420	2,507
TOTALS	52,793	15,279

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
7,367	135	132,096	15,170	6,340	160	618

TABLE 156

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — NOVEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	*DEG F
Nov 1			66	10	54	0		10	6	0		86.0	0.0	
Nov 2			37	11	52	0		15	5	0		102.4	0.0	
Nov 3			21	4	83	1		7	2	0		73.7	0.0	
Nov 4			56	6	57	0		7	2	0		72.2	0.0	
Nov 5			24	3	37	0		5	3	0		84.6	0.5	
Nov 6			35	8	25	0		13	8	0		90.6	2.4	
Nov 7			40	2	28	1		5	3	2		94.2	0.0	
Nov 8			23	3	8	1		3	1	0		95.7	0.0	
Nov 9			34	3	16	1		8	6	1		92.1	0.0	
Nov 10			22	3	18	0		8	3	0		104.1	0.0	
Nov 11			24	3	13	0		6	2	0		95.0	0.0	
Nov 12			7	2	17	0		8	5	1		87.2	0.0	
Nov 13			9	0	14	0		6	2	0		83.3	0.0	
Nov 14			8	1	10	0		5	4	3		110.6	0.0	
Nov 15			5	0	13	0		4	2	1		94.8	0.0	
Nov 16												100.8	0.0	
Nov 17												87.8	0.0	
Nov 18												94.6	0.0	
Nov 19												114.2	0.0	
Nov 20												89.6	0.0	
Nov 21												104.7	0.0	
Nov 22												81.4	0.0	
Nov 23												78.6	0.0	
Nov 24												82.7	0.0	
Nov 25												76.3	0.0	
Nov 26												90.8	0.0	
Nov 27												75.4	0.0	
Nov 28												100.5	0.0	
Nov 29												100.9	0.0	
Nov 30												90.5	0.0	
TOTAL			411	59	445	4		110	54	8				
AVG.			27	4	30	0		7	4	1		91.2	0.1	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,520	3,784
SUMMER	40,853	8,988
FALL	4,831	2,566
TOTALS	53,204	15,338

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
7,812	139	132,096	15,280	6,394	168	618

TABLE 157

MONTHLY COUNT OF STEELHEAD

ROCKY REACH DAM: 1981 - 2011

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
Total				3,132	2,439	2,489	26,803	91,864	147,533	49,313	5,968		314,261
10-Year Average				209	106	88	1,180	4,199	6,627	1,840	215		14,463

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 2011.

East Ladder Maintenance
6 – 26 January 2011, outage for inspection and bi-annual maintenance
7 – 22 December 2011, outage for inspection and annual maintenance

West Ladder Maintenance
3 January 2012 through February 2012 is the scheduled outage for inspection and bi-annual maintenance; the last outage was 16 – 29 December 2010 for inspection and annual maintenance.

JUVENILE PASSAGE FACILITES

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

During periods when plant discharge exceeds the combined turbine and bypass capacity (such as occurred in 2011), excess water is passed through non-bypass spillways and bypass bays as necessary to address Washington Department of Ecology TDG standards and Federal Energy Regulatory Commission Emergency Action Plan requirements. Gates on non-bypass bays are opened and bypass barriers and baffles on bypass bays are removed sequentially with increasing flow in a prescribed order that concentrates involuntary spill in the center of the spillway 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.

Flows at Wells Dam during the 2011 juvenile migration (April – August) were at 122 percent of the twenty-year average, and the third highest during that period. The bypass season began on April 12th at 0000 hours, and operated continuously through August 26th at 2400 hours, for a total of 137 days of bypass operations. Douglas PUD provided bypass passage for 99.2 percent of the yearling Chinook, 98.1 percent of the steelhead, 100 percent of the sockeye, and 99.6 percent of the sub-yearling Chinook passing Wells Dam in 2011.

TABLE 158

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER WELLS DAM
2011

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					2,915	5,421	23,987	14,472	3,406	1,361	183		51,745
STEELHEAD					123	4	242	3,274	5,873	2,377	176		12,069
SOCKEYE						257	104,822	6,416	12	1			111,508
COHO									535	4,796	465		5,796
TOTAL					3,038	5,682	129,051	24,162	9,826	8,535	824		181,118
LAMPREY						1	0	0	0	0	0		1
BULL TROUT					8	37	19	1	0	0	1		66

*Jacks included

TABLE 159

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — MAY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
May 1	0			0				9	4	0		149.0	10.0	45.3
May 2	0			0				4	4	0		145.2	10.0	45.3
May 3	0			0				6	6	0		132.9	10.0	45.4
May 4	0			0				3	3	0		136.2	10.0	45.6
May 5	0			0				4	3	0		126.0	9.3	46.1
May 6	0			0				3	2	0		147.6	10.0	46.2
May 7	1			0				1	1	0		143.4	9.9	46.4
May 8	1			0				4	2	0		140.7	9.7	46.7
May 9	1			0				2	2	0		126.1	10.0	46.9
May 10	1			0				5	4	0		163.4	10.0	47.0
May 11	5			0				9	7	0		183.8	17.8	47.3
May 12	8			1				5	4	0		189.7	26.7	47.4
May 13	11			0				7	7	0		195.9	25.8	47.7
May 14	67			0				13	9	0		194.0	32.9	48.0
May 15	59			15				7	7	0		199.5	35.9	47.6
May 16	58			5				6	4	1		182.1	23.1	47.5
May 17	53			7				5	2	0		178.9	23.5	47.9
May 18	73			21				2	2	0		213.8	43.6	48.7
May 19	154			16				7	6	0		231.4	63.4	49.1
May 20	140			17				2	1	0		244.3	71.7	49.7
May 21	146			32				3	1	1		266.1	100.5	49.9
May 22	189			34				1	1	1		272.3	112.7	50.0
May 23	82			14				1	1	0		258.4	94.1	50.1
May 24	146			29				1	1	0		244.2	83.9	50.5
May 25	105			19				0	0	0		237.4	71.9	50.5
May 26	200			63				1	1	0		247.3	80.4	50.4
May 27	211			75				3	3	0		273.2	119.0	50.3
May 28	255			127				1	1	0		290.1	131.6	50.5
May 29	103			61				2	2	3		292.4	142.5	50.8
May 30	89			108				4	4	1		288.6	141.8	51.2
May 31	53			60				2	2	1		293.0	133.0	51.3
TOTAL	2,211			704				123	97	8				
AVG.	71			23				4	3	0		206.0	54.0	48.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	WILD STEELHEAD	BULL TROUT
SPRING	2,211	704	123	97	8

TABLE 160

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — JUNE 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jun 1	87			127			0	0	0	1	0	284.2	129.9	51.5
Jun 2	99			172			0	1	0	1	0	283.2	129.6	52.1
Jun 3	123			177			0	1	0	3	0	286.6	133.7	52.4
Jun 4	110			172			0	0	0	5	0	287.9	132.0	52.7
Jun 5	110			170			0	0	0	2	0	295.1	149.9	52.8
Jun 6	39			84			0	1	0	0	0	285.2	146.3	52.7
Jun 7	54			162			0	0	0	1	0	270.2	137.2	52.6
Jun 8	68			110			0	0	0	1	0	261.3	127.9	52.2
Jun 9	79			137			0	0	0	0	0	232.8	96.8	52.0
Jun 10	87			159			0	0	0	0	0	251.3	109.5	52.1
Jun 11	87			126			0	1	1	1	0	272.0	137.6	52.5
Jun 12	79			158			0	0	0	1	0	265.6	127.4	53.0
Jun 13	37			81			0	0	0	1	0	250.7	113.7	53.4
Jun 14	61			123			0	0	0	2	0	276.8	145.2	53.7
Jun 15	62			128			0	0	0	1	0	270.3	137.7	53.6
Jun 16	100			130			1	0	0	4	0	266.9	135.3	53.4
Jun 17	68			145			0	0	0	1	0	258.6	120.0	53.7
Jun 18	57			108			0	0	0	3	1	263.3	119.4	53.9
Jun 19	69			121			0	0	0	3	0	258.5	117.8	54.2
Jun 20	28			72			0	0	0	1	0	252.8	114.3	54.6
Jun 21	50			76			0	0	0	1	0	242.2	87.8	54.9
Jun 22	65			90			3	0	0	0	0	250.2	92.8	55.0
Jun 23	93			110			3	0	0	0	0	254.4	104.9	55.2
Jun 24	59			104			8	0	0	1	0	233.0	74.4	55.0
Jun 25	46			73			9	0	0	1	0	232.1	66.4	55.1
Jun 26	46			59			10	0	0	0	0	232.8	77.8	54.8
Jun 27	21			53			30	0	0	1	0	242.7	77.5	55.0
Jun 28	58			38			29	0	0	0	0	237.2	78.1	55.4
Jun 29		60		47			70	0	0	0	0	234.3	83.9	55.9
Jun 30		75		32			94	0	0	1	0	237.2	65.3	55.9
TOTAL	1,942	135		3,344			257	4	1	37	1			
AVG.	69	68		111			9	0	0	1	0	259.0	112.3	53.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	4,153	3,969
SUMMER	135	79
TOTAL	4,288	4,048

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
257	127	98	45	1

TABLE 161

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

JULY 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Jul 1		39		27			70	0	0	2		245.0	71.8	55.7
Jul 2		26		22			110	0	0	1		245.3	100.2	55.4
Jul 3		32		25			140	0	0	2		230.2	99.0	56.0
Jul 4		44		30			252	1	1	0		220.7	80.5	56.7
Jul 5		65		23			378	0	0	1		237.1	82.0	57.0
Jul 6		97		46			486	1	1	2		253.9	91.1	56.7
Jul 7		200		42			858	0	0	1		258.3	88.3	57.3
Jul 8		339		41			1,278	0	0	0		253.0	80.7	57.6
Jul 9		336		48			1,672	0	0	1		244.9	72.4	57.6
Jul 10		410		64			2,231	2	1	0		249.0	78.9	57.1
Jul 11		295		45			3,027	1	1	2		233.0	65.5	57.3
Jul 12		331		49			3,292	1	0	0		226.3	63.4	58.1
Jul 13		877		195			4,893	5	5	1		233.7	74.2	58.6
Jul 14		628		149			3,921	2	2	0		223.8	64.6	58.7
Jul 15		946		188			5,017	0	0	2		211.4	46.6	58.7
Jul 16		785		185			5,234	4	3	1		196.7	39.5	58.8
Jul 17		1,226		276			6,763	1	0	0		186.5	33.3	58.9
Jul 18		841		127			5,781	5	5	1		192.0	35.1	59.5
Jul 19		917		171			6,645	6	4	0		198.2	45.0	59.6
Jul 20		1,522		236			7,328	10	5	0		184.1	49.3	59.8
Jul 21		890		199			6,173	18	10	0		187.1	21.4	60.1
Jul 22		913		213			5,787	12	7	0		181.2	27.7	60.1
Jul 23		951		230			5,562	18	10	1		181.4	27.2	60.7
Jul 24		839		239			4,863	12	4	0		188.6	29.9	60.8
Jul 25		1,408		196			5,051	20	11	1		170.9	18.2	60.6
Jul 26		610		174			3,498	8	6	0		162.5	12.5	60.7
Jul 27		676		153			3,567	20	7	0		172.2	16.1	61.3
Jul 28		1,018		299			3,513	17	4	0		162.3	11.7	61.4
Jul 29		808		258			3,053	20	15	0		169.0	28.0	61.6
Jul 30		804		184			2,493	19	15	0		159.2	10.0	61.8
Jul 31		749		231			1,886	39	17	0		148.3	10.4	62.1
TOTAL		19,622		4,365			104,822	242	134	19				
AVG.		633		141			3381	8	4	1		206.6	50.8	58.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	4,153	3,969
SUMMER	19,757	4,444
TOTAL	23,910	8,413

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
105,079	369	232	64	1

TABLE 162

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — AUGUST 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Aug 1		512		196			1,292	21	12	0		149.0	14.7	62.3
Aug 2		661		261			851	15	5	0		158.8	10.0	62.5
Aug 3		665		182			657	23	11	0		153.5	13.7	62.4
Aug 4		633		195			785	34	15	0		143.9	9.8	62.4
Aug 5		787		216			682	56	31	0		138.5	10.0	63.2
Aug 6		494		282			443	45	13	0		151.2	18.4	63.4
Aug 7		501		160			322	66	33	0		144.4	10.0	63.6
Aug 8		345		88			234	35	23	0		141.8	10.0	63.6
Aug 9		526		126			211	56	19	0		143.4	10.0	63.7
Aug 10		443		131			232	27	13	0		147.2	10.0	63.7
Aug 11		297		172			159	66	39	0		153.3	10.2	63.9
Aug 12		371		177			79	72	36	0		155.7	10.6	64.0
Aug 13		224		179			98	63	24	0		133.4	9.2	64.2
Aug 14		530		326			105	99	45	0		129.4	10.7	64.2
Aug 15		196		125			50	48	22	0		145.1	10.0	64.2
Aug 16		366		242			42	81	47	0		154.9	10.0	64.0
Aug 17		204		84			28	89	43	0		149.4	10.6	63.9
Aug 18		228		91			35	142	62	0		153.6	13.6	63.8
Aug 19		337		118			23	177	79	0		143.6	10.9	64.1
Aug 20		135		72			23	145	67	0		132.3	9.3	64.5
Aug 21		343		92			3	209	103	0		137.2	9.5	64.3
Aug 22		186		56			9	71	29	0		141.6	12.3	64.3
Aug 23		124		77			2	60	29	0		145.5	10.9	64.4
Aug 24		115		57			12	191	80	0		143.3	9.2	65.0
Aug 25		157		55			12	199	87	0		128.0	8.8	65.3
Aug 26		315		98			11	206	82	0		141.5	9.7	65.3
Aug 27		157		68			6	241	104	0		123.9	0.0	65.6
Aug 28		212		95			7	291	122	0		112.6	0.0	65.8
Aug 29			55	52			2	105	55	0		108.2	0.0	65.7
Aug 30			106	45			1	153	58	1		111.7	0.0	65.6
Aug 31			86	43			0	188	62	0		121.9	0.1	65.4
TOTAL		10,064	247	4,161			6,416	3,274	1,450	1				
AVG.		359	82	134			207	106	47	0		139.9	9.1	64.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	4,153	3,969
SUMMER	29,821	8,465
FALL	247	140
TOTAL	34,221	12,574

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
111,495	3,643	1,682	65	1

TABLE 163

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — SEPTEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Sep 1			87	70	0	0	1	223	93			89.6	0.5	65.2
Sep 2			104	71	1	0	6	244	91			75.6	0.0	65.4
Sep 3			161	89	0	0	0	215	80			69.7	0.0	65.3
Sep 4			112	53	0	0	0	171	81			64.9	0.0	65.4
Sep 5			136	32	0	0	0	218	74			59.4	0.0	65.4
Sep 6			70	44	0	0	3	194	67			95.8	0.0	65.3
Sep 7			102	38	0	0	0	130	52			97.1	0.0	65.2
Sep 8			58	52	1	0	0	161	70			82.3	0.0	65.2
Sep 9			79	45	0	0	1	301	107			78.4	0.0	65.2
Sep 10			57	70	4	0	0	218	77			74.3	0.0	65.5
Sep 11			57	73	1	0	0	208	74			71.8	0.0	66.0
Sep 12			20	38	0	0	1	199	67			68.4	0.0	66.2
Sep 13			55	26	0	0	0	118	40			78.5	0.0	66.2
Sep 14			52	43	4	0	0	139	57			76.3	0.0	66.0
Sep 15			45	46	5	0	0	198	73			63.9	0.0	65.9
Sep 16			117	42	7	0	0	263	109			68.8	0.0	
Sep 17			51	21	2	0	0	170	69			65.1	0.0	
Sep 18			23	25	3	0	0	170	70			53.7	0.9	
Sep 19			49	44	5	0	0	190	87			68.2	0.0	
Sep 20			35	35	10	0	0	106	39			72.8	0.0	
Sep 21			34	52	14	0	0	132	44			75.4	0.0	
Sep 22			35	63	27	2	0	290	88			78.9	0.0	
Sep 23			32	50	37	0	0	252	77			87.9	0.0	
Sep 24			28	84	34	1	0	227	58			73.5	0.0	
Sep 25			26	91	55	3	0	173	42			47.4	0.0	
Sep 26			28	75	35	2	0	148	45			83.3	0.0	
Sep 27			15	80	29	0	0	125	41			64.7	0.0	
Sep 28			39	88	73	0	0	225	64			70.8	0.0	
Sep 29			37	37	69	1	0	197	65			78.4	0.0	
Sep 30			42	43	110	0	0	268	80			77.7	0.0	
TOTAL			1,786	1,620	526	9	12	5,873	2,081					
AVG.			60	54	18	0	0	196	69			73.8	0.0	65.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	4,153	3,969
SUMMER	29,821	8,465
FALL	2,033	1,760
TOTAL	36,007	14,194

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
526	9	111,507	9,516	3,763	65	1

TABLE 164

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — OCTOBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	DEG F
Oct 1			37	41	124	0	1	213	62			57.7	0.0	
Oct 2			27	31	115	0	0	183	57			59.4	0.0	
Oct 3			10	18	39	0	0	98	30			77.8	0.0	
Oct 4			20	22	59	0	0	127	48			69.2	0.0	
Oct 5			21	55	88	0	0	117	35			66.6	0.0	
Oct 6			23	28	118	0	0	136	43			65.0	0.0	
Oct 7			34	26	196	0	0	117	40			64.8	0.0	
Oct 8			19	24	269	0	0	128	41			79.3	0.0	
Oct 9			37	15	194	0	0	147	26			66.2	0.0	
Oct 10			33	20	77	0	0	65	26			76.9	0.0	
Oct 11			34	24	86	0	0	70	21			78.4	0.0	
Oct 12			32	19	132	0	0	113	43			94.7	0.0	
Oct 13			10	31	186	0	0	96	45			97.2	0.0	
Oct 14			19	20	182	0	0	67	30			85.5	0.0	
Oct 15			31	22	180	1	0	82	36			60.1	0.0	
Oct 16			25	17	173	0	0	57	22			53.7	0.0	
Oct 17			33	38	127	0	0	85	36			95.7	0.0	
Oct 18			31	19	112	0	0	76	34			95.9	0.0	
Oct 19			16	26	162	0	0	47	9			78.3	0.0	
Oct 20			24	20	226	0	0	49	20			73.0	0.0	
Oct 21			21	16	200	0	0	29	13			74.3	0.0	
Oct 22			12	18	265	0	0	37	11			47.9	0.0	
Oct 23			36	22	286	0	0	48	22			62.8	0.0	
Oct 24			8	7	133	0	0	16	8			88.1	0.0	
Oct 25			12	9	166	0	0	24	13			98.4	0.0	
Oct 26			27	6	149	0	0	35	16			92.3	0.0	
Oct 27			19	7	157	0	0	36	16			85.0	0.0	
Oct 28			22	11	183	0	0	21	8			83.5	0.0	
Oct 29			22	9	130	0	0	24	11			56.9	0.0	
Oct 30			16	8	173	0	0	21	12			58.5	0.0	
Oct 31			15	6	108	0	0	13	7			80.0	0.0	
TOTAL			726	635	4,795	1	1	2,377	841					
AVG.			23	20	155	0	0	77	27			74.9	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	4,153	3,969
SUMMER	29,821	8,465
FALL	2,759	2,395
TOTAL	36,733	14,829

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
5,321	10	111,508	11,893	4,604	65	1

TABLE 165

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — NOVEMBER 2011

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	* DEG F
Nov 1			13	8	69	0		19	13	0		88.5	0.0	
Nov 2			15	7	59	2		18	9	0		92.4	0.0	
Nov 3			11	0	58	0		11	8	0		77.5	0.0	
Nov 4			12	6	66	0		10	6	0		71.1	0.0	
Nov 5			22	5	55	0		16	7	1		87.9	0.2	
Nov 6			19	7	24	0		9	4	0		84.5	3.8	
Nov 7			10	2	27	0		12	7	0		96.4	0.0	
Nov 8			2	5	15	0		6	1	0		94.9	0.0	
Nov 9			4	3	19	0		14	9	0		92.2	0.0	
Nov 10			8	1	19	0		11	7	0		100.5	0.0	
Nov 11			6	2	13	0		12	11	0		91.6	0.0	
Nov 12			6	1	9	0		9	3	0		87.0	0.0	
Nov 13			0	4	11	0		15	9	0		85.0	0.0	
Nov 14			2	2	10	0		6	3	0		103.7	0.0	
Nov 15			0	0	9	0		8	5	0		94.7	0.0	
Nov 16												101.0	0.0	
Nov 17												86.0	0.0	
Nov 18												98.3	0.0	
Nov 19												102.6	0.0	
Nov 20												94.4	0.0	
Nov 21												98.7	0.0	
Nov 22												78.7	0.0	
Nov 23												78.9	0.0	
Nov 24												79.4	0.0	
Nov 25												76.9	0.0	
Nov 26												88.1	0.0	
Nov 27												79.6	0.0	
Nov 28												99.8	0.0	
Nov 29												98.2	0.0	
Nov 30												88.8	0.0	
TOTALS			130	53	463	2		176	102	1				
AVG.			9	4	31			12	7	0		89.9	0.1	

*Data unavailable.

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	4,153	3,969
SUMMER	29,821	8,465
FALL	2,889	2,448
TOTAL	36,863	14,882

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
5,784	12	111,508	12,069	4,706	66	1

TABLE 166

MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2011

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
TOTAL					2,455	1,521	16,089	66,929	128,983	61,830	10,248		288,055
10-Year Average					73	39	577	2,717	5,452	1,934	246		11,038

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