US Army Corps of Engineers ®
Portland District
Walla Walla District

Annual Fish Passage Report 2009

Columbia and Snake River Projects

2009

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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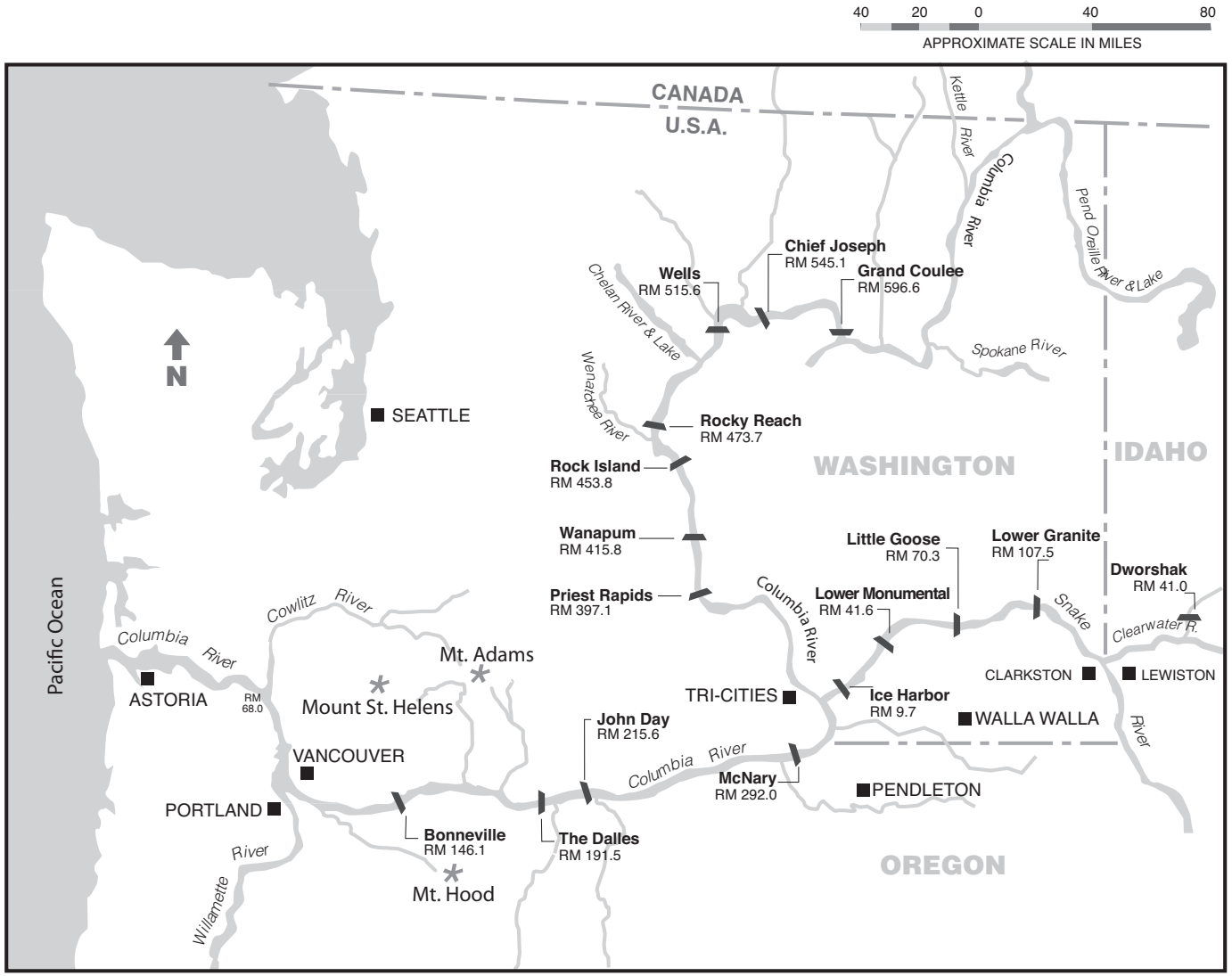


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS ON THE COLUMBIA AND SNAKE RIVERS: 2005-2009

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
2005								
CHINOOK*	600,301	388,893	322,563	269,103	58,361	52,281	46,553	49,530
Spring*	78,326	64,174	58,742	55,056	29,306	26,935	24,918	27,286
Summer*	83,703	73,136	69,439	66,858	9,817	9,158	7,961	7,814
Fall*	438,272	251,583	194,382	147,189	19,238	16,188	13,674	14,430
Jacks	29,998	24,900	22,868	19,470	6,818	4,857	4,160	5,572
STEELHEAD	315,104	240,349	223,174	214,105	155,541	153,792	143,537	155,783
SOCKEYE	72,971	65,273	69,770	63,540	18	18	13	18
COHO*	88,791	34,629	34,197	19,776	1,621	2,095	1,992	2,183
Adults	83,305	32,447	30,869	18,577	1,601	2,065	1,913	2,077
Jacks	5,486	2,182	3,328	1,199	20	30	79	106
SHAD	4,242,129	6,067,028	**	1,951,001	281,114	**	**	13,584
LAMPREY	26,664	8,361	8,312	4,158	461	222	211	40
2006								
CHINOOK*	525,948	339,206	288,434	217,185	52,501	54,482	44,695	45,992
Spring*	99,364	64,003	52,406	48,362	26,309	24,137	21,569	23,503
Summer*	101,874	84,839	77,964	65,960	9,085	10,449	8,752	7,720
Fall*	324,710	190,364	158,064	102,863	17,107	19,896	14,374	14,769
Jacks	32,812	27,104	28,476	19,646	8,255	9,840	6,429	8,356
STEELHEAD	333,250	235,623	217,122	184,024	123,631	135,566	124,440	145,991
SOCKEYE	37,066	30,026	35,387	29,295	48	17	26	17
COHO*	109,006	32,196	33,778	13,333	971	1,180	972	1,434
Adults	101,086	29,728	28,868	12,183	897	1,101	938	1,141
Jacks	7,920	2,468	4,910	1,150	74	79	34	293
SHAD	3,965,254	4,611,592	**	1,176,899	213,229	**	**	7,923
LAMPREY	38,938	6,894	9,600	2,456	277	175	125	35
2007								
CHINOOK*	357,375	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*	212,577	131,952	109,379	85,262	23,151	24,907	18,452	19,979
Jacks	83,054	65,200	61,316	49,740	19,635	17,371	18,120	22,146
STEELHEAD	320,931	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*	96,058	32,749	39,226	22,587	2,147	2,231	2,141	2,798
Adults	91,994	30,661	33,017	20,217	1,994	2,092	1,963	2,532
Jacks	4,064	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

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

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

***Includes Jack Counts.**

TABLE 2

FISH ESCAPEMENT AT MID COLUMBIA RIVER DAMS: 2005 - 2009

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
2005				
CHINOOK*	109,429	80,942	56,064	40,220
Spring*	14,663	16,969	6,897	4,996
Summer*	63,125	54,121	44,665	31,763
Fall*	31,641	9,852	4,502	3,461
Jacks	2,765	3,746	3,287	1,248
STEELHEAD	12,472	12,409	9,710	7,203
SOCKEYE	74,563	71,226	55,570	55,559
COHO*	1,260	6,580	1,225	348
Adults	1,173	6,580	1,225	348
Jacks	87	**	**	**
SHAD	10,254	**	**	**
LAMPREY	2,598	2,267	404	212
2006				
CHINOOK*	87,086	81,777	54,600	36,615
Spring*	8,616	12,254	6,232	4,376
Summer*	57,792	63,962	44,077	27,196
Fall*	20,678	5,561	4,291	5,043
Jacks	2,464	4,176	3,169	3,445
STEELHEAD	10,408	9,382	8,124	6,674
SOCKEYE	26,710	35,132	25,377	22,075
COHO*	3,813	5,597	1,523	409
Adults	3,205	5,597	1,523	409
Jacks	608	**	**	**
SHAD	281	**	**	**
LAMPREY	4,381	1,326	370	21
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

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 1953-2009

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 - 2009

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
Total	8,797,864	6,665,334	6,814,404	4,424,047	3,677,320	2,619,033	3,397,032
10-Year Average	279,585	277,567	223,482	168,316	168,376	154,644	164,627

***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

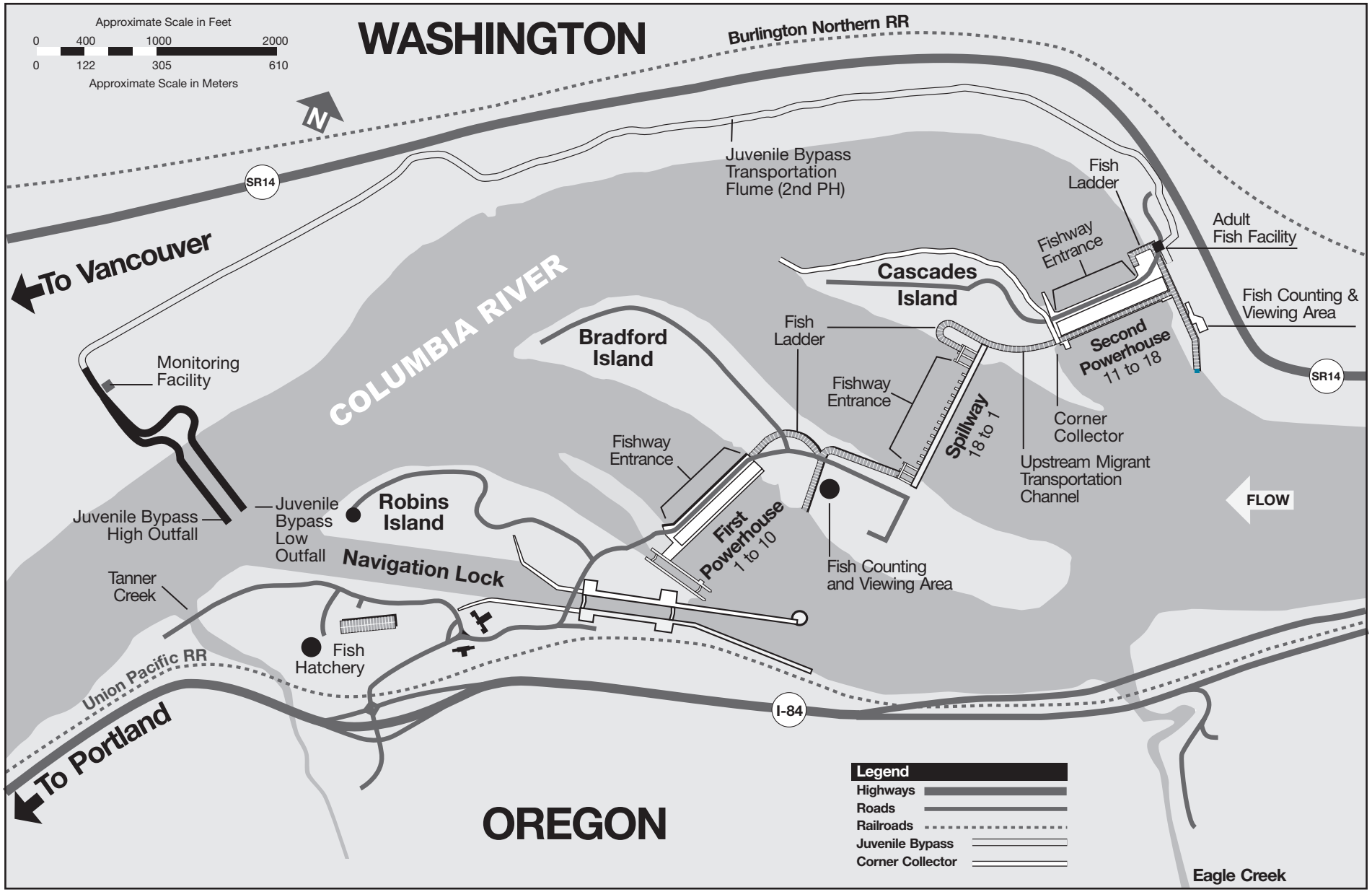
STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2009

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
Total	565,813	372,498	267,279	237,684
10-Year Average	15,679	14,927	11,745	8,826

*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 – Sept 30	Night Video Lamprey counts.
Nov 1 – Dec 31	Video counting daily 0400-2000 hours Pacific Standard Time.

FISH FACILITIES OPERATION SCHEDULE

BI Lamprey Ramp

26 May – 4 Nov	In Service

WA Shore Lamprey Ramp

26 May – 4 Nov	In Service

CI Lamprey Ramp

26 May – 8 Sep	In Service

Cascades Island Exit

09 Jan – 20 Jan	In Service – UMT closure.

Cascades Island Ladder

20 Jan – 28 Feb	Winter Maintenance

UMT

01 Jan – 01 Mar	VBS modifications to PH2 gatewells

JFF

01 Jan – 02 Mar	System in bypass
30 Oct – 31 Dec	System in bypass

B2 Corner Collector

03 Apr – 01 Sep	In Service

PHI ITS

02 Nov – 31 Dec	OOS to facilitate DSM 1 wall removal contract.

Bradford Island Ladder

01 Jan – 09 Jan	Winter maintenance.

DSM1

15 Jan –31 Aug	Open and running south for Kelt passage.
19 Oct – 31 Dec	DSM 1 wall removal

DSM2

01 Jan – 24 Feb	Winter Maintenance

WA Shore Ladder

12 Jan –28 Feb	Winter Maintenance

AFF

05 Jan –20Apr	Winter Maintenance

ITS

17 Feb – 02 Mar Automated chain gate installation in 3B, 6C, and 10B.

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 2008/2009 passage year:

-Removal of the wall separating DSM1 from the ITS begins. All remaining PH1 screens scrapped.
-ITS automated chaingates installed in 3B, 6C, and 10B.
- Lamprey ramp and bollards installed in CI entrance pool. Variable width entrance weir installed in May.
- Picket leads installed perpendicular to existing AFF picket leads.
- Release pipe attached to JMF outfall pipe for juveniles trucked from Walla Walla District.

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.

AFF (1/5/2009): two juvenile chinook, one juvenile steelhead, one peamouth, one sturgeon, 25 suckers. Fish were released in the Washington Shore ladder.

Washington Shore Fishway (1/12/2009): 32 clipped adult steelhead, six unclipped adult steelhead, one chinook jack, one lamprey ammocete, three smallmouth bass, two stickleback, one sculpin, 37 residents (including peamouth, pikeminnow, whitefish, suckers).

DSM 1 (1/15/2009): 13 juvenile steelhead, one juvenile chinook, 15 stickleback, five bass, one sculpin, one sucker.

Cascades Island (1/20/2009): five clipped juvenile steelhead, one unclipped juvenile steelhead, one juvenile chinook, three sculpin, approximately 100 stickleback, one bass, one sucker, one whitefish, one peamouth, three crayfish, one dead unclipped juvenile steelhead.

Upstream Migrant Transportation channel (UMT) (1/20/2009): one clipped adult steelhead, three juvenile steelhead, two sculpin and five stickleback.

Cascades Island diffuser pools, FG6-5 through FG6-10(1/22/2009): eight adult steelhead.

Cascades Island entrance (1/23-24/2009): 400-500 sturgeon, six peamouth, one dead clipped adult steelhead, one dead sturgeon.

AFF valve 14 drain chamber (1/27/2009): two adult clipped steelhead, one juvenile steelhead, one juvenile chinook.

South Monolith (2/3/2009): 30 sturgeon.

PH2 PCC AWS conduit (2/4/2009): eight sturgeon, one of which is likely to be a mort.

Units 12 and 14 gatewells (2/11/09): 100 juvenile lamprey (macropthalmia), two bluegill, five stickleback, one pumpkinseed, one crappie.

North Monolith (2/17/09 and 2/18/09): one lamprey ammocoete, two sturgeon, and two suckers.

PH2 AWS conduit – North section (2/18/09): four juvenile chinook, four sturgeon, one adult lamprey, 29 sculpin, 10 suckers, one bass, six stickleback, and one crawdad.

PH2 PCC Diffuser C-5 (2/25/09): 48 sturgeon.

Upstream navlock gate (3/9/09): five juvenile chinook, one juvenile steelhead.

DSM1 (3/24/09): one juvenile unclipped steelhead, two juvenile bass, one stickleback.

Gatewell 17C (5/4/09): 500 juvenile yearling, sub-yearling chinook, and steelhead.

Unit 6 draft tube (7/14/09): one lamprey.

Unit 16 draft tube (8/18/09): five sturgeon, one carp, one catfish.

Unit 6 tail logs (9/3/09): 13 sculpin, 12 crawdads.

Unit 4 draft tube (9/15/09): one sturgeon.

Unit 16 tail logs (9/25/09): 12 sculpin, two catfish, one crawdad.

Gatewell 17A (10/5/09): thousands of juvenile shad.

Unit 17 draft tube (10/6/09): 23 sturgeon, two catfish, five bullhead.

DSM 1 (10/19/09): four crawdads, one sculpin.

Unit 4 tail logs (10/30/09): Two suckers, 24 sculpin, 36 crawdads, three bass, one bluegill.

AFF entrance, exit and under brail pool (11/9/09): six steelhead and three unknown salmon.

Unit 17 tail logs (11/24/09): 52 sculpin, two crawdads, one catfish, one sturgeon.

TABLE 5

MONTHLY TOTALS OF SALMONID, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER BONNEVILLE DAM.
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*	-5		164	23,526	157,489	88,523	30,829	148,358	231,702	17,823	697	15	699,121
STEELHEAD	167	43	677	1,547	2,395	9,942	119,486	353,478	97,236	17,535	1,620	844	604,970
SOCKEYE					57	141,543	36,117	104	2				177,823
COHO*	-4						7	37,438	104,294	89,979	2,936	19	234,669
CHUM							2	2	0	25	79	0	108
PINK							0	10	74	11			95
TOTAL	158	43	841	25,073	159,941	240,008	186,441	539,390	433,308	125,373	5,332	878	1,716,786
SHAD					313,849	1,028,718	30,571	600					1,373,738
LAMPREY					818	2,740	3,819	1,057	203	-14	2	-3	8,622
STURGEON	-1	0	0	0	0	0	6	5	10	20	8	1	49
BULL TROUT					1	2							3

*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 2009

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	0			-1	0					0	134.4	0.5	7.0	39.0
Jan 2	0			0	0			-3	0					0	142.4	0.5	4.5	39.0
Jan 3	0			0	0			14	1					-1	178.5	0.5	2.0	38.0
Jan 4	0			0	0			8	2					0	175.2	0.5	3.0	38.0
Jan 5	0			0	0			10	3					0	173.4	0.5	4.5	38.0
Jan 6	0			0	0			4	2					0	183.0	0.5	4.5	38.0
Jan 7	0			0	0			36	8					0	207.5	0.5	4.0	39.0
Jan 8	0			0	0			7	1					0	203.9	0.5	2.5	40.0
Jan 9	0			0	0			5	0					0	199.1	0.8	3.0	40.0
Jan 10	0			0	-1			-2	1					0	188.1	1.0	4.0	40.0
Jan 11	0			0	-2			10	0					0	155.8	1.0	6.0	40.0
Jan 12	-2			0	0			7	1					0	174.8	1.0	6.0	40.0
Jan 13	-1			0	0			16	8					0	173.9	1.0	7.0	40.0
Jan 14	0			0	0			10	3					0	191.5	11.8	6.0	41.0
Jan 15	0			0	0			1	0					0	231.5	28.7	5.0	41.0
Jan 16	0			0	-1			8	4					0	207.5	2.3	3.0	40.0
Jan 17	0			0	0			3	1					0	194.3	0.8	4.0	40.0
Jan 18	-1			0	0			11	6					0	192.9	0.5	3.0	39.0
Jan 19	0			0	0			9	5					0	193.1	0.5	4.0	40.0
Jan 20	0			0	0			-1	0					0	187.6	0.5	4.0	40.0
Jan 21	0			-1	0			3	2					0	179.0	0.5	2.5	40.0
Jan 22	0			0	0			0	1					0	175.1	0.6	2.0	39.0
Jan 23	0			0	0			1	1					0	164.1	0.7	2.0	39.0
Jan 24	0			0	0			2	2					0	169.6	0.6	2.5	39.0
Jan 25	0			0	0			2	0					0	167.0	0.6	3.0	38.0
Jan 26	0			0	0			1	1					0	176.1	0.5	3.0	38.0
Jan 27	0			0	0			0	0					0	197.3	0.5	3.5	38.0
Jan 28	0			0	0			1	0					0	177.1	0.5	3.6	37.0
Jan 29	0			0	0			0	0					0	150.1	0.6	4.6	37.0
Jan 30	0			0	0			1	0					0	190.7	0.6	4.5	38.0
Jan 31	0			0	0			4	2					0	135.5	0.5	5.0	38.0
TOTAL	-4			-1	-4			167	55					-1				
AVG					0			5	2					0	179.7	1.9	4.0	39.1

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 2009

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						152.7	0.6	6.0	38.0
Feb 2								0	0						126.8	0.5	6.0	38.0
Feb 3								5	4						131.3	0.6	7.0	38.0
Feb 4								0	0						128.9	0.6	7.0	38.0
Feb 5								0	0						125.4	0.6	7.0	38.0
Feb 6								0	0						122.8	0.5	7.0	38.0
Feb 7								0	0						123.8	0.5	7.0	38.0
Feb 8								0	0						123.7	0.6	7.0	38.0
Feb 9								-1	0						119.9	0.6	7.0	38.0
Feb 10								0	0						122.2	0.6	7.0	38.0
Feb 11								5	1						145.1	0.6	7.0	37.0
Feb 12								0	0						168.2	0.6	7.0	37.0
Feb 13								0	0						121.1	0.6	5.0	37.0
Feb 14								1	0						121.1	0.6	6.0	37.0
Feb 15								0	0						126.8	0.6	7.0	37.0
Feb 16								0	0						128.0	0.6	7.0	37.0
Feb 17								-2	-1						126.4	0.6	7.0	37.0
Feb 18								0	0						128.6	0.6	7.0	38.0
Feb 19								1	0						130.7	0.6	7.0	38.0
Feb 20								0	0						131.1	0.6	7.0	38.0
Feb 21								3	1						134.5	0.7	7.0	38.0
Feb 22								2	0						130.7	0.6	5.0	38.0
Feb 23								-2	0						127.2	0.6	6.0	38.0
Feb 24								3	1						119.6	0.6	6.4	38.0
Feb 25								8	4						114.2	0.6	6.0	38.0
Feb 26								7	0						137.4	0.6	6.0	38.0
Feb 27								12	2						156.5	0.6	5.0	38.0
Feb 28								1	0						136.4	0.7	5.0	38.0
TOTAL								43	12									
AVG								2	0						130.8	0.6	6.5	37.8

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 2009

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							13	3						125.1	1.2	5.0	39.0
Mar 2	1							9	3						124.8	1.3	5.0	39.0
Mar 3	0							20	10						118.4	1.3	5.5	39.0
Mar 4	0							8	3						136.6	1.3	*	40.0
Mar 5	0							9	5						128.5	1.3	4.0	40.0
Mar 6	3							14	6						157.8	1.3	5.5	40.0
Mar 7	0							11	1						114.2	1.4	*	*
Mar 8	1							-1	-2						119.0	1.4	5.8	39.0
Mar 9	12							8	5						121.7	1.3	5.0	40.0
Mar 10	0							3	3						122.5	1.3	6.0	40.0
Mar 11	0							4	-1						125.0	1.4	6.5	40.0
Mar 12	2							7	1						127.1	1.8	6.0	40.0
Mar 13	4							3	3						125.3	1.3	6.0	40.0
Mar 14	0							3	2						120.3	1.3	6.0	40.0
Mar 15	2							17	-1						115.8	1.3	4.0	40.0
Mar 16	3							16	8						118.3	1.3	7.0	40.0
Mar 17	2							12	3						141.8	1.3	6.0	40.0
Mar 18	3							11	-3						150.4	1.3	7.0	41.0
Mar 19	14							24	13						132.5	1.3	6.0	41.0
Mar 20	3							21	9						124.1	1.3	6.0	41.0
Mar 21	10							47	16						122.3	1.3	7.0	42.0
Mar 22	7							43	13						122.8	1.3	5.0	42.0
Mar 23	9							32	10						149.3	1.3	5.0	43.0
Mar 24	10							28	13						167.7	1.3	5.0	43.0
Mar 25	9							30	11						139.5	1.3	6.0	43.0
Mar 26	12							37	13						173.2	1.3	5.2	43.0
Mar 27	10							53	14						175.2	1.3	6.0	44.0
Mar 28	6							31	7						152.3	1.3	6.0	44.0
Mar 29	9							39	10						165.9	1.4	4.0	44.0
Mar 30	9							74	17						197.8	1.3	4.0	44.0
Mar 31	23							51	24						170.7	1.3	4.0	44.0
TOTAL	164							677	219									
AVG	5							22	7						138.3	1.3	5.5	41.2

*Data unavailable

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 2009

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	10			0				12	4						160.6	1.3	4.0	44.0
Apr 2	12			0				31	9						168.7	1.5	4.5	44.0
Apr 3	47			0				52	19						156.2	1.6	5.0	44.0
Apr 4	42			0				73	28						169.1	1.6	5.0	45.0
Apr 5	65			0				70	23						153.5	1.6	5.0	45.0
Apr 6	100			1				62	22						168.8	1.5	5.0	46.0
Apr 7	79			0				71	24						169.3	1.5	5.0	46.0
Apr 8	88			1				53	21						140.3	1.6	*	46.0
Apr 9	130			1				75	28						180.5	5.1	4.0	46.0
Apr 10	179			0				77	38						215.9	100.5	5.5	47.0
Apr 11	97			0				36	10						229.6	101.6	4.0	47.0
Apr 12	101			0				53	23						245.6	100.9	4.0	47.0
Apr 13	74			2				48	27						227.4	100.1	3.0	47.0
Apr 14	89			0				77	29						254.5	99.4	5.0	47.0
Apr 15	55			0				61	21						265.0	100.2	3.0	47.0
Apr 16	112			2				54	14						236.8	100.0	2.5	47.0
Apr 17	152			6				41	12						253.4	99.7	3.0	48.0
Apr 18	258			5				43	16						244.3	99.8	3.5	49.0
Apr 19	742			4				59	22						229.5	99.5	3.5	50.0
Apr 20	616			14				55	12						245.1	96.3	3.5	50.0
Apr 21	1,164			27				84	30						251.7	94.5	5.0	50.0
Apr 22	1,990			55				44	11						269.1	91.0	3.5	50.0
Apr 23	2,142			56				64	12						282.6	90.1	3.0	50.0
Apr 24	1,509			72				45	14						324.1	108.4	3.5	50.0
Apr 25	1,604			61				40	8						316.6	108.2	3.5	50.0
Apr 26	1,765			132				43	11						298.1	94.6	3.5	50.0
Apr 27	2,095			187				43	14						293.1	99.8	3.5	50.0
Apr 28	1,483			285				26	7						275.2	96.7	3.0	3.0
Apr 29	2,904			406				31	11						281.2	99.6	3.5	50.0
Apr 30	2,151			354				24	1						255.7	100.8	4.3	51.0
TOTAL	21,855			1,671				1,547	521									
AVG	729			56				52	17						232.1	70.0	3.9	46.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	21,996	1,671

STEELHEAD	unclipped STEELHEAD
2,113	698

STURGEON
-1

TABLE 10

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

MAY 2009

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
May 1	3,028			581			0	47	11			0	0		233.9	101.3	3.0	51.0
May 2	7,036			993			0	20	7			0	0		226.8	101.4	4.0	51.0
May 3	6,317			1,296			0	33	7			0	0		205.2	101.3	5.3	51.0
May 4	3,856			818			0	21	1			0	0		201.7	97.5	4.0	51.0
May 5	4,827			1,616			0	41	13			0	0		215.9	96.5	5.0	51.0
May 6	4,493			2,274			0	64	13			0	0		245.5	101.2	5.0	51.0
May 7	5,026			2,870			0	68	11			1	0		283.7	100.9	4.0	51.0
May 8	4,277			3,926			0	73	10			0	0		251.9	99.5	4.0	51.0
May 9	2,153			2,075			0	50	9			0	0		244.3	97.6	4.0	52.0
May 10	3,195			2,576			0	53	4			9	0		224.5	94.7	4.0	52.0
May 11	3,481			2,765			0	78	10			8	0		234.8	91.6	3.0	53.0
May 12	3,821			4,660			0	66	10			6	0		252.0	94.6	3.0	53.0
May 13	1,848			2,408			0	89	17			4	2		273.6	100.5	3.3	53.0
May 14	1,897			2,952			0	75	6			1	1		247.4	99.9	4.0	52.0
May 15	3,308			5,712			0	86	14			69	1		252.5	99.7	3.5	53.0
May 16	2,506			3,957			0	64	8			247	4		253.4	96.3	3.5	54.0
May 17	2,648			3,911			0	80	11			465	0		258.7	92.2	4.0	54.0
May 18	4,166			4,921			0	125	22			867	11		255.9	84.9	4.0	54.0
May 19	3,095			2,779			0	76	15			1,458	8		282.9	91.7	3.0	55.0
May 20	2,136			1,896			0	85	12			627	7		307.9	119.4	2.5	55.0
May 21	2,110			1,753			0	119	17			1,288	1		320.2	131.3	3.5	55.0
May 22	2,172			1,337			0	100	19			1,757	17		329.3	139.0	3.5	55.0
May 23	2,010			1,105			0	94	13			4,042	59		302.0	115.1	3.0	56.0
May 24	2,128			1,029			0	63	9			2,755	67		291.4	104.3	2.8	56.0
May 25	1,962			868			1	114	13			5,779	74		332.0	135.1	3.0	57.0
May 26	1,830			969			2	111	14			30,497	118		344.2	149.3	4.0	57.0
May 27	1,432			622			3	117	21			18,451	93		341.4	149.6	3.0	58.0
May 28	1,310			607			8	121	17			24,866	64		340.4	149.5	3.0	58.0
May 29	1,540			543			10	86	20			63,192	52		343.5	149.4	3.9	59.0
May 30	1,251			476			9	68	13			83,492	69		342.6	148.5	3.7	59.0
May 31	1,670			665			24	108	18			73,968	170		345.2	148.8	3.0	60.0
TOTAL	92,529			64,960			57	2,395	385			313,849	818					
AVG	2,985			2095			2	77	12			10,124	26		276.9	112.3	3.6	54.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON
SPRING	114,525	66,631	57	4,508	1,083	313,849	818	-1

Note: Bull trout on May 30.

TABLE 11

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JUNE 2009

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
Jun 1		1,861		790			58	126	21			69,973	216		346.1	149.3	3.5	60.0
Jun 2		2,233		951			60	168	19			65,737	210		343.8	149.5	3.0	61.0
Jun 3		1,865		915			131	225	33			56,589	207		344.5	149.6	3.0	60.0
Jun 4		2,252		847			168	198	30			50,320	77		344.3	149.5	3.0	61.0
Jun 5		2,949		1,104			237	213	24			45,018	91		343.7	149.7	3.0	61.0
Jun 6		1,787		730			290	166	25			33,876	85		343.0	149.3	3.5	61.0
Jun 7		1,598		916			407	186	23			33,738	89		343.8	149.6	*	*
Jun 8		2,109		1,123			783	210	24			70,580	70		354.4	158.7	3.0	61.0
Jun 9		2,321		1,130			978	210	29			83,236	130		360.6	164.2	3.0	61.0
Jun 10		2,264		1,154			1,114	261	32			67,490	195		338.4	144.1	3.0	61.0
Jun 11		2,511		955			1,115	279	59			40,122	60		288.0	101.5	3.3	62.0
Jun 12		1,960		848			1,554	274	53			39,140	42		257.6	100.0	4.2	62.0
Jun 13		2,166		1,120			2,056	333	64			45,725	27		259.8	99.7	4.1	62.0
Jun 14		2,270		1,278			3,283	257	43			36,473	88		250.4	99.6	4.0	63.0
Jun 15		2,799		1,291			4,017	273	59			28,845	90		241.8	99.7	2.9	63.0
Jun 16		2,609		1,176			5,440	230	61			38,816	46		252.5	99.5	4.0	63.0
Jun 17		2,391		1,050			5,106	254	59			27,380	55		231.3	99.5	5.0	63.0
Jun 18		2,361		1,042			7,120	289	59			38,769	80		248.9	99.6	5.0	63.0
Jun 19		2,661		1,080			8,226	348	77			44,058	114		276.8	99.8	4.0	64.0
Jun 20		2,569		1,098			9,323	310	62			27,308	71		277.0	99.8	4.0	64.0
Jun 21		2,076		972			9,936	407	120			11,207	64		247.9	91.2	3.8	64.0
Jun 22		1,628		746			10,078	346	117			6,815	24		233.3	94.8	5.0	63.0
Jun 23		1,825		785			7,968	349	105			21,657	58		272.1	99.3	4.5	63.0
Jun 24		1,581		646			6,818	348	97			14,045	46		282.5	98.8	4.0	64.0
Jun 25		1,585		698			9,910	403	115			8,636	124		261.1	97.6	5.0	64.0
Jun 26		1,154		781			8,337	474	143			4,784	56		232.7	97.8	3.0	64.0
Jun 27		1,260		744			11,404	542	188			5,562	97		243.6	100.2	4.0	64.0
Jun 28		1,262		702			10,114	714	254			4,000	82		253.2	99.8	3.6	64.0
Jun 29		1,231		715			8,882	773	293			4,820	53		221.0	99.3	5.0	65.0
Jun 30		1,401		597			6,630	776	334			3,999	93		215.9	99.5	*	65.0
TOTAL		60,539		27,984			141,543	9,942	2,622			1,028,718	2,740					
AVG		2,018		933			4,718	331	87			34,291	91		283.7	116.4	3.8	62.6

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	60,539	27,984
TOTAL	175,064	94,615

SOCKEYE	STEELHEAD	unclipped STEELHEAD
141,600	14,450	3,705

SHAD	LAMPREY	STURGEON
1,342,567	3,558	-1

Note: 2 Bull trout on Jun 2.

TABLE 12

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

JULY 2009

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
Jul 1		1,418		635	0	0	6,863	841	355		0	4,093	69	0	215.1	96.3	6.0	65.0
Jul 2		1,204		581	0	0	5,760	1,040	422		0	4,137	138	0	157.5	95.3	5.5	66.0
Jul 3		1,601		591	0	0	4,728	1,290	555		0	4,151	140	0	156.6	93.7	4.0	66.0
Jul 4		1,388		742	0	0	3,698	1,447	597		0	3,610	146	0	140.0	93.8	6.0	66.0
Jul 5		1,152		593	0	0	2,744	1,408	624		1	3,114	82	0	148.7	93.6	6.0	67.0
Jul 6		1,086		634	0	0	2,200	1,659	709		0	2,091	78	0	172.7	94.0	5.0	67.0
Jul 7		700		438	0	0	1,503	1,358	617		0	1,396	36	1	178.6	94.6	5.0	67.0
Jul 8		688		292	0	0	1,288	1,280	590		0	1,261	65	0	201.0	95.8	5.0	67.0
Jul 9		832		269	0	0	1,029	1,241	565		0	791	68	0	198.7	95.9	4.0	67.0
Jul 10		674		224	0	0	1,202	1,463	744		0	1,290	99	0	204.8	97.1	5.0	67.0
Jul 11		754		248	0	0	988	1,563	780		0	582	123	0	205.3	97.1	4.5	68.0
Jul 12		678		334	0	0	762	1,821	907		0	477	144	0	173.3	97.2	3.8	68.0
Jul 13		917		417	0	0	664	2,355	1,238		0	632	79	0	161.8	98.5	6.0	68.0
Jul 14		859		312	0	0	475	2,689	1,384		0	283	70	0	189.1	99.4	3.0	68.0
Jul 15		630		203	0	0	294	2,502	1,255		0	191	132	1	170.2	101.0	5.6	68.0
Jul 16		410		191	0	0	298	2,559	1,284		0	296	177	0	155.4	99.9	6.0	68.0
Jul 17		599		217	0	0	321	2,884	1,333		0	162	161	1	170.3	97.0	5.5	68.0
Jul 18		722		307	0	0	311	2,871	1,393		0	152	252	0	147.7	95.8	6.0	68.0
Jul 19		849		345	1	0	219	4,059	2,053		1	159	177	1	147.5	94.9	5.0	69.0
Jul 20		633		246	0	0	168	5,369	2,741		0	279	188	0	156.5	92.0	5.0	69.0
Jul 21		503		214	0	0	131	6,561	3,294		0	226	134	1	147.5	82.1	6.0	69.0
Jul 22		393		164	0	0	95	7,517	3,657		0	210	135	0	135.0	79.4	3.0	70.0
Jul 23		430		172	0	0	89	8,080	3,602		0	179	87	0	122.8	78.7	5.0	70.0
Jul 24		318		145	0	0	59	6,821	2,756		0	167	62	0	134.0	81.6	5.0	70.0
Jul 25		244		135	0	1	33	6,900	2,826		0	93	183	0	154.2	84.5	6.0	70.0
Jul 26		248		113	1	1	27	6,551	2,634		0	30	92	1	134.9	83.3	6.0	70.0
Jul 27		336		145	0	0	54	6,049	2,293		0	139	103	0	147.2	79.5	5.8	71.0
Jul 28		351		174	1	0	38	6,561	2,600		0	139	186	0	165.2	73.8	7.0	71.0
Jul 29		277		113	0	0	31	6,219	2,387		0	117	185	0	164.8	72.3	6.0	73.0
Jul 30		251		115	0	0	24	7,909	2,994		0	52	112	0	166.9	74.5	6.0	73.0
Jul 31		252		123	2	0	21	8,619	3,335		0	72	116	0	130.4	74.5	5.0	74.0
TOTAL		21,397		9,432	5	2	36,117	119,486	52,524		2	30,571	3,819	6				
AVG		690		304	0	0	1,165	3,854	1,694		0	986	123	0	163.0	89.9	5.2	68.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	81,936	37,416
TOTAL	196,461	104,047

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
5	2	177,717	133,936	56,229

CHUM	SHAD	LAMPREY	STURGEON
2	1,373,138	7,377	5

TABLE 13

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

AUGUST 2009

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			128	78	0	1	17	7,359	2,620	0	0	79	41	0	159.6	74.4	4.0	74.0
Aug 2			105	57	2	0	5	5,334	2,113	0	0	60	69	0	136.7	74.4	3.0	74.0
Aug 3			112	38	2	0	4	3,783	1,388	0	0	50	106	0	118.4	75.5	5.0	75.0
Aug 4			83	18	5	7	6	2,122	754	0	0	21	47	0	124.9	78.5	4.0	75.0
Aug 5			117	42	0	0	10	1,972	699	0	0	38	58	0	139.6	80.7	4.0	74.0
Aug 6			139	54	0	0	2	1,407	578	0	0	18	52	1	124.6	81.6	5.5	74.0
Aug 7			232	106	0	0	1	2,737	1,194	0	0	37	13	0	116.8	73.9	5.5	72.0
Aug 8			347	135	2	1	2	4,509	1,857	0	1	24	43	0	106.6	64.0	5.5	71.0
Aug 9			473	169	1	1	4	5,661	2,192	0	1	28	25	0	113.0	70.3	4.9	71.0
Aug 10			609	179	4	6	5	8,229	3,016	0	0	20	36	1	113.1	70.2	7.0	71.0
Aug 11			891	309	39	11	3	18,671	6,301	0	0	56	24	0	113.2	70.1	4.0	71.0
Aug 12			1,293	326	105	31	6	28,314	8,462	0	0	37	65	0	118.3	75.2	7.0	72.0
Aug 13			1,010	376	198	56	3	34,053	8,557	1	0	17	25	0	125.8	83.2	5.0	72.0
Aug 14			1,425	283	189	75	11	25,059	5,517	0	0	17	31	0	110.4	67.8	5.5	72.0
Aug 15			1,840	394	195	59	2	22,135	4,768	0	0	4	38	0	102.6	60.0	7.0	72.0
Aug 16			2,447	402	231	129	6	17,553	3,971	0	0	2	35	0	100.2	57.5	5.0	72.0
Aug 17			2,292	567	417	100	0	16,626	3,501	0	0	10	32	0	93.1	50.5	7.0	71.0
Aug 18			3,203	634	502	119	0	12,624	2,655	0	0	4	30	0	93.3	50.5	7.0	70.0
Aug 19			4,036	834	664	114	4	9,134	2,060	0	0	8	53	0	120.3	72.3	7.0	71.0
Aug 20			4,501	1,413	1,270	194	7	15,540	3,452	0	0	11	12	0	142.3	80.2	3.0	71.0
Aug 21			3,564	1,681	1,301	108	1	19,067	3,958	2	0	1	44	0	124.5	80.4	5.5	71.0
Aug 22			3,819	1,974	1,653	112	1	16,876	3,248	0	0	5	26	1	126.5	83.4	7.0	71.0
Aug 23			4,354	1,920	1,403	66	1	13,242	2,705	1	0	1	11	1	123.2	79.9	4.3	71.0
Aug 24			6,175	2,266	2,276	119	1	10,333	2,181	0	0	14	15	0	110.5	67.8	7.0	71.0
Aug 25			10,857	3,163	4,416	327	0	7,710	1,558	1	0	21	22	0	103.6	60.7	5.5	71.0
Aug 26			8,199	3,072	4,661	163	0	6,332	1,393	0	0	6	11	0	109.2	66.4	5.9	70.0
Aug 27			8,669	3,222	4,721	103	1	6,567	1,434	0	0	2	22	1	118.1	75.1	7.0	71.0
Aug 28			9,597	2,876	4,141	182	0	7,209	1,578	2	0	1	10	0	118.0	75.3	4.0	71.0
Aug 29			11,500	3,678	2,880	242	0	7,984	1,716	2	0	4	15	0	117.9	75.2	6.0	70.0
Aug 30			10,559	3,341	2,052	157	0	8,013	1,688	1	0	1	14	0	118.0	75.3	7.0	70.0
Aug 31			9,115	3,060	1,525	100	1	7,323	1,514	0	0	3	32	0	118.1	74.8	7.0	70.0
TOTAL			111,691	36,667	34,855	2,583	104	353,478	88,628	10	2	600	1,057	5				
AVG			3,603	1,183	1,124	83	3	11,403	2,859			19	34	0	118.1	71.8	5.6	71.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	81,936	37,416
FALL	111,691	36,667
TOTAL	308,152	140,714

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
34,860	2,585	177,821	487,414	144,857	10	4	1,373,738	8,434	10

TABLE 14

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

SEPTEMBER 2009

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			10,454	2,608	1,501	50	-1	4,938	1,015	1			30	0	93.0	1.7	7.0	71.0
Sep 2			15,497	3,852	3,969	63	0	4,389	973	5			13	0	92.9	1.5	7.0	71.0
Sep 3			14,050	3,987	8,752	234	0	6,065	1,422	1			1	0	90.1	1.5	7.0	71.0
Sep 4			10,122	3,441	7,011	249	0	6,755	1,422	5			16	0	85.6	1.4	7.0	71.0
Sep 5			7,560	3,059	6,064	170	0	5,750	1,240	6			19	0	81.9	1.5	7.0	71.0
Sep 6			6,737	3,790	5,254	76	0	4,867	1,035	4			-6	1	77.8	1.5	7.0	71.0
Sep 7			5,477	2,602	4,025	65	0	3,330	690	6			14	0	73.1	1.5	5.3	70.0
Sep 8			8,147	3,532	5,808	171	2	4,446	935	1			4	-2	71.1	1.5	7.0	70.0
Sep 9			8,621	4,293	4,863	135	0	4,201	889	3			0	0	71.8	1.6	7.0	70.0
Sep 10			7,525	3,836	5,933	197	1	5,016	1,187	4			13	1	93.1	1.6	7.0	69.0
Sep 11			5,214	2,704	4,565	113	0	3,445	815	2			4	1	90.5	1.6	7.0	70.0
Sep 12			4,432	2,023	3,797	131	0	3,274	733	1			-3	1	93.4	1.6	7.0	70.0
Sep 13			5,845	2,229	3,202	62	0	3,137	705	0			15	0	72.0	1.6	7.0	70.0
Sep 14			6,959	3,375	3,410	101	0	3,961	868	2			7	0	71.4	1.5	7.0	69.0
Sep 15			4,610	3,018	3,175	216	0	4,417	946	2			10	0	93.1	1.5	7.0	70.0
Sep 16			3,206	2,246	1,856	117	0	2,743	533	6			2	0	84.8	1.6	7.0	70.0
Sep 17			3,470	2,250	1,162	91	0	1,818	390	9			21	0	75.6	1.4	7.0	70.0
Sep 18			4,304	2,231	1,314	102	0	2,285	513	2			4	1	83.7	1.4	6.0	70.0
Sep 19			3,994	2,772	1,836	147	0	2,875	706	5			5	1	73.9	1.5	7.0	70.0
Sep 20			3,479	2,504	1,638	123	0	2,286	528	0			-1	1	72.1	1.5	7.0	70.0
Sep 21			3,232	2,040	2,544	102	0	2,448	559	1			8	1	85.4	1.4	7.0	69.0
Sep 22			3,080	1,733	2,812	106	0	1,971	483	1			3	3	89.5	1.4	*	*
Sep 23			2,221	1,502	2,555	103	0	1,722	409	3			1	0	89.2	1.4	7.0	67.0
Sep 24			1,987	1,382	2,223	126	0	1,554	362	0			1	1	88.1	1.4	6.0	67.0
Sep 25			1,712	1,126	2,188	109	0	1,664	410	1			2	0	104.2	1.4	7.0	67.0
Sep 26			1,588	957	2,409	86	0	1,949	467	0			5	0	93.7	1.4	7.0	67.0
Sep 27			1,223	858	1,648	70	0	1,429	339	2			0	-1	76.7	1.4	7.0	67.0
Sep 28			1,097	918	1,975	96	0	1,719	398	0			6	0	78.9	1.5	7.0	67.0
Sep 29			1,747	826	1,420	66	0	1,472	359	0			5	0	92.6	1.5	6.0	66.0
Sep 30			1,498	920	1,793	115	0	1,310	320	1			4	1	83.4	1.5	7.0	66.0
TOTAL			159,088	72,614	100,702	3,592	2	97,236	21,651	74			203	10				
AVG			5,303	2,420	3,357	120	0	3,241	722				7	0	84.1	1.5	6.8	69.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	81,936	37,416
FALL	270,779	109,281
TOTAL	467,240	213,328

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
135,562	6,177	177,823	584,650	166,508	84	4	1,373,738	8,637	20

TABLE 15

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

OCTOBER 2009

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			730	532	1,752	84		947	216	7	0		0	2	93.8	1.4	7.0	66.0
Oct 2			783	477	2,923	156		1,118	279	1	0		-1	2	84.6	1.5	7.0	66.0
Oct 3			648	399	3,960	187		1,177	321	0	0		-1	0	78.9	1.5	7.0	66.0
Oct 4			622	320	3,361	141		937	252	0	0		0	0	79.2	1.5	7.0	65.0
Oct 5			770	367	5,539	268		1,169	304	1	0		2	0	84.8	1.3	6.0	65.0
Oct 6			1,163	610	5,386	322		1,142	296	0	0		-1	0	83.8	1.4	7.0	65.0
Oct 7			900	395	5,148	208		947	249	0	0		-2	0	87.0	1.3	7.0	65.0
Oct 8			451	193	3,713	159		792	196	0	0		1	1	106.9	1.3	7.0	65.0
Oct 9			496	210	4,415	194		943	234	0	0		1	1	97.6	1.3	7.0	63.0
Oct 10			390	224	2,800	134		664	144	0	0		2	0	89.1	1.4	7.0	63.0
Oct 11			591	189	3,800	166		774	180	0	0		0	2	89.0	1.3	4.0	62.0
Oct 12			335	123	1,778	80		462	120	0	0		0	0	98.3	1.4	*	61.0
Oct 13			400	95	1,859	65		425	123	0	0		1	1	101.8	1.4	6.0	60.0
Oct 14			522	140	2,708	88		429	150	0	0		0	3	93.1	1.3	6.0	60.0
Oct 15			350	104	2,570	80		420	127	0	0		0	-2	113.5	1.3	7.0	59.0
Oct 16			372	129	4,887	115		454	138	0	0		-1	-1	88.6	1.3	7.0	59.0
Oct 17			466	179	4,100	118		718	229	0	0		0	1	90.3	1.4	7.0	59.0
Oct 18			467	204	4,309	103		848	304	0	0		1	1	77.4	1.3	6.8	59.0
Oct 19			333	118	3,138	105		538	161	1	0		0	4	87.5	1.3	7.0	59.0
Oct 20			143	38	2,459	85		358	113	0	0		-2	0	92.3	1.3	6.8	59.0
Oct 21			138	38	2,402	80		275	96	0	0		0	3	104.9	1.4	7.0	59.0
Oct 22			127	64	1,990	78		234	77	1	0		-2	0	101.1	1.3	7.0	59.0
Oct 23			125	34	1,765	39		182	61	0	1		0	0	74.4	1.3	3.0	59.0
Oct 24			166	29	1,748	59		200	64	0	1		-5	0	75.7	1.4	7.0	59.0
Oct 25			103	31	1,173	36		233	77	0	1		-4	1	114.0	1.3	7.0	58.0
Oct 26			128	19	1,086	36		189	75	0	0		-1	0	92.6	1.3	6.0	57.0
Oct 27			161	43	1,899	57		254	92	0	3		0	0	93.9	1.1	6.5	57.0
Oct 28			117	36	740	40		190	72	0	4		0	1	119.0	1.3	7.0	56.0
Oct 29			79	14	658	20		142	56	0	4		0	0	113.3	1.2	7.0	56.0
Oct 30			132	24	1,559	51		170	79	0	3		-1	0	78.1	1.1	7.0	55.0
Oct 31			193	44	954	46		204	84	0	8		-1	0	80.1	1.2	6.0	55.0
TOTAL			12,401	5,422	86,579	3,400		17,535	4,969	11	25		-14	20				
AVG			400	175	2793	110		566	160		1		0	1	92.4	1.3	6.6	60.5

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	81,936	37,416
FALL	283,180	114,703
TOTAL	479,641	218,750

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
222,141	9,577	177,823	602,185	171,477	95	29	1,373,738	8,623	40

TABLE 16

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT - FISH COUNTS

NOVEMBER 2009

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
Nov 1			114	22	428	24		121	61		5		0	0	95.1	1.1	6.2	55.0
Nov 2			52	12	411	18		141	63		5		1	0	110.4	1.1	7.0	55.0
Nov 3			72	18	339	14		116	53		5		0	0	121.3	1.2	7.0	54.0
Nov 4			55	9	251	20		113	58		5		0	1	120.8	1.2	7.0	53.0
Nov 5			11	1	187	16		80	29		6		0	3	119.9	1.2	6.0	53.0
Nov 6			47	11	116	12		56	26		5		0	-3	110.9	1.2	6.0	53.0
Nov 7			19	4	92	17		73	22		3		0	2	115.8	1.2	6.0	53.0
Nov 8			24	7	140	13		61	28		6		0	0	129.0	1.2	7.0	53.0
Nov 9			19	-2	126	12		53	17		4		0	0	138.0	1.2	6.0	53.0
Nov 10			10	0	132	10		61	12		2		-1	2	122.2	1.2	7.0	53.0
Nov 11			1	1	63	5		38	15		2		0	-4	121.0	1.2	6.5	53.0
Nov 12			18	2	64	6		38	19		2		0	6	121.3	1.2	6.0	53.0
Nov 13			22	1	37	2		45	17		0		0	0	119.3	1.2	6.0	53.0
Nov 14			22	4	48	3		53	18		2		-1	-1	119.5	1.2	6.0	53.0
Nov 15			25	1	22	1		30	5		4		0	1	121.7	1.2	7.0	52.0
Nov 16			21	0	17	1		40	11		2		2	1	120.4	1.2	6.0	52.0
Nov 17			8	0	15	2		29	6		5		0	-1	110.9	1.2	7.0	51.0
Nov 18			4	0	10	3		37	10		1		1	0	115.0	1.2	7.0	51.0
Nov 19			10	0	42	3		59	19		1		0	0	130.6	1.2	7.0	50.0
Nov 20			10	-1	74	7		31	8		3		0	1	114.4	1.2	6.0	50.0
Nov 21			5	1	38	4		35	19		3		0	0	117.7	1.2	6.0	50.0
Nov 22			6	1	44	3		33	14		0		0	0	109.4	1.2	6.0	50.0
Nov 23			9	0	9	2		19	11		3		0	1	118.8	1.2	7.0	50.0
Nov 24			8	0	9	1		21	4		3		0	-1	123.5	1.1	7.0	50.0
Nov 25			1	0	3	0		25	10		0		0	-1	126.3	1.2	*	50.0
Nov 26			5	-1	4	0		36	9		1		0	0	124.4	1.2	7.0	50.0
Nov 27			3	0	7	1		41	13		0		0	0	121.2	1.2	7.0	50.0
Nov 28			3	0	1	0		51	17		1		0	0	121.9	1.2	7.0	49.0
Nov 29			2	-1	8	0		52	13		0		0	1	120.6	1.1	7.0	49.0
Nov 30			1	0	-3	2		32	11		0		0	0	119.2	1.2	7.0	48.0
TOTAL			607	90	2,734	202		1,620	618		79		2	8				
AVG			20	3	91	7		54	21		3		0	0	119.4	1.2	6.6	51.6

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	81,936	37,416
FALL	283,691	114,794
TOTAL	480,152	218,841

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
224,597	9,750	177,823	603,264	171,920	95	108	1,373,738	8,622	48

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 2009

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			4	0	-3	0		26	6				0	0	121.6	0.5	7.0	48.0
Dec 2			1	0	5	0		43	14				0	0	125.6	0.5	6.2	48.0
Dec 3			4	-1	-3	1		38	8				-1	-1	126.3	0.9	4.0	47.0
Dec 4			0	0	1	0		34	7				0	0	119.6	0.9	7.0	47.0
Dec 5			1	0	-3	0		27	1				0	0	134.5	0.6	5.0	46.0
Dec 6			0	0	1	1		31	7				0	0	140.2	0.5	5.0	45.0
Dec 7			0	0	3	0		24	3				-2	0	149.1	3.4	5.0	44.0
Dec 8			0	-1	3	0		29	8				0	0	144.7	1.6	5.0	43.0
Dec 9			0	0	3	0		32	9				0	0	145.2	1.4	7.0	43.0
Dec 10			0	0	4	0		24	6				0	0	148.9	0.6	7.0	43.0
Dec 11			1	0	-2	0		25	3				0	0	135.0	0.6	6.0	42.0
Dec 12			0	0	-1	0		22	2				0	0	142.4	0.5	7.0	42.0
Dec 13			1	0	3	1		64	16				0	0	139.2	0.5	4.0	42.0
Dec 14			1	0	3	0		29	8				0	0	120.6	0.6	6.5	42.0
Dec 15			0	0	0	0		13	1				0	0	140.5	0.6	5.2	42.0
Dec 16			2	0	2	-1		19	3				0	1	136.6	0.5	5.0	42.0
Dec 17			0	0	2	0		32	7				0	0	130.3	0.5	5.6	42.0
Dec 18			0	0	1	0		34	5				0	0	113.4	0.5	5.0	42.0
Dec 19			0	0	1	0		27	6				0	0	116.0	0.5	5.0	42.0
Dec 20			2	0	3	2		35	11				0	1	117.5	0.5	5.0	42.0
Dec 21			0	0	-4	-2		26	5				0	0	111.3	0.5	7.0	42.0
Dec 22			0	0	2	-1		34	5				0	0	112.5	0.5	7.0	41.0
Dec 23			0	0	3	1		16	1				0	0	133.4	0.5	7.0	41.0
Dec 24			0	0	2	0		17	7				0	0	142.5	0.6	6.0	41.0
Dec 25			0	0	0	-1		23	3				0	0	130.8	0.5	7.0	39.0
Dec 26			0	0	0	-1		31	8				0	0	131.4	0.5	5.0	38.0
Dec 27			0	0	2	-1		18	6				0	0	135.2	0.6	5.0	38.0
Dec 28			0	0	0	-1		9	2				0	0	139.6	0.5	7.0	38.0
Dec 29			0	0	-1	-1		12	1				0	0	141.0	0.5	7.0	39.0
Dec 30			0	0	1	0		19	5				0	0	124.5	0.5	7.0	39.0
Dec 31			0	0	-6	0		31	5				0	0	132.0	0.6	7.0	39.0
TOTAL			17	-2	22	-3		844	179				-3	1				
AVG			1	0	1	0		27	6				0		131.7	0.7	6.0	42.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	114,525	66,631
SUMMER	81,936	37,416
FALL	283,691	114,794
TOTAL	480,152	218,841

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	CHUM	SHAD	LAMPREY	STURGEON
224,597	9,750	177,823	603,264	171,920	95	108	1,373,738	8,622	49

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 - 2009

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	401,942	151,800	55,464	12,402	1,865	11	623,484
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 - 2009

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	282,665	97,541	99,660	17	0	980,895
2001	1,037,440	676,793	123,416	277,934	29	-4	2,115,608
2002	925,121	510,680	51,200	100,835	72	0	1,587,908
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	526,534	339,141	37,066	110,053	155	6	1,012,955
2007	357,562	323,917	24,376	96,576	121	27	802,579
2008	587,428	357,820	213,607	146,059	75	60	1,305,049
2009	699,121	604,970	177,823	234,669	108	95	1,716,786
Total	29,158,139	14,826,813	6,040,532	3,342,044	40,190	3,111	53,410,829
10-Year Average	713,749	409,084	96,058	140,830	121	84	1,359,926

***Jacks included**

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

TABLE 18b

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

1938 - 2009

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	401,942	151,800	55,464	12,402	1,865	11	623,484
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 - 2009

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	924,585	480,309	49,610	94,901	72	0	1,549,477
2003	992,231	361,412	39,291	133,870	411	637	1,527,852
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	526,534	339,141	37,066	110,053	155	6	1,012,955
2007	357,562	323,917	24,376	96,576	121	27	802,579
2008	587,428	357,820	213,607	146,059	75	60	1,305,049
2009	699,121	604,970	177,823	234,669	108	95	1,716,786
Total	29,041,995	14,691,607	6,022,483	3,320,117	40,190	3,111	53,119,503
10-Year Average	705,710	400,485	94,637	138,812	121	84	1,339,848

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

TABLE 19

MONTHLY COUNT OF CHINOOK SALMON

BONNEVILLE DAM - 1938 - 2009

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	303,939	4,485	639	190	401,752	40,471	24,637	336,644
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 - 1938-2009

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	1,875	149,293	124,122	89,419	45,969	149,283	344,754	18,449	1,421	255	925,121	275,571	135,388	514,162
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	90	526,534	99,366	101,874	325,294
2007	1	1	75	31,919	51,256	39,619	21,949	53,174	136,977	21,707	851	33	357,562	83,252	61,568	212,742
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
TOTAL	119	401	98,293	4,096,814	3,193,245	2,385,124	1,685,577	3,462,803	13,476,556	716,436	41,199	1,382	29,157,949	7,388,872	4,070,701	17,698,376
10-Year Average			4,206	96,442	88,731	63,975	32,999	98,999	303,445	22,986	1,826		713,749	189,421	96,973	427,355

***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 - 2009 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 - 2009

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 - 2009

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
TOTAL			76	541	8,426	2,795,232	3,188,805	44,588	2,689	137	37	1	6,040,532
10-Year Average					49	76,948	18,924	131	7				96,058

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.

2003-2009 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 - 2009

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 - 2009

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							0	12,771	58,048	35,014	4,192	28	110,053	7,943
2007	-2						6	8,888	55,968	28,712	2,947	57	96,576	12,125
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
TOTAL	30	31	6	1	0	179	5,532	309,433	2,321,233	646,788	58,327	484	3,342,044	669,107
10 Year Average							18	14,568	84,815	39,323	2,064		140,830	14,173

***Jacks included**

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.

2003-09 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 -2009

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 - 2009

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	1,235	339,141	180,418	158,723
2007	601	387	1,514	1,020	1,666	6,789	58,362	185,281	54,543	11,734	1,332	688	323,917	232,586	91,331
2008	133	106	780	1,427	1,896	12,509	122,870	102,636	107,693	6,053	1,325	392	357,820	223,918	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
TOTAL	8,457	8,405	73,584	194,007	176,198	511,697	4,204,829	5,374,139	3,822,277	379,599	59,625	14,266	14,827,083	9,572,480	5,257,655
10-Year Average			1,354	1,572	2,176	13,071	99,456	170,852	101,047	15,076	2,571		409,111	260,482	148,629

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 - 2009 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 - 2009

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 - 2009

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
TOTAL			14	457	7,493,011	54,973,903	8,008,461	143,827	4,136	593	36		70,624,438
10 Year - Average					396,894	2,572,638	119,592	3,091					3,092,221

TABLE 24a

MONTHLY COUNT OF LAMPREY at BONNEVILLE DAM 1939[1] - 1969, 1997 – 2009

The counts in the following table can be considered an approximation of trends, only. Lamprey are difficult animals to count in that they move back and forth in front of the fish count window. They also spend long periods of time resting. Lamprey also are more likely to pass at night than are salmon and for most of the years, fish counting took place only in the daytime. Further, 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. This change could have made a difference in the counts. 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
TOTAL			3	4,085	166,189	771,468	1,774,425	872,590	144,304	12,031	1,266		3,746,377
10-Year Average				10	1,288	16,022	17,687	6,109	2,186	131			43,433

[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.

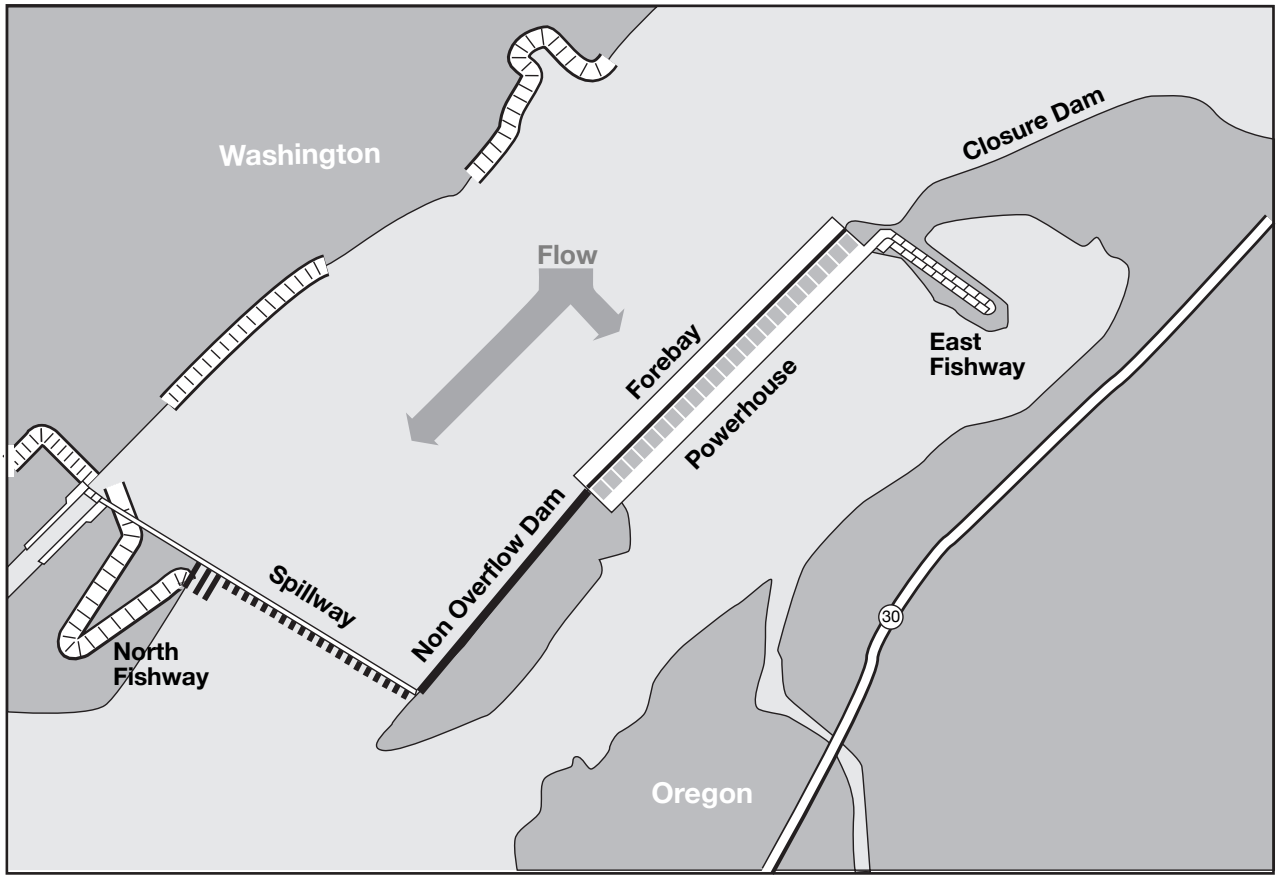
[3]Because of the heavy shad run, fish counters were not asked to count lamprey from June 1 through July 27.

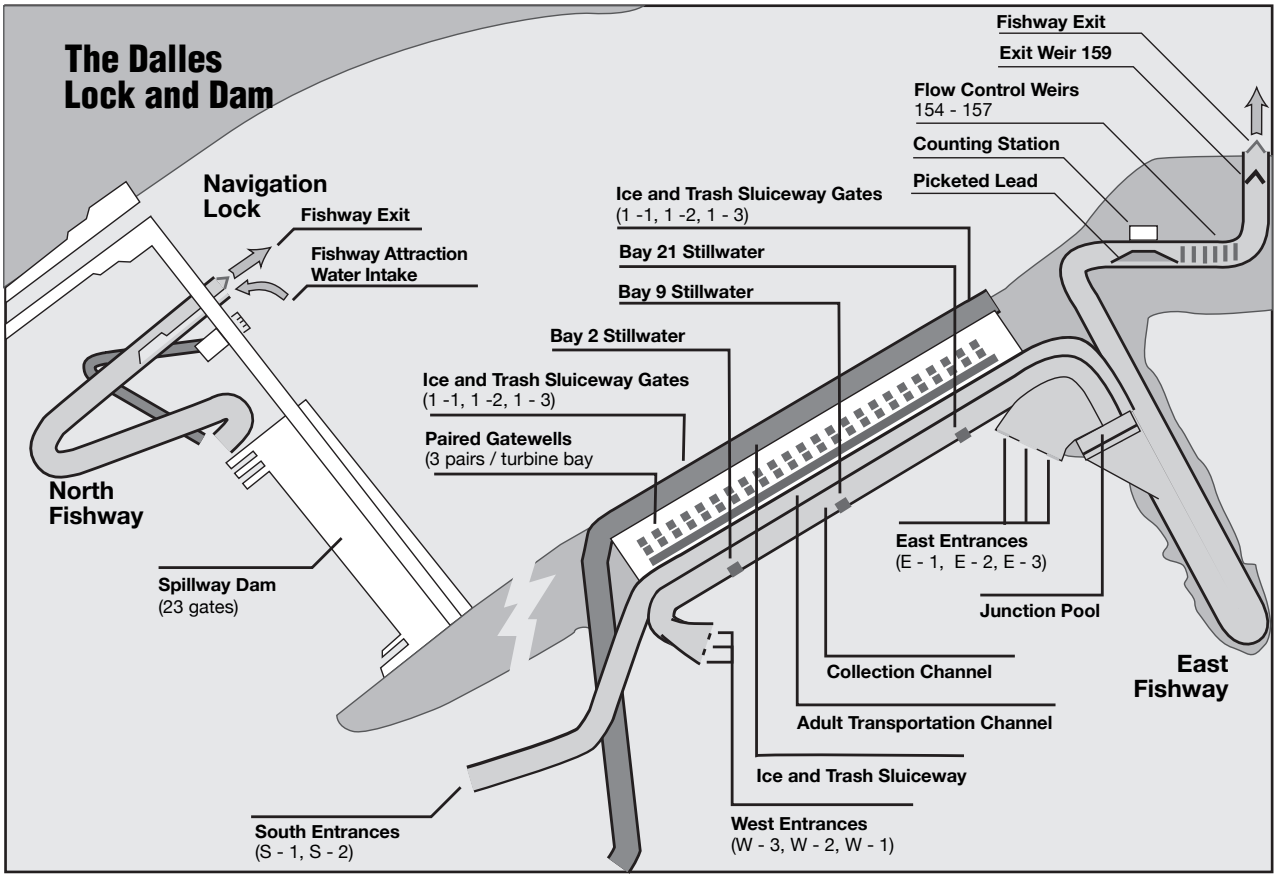
NIGHT COUNT OF LAMPREY 2009
BONNEVILLE DAM

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

Note: video counting for night lamprey passage at Bonneville June 15 - September 30
Not included with the Daytime total lamprey counts.

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 2009. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports.

East Adult Fishway

Jan 1 – Jan 8: dewatered for winter maintenance
Jan 8 – Nov 30: in full operation with attraction water
Aug 4: attraction water off half day for required ROV grating inspection
Dec 3 – Dec 31: dewatered for winter maintenance

North Adult Fishway

Jan 1- Jan 14: in full operation with attraction water
Jan 14 – Feb 4: dewatered for winter maintenance
Feb 5 - Dec 31: in full operation with attraction water
Aug 4: attraction water off half day for required ROV grating inspection

Ice/Trash Sluiceway (Juvenile)

Jan 1- Mar 1: OOS, end gate closed
Mar 2 – Dec 13: IN service with skimmer gates
(season extended due to research)
Dec 14 -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; catfish=cc, smallmouth bass=smb, sturgeon=st, juvenile=j, adult=a

Date	Event	Chinook	Steelhead	Coho	Lamprey	Shad	Sturgeon	Morts
1/14/09	N. upper	0	1j	1a	1a	0	0	0
12/3/09∗	E. upper	0	7a, 9j	2a	0	58a	2a	0
12/8/09†	E. ent.(s)	0	3a, 1j	1a	20a	0	1a, 7j	8sh
12/29/09‡	E. ent.(s)	1j	0	1a	0	0	1a, 5j	1sh

∗ Sturgeon were 6', and 10'.
†East ladder; east, west, south entrances, junction pool, collection and transportation channels. Sturgeons ~ 2' - 3', one ~ 6'. The Nez Perce Tribe took delivery on the 20 lamprey removed from the ladder for out-planting.
‡ The east fish ladder pumps were shut off due to oil in tailrace. 12/17. East ladder fished again 12/29/09. Largest sturgeon ~7'.

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; adult=a, juvenile=j, scroll case=sc, draft tube=dt, catfish=ca, sculpin=sp, sturgeon=st

Date	Event	Steelhead	Shad	Sturgeon	Other	Comments
6/29/09	MU 7 sc	0	0	0	0	no fish
6/29/09	MU 8 sc	0	0	3j	2 ca	st < 1'
6/30/09	MU 7 dt	0	1a	1j	4ca	None
6/31/09	MU 8 dt	0	0	1	19 a ca	ca 1'-2',st 3'
11/3/09	MU 19 sc	1 j	2	0	0	None
11/4/09	MU 19 dt	0	0	0	4 sp	None
11/16/09	MU 8 sc	0	0	0	0	None
11/20/09	MU 13 sc	0	0	0	0	None
11/20/09	MU 13 dt	0	0	0	0	None
12/2/09	FU 2 sc	0	0	0	0	None

TABLE 25

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

2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				8,464	132,674	83,688	30,189	74,468	176,655	19,699			525,837
STEELHEAD				986	392	4,181	51,667	165,723	233,187	58,975			515,111
SOCKEYE					27	114,162	41,260	126	16				155,591
COHO*							4	8,214	29,912	39,362			77,492
CHUM										7			7
PINK								0	20	8			28
TOTAL				9,450	133,093	202,031	123,120	248,531	439,790	118,051			1,274,066
SHAD					248,151	1,354,347	37,596	1,268					1,641,362
LAMPREY						455	1,293	428	141	1			2,318
STURGEON					2	16	30	28	12	3			91
BULL TROUT													0

*Jacks included
Shad are not counted after August 31.

TABLE 26

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2009

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	107.8	0.0	6.0	38.0
Jan 2	113.4	0.0	6.0	38.0
Jan 3	153.8	0.0	6.0	38.0
Jan 4	156.4	0.0	6.0	38.0
Jan 5	153.2	0.0	6.0	38.0
Jan 6	162.3	0.0	6.0	38.0
Jan 7	167.1	0.0	6.0	38.0
Jan 8	147.8	0.0	6.0	38.0
Jan 9	175.7	0.0	6.0	39.0
Jan 10	162.7	0.0	6.0	40.0
Jan 11	146.4	0.0	6.0	40.0
Jan 12	165.0	0.0	6.0	40.0
Jan 13	156.2	0.0	6.0	40.0
Jan 14	192.3	0.0	6.0	39.0
Jan 15	192.3	0.0	6.0	40.0
Jan 16	206.1	0.0	6.0	40.0
Jan 17	192.7	0.0	6.0	40.0
Jan 18	183.9	0.0	5.5	40.0
Jan 19	186.5	0.0	4.5	40.0
Jan 20	163.5	0.0	3.0	39.0
Jan 21	176.0	0.0	2.0	39.0
Jan 22	163.7	0.0	2.0	39.0
Jan 23	163.8	0.0	2.5	39.0
Jan 24	157.6	0.0	3.0	39.0
Jan 25	143.7	0.0	3.0	38.0
Jan 26	168.4	0.0	3.0	38.0
Jan 27	191.1	0.0	4.0	38.0
Jan 28	173.0	0.0	4.0	38.0
Jan 29	156.5	0.0	3.0	37.0
Jan 30	165.2	0.0	3.5	37.0
Jan 31	141.7	0.0	4.0	38.0
AVG.	164.1	0.0	4.8	38.7

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	130.5	0.0	4.0	38.0
Feb 2	125.9	0.0	3.0	37.0
Feb 3	115.0	0.0	4.5	37.0
Feb 4	126.2	0.0	5.5	37.0
Feb 5	117.9	0.0	4.0	37.0
Feb 6	106.5	0.0	4.5	38.0
Feb 7	113.7	0.0	4.5	38.0
Feb 8	111.0	0.0	6.0	37.0
Feb 9	123.1	0.0	6.0	37.0
Feb 10	116.7	0.0	5.0	38.0
Feb 11	134.6	0.0	6.0	37.0
Feb 12	150.5	0.0	4.0	37.0
Feb 13	112.5	0.0	3.5	37.0
Feb 14	112.3	0.0	3.5	38.0
Feb 15	114.1	0.0	3.5	38.0
Feb 16	116.2	0.0	5.0	37.0
Feb 17	113.8	0.0	6.0	37.0
Feb 18	111.9	0.0	6.0	37.0
Feb 19	122.6	0.0	6.0	37.0
Feb 20	121.7	0.0	6.0	38.0
Feb 21	124.7	0.0	6.0	38.0
Feb 22	124.4	0.0	4.0	38.0
Feb 23	124.4	0.0	6.0	40.0
Feb 24	103.6	0.0	6.0	41.0
Feb 25	96.9	0.0	6.0	42.0
Feb 26	125.0	0.0	5.5	41.0
Feb 27	140.6	0.0	6.0	40.0
Feb 28	110.1	0.0	6.0	38.0
AVG.	119.5	0.0	5.1	38.0

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	112.9	0.0	5.5	38.0
Mar 2	112.0	0.0	6.0	38.0
Mar 3	108.6	0.0	4.5	39.0
Mar 4	124.7	0.0	6.0	39.0
Mar 5	118.1	0.0	5.5	39.0
Mar 6	134.4	0.0	4.0	40.0
Mar 7	102.9	0.0	4.0	40.0
Mar 8	113.4	0.0	4.0	40.0
Mar 9	108.4	0.0	4.0	40.0
Mar 10	110.6	0.0	5.0	40.0
Mar 11	111.1	0.0	5.0	40.0
Mar 12	117.9	0.0	4.5	40.0
Mar 13	114.9	0.0	4.0	40.0
Mar 14	108.3	0.0	4.0	40.0
Mar 15	100.2	0.0	4.0	40.0
Mar 16	113.7	0.0	4.0	40.0
Mar 17	128.6	0.0	4.0	41.0
Mar 18	136.5	0.0	4.5	41.0
Mar 19	118.2	0.0	6.0	42.0
Mar 20	110.0	0.0	5.0	42.0
Mar 21	112.1	0.0	5.0	42.0
Mar 22	111.8	0.0	4.0	42.0
Mar 23	137.9	0.0	4.0	42.0
Mar 24	150.7	0.0	4.0	42.0
Mar 25	129.8	0.0	3.5	43.0
Mar 26	163.2	0.0	6.0	44.0
Mar 27	159.0	0.0	6.0	43.0
Mar 28	144.6	0.0	5.0	44.0
Mar 29	156.0	0.0	4.0	44.0
Mar 30	179.7	0.0	3.0	44.0
Mar 31	157.9	0.0	5.0	43.0
AVG.	126.1	0.0	4.6	41.0

TABLE 27

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

APRIL 2009

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
Apr 1	10			0				44	22					150.9	0.0	4.5	43.0
Apr 2	13			0				31	14					148.9	0.0	4.0	43.0
Apr 3	22			0				51	18					145.1	0.0	4.0	44.0
Apr 4	19			0				37	12					153.1	0.0	4.0	45.0
Apr 5	20			1				44	18					139.7	0.0	3.5	45.0
Apr 6	24			0				28	8					149.7	0.0	3.0	45.5
Apr 7	26			0				30	15					161.1	0.0	3.0	45.0
Apr 8	18			0				31	14					129.4	0.0	2.5	45.0
Apr 9	60			1				32	12					170.2	0.0	2.5	45.0
Apr 10	34			0				34	17					212.0	84.7	2.5	45.0
Apr 11	53			0				61	20					202.3	81.2	2.5	45.0
Apr 12	30			0				59	28					221.8	88.9	2.0	49.0
Apr 13	61			0				98	42					193.9	77.8	2.0	49.0
Apr 14	65			0				80	34					249.7	99.8	3.0	46.7
Apr 15	73			0				72	23					248.7	99.2	3.0	47.0
Apr 16	61			0				64	34					217.8	87.0	3.0	46.6
Apr 17	50			0				34	18					233.8	93.3	2.5	48.0
Apr 18	55			1				16	8					227.7	91.3	2.5	48.0
Apr 19	75			1				21	8					207.7	83.5	2.5	49.0
Apr 20	114			2				23	12					235.9	94.0	2.5	49.0
Apr 21	232			4				12	6					231.0	92.5	2.5	49.0
Apr 22	262			5				16	10					240.1	91.2	2.0	48.9
Apr 23	251			14				8	6					288.9	98.2	2.5	49.4
Apr 24	479			24				16	6					317.7	115.3	2.0	49.3
Apr 25	782			38				13	8					280.4	112.5	2.0	49.3
Apr 26	904			59				14	7					293.1	117.2	2.5	49.0
Apr 27	1,272			49				4	2					270.2	107.9	2.5	49.0
Apr 28	1,070			77				6	4					264.3	105.8	2.5	50.0
Apr 29	727			80				1	0					240.3	96.2	3.0	50.0
Apr 30	1,054			192				6	1					252.2	100.4	3.0	50.0
TOTAL	7,916			548				986	427								
AVG.	264			18				33	14					215.9	67.3	2.8	47.2

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

TABLE 28

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

MAY 2009

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
May 1	1,115			192			0	6	6		0		0	216.9	86.6	3.0	50.0
May 2	1,618			265			0	4	4		0		0	204.0	81.8	3.0	50.0
May 3	2,647			547			0	14	2		0		0	178.3	71.7	2.5	50.0
May 4	5,447			861			0	4	3		0		0	186.6	74.7	2.8	51.0
May 5	5,366			1,219			0	10	2		0		1	192.1	76.8	2.5	50.3
May 6	2,994			724			0	9	5		0		0	236.4	94.1	2.5	50.6
May 7	3,199			1,170			0	1	0		0		0	240.7	96.1	3.0	50.5
May 8	2,803			1,626			0	12	5		0		0	217.9	87.3	3.0	50.6
May 9	3,290			2,137			0	16	6		0		0	237.5	95.0	4.0	51.0
May 10	3,720			2,747			0	7	0		0		0	203.2	81.5	3.0	51.5
May 11	3,429			3,253			0	8	1		0		0	224.6	80.9	3.0	52.0
May 12	3,042			2,531			0	2	1		4		0	234.2	86.8	2.0	51.0
May 13	2,936			2,300			0	13	2		0		0	260.5	102.5	2.5	52.0
May 14	3,032			2,826			0	3	2		1		0	217.0	86.8	2.5	53.0
May 15	1,885			1,839			0	6	1		1		0	227.9	91.0	2.5	54.0
May 16	1,877			2,585			0	6	0		1		0	237.6	92.8	3.0	54.0
May 17	3,145			3,550			0	11	1		4		0	230.3	85.8	3.0	54.3
May 18	3,162			4,431			0	8	2		10		0	253.1	81.3	3.0	54.0
May 19	2,800			2,899			0	13	6		18		0	262.8	83.2	2.0	54.8
May 20	2,424			2,435			0	8	0		126		0	289.2	94.0	2.5	54.6
May 21	2,295			2,327			0	10	2		249		0	302.3	116.8	2.5	55.2
May 22	1,712			1,226			0	13	2		70		0	307.3	123.1	2.5	55.9
May 23	3,109			2,041			0	13	0		702		1	271.8	109.1	2.0	56.0
May 24	1,667			873			0	13	1		380		0	293.5	112.5	2.5	57.0
May 25	2,503			1,082			0	21	2		1,604		0	322.2	115.7	2.5	57.0
May 26	1,727			815			0	18	-1		1,488		0	327.7	125.3	3.0	57.0
May 27	1,832			880			1	26	0		1,966		0	325.0	130.3	3.0	58.0
May 28	1,647			712			2	26	1		32,792		0	321.3	128.6	3.0	59.0
May 29	1,843			501			7	32	12		72,422		0	349.4	115.3	3.0	59.0
May 30	1,471			506			6	27	4		51,547		0	334.0	110.0	3.0	59.0
May 31	1,518			319			11	32	2		84,766		0	331.4	104.4	3.0	59.0
TOTAL	81,255			51,419			27	392	74		248,151		2				
AVG.	2,621			1659			1	13	2		8,005		0	259.2	97.5	2.8	53.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	STURGEON
SPRING	89,171	51,967	27	1,378	501	248,151	2

TABLE 29

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JUNE 2009

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	1,365			513			22	32	8		84,853	0	0	330.4	99.8	3.0	59.0
Jun 2	1,630			600			34	25	2		103,207	0	0	331.7	100.0	2.5	59.2
Jun 3	1,742			566			41	30	6		76,534	0	1	326.9	100.0	2.5	59.4
Jun 4		1,708		738			102	29	1		66,967	0	0	325.5	100.0	2.5	59.4
Jun 5		1,904		552			134	44	3		66,671	1	1	332.5	100.0	2.0	59.5
Jun 6		1,791		553			156	60	4		36,342	4	0	336.5	104.8	2.3	59.5
Jun 7		2,209		556			199	39	1		39,482	0	0	340.2	120.7	2.3	59.5
Jun 8		1,729		653			290	37	2		32,377	5	2	341.4	135.7	2.0	59.7
Jun 9		2,037		514			568	50	10		52,958	0	0	346.4	138.6	2.0	60.1
Jun 10		2,133		1,024			907	74	6		96,096	7	0	306.4	123.0	2.0	60.2
Jun 11		2,205		786			918	76	11		88,722	2	0	285.1	113.7	3.0	60.0
Jun 12		2,627		740			872	94	18		58,338	8	0	238.8	95.7	3.0	61.0
Jun 13		2,540		670			1,403	66	13		47,879	7	0	246.4	98.6	3.0	61.0
Jun 14		2,122		770			1,559	98	20		36,938	6	0	237.2	94.8	3.0	62.0
Jun 15		2,977		1,037			2,410	85	9		48,097	21	0	222.0	88.8	3.8	62.0
Jun 16		2,737		1,167			3,252	124	19		50,330	12	0	236.5	94.4	3.0	61.5
Jun 17		2,935		740			3,443	114	18		52,762	18	0	212.2	85.0	3.3	61.9
Jun 18		1,896		812			4,250	110	29		42,763	32	1	241.6	96.5	3.5	62.6
Jun 19		1,968		745			5,379	123	22		38,177	41	1	261.8	104.7	3.0	62.5
Jun 20		2,389		1,157			6,391	237	76		41,616	24	0	250.6	100.2	3.0	62.7
Jun 21		3,216		899			8,642	165	38		36,899	16	1	242.3	97.1	3.0	62.0
Jun 22		2,103		867			6,824	164	48		26,034	13	4	221.7	88.5	3.0	62.0
Jun 23		2,164		521			6,248	230	50		31,496	26	0	269.8	107.8	3.0	62.0
Jun 24		1,488		674			7,996	274	72		13,432	21	0	273.1	109.2	4.0	62.0
Jun 25		2,485		481			7,110	227	64		30,476	17	0	242.8	96.8	4.0	62.0
Jun 26		1,440		704			7,380	220	65		17,908	18	0	213.2	85.2	4.0	63.0
Jun 27		1,229		996			7,408	278	92		11,591	18	3	236.2	95.5	3.0	64.0
Jun 28		1,622		690			8,984	273	84		8,424	75	0	232.0	92.3	3.5	64.0
Jun 29		1,810		835			11,666	330	108		11,622	15	0	213.2	85.5	3.0	64.0
Jun 30		1,491		436			9,574	473	153		5,356	48	2	210.4	84.2	3.3	63.8
TOTAL	4,737	56,955		21,996			114,162	4,181	1,052		1,354,347	455	16				
AVG.	1,579	2109		733			3,805	139	35		45,145	15	1	270.2	101.2	2.9	61.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	93,908	53,646
SUMMER	56,955	20,317
TOTAL	150,863	73,963

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
114,189	5,559	1,553

SHAD	LAMPREY	STURGEON
1,602,498	455	18

TABLE 30

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

JULY 2009

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		779		602	0		5,614	409	148		5,945	32	0	193.4	77.4	2.5	64.2
Jul 2		1,386		691	0		6,524	574	250		4,487	38	1	131.5	52.8	3.5	64.9
Jul 3		1,315		404	0		5,244	535	224		6,385	57	0	158.6	63.4	3.5	65.3
Jul 4		2,147		305	0		5,783	821	333		8,637	26	3	128.7	51.6	3.0	65.9
Jul 5		1,380		271	0		2,926	824	380		4,758	35	2	137.6	55.1	3.5	66.0
Jul 6		1,786		384	0		3,833	932	462		958	20	3	158.3	63.4	3.0	65.6
Jul 7		1,140		408	0		2,222	1,012	432		326	22	0	171.8	68.8	3.5	66.0
Jul 8		1,425		395	0		1,524	958	271		208	49	0	190.4	75.5	4.0	66.0
Jul 9		621		261	0		1,156	1,079	480		164	70	0	188.7	75.5	4.0	66.0
Jul 10		412		177	0		905	823	329		80	32	1	193.6	77.2	3.0	67.0
Jul 11		510		210	0		959	975	458		108	23	2	197.1	78.8	4.0	68.0
Jul 12		700		191	0		1,013	1,111	478		2,480	55	0	134.3	53.9	3.0	68.0
Jul 13		594		262	0		677	1,162	555		400	47	0	160.2	64.0	4.0	67.0
Jul 14		653		201	0		489	1,012	472		162	24	0	174.0	69.7	3.0	66.3
Jul 15		1,228		286	0		325	1,663	718		107	30	2	156.1	62.5	3.3	67.6
Jul 16		679		173	0		268	1,665	688		199	47	0	149.5	59.7	2.5	67.9
Jul 17		467		163	0		298	1,968	850		460	41	2	154.6	62.0	3.5	68.2
Jul 18		500		235	0		332	2,036	996		277	47	0	132.1	52.7	3.0	68.3
Jul 19		630		165	0		261	1,796	671		263	55	1	140.5	56.4	3.3	69.0
Jul 20		771		284	0		259	2,014	640		144	81	1	142.0	56.8	3.5	69.0
Jul 21		625		231	0		139	2,085	812		104	74	4	137.9	55.1	4.0	69.0
Jul 22		539		181	0		162	2,563	1,291		117	54	0	129.5	51.5	4.0	69.0
Jul 23		378		127	0		93	3,326	1,354		274	47	1	106.8	42.8	4.0	70.0
Jul 24		399		112	0		66	3,665	1,775		190	42	0	124.9	50.2	4.0	70.0
Jul 25		367		158	0		46	3,427	1,610		105	19	0	127.7	51.1	4.0	71.0
Jul 26		261		100	0		37	3,652	1,728		87	41	0	114.4	45.8	4.0	71.0
Jul 27		280		101	2		25	3,438	1,524		57	20	0	143.2	57.2	4.0	72.0
Jul 28		200		72	0		27	2,106	890		19	36	0	161.1	64.5	3.3	72.1
Jul 29		287		95	2		14	1,716	602		25	31	3	157.2	62.7	4.0	72.9
Jul 30		195		106	0		27	1,275	546		30	39	3	141.3	56.4	4.0	73.0
Jul 31		105		79	0		12	1,045	403		40	59	1	128.8	51.5	3.3	73.7
TOTAL		22,759		7,430	4		41,260	51,667	22,370		37,596	1,293	30				
AVG		734		240	0		1,331	1,667	722		1,213	42	1	150.5	60.2	3.5	68.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON
SPRING	93,908	53,646	4	155,449	57,226	23,923	1,640,094	1,748	48
SUMMER	79,714	27,747							
TOTAL	173,622	81,393							

TABLE 31

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS

AUGUST 2009

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		99		64	0	0	6	898	465	0	23	34	0	137.5	54.9	3.3	73.4
Aug 2		53		30	0	0	8	434	246	0	38	43	0	123.5	49.3	4.0	73.4
Aug 3		50		37	0	0	6	474	241	0	352	30	1	106.4	42.5	4.0	73.0
Aug 4			55	50	0	0	1	372	198	0	70	10	1	106.5	42.6	4.5	72.7
Aug 5			102	64	0	0	4	299	122	0	37	12	0	136.4	54.4	4.0	72.5
Aug 6			148	44	0	0	4	243	102	0	55	18	0	111.5	44.6	3.3	73.0
Aug 7			292	79	2	0	2	512	162	0	78	17	1	115.0	45.9	3.3	72.0
Aug 8			474	102	2	0	6	1,657	656	0	66	13	2	96.6	38.6	4.3	72.0
Aug 9			347	101	0	0	5	2,526	706	0	59	11	0	100.2	40.0	4.0	72.0
Aug 10			317	104	0	0	10	2,688	951	0	30	15	0	102.6	40.9	4.0	72.0
Aug 11			437	151	0	0	5	2,151	663	0	29	18	0	96.0	38.2	4.0	71.8
Aug 12			360	124	1	0	4	1,778	662	0	15	16	2	111.1	44.5	4.0	71.7
Aug 13			527	166	5	0	5	2,291	738	0	24	23	0	110.5	44.2	4.0	71.4
Aug 14			582	152	11	1	8	3,954	1,347	0	23	13	0	96.9	38.7	4.7	70.5
Aug 15			1,093	222	21	4	6	6,604	2,025	0	12	19	3	90.0	32.4	3.5	69.7
Aug 16			1,560	222	65	17	7	10,624	3,229	0	21	8	2	87.9	31.1	3.3	69.3
Aug 17			2,367	314	78	34	14	13,812	4,506	0	18	12	0	81.3	24.8	3.5	69.6
Aug 18			1,788	342	83	46	1	9,476	2,675	1	17	6	0	90.2	33.7	4.0	70.4
Aug 19			2,297	406	83	58	5	8,482	2,327	0	6	8	4	114.3	45.8	5.5	71.0
Aug 20			2,137	346	75	39	1	4,278	1,206	-1	16	12	1	132.7	53.0	5.0	71.0
Aug 21			2,087	456	122	65	3	3,375	813	0	159	8	2	106.8	42.8	4.0	72.0
Aug 22			1,695	679	212	54	6	4,500	1,166	0	9	9	0	112.2	45.0	5.0	71.0
Aug 23			1,870	935	270	85	0	6,022	1,504	0	6	9	4	114.1	45.5	5.0	71.0
Aug 24			2,602	1263	380	113	7	10,549	2,698	0	37	10	0	99.8	40.0	4.5	70.0
Aug 25			3,603	1282	492	102	0	14,883	4,222	1	6	7	1	97.7	39.0	5.0	69.7
Aug 26			3,644	1545	485	222	1	12,970	3,339	0	13	9	2	104.4	41.8	4.5	70.0
Aug 27			5,934	1690	745	276	1	11,088	2,811	0	10	10	2	107.1	42.7	5.0	70.2
Aug 28			4,296	1982	841	163	0	8,092	2,004	0	15	9	0	105.5	42.1	5.0	70.7
Aug 29			3,799	1664	678	158	-1	5,384	1,332	-1	17	8	0	107.6	43.2	4.5	70.4
Aug 30			5,428	1834	1024	192	0	7,165	1,645	0	7	5	0	110.4	44.2	5.0	71.0
Aug 31			6,101	1874	686	224	1	8,142	2,148	0	0	6	0	105.5	41.9	5.0	71.0
TOTAL		202	55,942	18,324	6,361	1,853	126	165,723	46,909	0	1,268	428	28				
AVG.		67	1,998	591	205	60	4	5346	1513	0	41	14	1	107.0	42.2	4.3	71.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	93,908	53,646
SUMMER	79,916	27,878
FALL	55,942	18,193
TOTAL	229,766	99,717

COHO ADULTS	COHO JACKS	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON
6,365	1,853	155,575	222,949	70,832	0	1,641,362	2,176	76

Note: Shad counts ended August 31.

TABLE 32

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

THE DALLES PROJECT - FISH COUNTS

SEPTEMBER 2009

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			3,985	2,127	547	111	5	7,755	1,967	0		21	0	82.3	0.0	5.0	70.0
Sep 2			3,573	1,870	612	180	2	9,171	2,251	0		6	0	88.5	0.0	5.5	70.0
Sep 3			5,207	2,430	583	108	0	11,715	2,256	1		19	0	83.4	0.0	6.0	70.0
Sep 4			5,817	3,928	1,036	151	0	7,010	1,533	0		8	0	77.1	0.0	5.0	70.0
Sep 5			7,181	4,274	1,132	328	0	6,636	1,775	0		0	0	73.1	0.0	5.0	70.0
Sep 6			4,568	2,794	1,276	199	0	6,334	1,397	2		6	0	67.7	0.0	5.0	71.0
Sep 7			6,719	4,140	974	306	4	9,353	2,335	1		3	0	78.0	0.0	5.0	70.0
Sep 8			5,679	3,018	2,313	297	0	20,257	3,802	2		0	0	70.2	0.0	6.0	70.0
Sep 9			4,075	2,938	996	279	4	10,978	2,693	0		1	0	66.0	0.0	5.0	69.2
Sep 10			3,913	3,028	1,053	130	1	4,915	613	0		5	3	85.5	0.0	5.0	69.3
Sep 11			4,727	3,963	884	84	0	4,559	488	1		7	2	85.7	0.0	5.0	69.6
Sep 12			4,914	3,548	819	94	0	6,240	1,362	0		6	1	84.0	0.0	5.0	69.8
Sep 13			3,622	2,523	890	61	0	5,637	708	0		11	4	64.4	0.0	5.0	69.0
Sep 14			4,056	2,445	1,034	110	0	6,105	1,356	0		6	0	63.6	0.0	5.0	69.0
Sep 15			2,540	2,214	927	93	0	7,668	1,656	2		7	0	82.3	0.0	5.0	69.0
Sep 16			2,744	2,145	661	90	0	4,752	1,068	0		2	0	80.3	0.0	6.0	69.0
Sep 17			2,287	2,744	519	49	0	4,504	1,062	0		4	0	68.2	0.0	6.0	69.0
Sep 18			1,776	1,774	450	56	0	4,313	868	1		6	0	78.2	0.0	5.0	69.0
Sep 19			3,462	1,857	428	50	0	4,703	1,033	1		1	0	68.2	0.0	5.0	69.0
Sep 20			4,749	1,950	626	49	0	7,686	1,594	0		4	0	62.2	0.0	4.5	69.0
Sep 21			3,996	2,174	707	206	0	8,337	2,205	0		5	1	76.0	0.0	4.5	69.0
Sep 22			3,376	2,010	639	37	0	6,630	1,617	2		-1	1	83.7	0.0	5.0	69.0
Sep 23			2,256	1,731	540	73	0	8,029	1,940	0		1	0	83.2	0.0	5.0	69.0
Sep 24			2,244	1,817	736	43	0	8,247	2,176	2		2	0	83.5	0.0	5.0	69.0
Sep 25			1,956	1,406	1,085	108	0	10,664	2,673	0		4	0	101.9	0.0	5.0	68.0
Sep 26			2,377	1,366	1,860	228	0	17,815	6,172	2		1	0	85.1	0.0	5.0	67.6
Sep 27			1,470	1,110	1,371	108	0	7,513	2,009	1		2	0	62.8	0.0	5.0	66.5
Sep 28			1,188	733	497	97	0	5,113	1,566	2		3	0	74.4	0.0	5.0	67.0
Sep 29			1,326	834	556	33	0	4,497	1,109	0		1	0	81.5	0.0	5.0	67.0
Sep 30			1,241	740	372	31	0	6,051	1,805	0		0	0	77.6	0.0	6.0	66.0
TOTAL			107,024	69,631	26,123	3,789	16	233,187	55,089	20		141	12				
AVG.			3,567	2,321	871	126	1	7,773	1,836	1		5	0	77.3	0.0	5.2	69.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	93,908	53,646
SUMMER	79,916	27,878
FALL	162,966	87,824
TOTAL	336,790	169,348

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON
32,488	5,642	155,591	456,136	125,921	20	1,641,362	2,317	88

TABLE 33

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT - FISH COUNTS — OCTOBER 2009

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			1,258	723	446	32		6,167	1,485	1	0	0	1	86.5	0.0	5.0	65.0
Oct 2			1,263	787	623	27		4,393	1,114	-1	0	0	0	76.0	0.0	5.0	65.0
Oct 3			1,141	633	1,480	76		4,387	1,176	1	0	0	0	72.5	0.0	5.0	65.0
Oct 4			694	438	732	35		2,567	654	0	0	0	0	71.6	0.0	5.0	65.0
Oct 5			792	272	609	80		2,916	812	4	1	0	0	74.5	0.0	6.0	65.0
Oct 6			587	279	954	49		2,820	774	0	0	0	0	77.1	0.0	6.0	63.1
Oct 7			745	275	947	91		2,826	840	0	0	0	0	82.2	0.0	5.0	63.0
Oct 8			679	271	1,398	143		3,215	1,009	0	0	0	0	91.6	0.0	5.0	63.2
Oct 9			780	250	1,451	104		2,672	789	1	2	0	0	96.0	0.0	6.0	63.2
Oct 10			390	157	885	55		1,662	415	0	0	1	0	81.1	0.0	5.0	62.6
Oct 11			537	127	1,172	80		1,796	515	0	4	0	1	79.6	0.0	5.0	61.3
Oct 12			351	188	979	96		1,536	426	0	0	0	0	88.9	0.0	6.0	60.3
Oct 13			327	136	891	54		1,221	341	0	0	0	1	100.7	0.0	5.0	59.4
Oct 14			254	96	731	36		1,057	335	0	0	0	0	86.0	0.0	6.0	60.0
Oct 15			396	143	3,820	132		2,229	717	1	0	0	0	105.6	0.0	4.5	60.0
Oct 16			1,200	175	6,465	603		4,403	1,532	1	0	0	-1	77.4	0.0	5.0	60.0
Oct 17			328	137	3,179	258		1,973	656	1	0	0	0	83.8	0.0	6.0	60.0
Oct 18			237	114	1,188	108		1,026	346	0	0	0	0	67.9	0.0	5.0	59.0
Oct 19			330	96	2,827	245		1,820	607	0	0	0	1	81.3	0.0	6.0	59.0
Oct 20			292	79	1,367	171		1,769	579	0	0	0	0	85.0	0.0	6.0	59.0
Oct 21			145	53	498	63		822	278	1	0	0	0	98.0	0.0	6.0	59.0
Oct 22			100	32	355	49		806	271	0	0	0	0	95.3	0.0	5.0	58.1
Oct 23			127	40	265	17		525	195	0	0	0	0	67.6	0.0	5.0	57.5
Oct 24			84	41	248	26		467	162	0	0	0	0	67.5	0.0	5.0	57.2
Oct 25			155	29	418	35		563	235	0	0	0	0	105.5	0.0	5.0	55.0
Oct 26			128	43	160	32		400	135	-1	0	0	0	82.8	0.0	6.0	55.0
Oct 27			133	40	343	63		577	203	0	0	0	0	87.2	0.0	5.0	55.0
Oct 28			151	35	953	51		958	438	0	0	0	0	112.6	0.0	6.0	55.0
Oct 29			88	23	323	39		534	184	0	0	0	0	102.1	0.0	6.0	55.0
Oct 30			137	26	556	42		464	185	-1	0	0	0	66.7	0.0	4.0	55.0
Oct 31			98	34	189	18		404	160	0	0	0	0	72.6	0.0	4.0	55.0
TOTAL			13,927	5,772	36,452	2,910		58,975	17,568	8	7	1	3				
AVG.			449	186	1,176	94		1,902	567	0	0	0	0	84.6	0.0	5.3	59.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	93,908	53,646
SUMMER	79,916	27,878
FALL	176,893	93,596
TOTAL	350,717	175,120

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY	STURGEON	CHUM
68,940	8,552	155,591	515,111	143,489	28	1,641,362	2,318	91	7

Note: Visual counts ended October 31.

TABLE 34

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2009

N0VEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	84.8	0.0	5.0	55.0
Nov 2	103.1	0.0	6.0	54.0
Nov 3	116.2	0.0	5.0	54.2
Nov 4	109.0	0.0	6.0	54.1
Nov 5	114.0	0.0	5.0	53.9
Nov 6	104.5	0.0	6.0	53.8
Nov 7	103.4	0.0	5.5	53.6
Nov 8	110.7	0.0	6.0	53.0
Nov 9	135.7	0.0	6.0	52.0
Nov 10	107.8	0.0	6.0	52.0
Nov 11	102.9	0.0	6.0	53.0
Nov 12	113.5	0.0	6.0	53.0
Nov 13	111.3	0.0	5.0	53.0
Nov 14	106.2	0.0	6.0	53.0
Nov 15	119.4	0.0	6.0	52.0
Nov 16	113.1	0.0	5.5	51.3
Nov 17	97.2	0.0	5.5	51.0
Nov 18	102.6	0.0	5.5	51.0
Nov 19	117.2	0.0	5.5	50.8
Nov 20	98.7	0.0	5.0	50.6
Nov 21	112.5	0.0	5.5	50.3
Nov 22	87.0	0.0	6.0	50.0
Nov 23	110.8	0.0	6.0	50.0
Nov 24	109.3	0.0	6.0	50.0
Nov 25	116.1	0.0	6.0	50.0
Nov 26	110.5	0.0	6.0	50.0
Nov 27	106.3	0.0	6.0	50.0
Nov 28	108.0	0.0	6.0	49.0
Nov 29	109.8	0.0	6.0	49.0
Nov 30	111.6	0.0	6.0	48.0
AVG.	108.4	0.0	5.7	51.7

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	110.5	0.0	6.0	49.0
Dec 2	109.6	0.0	6.0	48.0
Dec 3	123.3	0.0	6.0	46.5
Dec 4	114.1	0.0	6.0	46.2
Dec 5	123.8	0.0	6.0	46.1
Dec 6	127.5	0.0	6.0	43.0
Dec 7	139.0	0.0	6.0	43.0
Dec 8	137.7	0.0	6.0	43.0
Dec 9	148.7	0.0	6.0	43.0
Dec 10	136.8	0.0	6.0	45.0
Dec 11	138.9	0.0	6.0	45.0
Dec 12	137.7	0.0	6.0	46.0
Dec 13	130.3	0.0	6.0	43.0
Dec 14	126.5	0.0	6.0	41.6
Dec 15	138.4	0.0	6.0	41.0
Dec 16	122.9	0.0	6.0	40.7
Dec 17	113.2	0.0	6.0	41.0
Dec 18	119.3	0.0	6.0	41.0
Dec 19	101.3	0.0	6.0	41.0
Dec 20	100.4	0.0	6.0	41.0
Dec 21	98.7	0.0	6.0	40.0
Dec 22	98.3	0.0	6.0	40.0
Dec 23	115.0	0.0	6.0	40.0
Dec 24	134.4	0.0	6.0	40.0
Dec 25	122.9	0.0	6.0	40.0
Dec 26	125.8	0.0	6.0	40.0
Dec 27	115.0	0.0	6.0	41.0
Dec 28	138.3	0.0	6.0	40.0
Dec 29	131.5	0.0	6.0	39.6
Dec 30	130.4	0.0	6.0	39.7
Dec 31	123.0	0.0	6.0	40.0
AVG.	123.7	0.0	6.0	42.4

TABLE 35

YEARLY TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2009

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	112,253	9,356	4,376			287,743
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	608,153	273,172	34,176	45,374	29	128	961,032
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
Totals	14,401,398	9,302,194	3,255,030	880,335	251	396	27,839,604
10-Year Average	460,871	314,393	80,614	41,750			897,653

*Jacks included

TABLE 36

MONTHLY COUNT OF CHINOOK SALMON
THE DALLES DAM 1957 - 2009

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
Total			9,800	1,923,329	1,968,788	1,428,380	1,118,559	1,434,024	5,859,530	656,357	12,780		14,411,717	3,989,514	2,528,961	7,890,880	2,902,561
10-Year Average				58,921	72,475	56,094	29,685	43,675	177,188	22,136			461,903	136,013	82,961	242,715	64,906

*Jacks included

TABLE 37

MONTHLY COUNT OF SOCKEYE SALMON
THE DALLES DAM
1957 - 2009

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
Total				1	1,605	1,568,612	1,660,613	23,108	1,062	28	1		3,255,034
10-Year Average					20	61,538	18,962	90	4				80,614

TABLE 38

MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2009

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
Total							1,574	39,072	603,940	230,488	5,950	39	881,062	211,576
10-Year Average								1,768	23,626	15,862			41,823	3,454

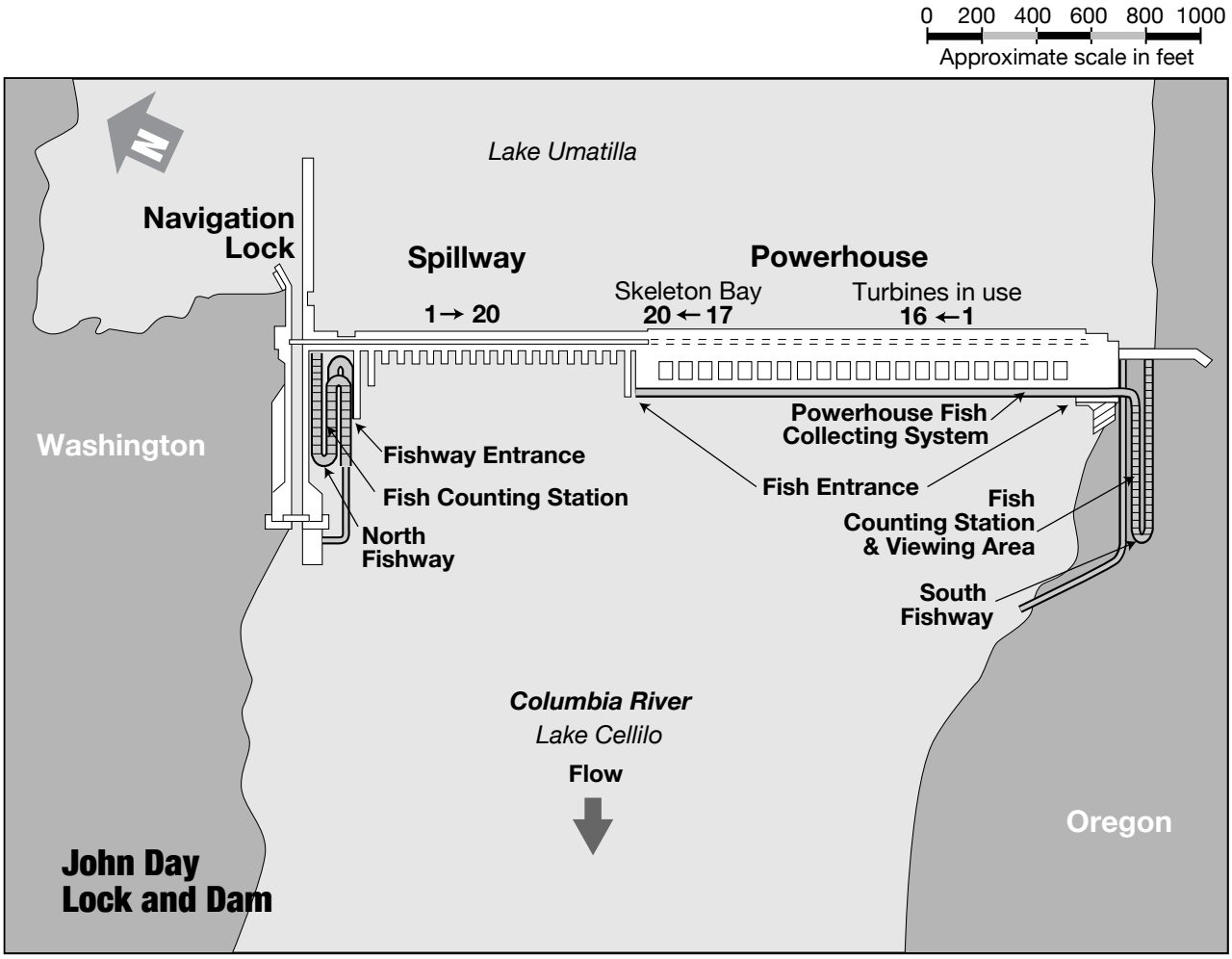
*Includes Jacks

TABLE 39

MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2009

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
Total			12,149	49,548	34,327	164,811	1,774,851	2,128,443	4,210,746	902,157	32,727		9,311,597
10-Year Average				1,009	419	5,646	46,175	65,089	155,538	37,977			315,333

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 2008. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports.

North Adult Fishway

Jan 1 – Jan 3: in full operation with attraction water
Jan 5 – Feb 17: dewatered for winter maintenance
Feb 18 – Nov 14: in full operation with attraction water
Aug5: attraction water off half day for required ROV grating inspection
Nov 16 – Dec 31: dewatered for winter maintenance

South Adult Fishway

Jan 1 – Dec 31: in full operation with attraction water

Smolt Monitoring Facility

Jan 1-March 31: dewatered
Apr 1 – Jul 20: in full operation with juvenile sampling
Jul 20 – Sep 15: water temperature 70˚ F. Condition sampling of 100 fish on Monday and Thursday. System in bypass at switch gate on other days.
Sep 15-Nov 30: system in bypass for full flow PIT tag detection.
Nov 30 –Dec 31: System dewatered for winter maintenance.

Juvenile Bypass System

Jan 1-Apr 1: 1/3 gatewell orifice open, rotated twice weekly
Apr 1-Dec 31: full operation

Spillway

Jan 1-Apr 9: closed
Apr 10-Aug31: 30% /40% according to experimental block design.
Sept 1-Nov 31: 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 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, catfish=ca, sculpin=sp, crappie=cr, small mouth bass=smb, sturgeon=st

Date	Event	Chinook	Steelhead	Lamprey	Shad	Sturgeon	Other
1/6/2009	N. ladder	1a	20a	126a	0	0	0
1/8/2009*	N. ent.	0	1a, 2j	5a	0	0	3a ca
11/16/2009†	N. ladder	0	14a, 3 j	5a	3	1	1 carp

*Lamprey to Nez Perce

† Counting station; two steelhead and one sturgeon released to the forebay. Juvenile steelhead and shad released to tailrace. Between the final 180 bend and tailwater; 12 adult steelhead, three shad and one carp released to tailwater. The Nez Perce Tribe collected all five lamprey found in the ladder.

Smolt Monitoring Facility Dewatering Results

Key; carp=ca, catfish=c, sculpin=sc, smallmouth bass=smb, juvenile=j, adult=a

Date	Event	Chinook	Steelhead	Lamprey
2/25/2009	JBS	0	5	0
11/30/2009	SMF	12a	160a	0
12/1/2009	SMF	0	0	3a

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; carp=ca, catfish=c, crappie=cr, smallmouth bass=smb, shad=sh, juvenile=j, adult=a

Date	Event	Salmonid	Shad	Sturgeon	Other	Morts
8/24/2009*	MU 12 sc	0	0	0	1 ca	0
8/24/2009†	MU 12 dt	0	24 j	0	10 ca	0
10/20/2009	MU 8 sc	0	0	0	0	3 old morts0
10/20/2009‡	MU 8 dt	0	0	11	20 ca	0

*1300 hrs., one small catfish, netted and released back into river in excellent condition.

†1630 hrs., ten small catfish, 24 shad fry netted and released back into river in excellent condition.

‡11 sturgeon < 4', and 20 channel catfish < 2' released to tailrace in excellent condition.

TABLE 40

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

2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				5,282	112,503	75,623	31,549	51,444	155,522	20,051			451,974
STEELHEAD				2,502	674	5,136	43,692	167,086	262,375	100,180			581,645
SOCKEYE					3	100,136	57,110	142	8	3			157,402
COHO*							1	4,826	29,003	37,909			71,739
CHUM													0
PINK									-1				-1
TOTAL				7,784	113,180	180,895	132,352	223,498	446,907	158,143			1,262,759
LAMPREY					63	145	1,245	569	31	-9			2,044
STURGEON						1	5	28	26	5			65
BULL TROUT													0

***Jacks Included**

TABLE 41

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2009

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	106.2	0.0	5.0	38.0
Jan 2	109.4	0.0	6.0	38.0
Jan 3	148.4	0.0	6.0	38.0
Jan 4	155.0	0.0	6.0	38.0
Jan 5	154.5	0.0	6.0	38.0
Jan 6	159.7	0.0	6.0	38.0
Jan 7	166.5	0.0	6.0	39.0
Jan 8	150.6	0.0	6.0	40.0
Jan 9	168.9	0.0	6.0	40.0
Jan 10	165.9	0.0	6.0	40.0
Jan 11	140.7	0.0	6.0	41.0
Jan 12	163.8	0.0	6.0	40.0
Jan 13	155.4	0.0	5.0	40.0
Jan 14	192.5	0.0	6.0	40.0
Jan 15	187.6	0.0	6.0	40.0
Jan 16	208.5	0.0	6.0	40.0
Jan 17	192.1	0.0	6.0	40.0
Jan 18	180.3	0.0	5.0	41.0
Jan 19	185.5	0.0	3.0	40.0
Jan 20	164.7	0.0	1.0	40.0
Jan 21	174.0	0.0	2.0	40.0
Jan 22	164.2	0.0	2.0	40.0
Jan 23	163.8	0.0	2.0	39.0
Jan 24	155.3	0.0	3.0	39.0
Jan 25	142.1	0.0	3.0	39.0
Jan 26	167.9	0.0	3.0	38.0
Jan 27	194.4	0.0	4.0	38.0
Jan 28	171.3	0.0	4.0	38.0
Jan 29	154.8	0.0	4.5	38.0
Jan 30	163.8	0.0	4.5	38.0
Jan 31	141.4	0.0	4.0	38.0
AVG.	162.9	0.0	4.7	39.2

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	126.6	0.0	4.0	38.0
Feb 2	124.4	0.0	5.0	37.0
Feb 3	112.5	0.0	6.0	38.0
Feb 4	124.7	0.0	4.0	37.0
Feb 5	117.8	0.0	5.5	38.0
Feb 6	104.8	0.0	5.5	38.0
Feb 7	111.4	0.0	5.5	38.0
Feb 8	111.1	0.0	6.0	37.0
Feb 9	122.1	0.0	6.0	37.0
Feb 10	117.5	0.0	6.0	37.0
Feb 11	136.8	0.0	6.0	37.0
Feb 12	150.4	0.0	6.0	37.0
Feb 13	113.5	0.0	6.0	37.0
Feb 14	111.0	0.0	5.0	37.0
Feb 15	107.9	0.0	4.0	38.0
Feb 16	115.6	0.0	5.5	37.0
Feb 17	114.9	0.0	5.5	38.0
Feb 18	111.3	0.0	5.0	36.0
Feb 19	122.0	0.0	6.0	37.0
Feb 20	124.4	0.0	6.0	37.0
Feb 21	123.4	0.0	6.0	37.0
Feb 22	124.6	0.0	4.0	38.0
Feb 23	124.6	0.0	5.0	38.0
Feb 24	102.6	0.0	5.5	39.0
Feb 25	95.2	0.0	5.5	38.0
Feb 26	126.4	0.0	5.5	39.0
Feb 27	140.3	0.0	5.0	38.0
Feb 28	107.7	0.0	4.0	38.0
AVG.	118.8	0.0	5.3	37.5

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	110.2	0.0	5.5	39.0
Mar 2	108.8	0.0	5.0	39.0
Mar 3	107.9	0.0	4.5	38.0
Mar 4	119.4	0.0	5.0	39.0
Mar 5	120.7	0.0	5.0	40.0
Mar 6	130.0	0.0	5.0	39.0
Mar 7	100.6	0.0	4.0	40.0
Mar 8	114.1	0.0	4.0	40.0
Mar 9	106.9	0.0	5.0	40.0
Mar 10	108.1	0.0	5.5	40.0
Mar 11	108.5	0.0	5.5	40.0
Mar 12	119.1	0.0	5.5	40.0
Mar 13	109.3	0.0	5.0	40.0
Mar 14	105.4	0.0	4.0	40.0
Mar 15	97.4	0.0	4.0	40.0
Mar 16	114.3	0.0	5.0	40.0
Mar 17	124.4	0.0	5.0	40.0
Mar 18	133.3	0.0	5.0	41.0
Mar 19	118.6	0.0	4.5	41.0
Mar 20	109.1	0.0	5.5	42.0
Mar 21	107.3	0.0	5.0	43.0
Mar 22	112.4	0.0	4.0	42.0
Mar 23	135.8	0.0	5.0	43.0
Mar 24	149.2	0.0	5.0	43.0
Mar 25	128.0	0.0	5.0	43.0
Mar 26	161.3	0.0	4.5	43.0
Mar 27	159.3	0.0	5.0	44.0
Mar 28	144.8	0.0	6.0	44.0
Mar 29	158.8	0.0	5.0	44.0
Mar 30	176.3	0.0	5.5	44.0
Mar 31	151.9	0.0	4.5	44.0
AVG.	124.2	0.0	4.9	41.1

TABLE 42

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

APRIL 2009

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	-2			0				95	30				159.1	0.0	4.0	44.0
Apr 2	-1			0				100	67				141.1	0.0	4.0	44.0
Apr 3	9			1				93	42				147.0	0.0	4.0	44.0
Apr 4	8			0				88	43				150.4	0.0	4.0	44.0
Apr 5	8			0				89	41				140.4	0.0	4.0	44.0
Apr 6	8			0				68	49				146.5	0.0	3.5	44.0
Apr 7	11			0				101	57				159.5	0.0	4.0	45.0
Apr 8	5			0				36	21				126.6	0.0	4.0	45.0
Apr 9	7			1				102	62				174.0	0.1	4.0	45.0
Apr 10	9			1				34	25				214.2	64.3	4.0	46.0
Apr 11	22			0				134	66				210.4	63.0	4.0	47.0
Apr 12	19			1				133	92				231.2	69.4	4.0	47.0
Apr 13	13			0				175	65				204.3	61.5	4.5	48.0
Apr 14	1			0				157	82				256.7	77.2	4.5	48.0
Apr 15	25			0				180	97				251.3	75.5	3.0	48.0
Apr 16	26			0				135	72				226.0	68.2	3.0	48.0
Apr 17	25			0				104	64				240.0	72.2	3.0	48.0
Apr 18	7			1				147	120				234.3	70.2	3.0	48.0
Apr 19	69			1				71	57				218.5	65.6	3.0	49.0
Apr 20	67			0				70	55				239.7	71.6	3.0	50.0
Apr 21	52			3				74	50				243.9	73.0	3.0	51.0
Apr 22	98			3				54	36				248.3	74.4	3.0	51.0
Apr 23	245			2				13	0				299.5	89.6	4.0	50.0
Apr 24	198			4				46	29				329.3	98.7	4.0	51.0
Apr 25	372			16				56	36				289.3	87.1	3.5	50.0
Apr 26	485			40				57	30				300.1	90.0	3.5	51.0
Apr 27	550			30				21	5				276.4	83.0	4.0	51.0
Apr 28	865			60				31	34				270.8	82.1	4.0	51.0
Apr 29	949			71				15	13				249.0	74.9	4.0	51.0
Apr 30	792			105				23	18				259.3	77.9	4.5	51.0
TOTAL	4,942			340				2,502	1,458							
AVG.	165			11				83	49				221.2	53.0	3.7	47.8

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. 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 2009

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	1,101			147			0	13	8		0		226.8	86.4	4.0	51.0
May 2	1,414			282			0	39	21		0		211.4	84.5	4.5	50.0
May 3	1,584			458			0	9	1		0		183.8	73.5	4.5	51.0
May 4	1,910			418			0	42	40		0		195.4	78.0	4.5	51.0
May 5	4,448			811			0	25	11		0		196.0	63.1	4.5	52.0
May 6	3,994			1,079			0	15	10		0		247.8	74.3	4.0	50.0
May 7	2,099			699			0	14	14		0		241.8	91.5	4.0	51.0
May 8	2,675			1,214			0	-2	-2		0		221.6	88.6	4.0	50.0
May 9	2,616			1,468			0	36	28		0		242.6	78.5	4.0	51.0
May 10	2,595			1,546			0	21	17		0		210.2	63.2	4.5	52.0
May 11	3,638			2,793			0	44	30		0		232.0	87.6	4.0	53.0
May 12	3,308			3,504			0	9	11		0		244.9	98.2	3.5	52.0
May 13	2,050			2,146			0	17	12		0		264.0	85.0	3.5	53.0
May 14	2,617			2,393			0	6	6		0		222.7	66.6	3.5	53.0
May 15	2,624			2,648			0	11	12		11		234.7	89.7	3.5	53.0
May 16	1,602			1,846			0	2	2		0		245.4	97.6	3.5	54.0
May 17	1,526			1,964			0	14	9		2		238.3	76.1	3.5	55.0
May 18	2,140			3,286			0	17	7		-1		259.8	78.0	3.5	55.0
May 19	2,181			3,174			0	12	4		0		268.2	80.4	3.5	55.0
May 20	2,472			2,729			0	19	5		1		304.6	91.6	4.5	55.0
May 21	2,078			2,152			0	19	6		1		307.5	102.4	4.5	56.0
May 22	2,347			2,294			0	16	0		7		314.4	116.2	4.5	56.0
May 23	1,546			1,370			0	24	0		4		282.8	110.5	4.5	57.0
May 24	1,490			1,293			0	9	1		0		301.4	108.5	4.5	57.0
May 25	1,436			994			0	21	2		4		322.3	103.1	4.5	57.0
May 26	1,510			882			0	42	1		0		338.8	101.5	4.5	57.0
May 27	1,636			847			0	26	-4		13		338.5	114.7	4.5	58.0
May 28	1,537			770			1	29	-3		2		332.2	124.2	3.5	59.0
May 29	1,690			769			0	51	3		1		345.1	110.8	4.0	60.0
May 30	970			511			0	37	1		7		343.2	103.2	4.0	60.0
May 31	738			444			2	37	5		11		345.8	94.8	4.0	60.0
TOTAL	65,572			46,931			3	674	258		63					
AVG.	2115			1514			0	22	8		2		266.6	91.0	4.1	54.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	LAMPREY
SPRING	70,514	47,271	3	3,176	1,716	63

TABLE 44

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JUNE 2009

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
Jun 1	1,346			459			17	65	8		6	0	346.0	89.9	3.5	60.0
Jun 2	1,341			470			8	29	9		1	0	340.9	90.0	3.5	60.0
Jun 3	990			438			24	28	5		5	0	338.6	90.0	4.0	60.0
Jun 4	1,138			556			28	27	3		0	0	335.3	90.0	4.0	61.0
Jun 5	1,477			539			52	31	5		0	0	344.0	89.9	3.5	61.0
Jun 6		1,745		675			102	43	6		0	0	338.4	89.9	3.5	61.0
Jun 7		1,865		583			189	64	4		1	0	347.4	86.7	3.5	60.0
Jun 8		1,332		505			228	86	6		4	0	353.0	84.9	3.5	60.0
Jun 9		1,412		606			270	74	-1		-1	0	352.9	82.3	3.5	60.0
Jun 10		1,555		706			541	42	6		2	0	307.2	80.0	4.0	61.0
Jun 11		1,220		757			751	89	11		1	0	294.3	78.3	4.0	61.0
Jun 12		1,252		592			797	73	8		-2	0	245.3	72.7	4.0	61.0
Jun 13		2,221		934			1,013	144	8		-2	0	253.3	74.7	4.0	63.0
Jun 14		2,369		808			1,214	121	14		4	0	240.5	70.4	4.0	62.0
Jun 15		1,859		860			1,795	184	24		1	0	229.9	66.6	4.5	61.0
Jun 16		3,140		1,061			2,266	180	26		3	0	243.2	72.9	4.5	62.0
Jun 17		2,208		1,091			2,779	182	25		3	0	217.8	65.1	6.0	62.0
Jun 18		1,688		911			3,520	193	14		3	0	246.6	70.3	6.0	62.0
Jun 19		1,938		1,014			3,690	232	65		1	0	268.2	77.2	6.0	62.0
Jun 20		2,012		1,143			5,386	317	65		0	0	254.9	74.7	5.5	63.0
Jun 21		2,036		933			4,775	244	74		2	0	250.7	75.4	6.0	63.0
Jun 22		2,886		1,613			7,750	394	121		6	0	225.3	67.6	5.0	63.0
Jun 23		1,947		1,115			6,490	247	68		6	0	282.4	82.0	5.0	62.0
Jun 24		1,313		786			6,745	266	69		8	0	276.4	82.0	4.5	63.0
Jun 25		1,697		924			7,157	230	92		12	0	247.3	82.2	4.0	63.0
Jun 26		1,363		908			7,549	255	48		8	1	218.9	85.9	5.0	63.0
Jun 27		1,547		785			6,574	287	108		10	0	242.5	89.4	4.5	64.0
Jun 28		1,283		868			8,248	295	91		20	0	237.1	76.7	5.0	64.0
Jun 29		1,663		824			9,392	353	70		21	0	222.8	66.8	5.0	64.0
Jun 30		1,310		1,006			10,786	361	132		22	0	219.8	77.6	5.0	64.0
TOTAL	6,292	44,861		24,470			100,136	5,136	1,184		145	1				
AVG.	1258	1,794		816			3,338	171	39		5	0	277.4	79.4	4.5	61.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	76,806	49,733
SUMMER	44,861	22,008
TOTAL	121,667	71,741

SOCKEYE	STEELHEAD	unclipped STEELHEAD
100,139	8,312	2,900

LAMPREY	STURGEON
208	1

TABLE 45

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

JULY 2009

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		786		639	0		7,713	352	117		18	0	195.3	77.8	4.5	64.0
Jul 2		1,066		498	0		5,776	640	222		15	0	136.5	44.1	5.0	66.0
Jul 3		1,265		611	0		7,537	605	240		29	0	161.8	48.5	5.0	68.0
Jul 4		1,444		701	0		6,293	653	227		41	0	130.8	40.1	5.0	68.0
Jul 5		1,929		683	0		6,536	771	313		43	0	142.9	42.8	5.0	65.0
Jul 6		1,492		685	0		3,926	697	300		43	0	160.1	60.6	5.0	66.0
Jul 7		1,746		646	0		4,219	1,109	411		28	0	179.4	71.8	5.0	65.0
Jul 8		970		625	0		2,588	926	359		24	0	195.1	61.9	5.0	65.0
Jul 9		575		373	0		2,203	966	361		37	1	195.8	58.8	5.0	66.0
Jul 10		723		372	0		1,227	1,035	429		26	0	197.6	73.2	5.0	68.0
Jul 11		366		236	0		1,233	1,118	441		48	0	202.3	80.4	5.0	67.0
Jul 12		326		236	0		898	1,116	468		33	0	136.0	44.3	5.0	67.0
Jul 13		720		351	0		1,333	1,463	576		31	0	169.2	50.8	5.0	67.0
Jul 14		607		265	0		803	752	344		18	0	180.5	69.4	5.5	67.0
Jul 15		436		213	0		694	749	280		22	0	161.0	64.5	5.5	68.0
Jul 16		429		332	0		646	891	387		41	1	150.3	60.2	5.0	68.0
Jul 17		462		401	0		525	1,526	720		42	0	155.6	62.3	5.5	69.0
Jul 18		447		393	0		558	2,767	1,077		51	0	137.8	45.1	5.0	69.0
Jul 19		620		276	0		467	1,842	696		47	0	147.1	44.1	5.0	69.0
Jul 20		528		323	0		489	2,509	1,053		40	0	144.8	43.5	5.0	70.0
Jul 21		744		236	0		363	2,059	860		62	0	139.9	41.9	5.0	70.0
Jul 22		751		334	0		265	1,879	911		45	0	132.2	39.3	5.0	70.0
Jul 23		618		213	0		277	2,395	980		56	0	113.7	34.0	5.0	70.0
Jul 24		363		210	0		216	2,977	1,497		51	0	131.0	39.3	5.5	71.0
Jul 25		435		233	0		125	2,590	1,235		66	0	131.2	39.3	5.5	71.0
Jul 26		138		139	0		42	2,040	1,045		38	1	115.8	34.7	5.5	71.0
Jul 27		129		89	0		78	1,308	613		51	0	150.2	44.8	5.5	71.0
Jul 28		128		104	1		17	1,579	702		49	0	166.5	50.0	5.5	71.0
Jul 29		160		66	0		11	1,580	721		44	0	167.5	50.3	5.5	73.0
Jul 30		362		201	0		40	2,071	825		61	0	145.9	43.7	5.5	74.0
Jul 31		34		66	0		12	727	263		45	2	130.5	39.2	5.5	74.0
TOTAL		20,799		10,750	1		57,110	43,692	18,673		1,245	5				
AVG		671		347	0		1,842	1,409	602		40	0	155.0	51.6	5.2	68.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	76,806	49,733
SUMMER	65,660	32,758
TOTAL	142,466	82,491

COHO ADULT
1

SOCKEYE	STEELHEAD	unclipped STEELHEAD
157,249	52,004	21,573

LAMPREY	STURGEON
1,453	6

TABLE 46

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

JOHN DAY PROJECT - FISH COUNTS

AUGUST 2009

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		47		90	0	0	9	1,223	478		33	1	147.4	44.1	5.5	74.0
Aug 2		79		97	0	-1	8	753	318		61	0	128.3	38.6	5.5	74.0
Aug 3		101		84	0	0	6	752	266		30	0	108.1	32.4	5.5	73.0
Aug 4		90		69	2	2	6	426	186		38	2	108.9	32.5	5.5	73.0
Aug 5		12		49	-1	6	1	391	118		42	1	141.3	42.4	5.5	74.0
Aug 6			56	33	0	0	7	219	103		18	3	114.6	34.4	5.0	74.0
Aug 7			139	72	0	1	5	307	114		22	0	120.4	36.1	5.0	73.0
Aug 8			226	84	0	0	2	471	197		33	0	104.2	31.3	5.5	73.0
Aug 9			190	77	1	0	3	1,032	392		28	1	103.1	30.9	5.5	73.0
Aug 10			222	83	1	2	4	1,401	591		26	2	99.2	30.0	5.5	72.0
Aug 11			206	112	1	0	11	1,922	690		32	0	101.8	30.5	5.5	72.0
Aug 12			168	86	4	0	12	1,158	397		12	0	113.0	34.0	6.0	72.0
Aug 13			443	210	5	7	10	1,875	680		11	1	112.9	33.9	6.0	72.0
Aug 14			295	125	-2	0	6	1,680	593		13	0	97.2	29.5	6.0	71.0
Aug 15			217	133	1	18	8	2,603	929		19	1	91.3	27.3	6.0	71.0
Aug 16			391	195	1	1	8	3,707	1,054		8	0	87.6	26.2	5.0	71.0
Aug 17			836	238	1	7	5	11,239	3,469		24	4	80.6	24.2	6.0	71.0
Aug 18			492	176	8	1	2	10,600	3,156		8	0	98.4	29.7	6.0	72.0
Aug 19			360	127	7	1	2	9,196	3,147		14	2	119.7	36.1	6.0	74.0
Aug 20			750	137	13	0	2	10,091	2,704		18	0	135.9	40.8	6.0	74.0
Aug 21			6,437	1,047	206	90	9	12,599	3,772		2	2	108.9	32.6	6.0	74.0
Aug 22			1,421	345	76	40	4	7,580	2,098		19	1	119.3	35.7	6.0	71.0
Aug 23			2,001	627	180	87	0	6,560	1,802		10	1	109.9	33.1	6.0	71.0
Aug 24			1,419	818	157	110	4	8,231	2,344		17	1	104.5	31.3	6.0	70.0
Aug 25			2,853	1,309	304	147	9	7,855	2,205		-2	2	97.6	29.3	6.0	71.0
Aug 26			1,362	927	157	146	-2	13,098	3,453		9	0	114.8	34.4	6.0	71.0
Aug 27			3,213	1,540	525	93	0	10,878	2,973		9	1	108.9	32.7	6.0	71.0
Aug 28			2,735	1,161	384	79	4	12,118	3,109		6	1	107.6	32.2	6.0	71.0
Aug 29			3,594	1,697	657	18	0	9,845	2,474		4	0	112.6	33.6	6.0	71.0
Aug 30			3,521	1,690	675	143	-1	9,635	2,556		4	1	113.4	33.8	6.0	71.0
Aug 31			2,850	1,280	359	106	-2	7,641	1,821		1	0	104.8	31.5	6.0	70.0
TOTAL		329	36,397	14,718	3,722	1,104	142	167,086	48,189		569	28				
AVG.		66	1,400	475	120	36	5	5,390	1554		18	1	110.2	33.1	5.8	72.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	76,806	49,733
SUMMER	65,989	33,147
FALL	36,397	14,329
TOTAL	179,192	97,209

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
3,723	1,104	157,391	219,090	69,762

LAMPREY	STURGEON
2,022	34

TABLE 47

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

SEPTEMBER 2009

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			5,782	2,480	694	206	0	9,987	2,544	0	-2	0	77.3	0.9	6.0	70.0
Sep 2			1,341	863	288	32	5	8,464	1,975	0	3	0	84.4	0.8	6.0	70.0
Sep 3			5,514	2,366	804	302	5	12,093	3,192	0	7	2	85.4	0.9	6.0	71.0
Sep 4			4,402	2,505	657	107	0	9,884	2,382	0	1	2	78.1	0.8	6.0	71.0
Sep 5			4,625	3,032	477	107	0	6,742	1,588	0	3	0	64.8	0.8	6.0	71.0
Sep 6			2,293	2,416	594	54	-2	6,374	1,451	0	4	2	65.8	0.9	6.0	70.0
Sep 7			4,751	3,454	1,041	219	0	8,685	2,134	0	3	1	78.6	0.9	6.0	71.0
Sep 8			3,646	2,170	626	41	1	9,195	2,257	0	1	0	68.2	0.9	6.0	71.0
Sep 9			3,271	2,722	605	86	0	11,168	2,718	0	-2	1	67.7	0.9	6.0	71.0
Sep 10			3,084	2,051	827	40	0	10,501	2,389	0	0	2	82.1	0.8	6.0	70.0
Sep 11			7,351	2,963	1,983	391	1	8,559	2,314	0	2	2	84.4	0.9	7.0	71.0
Sep 12			2,671	2,492	703	30	0	6,103	1,436	0	1	2	81.9	0.9	7.0	71.0
Sep 13			6,832	3,490	1,735	408	0	7,804	1,934	0	2	2	58.8	0.9	7.0	71.0
Sep 14			3,353	2,297	749	156	-2	10,873	2,409	0	0	0	65.4	0.8	7.0	70.0
Sep 15			4,171	2,047	2,174	168	0	9,203	2,269	0	2	0	78.0	0.8	6.0	70.0
Sep 16			2,979	2,100	869	100	0	8,401	2,078	0	4	0	78.3	0.8	6.0	70.0
Sep 17			3,424	2,223	1,170	209	0	7,485	1,763	0	10	1	66.3	0.7	6.0	70.0
Sep 18			2,373	2,274	511	114	0	6,317	1,541	0	-1	0	77.3	0.8	6.0	70.0
Sep 19			2,511	1,949	597	80	0	5,353	1,214	0	-2	1	66.5	0.8	6.0	70.0
Sep 20			1,962	1,537	284	49	0	5,759	1,280	0	1	2	60.6	0.8	6.0	70.0
Sep 21			2,769	1,457	415	41	0	6,046	1,468	0	2	1	75.2	0.8	6.0	69.0
Sep 22			3,161	1,709	499	35	0	9,121	2,012	0	0	0	81.9	0.8	6.0	69.0
Sep 23			1,858	1,321	428	12	0	5,247	1,271	0	-2	0	83.8	0.8	6.0	69.0
Sep 24			1,502	1,319	359	31	0	8,150	1,851	0	-1	1	83.3	0.8	6.0	69.0
Sep 25			1,592	1,737	542	116	0	8,424	2,046	0	1	0	101.8	0.8	6.0	69.0
Sep 26			2,342	1,863	1,045	250	0	13,687	3,410	0	0	0	86.4	0.8	6.0	69.0
Sep 27			2,106	1,430	2,198	251	0	17,092	4,039	0	0	2	62.5	0.8	6.0	68.0
Sep 28			1,351	1,076	1,273	111	0	10,691	2,764	-1	-2	1	72.5	0.8	6.0	68.0
Sep 29			595	602	553	31	0	8,371	2,141	0	-4	1	78.7	0.8	6.0	68.0
Sep 30			1,156	809	482	44	0	6,596	2,016	0	0	0	76.4	0.8	6.0	68.0
TOTAL			94,768	60,754	25,182	3,821	8	262,375	63,886	-1	31	26				
AVG.			3,159	2,025	839	127	0	8,746	2,130	0	1	1	75.7	0.8	6.1	69.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	76,806	49,733
SUMMER	65,989	33,147
FALL	131,165	75,083
TOTAL	273,960	157,963

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
28,905	4,925	157,399	481,465	133,648	-1	2,053	60

TABLE 48

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT - FISH COUNTS

OCTOBER 2009

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
Oct 1			1,320	874	626	37	0	7,307	1,872		-1	0	87.4	0.8	6.0	67.0
Oct 2			1,521	741	727	34	0	7,535	1,971		0	0	73.9	0.8	6.0	66.0
Oct 3			1,188	662	646	3	0	8,197	1,942		0	2	70.4	0.8	5.5	65.0
Oct 4			946	279	704	15	0	4,526	1,172		-6	0	70.8	0.8	6.0	66.0
Oct 5			703	539	1,165	124	0	5,809	1,763		-2	1	73.6	0.9	6.0	65.0
Oct 6			565	288	683	49	0	3,470	1,044		0	1	75.0	0.8	7.0	66.0
Oct 7			904	373	1,260	184	0	4,801	1,418		0	1	81.6	0.7	7.0	65.0
Oct 8			469	261	755	38	0	3,001	940		0	0	89.3	0.7	7.0	65.0
Oct 9			952	174	1,848	63	0	4,363	1,311		0	0	94.8	0.7	7.0	64.0
Oct 10			656	288	1,439	45	0	4,559	1,348		0	1	79.9	0.7	6.0	63.0
Oct 11			420	95	982	37	0	2,298	664		-1	-1	76.9	0.8	6.0	61.0
Oct 12			358	142	1,007	36	0	2,661	732		0	0	86.5	0.7	6.0	62.0
Oct 13			237	138	1,026	53	0	2,393	616		0	0	100.3	0.7	6.0	61.0
Oct 14			240	125	573	18	0	2,088	474		0	0	85.7	0.7	6.0	61.0
Oct 15			236	62	668	39	1	2,124	536		0	0	103.5	0.7	6.0	61.0
Oct 16			483	150	2,716	93	0	3,709	1,302		0	0	75.9	0.7	6.0	60.0
Oct 17			517	154	5,246	356	0	5,185	1,724		0	0	81.3	0.7	6.0	60.0
Oct 18			514	165	5,250	247	0	5,362	1,885		0	0	65.1	0.7	6.0	59.0
Oct 19			204	121	1,468	92	2	2,481	916		0	0	77.8	0.7	6.0	59.0
Oct 20			395	108	2,836	134	0	3,817	1,077		1	0	83.5	0.7	6.0	59.0
Oct 21			224	48	991	44	0	2,471	755		0	0	97.1	0.7	6.0	59.0
Oct 22			210	76	688	77	0	2,644	778		0	0	93.3	0.7	6.0	57.0
Oct 23			26	14	284	8	0	1,030	369		0	0	65.3	0.7	6.0	57.0
Oct 24			56	44	283	4	0	1,637	476		0	0	66.2	0.7	6.0	56.0
Oct 25			40	20	162	7	0	844	256		0	0	101.9	0.7	6.0	58.0
Oct 26			35	23	210	16	0	590	187		0	0	81.6	0.7	6.0	57.0
Oct 27			50	26	174	3	0	736	275		0	0	86.3	0.7	6.0	57.0
Oct 28			153	63	314	25	0	908	345		0	0	110.5	0.7	6.0	57.0
Oct 29			102	30	563	10	0	1,117	480		0	0	99.9	0.7	6.0	56.0
Oct 30			85	39	314	8	0	1,166	529		0	0	64.1	0.7	6.0	56.0
Oct 31			95	25	380	22	0	1,351	454		0	0	72.7	0.7	6.0	55.0
TOTAL			13,904	6,147	35,988	1,921	3	100,180	29,611		-9	5				
AVG.			449	198	1,161	62	0	3,232	955		0	0	83.0	0.7	6.1	60.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	76,806	49,733
SUMMER	65,989	33,147
FALL	145,069	81,230
TOTAL	287,864	164,110

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	PINK	LAMPREY	STURGEON
64,893	6,846	157,402	581,645	163,259	-1	2,044	65

Note: Visual counts ended October 31.

TABLE 49

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2009

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	83.0	0.7	6.0	55.0
Nov 2	103.2	0.7	6.0	55.0
Nov 3	114.3	0.7	6.0	55.0
Nov 4	109.3	0.7	6.0	55.0
Nov 5	109.2	0.8	6.0	55.0
Nov 6	107.7	0.6	6.0	55.0
Nov 7	101.9	0.7	6.0	55.0
Nov 8	106.8	0.7	6.0	55.0
Nov 9	132.7	0.6	6.0	55.0
Nov 10	109.1	0.7	6.0	54.0
Nov 11	100.4	0.6	6.0	54.0
Nov 12	108.2	0.3	6.0	54.0
Nov 13	110.7	0.4	6.0	54.0
Nov 14	103.2	0.0	6.0	53.0
Nov 15	117.3	0.0	6.0	53.0
Nov 16	111.2	0.0	6.0	53.0
Nov 17	101.2	0.0	6.0	53.0
Nov 18	100.8	0.0	6.0	51.0
Nov 19	114.1	0.0	6.0	51.0
Nov 20	98.0	0.0	6.0	51.0
Nov 21	113.8	0.0	6.0	51.0
Nov 22	84.7	0.0	6.0	50.0
Nov 23	107.0	0.0	6.0	50.0
Nov 24	107.7	0.0	6.0	50.0
Nov 25	113.2	0.0	6.0	50.0
Nov 26	111.2	0.0	6.0	50.0
Nov 27	106.7	0.0	6.0	50.0
Nov 28	105.2	0.0	6.0	50.0
Nov 29	109.7	0.0	6.0	49.0
Nov 30	110.4	0.0	6.0	50.0
AVG.	107.1	0.3	6.0	52.5

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	105.4	0.0	6.0	50.0
Dec 2	109.5	0.0	6.0	50.0
Dec 3	120.3	0.0	6.0	50.0
Dec 4	113.8	0.0	6.0	50.0
Dec 5	121.9	0.0	6.0	49.0
Dec 6	122.2	0.0	6.0	47.0
Dec 7	138.9	0.0	6.0	46.0
Dec 8	136.2	0.0	6.0	45.0
Dec 9	149.8	0.0	6.0	45.0
Dec 10	134.2	0.0	6.0	44.0
Dec 11	138.8	0.0	6.0	44.0
Dec 12	133.8	0.0	6.0	43.0
Dec 13	128.3	0.0	6.0	43.0
Dec 14	123.2	0.0	6.0	42.0
Dec 15	140.5	0.0	6.0	42.0
Dec 16	119.6	0.0	6.0	41.0
Dec 17	113.5	0.0	6.0	42.0
Dec 18	118.3	0.0	6.0	41.0
Dec 19	97.4	0.0	6.0	41.0
Dec 20	98.4	0.0	6.0	41.0
Dec 21	97.8	0.0	6.0	40.0
Dec 22	95.8	0.0	6.0	40.0
Dec 23	113.2	0.0	6.0	40.0
Dec 24	130.7	0.0	6.0	40.0
Dec 25	126.2	0.0	6.0	40.0
Dec 26	123.4	0.0	6.0	41.0
Dec 27	116.8	0.0	6.0	41.0
Dec 28	135.2	0.0	6.0	41.0
Dec 29	131.8	0.0	6.0	40.0
Dec 30	130.3	0.0	6.0	40.0
Dec 31	122.2	0.0	6.0	40.0
AVG.	122.2	0.0	6.0	43.2

TABLE 50

YEARLY TOTALS OF SALMONIDS COUNTED OVER
JOHN DAY DAM
1968 - 2009

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	467,116	286,176	35,417	38,577	827,286
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
TOTALS	9,736,041	7,224,937	2,531,083	661,099	20,153,177
10-Year Average	376,705	317,343	86,732	38,916	819,696

***Jacks included**

1999 - Total includes 1 pink
2005 - Total includes 12 pinks
2006 - Total includes 1 chum and 3 pinks

MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2009

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
TOTAL			4,123	1,049,591	1,516,000	948,360	741,256	752,792	4,099,096	619,557	10,066		9,741,265	2,670,878	1,642,213	5,417,629	2,201,635
10-Year Average				44,265	63,657	51,335	30,004	27,191	139,262	20,460			377,227	113,297	77,671	185,204	60,707

*Jacks included

TABLE 52

MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM
1968 - 2009

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
TOTAL					87	1,233,845	1,280,219	16,242	617	72	1		2,531,083
10-Year Average						60,675	25,899	134	16				86,732

TABLE 53

MONTHLY COUNT OF COHO SALMON
JOHN DAY DAM 1968 - 2009

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
TOTAL				0	2	1	99	16,652	424,371	211,869	8,231		661,287
10-Year Average								874	21,477	15,803			38,935

*Jacks included

TABLE 54

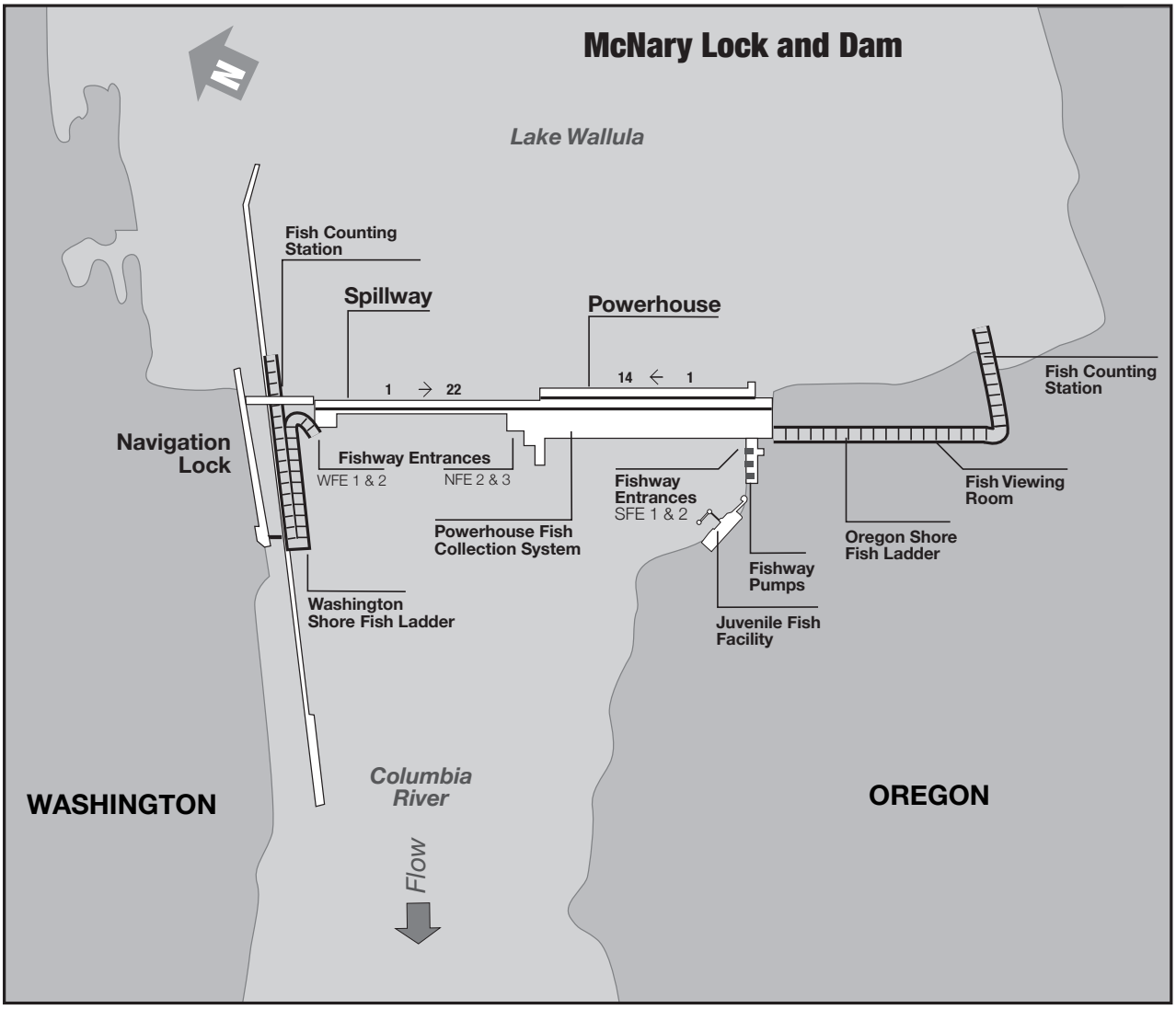
MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2009

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
TOTAL			23,715	110,745	40,478	101,502	738,274	1,168,173	3,557,509	1,451,356	48,905		7,243,803
10-YR Average				2,405	618	5,269	31,306	50,144	160,593	63,036			319,229

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 – 26 February	Ladder in service.
27 February	Ladder dewatered ½ day for debris removal
27 February to 31 December	Ladder in Service

Oregon Ladder

1 January to 6 January	Ladder in service
7 January – 27 February	Ladder dewatered for annual maintenance
28 February to 31 December	Ladder in service.

FISHWAY ACTIVITIES

Washington ladder maintenance activities consist of video inspections of diffuser gratings. Annual winter maintenance was performed on all above-water structures and regulating equipment only. This was due to problems with the bulkheads when dewatering the ladder.

Oregon ladder maintenance activities consist of continued work to repair oil leak on fish pump #3. All annual winter was performed on above and below water structures and regulating equipment. Video inspections of all diffuser gratings were completed, revealing no problems.

Two of three fish pumps were operated 1 March through 31 December. Pump #3 was restarted on August 13 and operated through December 31. The 1000 cfs gravity

conduit operated all season except for short term outages to clean trash racks and assist diving operations on the intake structure screen repairs.

The juvenile bypass channel was operated for both juvenile and adult fallback passage, from 31 March to 30 December.

TABLE 55

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

2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*				1,821	98,882	63,510	26,828	30,161	117,844	19,459			358,505
STEELHEAD				2,144	293	2,108	20,407	85,285	204,948	92,972			408,157
SOCKEYE					5	62,066	59,564	31	9	-3			121,672
COHO*								1,193	16,626	19,451			37,270
CHUM													0
PINK								2					2
TOTAL				3,965	99,180	127,684	106,799	116,672	339,427	131,879			925,606
SHAD					218	339,860	140,778	5,869					486,725
LAMPREY					5	14	242	327	87	1			676
STURGEON													0
BULL TROUT													0

***Jacks Included**

TABLE 56

DISCHARGE AND WATER QUALITY DATA

MCNARY PROJECT 2009

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	100.5	0.0	*	39.0
Jan 2	106.6	0.0	6+	39.0
Jan 3	134.2	0.0	*	39.0
Jan 4	137.8	0.0	6+	39.0
Jan 5	159.6	0.0	6+	38.0
Jan 6	149.8	0.0	2.8	38.0
Jan 7	144.0	0.0	2.2	38.0
Jan 8	141.2	0.0	3.6	38.0
Jan 9	180.1	0.0	3.4	38.0
Jan 10	165.2	0.0	3.1	38.0
Jan 11	142.8	0.0	3.5	40.0
Jan 12	150.1	0.0	3.3	40.0
Jan 13	156.4	0.0	2.9	40.0
Jan 14	169.7	0.0	2.0	39.0
Jan 15	194.8	0.0	1.8	39.0
Jan 16	203.8	0.0	2.6	39.0
Jan 17	191.3	0.0	2.8	38.0
Jan 18	175.4	0.0	2.8	38.0
Jan 19	173.9	0.0	3.2	38.0
Jan 20	152.3	0.0	2.6	38.0
Jan 21	168.8	0.0	3.3	38.0
Jan 22	170.4	0.0	3.5	37.0
Jan 23	163.1	0.0	4.8	37.0
Jan 24	155.0	0.0	4.9	37.0
Jan 25	135.5	0.0	4.7	37.0
Jan 26	170.0	0.0	5.2	37.0
Jan 27	190.5	0.0	6.0	37.0
Jan 28	161.8	0.0	6.0	37.0
Jan 29	155.9	0.0	6.0	36.0
Jan 30	152.4	0.0	*	36.0
Jan 31	146.0	0.0	6.0	36.0
AVG.	158.0	0.0	4.0	38.0

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	123.5	0.0	6.0	36.0
Feb 2	104.1	0.0	5.7	36.0
Feb 3	121.2	0.0	5.3	36.0
Feb 4	124.2	0.0	5.2	36.0
Feb 5	115.5	0.0	6+	36.0
Feb 6	100.6	0.0	6+	36.0
Feb 7	105.6	0.0	6+	36.0
Feb 8	97.0	0.0	6+	36.0
Feb 9	110.6	0.0	6+	36.0
Feb 10	127.3	0.0	6+	36.0
Feb 11	147.9	0.0	6+	36.0
Feb 12	149.4	0.0	6+	36.0
Feb 13	114.3	0.0	6+	36.0
Feb 14	110.9	0.0	6+	36.0
Feb 15	97.3	0.0	6+	36.0
Feb 16	108.9	0.0	6+	37.0
Feb 17	112.7	0.0	6+	37.0
Feb 18	93.3	0.0	6+	38.0
Feb 19	105.9	0.0	6+	37.0
Feb 20	121.4	0.0	6+	37.0
Feb 21	117.3	0.0	6+	37.0
Feb 22	119.9	0.0	6+	37.0
Feb 23	106.9	0.0	6+	37.0
Feb 24	111.8	0.0	6+	37.0
Feb 25	135.0	0.0	6+	37.0
Feb 26	130.5	0.0	6+	37.0
Feb 27	139.5	0.0	6+	37.0
Feb 28	103.1	0.0	6+	38.0
AVG.	116.3	0.0	6+	36.5

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	104.1	0.0	5.5	38.0
Mar 2	102.6	0.0	5.8	38.0
Mar 3	105.0	0.0	5.8	38.0
Mar 4	118.1	0.0	6+	38.0
Mar 5	118.3	0.0	6+	39.0
Mar 6	110.4	0.0	6+	39.0
Mar 7	106.5	0.0	5.0	39.0
Mar 8	108.3	0.0	5.5	39.0
Mar 9	100.8	0.0	*	40.0
Mar 10	101.2	0.0	5.5	40.0
Mar 11	107.4	0.0	6.0	40.0
Mar 12	108.3	0.0	6+	40.0
Mar 13	104.6	0.0	*	39.0
Mar 14	103.1	0.0	*	39.0
Mar 15	98.7	0.0	6+	39.0
Mar 16	108.7	0.0	5.5	39.0
Mar 17	122.0	0.0	5.2	39.0
Mar 18	124.2	0.0	5.7	40.0
Mar 19	119.4	0.0	5.0	40.0
Mar 20	103.0	0.0	5.2	40.0
Mar 21	107.8	0.0	5.0	41.0
Mar 22	110.1	0.0	4.4	41.0
Mar 23	122.4	0.0	4.0	41.0
Mar 24	129.6	0.0	5.3	41.0
Mar 25	126.7	0.0	5.2	42.0
Mar 26	148.6	0.0	4.2	42.0
Mar 27	154.4	0.0	3.8	42.0
Mar 28	146.8	0.0	3.0	43.0
Mar 29	153.1	0.0	2.5	43.0
Mar 30	169.8	0.1	3.1	42.0
Mar 31	120.4	0.0	2.8	42.0
AVG.	118.2	0.0	5.0	40.1

*** Data unavailable**

TABLE 57

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

APRIL 2009

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	4			0				98	30				156.2	0.0	2.5	42.0
Apr 2	2			0				78	31				148.4	0.0	2.8	43.0
Apr 3	2			0				114	45				135.3	0.0	2.3	43.0
Apr 4	6			0				102	37				137.4	0.0	2.2	43.0
Apr 5	4			0				45	11				131.4	0.0	2.1	43.0
Apr 6	4			0				61	18				135.4	0.3	2.2	43.0
Apr 7	1			0				69	33				145.6	0.0	2.2	43.0
Apr 8	1			0				41	16				129.8	0.0	2.1	44.0
Apr 9	3			0				77	47				147.6	0.4	2.5	45.0
Apr 10	11			0				106	58				205.4	82.4	2.3	46.0
Apr 11	9			0				109	46				207.0	83.0	2.0	47.0
Apr 12	5			1				92	41				223.5	89.6	2.4	47.0
Apr 13	6			-1				123	50				213.2	85.6	2.5	47.0
Apr 14	14			0				117	44				243.8	97.5	2.7	47.0
Apr 15	17			0				105	40				246.0	98.4	2.6	47.0
Apr 16	10			1				139	60				223.4	89.6	2.8	46.0
Apr 17	13			0				81	33				242.2	97.0	2.6	47.0
Apr 18	18			0				106	48				235.9	94.3	3.5	46.0
Apr 19	17			0				71	31				233.4	93.6	3.5	47.0
Apr 20	23			0				59	27				229.3	92.0	4.0	47.0
Apr 21	10			0				49	23				247.9	99.4	4.0	47.0
Apr 22	39			4				39	22				252.8	101.2	4.1	48.0
Apr 23	39			1				57	39				285.0	124.0	4.0	49.0
Apr 24	79			0				31	20				317.0	143.4	3.7	49.0
Apr 25	79			4				25	18				292.0	120.9	3.0	49.0
Apr 26	201			6				48	24				279.1	111.6	3.5	48.0
Apr 27	119			5				26	15				269.5	108.0	3.5	48.0
Apr 28	321			16				37	29				271.2	108.6	4.1	48.0
Apr 29	278			32				24	19				251.8	100.9	4.0	49.0
Apr 30	393			24				15	8				241.7	97.2	4.8	49.0
TOTAL	1,728			93				2,144	963							
AVG.	58			3				71	32				215.9	70.6	3.0	46.2

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

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 2009

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	619			70			0	45	43		0	0	220.4	88.2	4.3	49.0
May 2	817			77			0	15	7		0	0	229.2	91.6	4.3	48.0
May 3	1,100			109			0	21	14		0	0	188.5	75.5	4.4	48.0
May 4	1,090			159			0	17	8		0	0	190.5	76.3	4.5	49.0
May 5	1,460			269			0	5	2		0	0	195.9	78.4	4.6	49.0
May 6	1,014			210			0	8	7		0	0	237.9	95.6	4.8	49.0
May 7	3,480			697			0	11	9		0	0	223.5	89.4	4.5	50.0
May 8	4,166			1023			0	12	9		0	0	214.4	85.9	4.4	50.0
May 9	1,879			536			0	5	2		0	0	240.1	96.2	4.5	51.0
May 10	2,259			765			0	6	2		0	0	215.1	86.0	*	51.0
May 11	2,646			1171			0	6	4		1	0	226.8	91.0	4.7	51.0
May 12	2,369			1650			0	7	6		0	0	252.0	100.8	4.1	51.0
May 13	3,117			2406			0	10	5		0	0	248.4	99.5	4.5	51.0
May 14	2,782			2312			0	7	2		0	2	223.9	89.7	4.8	52.0
May 15	2,169			2108			0	8	3		0	0	239.7	96.0	4.8	52.0
May 16	2,278			1728			0	4	1		0	0	250.8	100.4	4.6	53.0
May 17	2,437			2263			0	4	3		0	4	232.3	92.9	4.4	54.0
May 18	1,760			1881			0	-1	-2		0	0	258.9	103.7	4.6	54.0
May 19	1,491			1867			0	10	5		0	0	279.4	112.0	3.8	54.0
May 20	2,208			2838			1	3	1		0	0	297.3	128.0	4.4	54.0
May 21	1,644			1967			0	1	0		2	0	313.3	139.8	*	55.0
May 22	2,093			2403			0	5	0		0	0	302.7	127.7	*	55.0
May 23	2,032			2079			0	9	2		2	0	285.4	115.1	5.4	55.0
May 24	1,995			1989			2	1	1		2	0	305.2	133.1	4.6	55.0
May 25	1,691			1529			1	6	1		10	0	330.3	161.1	4.5	56.0
May 26	1,278			1094			0	6	1		0	0	331.3	163.8	4.2	56.0
May 27	1,513			1118			1	11	1		1	0	336.0	170.5	3.8	56.0
May 28	1,165			761			0	17	0		13	-1	341.3	173.0	4.0	56.0
May 29	1,819			705			0	13	0		9	0	349.8	174.1	2.4	56.0
May 30	1,382			783			0	11	1		35	0	343.4	169.1	2.8	57.0
May 31	1,755			807			0	10	0		143	0	340.7	165.3	2.7	57.0
TOTAL	59,508			39,374			5	293	138		218	5				
AVG.	1,920			1270			0	9	4		7	0	265.9	115.2	4.3	52.7

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
SPRING	61,236	39,467	5	2,437	1,101	218	5

TABLE 59

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JUNE 2009

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	1,181			515			0	20	1		424	0	345.5	170.5	3.4	58.0
Jun 2	755			381			2	12	1		548	0	335.0	167.1	3.1	58.0
Jun 3	782			395			5	20	2		1,498	0	336.1	167.7	2.7	58.0
Jun 4	1,219			552			5	16	1		3,944	0	350.4	174.0	2.5	59.0
Jun 5	1,381			408			18	19	3		4,156	0	353.3	176.8	2.9	58.0
Jun 6	1,187			507			21	19	5		1,969	0	348.5	172.3	2.8	58.0
Jun 7	1,390			591			32	27	0		3,456	0	339.0	162.5	2.9	58.0
Jun 8	1,282			512			70	24	0		4,330	0	352.9	176.0	3.6	58.0
Jun 9		1,354		563			49	24	0		2,785	0	354.6	179.1	3.1	59.0
Jun 10		909		340			134	26	2		8,765	0	311.0	135.7	3.3	59.0
Jun 11		1,167		526			191	27	6		8,231	0	294.6	123.6	3.0	59.0
Jun 12		1,720		817			369	91	1		20,698	0	263.8	105.6	*	60.0
Jun 13		1,653		749			617	44	7		17,780	0	256.0	102.5	4.2	60.0
Jun 14		1,215		539			581	57	2		12,006	0	248.6	99.6	4.5	61.0
Jun 15		1,938		760			820	40	4		26,036	2	240.2	96.6	4.9	61.0
Jun 16		2,030		662			977	68	2		19,757	1	255.2	102.3	4.3	61.0
Jun 17		2,171		708			1,497	102	14		30,716	1	224.6	90.2	3.7	61.0
Jun 18		2,010		783			1,928	82	10		29,595	0	256.5	102.7	4.1	61.0
Jun 19		1,935		563			1,888	78	12		14,335	2	271.8	109.1	4.1	62.0
Jun 20		1,608		500			2,252	120	15		8,864	0	275.8	137.9	4.0	62.0
Jun 21		2,176		652			2,660	104	16		15,344	0	251.4	125.7	4.1	62.0
Jun 22		2,199		575			3,311	105	26		16,880	2	239.0	119.5	5.2	62.0
Jun 23		1,811		508			4,136	86	14		11,060	0	290.0	145.1	5.6	62.0
Jun 24		1,427		512			3,985	95	16		11,052	0	284.0	142.2	5.0	62.0
Jun 25		2,452		753			6,341	114	24		8,147	0	253.7	127.0	5.0	62.0
Jun 26		1,398		571			6,197	105	26		16,958	0	229.6	114.8	5.1	62.0
Jun 27		1,523		599			6,032	117	29		13,041	1	255.7	127.9	5.4	62.0
Jun 28		1,648		642			5,597	131	26		8,772	4	243.5	121.6	5.2	63.0
Jun 29		1,386		636			6,017	150	47		9,771	0	224.2	112.5	5.4	63.0
Jun 30		1,309		475			6,334	185	38		8,942	1	245.1	123.1	5.6	63.0
TOTAL	9,177	37,039		17,294			62,066	2,108	350		339,860	14				
AVG.	1,147	1,684		576			2,069	70	12		11,329	0	284.3	133.7	4.1	60.5

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	70,413	43,328
SUMMER	37,039	13,433
TOTAL	107,452	56,761

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD
62,071	4,545	1,451

SHAD	LAMPREY
340,078	19

TABLE 60

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

JULY 2009

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		1,542		388			7,028	197	57		9,162	1	193.4	96.9	5.6	64.0
Jul 2		1,165		466			7,691	227	74		5,757	0	147.0	73.5	5.4	64.0
Jul 3		890		474			6,920	184	54		14,574	7	164.9	82.6	5.5	64.0
Jul 4		813		274			4,853	232	61		13,636	4	152.8	77.0	5.2	65.0
Jul 5		816		349			5,999	203	51		18,807	1	159.5	80.0	*	67.0
Jul 6		1,193		646			5,716	362	84		14,180	3	173.6	86.9	5.5	67.0
Jul 7		1,427		677			5,303	604	171		6,981	8	187.9	94.3	5.1	67.0
Jul 8		1,247		600			3,269	543	151		5,837	5	208.5	104.3	5.4	68.0
Jul 9		1,195		467			3,129	599	209		6,872	0	205.2	102.7	5.5	66.0
Jul 10		712		270			1,727	450	153		4,562	2	203.9	101.9	5.4	66.0
Jul 11		635		217			1,579	411	148		4,219	4	206.3	103.1	*	66.0
Jul 12		633		182			1,095	498	168		5,477	4	168.2	84.2	6+	67.0
Jul 13		558		183			876	665	235		2,827	6	173.0	86.9	5.4	67.0
Jul 14		351		103			772	653	252		4,094	3	182.1	91.4	6+	67.0
Jul 15		607		209			796	661	261		3,041	6	166.8	83.6	6+	67.0
Jul 16		751		167			601	624	242		2,276	4	174.0	85.6	6+	67.0
Jul 17		378		132			392	634	256		1,827	11	167.2	83.5	6+	67.0
Jul 18		346		103			380	470	158		1,541	7	149.4	72.6	5.9	68.0
Jul 19		516		169			292	591	192		2,378	16	149.9	75.1	5.8	68.0
Jul 20		267		101			182	649	265		1,770	7	151.0	73.7	5.9	68.0
Jul 21		493		118			247	715	267		1,066	18	152.4	76.3	6.0	69.0
Jul 22		245		74			134	758	308		555	16	145.5	83.2	6.0	69.0
Jul 23		678		216			149	868	363		1,015	7	130.4	74.8	6.0	70.0
Jul 24		586		245			134	1,305	540		1,930	15	139.1	69.9	6.0	70.0
Jul 25		378		157			101	1,371	592		1,349	14	138.8	68.2	6.0	70.0
Jul 26		238		91			91	891	424		1,164	11	131.1	63.7	6+	70.0
Jul 27		384		143			56	1,449	642		1,358	16	149.7	72.8	*	70.0
Jul 28		122		65			20	1,192	520		936	8	173.7	84.6	6.0	71.0
Jul 29		102		27			17	1,022	427		771	9	179.7	88.0	6.0	71.0
Jul 30		107		29			7	838	373		547	8	158.0	78.3	6.0	72.0
Jul 31		84		27			8	541	228		269	21	156.1	77.0	6.0	72.0
TOTAL		19,459		7,369			59,564	20,407	7,926		140,778	242				
AVG.		628		238			1,921	658	256		4,541	8	165.8	83.1	5.8	67.9

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	70,413	43,328
SUMMER	56,498	20,802
TOTAL	126,911	64,130

SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
121,635	24,952	9,377	480,856	261

TABLE 61

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

AUGUST 2009

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		232		114	0	0	3	603	273	0	275	20	154.3	76.0	6.0	72.0
Aug 2		76		30	0	0	1	603	257	0	482	16	137.8	67.8	6.0	72.0
Aug 3		49		22	0	0	2	551	223	0	479	19	112.5	55.1	6.0	72.0
Aug 4		53		39	0	0	0	357	147	0	323	15	117.4	56.6	6.0	72.0
Aug 5		68		54	0	0	0	494	203	0	140	5	151.7	73.3	6.0	72.0
Aug 6		46		46	0	0	1	554	245	0	166	9	130.4	63.8	6.0	72.0
Aug 7		58		39	0	0	1	650	288	0	721	2	124.8	61.1	6.0	72.0
Aug 8		57		36	0	0	4	418	167	0	131	10	125.6	61.6	5.5	72.0
Aug 9			95	40	0	0	0	309	112	0	332	8	110.0	54.6	6.0	71.0
Aug 10			212	81	2	2	4	338	135	0	304	8	108.1	52.0	6.0	70.0
Aug 11			197	60	0	0	0	570	207	0	324	16	110.2	53.8	6.0	70.0
Aug 12			210	59	1	0	0	798	300	0	287	21	122.2	59.3	6.0	70.0
Aug 13			210	71	0	0	2	1,191	490	0	225	12	117.7	57.5	6.0	70.0
Aug 14			232	95	-1	0	4	1,402	520	0	238	18	97.8	41.9	6.0	70.0
Aug 15			345	93	1	1	0	1,112	378	0	191	15	91.8	36.4	6.0	70.0
Aug 16			216	54	5	3	2	1,174	398	0	162	16	92.8	37.4	6.0	70.0
Aug 17			237	59	4	2	1	1,236	401	0	107	14	85.8	30.0	6.0	70.0
Aug 18			340	119	5	4	0	1,480	422	0	111	5	107.9	52.2	6.0	70.0
Aug 19			426	91	2	4	0	1,905	595	0	114	7	130.5	65.4	6.0	70.0
Aug 20			562	107	7	5	1	2,851	857	0	194	6	142.4	71.1	6.0	70.0
Aug 21			307	100	5	1	0	3,738	1,087	0	160	10	119.8	59.9	*	70.0
Aug 22			598	123	5	0	0	5,536	1,654	0	101	8	119.3	59.7	6.0	70.0
Aug 23			3,366	566	11	7	0	5,875	1,746	0	42	8	116.2	57.9	6.0	70.0
Aug 24			1,354	299	30	10	1	5,943	1,755	0	34	12	110.6	55.5	6.0	70.0
Aug 25			1,517	474	34	16	1	5,641	1,641	0	57	10	109.5	54.8	6.0	71.0
Aug 26			539	307	24	3	0	4,123	1,087	0	29	10	130.8	65.6	6.0	71.0
Aug 27			1,128	787	61	22	0	5,487	1,515	0	42	6	119.3	59.6	6.0	70.0
Aug 28			1,081	489	66	41	1	4,165	1,132	0	44	7	120.9	60.5	*	70.0
Aug 29			2,551	1,160	133	29	0	8,126	2,164	1	21	10	111.2	55.5	6.0	69.0
Aug 30			2,430	1,289	247	50	1	9,728	2,487	1	17	0	109.7	54.5	6.0	68.0
Aug 31			3,033	1,433	276	75	1	8,327	2,044	0	16	4	112.7	56.6	6.0	68.0
TOTAL		639	21,186	8,336	918	275	31	85,285	24,930	2	5,869	327				
AVG.		80	921	269	30	9	1	2,751	804		189	11	117.8	57.0	6.0	70.5

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	70,413	43,328
SUMMER	57,137	21,182
FALL	21,186	7,956
TOTAL	148,736	72,466

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
918	275	121,666	110,237	34,307	2	486,725	588

TABLE 62

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

SEPTEMBER 2009

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			2,555	1,071	201	44	0	4,569	1,066			7	83.7	0.0	*	68.0
Sep 2			1,176	747	160	46	2	4,867	1,132			8	88.8	0.0	6+	68.0
Sep 3			2,717	1,563	270	72	0	6,047	1,432			4	92.0	0.0	6+	70.0
Sep 4			1,161	849	145	72	1	6,013	1,528			4	79.1	0.0	*	70.0
Sep 5			2,122	2,187	246	91	1	6,492	1,707			4	68.9	0.0	6+	70.0
Sep 6			4,685	2,659	417	93	1	10,380	2,428			6	67.5	0.0	6+	70.0
Sep 7			4,662	3,638	672	119	1	10,870	2,445			2	89.2	0.0	6+	69.0
Sep 8			2,646	2,268	621	105	1	8,215	1,899			6	71.0	0.0	6+	69.0
Sep 9			4,998	3,665	438	93	0	5,590	1,215			0	79.5	0.0	6+	69.0
Sep 10			1,140	982	370	84	1	4,250	1,014			3	74.4	0.0	6+	69.0
Sep 11			2,348	2,438	432	84	0	6,742	1,632			0	94.5	0.0	*	69.0
Sep 12			1,680	1,441	413	57	0	5,844	1,380			6	80.2	0.0	6+	69.0
Sep 13			2,671	1,723	492	92	0	6,422	1,454			3	59.6	0.0	6+	68.0
Sep 14			3,736	2,062	637	86	0	6,796	1,574			3	71.0	0.0	6+	68.0
Sep 15			4,040	2,789	801	135	1	7,623	1,752			4	77.9	0.0	6+	68.0
Sep 16			1,450	1,523	466	55	0	3,770	915			1	84.2	0.0	6+	68.0
Sep 17			1,548	992	444	71	0	5,922	1,299			5	68.8	0.0	6+	68.0
Sep 18			1,441	1,191	478	61	0	6,920	1,524			4	80.3	0.0	*	68.0
Sep 19			1,590	1,351	423	66	0	5,132	1,196			7	69.0	0.0	6+	68.0
Sep 20			2,414	1,646	400	100	0	6,385	1,403			0	61.1	0.0	6+	68.0
Sep 21			2,681	1,526	383	86	0	4,606	1,114			1	64.0	0.0	6+	68.0
Sep 22			1,746	812	256	42	0	3,475	764			1	82.9	0.0	6+	68.0
Sep 23			2,945	1,102	221	29	1	4,272	970			2	88.9	0.0	6+	68.0
Sep 24			1,181	810	218	26	0	3,736	870			0	86.4	0.0	6+	68.0
Sep 25			1,469	1,007	335	56	0	5,186	1,189			0	108.3	0.0	6+	67.0
Sep 26			1,365	1,282	518	68	0	7,466	1,665			0	78.5	0.0	6+	67.0
Sep 27			1,787	1,512	453	49	-1	8,958	2,197			1	63.5	0.0	6+	67.0
Sep 28			1,973	1,294	561	72	0	9,057	2,047			0	78.6	0.0	6+	67.0
Sep 29			2,106	1,018	1,165	82	0	13,947	3,382			0	86.6	0.0	6+	66.0
Sep 30			1,677	986	1,536	318	0	15,396	3,500			5	85.3	0.0	6+	66.0
TOTAL			69,710	48,134	14,172	2,454	9	204,948	47,693			87				
AVG.			2,324	1604	472	82	0	6,832	1,590			3	78.8	0.0	6+	68.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	70,413	43,328
SUMMER	57,137	21,182
FALL	90,896	56,090
TOTAL	218,446	120,600

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
15,090	2,729	121,675	315,185	82,000	2	486,725	675

TABLE 63

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MCNARY PROJECT - FISH COUNTS

OCTOBER 2009

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			386	335	449	94	0	5,796	1,316			0	88.1	0.0	6+	65.0
Oct 2			549	460	342	36	-1	4,867	1,261			0	87.3	0.0	5.0	65.0
Oct 3			1,177	596	333	37	-1	5,431	1,415			0	78.2	0.0	4.8	64.0
Oct 4			1,023	366	295	21	0	3,959	1,066			0	69.7	0.0	4.9	63.0
Oct 5			499	207	240	22	-1	3,062	767			0	71.7	0.0	5.0	62.0
Oct 6			1,012	341	385	35	0	3,775	1,013			0	77.3	0.0	5.5	62.0
Oct 7			1,109	455	692	56	0	6,018	1,725			1	83.4	0.0	5.8	62.0
Oct 8			1,037	485	754	45	0	6,616	1,840			0	95.9	0.0	5.3	61.0
Oct 9			616	241	420	36	0	4,496	1,175			0	98.3	0.0	5.6	61.0
Oct 10			740	245	670	30	0	5,257	1,490			0	73.3	0.0	5.4	60.0
Oct 11			591	204	663	35	0	4,617	1,257			0	78.6	0.0	6+	59.0
Oct 12			588	216	960	66	0	4,045	1,125			0	86.6	0.0	5.5	58.0
Oct 13			507	223	728	41	0	2,659	876			0	103.3	0.0	6.0	58.0
Oct 14			302	122	462	20	0	2,215	659			0	94.8	0.0	6.0	58.0
Oct 15			189	109	515	17	0	1,248	413			0	101.4	0.0	6.0	58.0
Oct 16			335	156	477	14	0	1,321	360			0	79.9	0.0	6+	58.0
Oct 17			299	132	398	10	0	1,478	458			0	81.8	0.0	6+	57.0
Oct 18			316	140	950	18	0	1,985	584			-1	61.7	0.0	6+	56.0
Oct 19			693	134	1,817	58	0	3,414	1,076			0	81.6	0.0	6+	56.0
Oct 20			314	138	1,484	172	0	3,629	1,196			0	85.6	0.0	*	56.0
Oct 21			236	94	1,346	126	0	3,390	1,125			0	96.5	0.0	6+	57.0
Oct 22			259	87	1,190	81	0	2,834	980			1	90.1	0.0	*	57.0
Oct 23			259	78	847	37	0	2,805	899			0	70.2	0.0	6+	58.0
Oct 24			148	42	572	22	0	2,068	691			0	73.5	0.0	6+	57.0
Oct 25			88	35	214	8	0	1,317	393			0	94.1	0.0	6+	57.0
Oct 26			92	34	119	4	0	706	222			0	86.2	0.0	*	57.0
Oct 27			72	30	178	3	0	956	342			0	93.0	0.0	6+	57.0
Oct 28			52	38	153	12	0	853	255			0	109.3	0.0	*	56.0
Oct 29			32	17	113	2	0	642	246			0	94.6	0.0	*	56.0
Oct 30			44	20	199	8	0	662	261			0	69.3	0.0	*	55.0
Oct 31			84	31	303	17	0	851	306			0	81.6	0.0	*	55.0
TOTAL			13,648	5,811	18,268	1,183	-3	92,972	26,792			1				
AVG.			440	187	589	38		2,999	864			0	85.1	0.0	5.7	58.7

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	70,413	43,328
SUMMER	57,137	21,182
FALL	104,544	61,901
TOTAL	232,094	126,411

COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	PINK	SHAD	LAMPREY
33,358	3,912	121,672	408,157	108,792	2	486,725	676

Note: Visual counts ended October 31.

Official Fall Chinook run ended October 31.

TABLE 64

DISCHARGE AND WATER QUALITY DATA

MCNARY PROJECT 2009

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	78.9	0.0	*	55.0
Nov 2	100.4	0.0	4.6	55.0
Nov 3	118.6	0.0	6+	55.0
Nov 4	104.5	0.0	6+	55.0
Nov 5	114.6	0.0	6+	55.0
Nov 6	104.6	0.0	6+	55.0
Nov 7	103.8	0.0	5.7	55.0
Nov 8	109.1	0.0	6+	54.0
Nov 9	118.4	0.0	6+	54.0
Nov 10	96.6	0.0	6+	54.0
Nov 11	99.8	0.0	6+	54.0
Nov 12	118.5	0.0	6+	53.0
Nov 13	106.3	0.0	6+	53.0
Nov 14	110.6	0.0	6+	53.0
Nov 15	97.6	0.0	6+	52.0
Nov 16	102.8	0.0	6+	52.0
Nov 17	112.4	0.0	6+	51.0
Nov 18	118.8	0.0	6+	50.0
Nov 19	118.6	0.0	6+	50.0
Nov 20	109.0	0.0	6+	50.0
Nov 21	112.4	0.0	6+	50.0
Nov 22	84.3	0.0	6+	50.0
Nov 23	98.4	0.0	6+	50.0
Nov 24	108.9	0.0	6+	49.0
Nov 25	104.4	0.0	6+	49.0
Nov 26	94.0	0.0	6+	48.0
Nov 27	105.6	0.0	6+	48.0
Nov 28	107.5	0.0	6+	48.0
Nov 29	105.8	0.0	6+	48.0
Nov 30	109.2	0.0	6+	48.0
AVG.	105.8	0.0	6+	51.8

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	114.0	0.0	6+	48.0
Dec 2	115.2	0.0	6+	48.0
Dec 3	130.2	0.0	6+	48.0
Dec 4	139.1	0.0	6+	47.0
Dec 5	130.9	0.0	6+	47.0
Dec 6	95.1	0.0	6+	47.0
Dec 7	113.0	0.0	6+	46.0
Dec 8	150.8	0.0	6+	46.0
Dec 9	150.0	0.0	6+	45.0
Dec 10	145.0	0.0	6+	45.0
Dec 11	142.0	0.0	6+	41.0
Dec 12	131.9	0.0	6+	41.0
Dec 13	126.9	0.0	6+	41.0
Dec 14	142.1	0.0	6+	41.0
Dec 15	151.2	0.0	6+	41.0
Dec 16	138.1	0.0	6+	41.0
Dec 17	121.2	0.0	6+	41.0
Dec 18	104.8	0.0	6+	41.0
Dec 19	92.7	0.0	6+	41.0
Dec 20	105.4	0.0	6+	41.0
Dec 21	94.8	0.0	6+	41.0
Dec 22	98.3	0.0	6+	42.0
Dec 23	123.7	0.0	6+	42.0
Dec 24	129.4	0.0	6+	41.0
Dec 25	115.6	0.0	6+	41.0
Dec 26	115.3	0.0	6+	41.0
Dec 27	112.3	0.0	6+	41.0
Dec 28	132.5	0.0	6+	41.0
Dec 29	140.4	0.0	6+	41.0
Dec 30	138.0	0.0	6+	41
Dec 31	115.8	0.0	6+	41
AVG.	124.4	0.0	6+	42.9

***Data unavailable**

TABLE 65

YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2009

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	168,692	69,365	2,272	355,170
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	420,603	230,418	32,037	19,830	702,888
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
Totals	10,750,767	7,287,322	3,313,335	603,341	21,954,765
10-Year Average	319,963	254,047	69,820	19,590	663,420

*Jacks included

TABLE 66

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2009

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 - 2009

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
Total			995	938,086	1,999,229	1,329,136	1,279,903	706,187	3,688,481	797,390	13,443	682	10,753,532	3,178,334	2,536,813	5,030,146
10-Year Average				33,510	62,556	46,364	31,411	17,090	105,646	22,747			320,239	104,550	72,067	142,799

***Jacks included**

TABLE 67

MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM: 1954 - 2009

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 - 2009

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
Total				1	211	846,437	2,367,367	86,085	9,431	3,797	5	1	3,313,335
10-Year Average					3	41,387	28,316	108	6				69,820

TABLE 68

MONTHLY COUNT OF COHO SALMON
McNARY DAM: 1954 - 2009

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 - 2009

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
TOTAL				1	14	50	515	21,382	428,166	147,770	5,806	38	603,742
10-Year Average								183	10,778	8,419			19,630

*Jacks included

TABLE 69

MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2009

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 - 2009

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
Total	1,059	925	33,723	110,964	40,788	74,235	630,801	1,216,760	3,488,605	1,621,865	69,280	15,067	7,304,072
10-Year Avg.				1,778	307	2,881	21,569	32,686	129,190	59,970			255,695

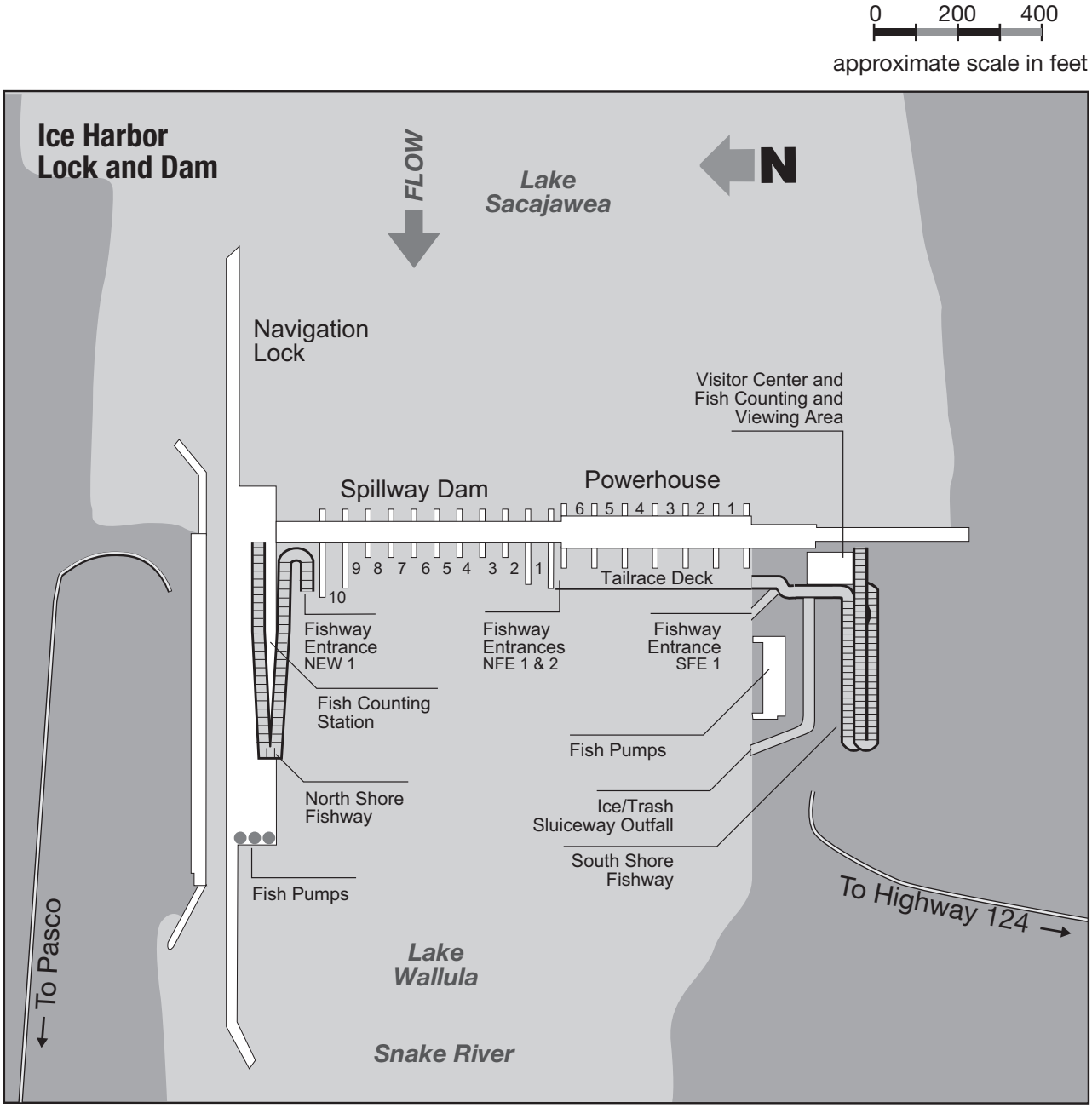
Table 70

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	0
TOTALS	325	461	74

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 – 5 January	Ladder in service
6 January – 21 January	Ladder dewatered for annual maintenance
22 January – 31 December	Ladder in service

South Ladder

1 January – 25 January	Ladder in service
26 January – 25 February	Ladder dewatered for annual maintenance
26 February – 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 from 17 June to 1 October.

Idaho Cooperative Fisheries Research Unit conducted an evaluation of adult salmon and steelhead migration past the Snake and Columbia River Dams. In addition, lamprey passage was monitored in the north shore and south shore adult fish ladders by half duplex PIT tag equipment

NOAA conducted research on juvenile salmonids passing through the spillway and over the removable spillway weir.

The RSW operated 7 April until the end of the spill season 31 August.

TABLE 71

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER ICE HARBOR DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				1,173	65,190	40,728	9,465	10,549	49,471	3,773			180,349
STEELHEAD				2,906	154	1,218	13,616	43,697	167,918	98,596			328,105
SOCKEYE						242	624	1					867
COHO*								11	1,343	4,082			5,436
PINK													0
TOTAL				4,079	65,344	42,188	23,705	54,258	218,732	106,451			514,757
SHAD					-9	48,582	29,783	1,140					79,496
LAMPREY					1	1	30	15	10				57
STURGEON										1			1
BULL TROUT													0

***Jacks included**

TABLE 72

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT 2009

JANUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jan 1	18.9	0.0	10.2	37.0
Jan 2	25.6	0.0	10.2	37.0
Jan 3	32.7	0.0	10.2	37.0
Jan 4	26.8	0.0	10.2	37.0
Jan 5	25.1	0.0	10.2	37.0
Jan 6	25.7	0.0	10.2	37.0
Jan 7	25.7	0.0	10.2	37.0
Jan 8	46.1	0.0	10.2	37.0
Jan 9	71.8	0.0	10.2	37.0
Jan 10	50.6	0.0	10.2	37.0
Jan 11	46.9	0.0	10.2	37.0
Jan 12	38.3	0.0	10.2	37.0
Jan 13	47.1	0.0	9.6	38.0
Jan 14	47.5	0.0	9.4	38.0
Jan 15	44.2	0.0	5.6	38.0
Jan 16	46.7	0.0	1.8	38.0
Jan 17	38.8	0.0	1.8	38.0
Jan 18	42.6	0.0	1.8	38.0
Jan 19	41.2	0.0	1.8	38.0
Jan 20	38.2	0.0	1.8	38.0
Jan 21	34.1	0.0	4.1	38.0
Jan 22	33.7	0.0	4.1	38.0
Jan 23	35.7	0.0	4.1	38.0
Jan 24	35.0	0.0	4.1	38.0
Jan 25	30.6	0.0	4.1	37.0
Jan 26	39.2	0.0	4.1	37.0
Jan 27	47.7	0.0	4.8	37.0
Jan 28	20.5	0.0	4.9	37.0
Jan 29	29.0	0.0	4.9	37.0
Jan 30	30.6	0.0	3.9	37.0
Jan 31	26.7	0.0	3.9	37.0
AVG.	36.9	0.0	6.5	37.4

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Feb 1	28.0	0.0	3.9	37.0
Feb 2	30.8	0.0	3.9	37.0
Feb 3	21.8	0.0	4.6	37.0
Feb 4	28.3	0.0	4.6	37.0
Feb 5	23.6	0.0	4.7	37.0
Feb 6	24.9	0.0	4.7	37.0
Feb 7	32.5	0.0	4.7	37.0
Feb 8	25.8	0.0	4.7	37.0
Feb 9	25.8	0.0	4.7	37.0
Feb 10	39.5	0.0	4.9	37.0
Feb 11	28.2	0.1	4.9	37.0
Feb 12	25.1	0.0	4.9	37.0
Feb 13	31.7	0.0	5.8	37.0
Feb 14	21.3	0.0	5.8	37.0
Feb 15	21.0	0.0	5.8	37.0
Feb 16	24.7	0.0	5.8	37.0
Feb 17	23.2	0.0	5.8	37.0
Feb 18	30.6	0.0	6.8	37.0
Feb 19	23.9	0.0	6.8	38.0
Feb 20	29.5	0.0	6.8	38.0
Feb 21	22.9	0.0	6.8	38.0
Feb 22	23.4	0.0	6.8	38.0
Feb 23	28.5	0.0	6.8	38.0
Feb 24	21.3	0.0	6.8	38.0
Feb 25	42.1	0.0	6.8	38.0
Feb 26	38.3	0.0	7.6	38.0
Feb 27	36.6	0.0	7.6	38.0
Feb 28	33.3	0.0	7.6	38.0
AVG.	28.1	0.0	5.8	37.4

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	37.7	0.0	7.6	38.0
Mar 2	32.7	0.0	7.6	38.0
Mar 3	43.7	0.0	7.2	38.0
Mar 4	54.2	0.0	7.2	38.0
Mar 5	48.4	0.0	7.2	38.0
Mar 6	40.9	0.0	7.2	38.0
Mar 7	38.5	0.0	7.2	38.0
Mar 8	37.3	0.0	7.2	38.0
Mar 9	37.8	0.0	7.0	38.0
Mar 10	31.8	0.0	7.0	40.0
Mar 11	39.5	0.0	7.0	40.0
Mar 12	36.8	0.0	7.0	40.0
Mar 13	37.8	0.0	7.0	40.0
Mar 14	35.4	0.0	7.0	40.0
Mar 15	30.1	0.0	3.6	40.0
Mar 16	33.8	0.0	3.6	40.0
Mar 17	42.3	0.0	4.1	40.0
Mar 18	37.7	0.0	3.8	40.0
Mar 19	33.5	0.0	3.8	40.0
Mar 20	33.5	0.0	3.8	40.0
Mar 21	41.5	0.0	3.8	40.0
Mar 22	46.5	0.0	3.8	42.0
Mar 23	49.3	0.0	3.8	42.0
Mar 24	58.2	0.0	3.8	42.0
Mar 25	54.8	0.0	3.8	42.0
Mar 26	52.3	0.0	3.6	42.0
Mar 27	43.7	0.0	2.1	42.0
Mar 28	41.4	0.0	2.1	42.0
Mar 29	52.9	0.0	2.1	42.0
Mar 30	51.1	0.0	2.1	43.0
Mar 31	53.1	0.0	2.3	43.0
AVG.	42.2	0.0	5.0	40.1

TABLE 73

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

APRIL 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Apr 1	0			0				90	29				59.8	0.0	2.3	43.0
Apr 2	0			0				98	38				68.3	0.1	2.3	43.0
Apr 3	0			0				118	37				71.0	53.3	2.3	43.0
Apr 4	0			0				149	52				63.6	48.6	2.3	43.0
Apr 5	2			0				168	72				68.1	50.7	2.3	43.0
Apr 6	5			0				181	60				71.7	53.5	2.3	43.0
Apr 7	0			0				120	27				72.7	54.5	2.3	43.0
Apr 8	4			0				84	14				66.9	54.2	2.3	44.0
Apr 9	7			0				129	19				88.4	59.5	1.9	44.0
Apr 10	3			0				127	40				85.4	59.6	1.9	44.0
Apr 11	6			0				126	52				83.9	58.8	1.9	44.0
Apr 12	0			0				105	44				87.8	60.5	1.9	45.0
Apr 13	1			0				119	47				88.4	62.3	1.9	45.0
Apr 14	8			2				155	27				99.6	64.6	2.4	45.0
Apr 15	12			0				190	53				96.3	62.2	2.4	45.0
Apr 16	7			0				200	66				82.0	55.2	2.4	45.0
Apr 17	11			0				100	31				87.1	60.0	2.4	47.0
Apr 18	16			0				148	58				85.5	58.7	2.4	47.0
Apr 19	6			0				77	22				82.1	59.1	2.4	48.0
Apr 20	23			0				72	18				89.7	62.2	2.4	48.0
Apr 21	12			0				51	38				108.3	67.8	2.7	48.0
Apr 22	28			0				40	24				121.3	67.5	2.7	48.0
Apr 23	7			0				34	19				142.7	78.4	2.7	50.0
Apr 24	54			0				47	17				145.9	75.4	2.7	50.0
Apr 25	70			1				46	18				122.8	62.3	2.7	50.0
Apr 26	102			0				41	24				109.8	60.2	2.7	50.0
Apr 27	77			4				27	15				102.8	63.1	2.7	50.0
Apr 28	126			1				21	10				89.4	60.1	3.2	50.0
Apr 29	253			5				14	3				88.7	59.2	3.2	50.0
Apr 30	306			14				29	5				81.5	34.8	3.2	50.0
TOTAL	1,146			27				2,906	979							
AVG.	38			1				97	33				90.4	55.5	2.4	46.3

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

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 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	267			14				14	13	0	0		78.7	23.7	3.0	50.0
May 2	196			11				10	6	0	0		75.6	46.9	3.0	50.0
May 3	618			42				11	9	0	0		75.8	55.2	3.0	50.0
May 4	841			72				16	10	0	0		88.1	36.0	3.0	50.0
May 5	1,095			106				17	6	0	0		85.7	25.7	3.0	50.0
May 6	772			94				14	2	0	0		112.0	54.3	3.0	50.0
May 7	1,312			149				7	5	0	0		109.4	69.9	2.6	50.0
May 8	2,421			234				7	2	0	0		109.5	46.8	2.6	50.0
May 9	2,838			422				13	10	0	0		95.2	28.5	2.6	51.0
May 10	2,176			529				7	1	0	0		90.5	27.2	2.6	51.0
May 11	1,289			367				16	6	0	0		76.8	22.7	2.6	51.0
May 12	1,926			862				9	4	0	0		81.8	47.7	3.8	51.0
May 13	2,003			1,267				6	5	0	0		85.6	56.7	4.2	51.0
May 14	3,036			2,072				11	11	0	0		89.1	37.8	4.2	52.0
May 15	1,835			1,549				-1	1	0	0		93.4	27.9	4.2	52.0
May 16	1,735			1,480				-7	-7	0	0		99.2	51.8	4.0	52.0
May 17	1,811			1,645				1	0	0	0		100.8	64.3	4.0	52.0
May 18	1,768			1,718				2	1	0	0		108.1	66.1	4.0	52.0
May 19	1,256			1,133				3	2	0	0		140.1	70.7	3.8	52.0
May 20	1,233			992				3	1	0	0		160.5	81.4	3.8	52.0
May 21	1,474			1,234				2	1	0	0		167.1	84.2	3.8	52.0
May 22	1,615			1,962				1	0	0	0		142.0	69.0	4.0	52.0
May 23	1,456			1,373				7	0	0	0		134.9	71.9	4.0	52.0
May 24	1,478			1,363				0	0	0	1		147.2	66.6	4.0	54.0
May 25	762			556				1	0	0	0		165.0	81.5	4.0	54.0
May 26	222			279				1	1	0	0		164.7	82.1	4.0	54.0
May 27	246			223				6	4	1	0		159.9	77.3	2.8	54.0
May 28	1,392			849				2	1	0	0		154.6	74.5	1.8	54.0
May 29	1,151			512				-29	-1	-10	0		162.5	78.8	1.8	54.0
May 30	429			202				-1	-2	0	0		163.8	80.6	1.8	55.0
May 31	901			325				5	0	0	0		169.6	86.3	1.8	55.0
TOTAL	41,554			23,636				154	92	-9	1					
AVG.	1340			762				5	3	0	0		118.9	57.9	3.3	51.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
SPRING	42,700	23,663	3,060	1,071	-9	1

TABLE 75

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JUNE 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	949			319			0	7	0	0	0		167.2	84.1	1.8	56.0
Jun 2	1,580			538			0	10	1	0	0		163.5	80.8	1.8	56.0
Jun 3	1,162			449			0	7	0	0	-1		149.8	68.9	1.4	57.0
Jun 4	1,208			496			0	14	0	11	0		140.7	65.9	1.4	57.0
Jun 5	1,251			531			2	10	0	20	0		145.8	66.3	1.4	57.0
Jun 6	1,180			416			4	10	0	30	0		157.3	77.1	1.4	57.0
Jun 7	1,062			286			0	5	-1	6	0		170.6	87.6	1.4	57.0
Jun 8	941			371			1	7	-1	13	0		158.7	77.4	1.4	57.0
Jun 9	1,178			418			1	13	0	158	0		143.3	60.9	2.4	57.0
Jun 10	1,152			341			1	26	-2	342	0		120.2	39.5	2.4	57.0
Jun 11	1,072			395			0	25	3	618	0		106.8	52.9	2.8	58.0
Jun 12		781		463			0	25	0	577	0		106.7	67.8	2.8	58.0
Jun 13		1,329		716			0	28	2	2,152	0		96.2	41.8	2.8	58.0
Jun 14		1,289		626			0	36	0	1,392	0		96.5	29.0	3.0	58.0
Jun 15		711		357			0	30	4	564	0		99.6	53.8	3.0	58.0
Jun 16		1,298		665			2	25	0	408	0		106.6	68.4	3.4	59.0
Jun 17		939		441			0	35	3	3,202	0		100.8	41.8	3.4	59.0
Jun 18		966		518			6	33	4	3,854	0		101.3	30.3	3.6	59.0
Jun 19		1,228		344			2	80	9	1,617	0		100.6	53.5	3.6	60.0
Jun 20		848		216			4	54	1	2,333	0		89.2	62.0	3.6	60.0
Jun 21		663		232			9	69	6	5,958	0		86.0	36.0	3.6	60.0
Jun 22		985		242			4	63	5	1,563	0		85.8	25.9	3.6	60.0
Jun 23		890		364			17	41	7	2,049	0		109.8	39.7	3.8	60.0
Jun 24		696		286			17	54	6	5,792	0		94.0	28.2	3.8	60.0
Jun 25		611		234			15	54	13	1,178	1		82.9	46.0	3.8	60.0
Jun 26		594		495			17	49	12	1,535	1		85.0	56.7	3.8	60.0
Jun 27		352		343			35	86	20	3,338	0		79.5	54.8	3.8	60.0
Jun 28		411		454			33	124	18	1,704	0		80.3	55.0	3.8	60.0
Jun 29		535		396			36	98	26	5,030	0		76.2	32.4	3.8	63.0
Jun 30		700		215			36	100	12	3,138	0		74.7	22.2	3.8	63.0
TOTAL	12,735	15,826		12,167			242	1,218	148	48,582	1					
AVG.	1158	833		406			8	41	5	1,619	0		112.5	53.6	2.9	58.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	55,435	28,223
SUMMER	15,826	7,607
TOTAL	71,261	35,830

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
242	4,278	1,219	48,573	2

TABLE 76

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

JULY 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jul 1		576		114			44	118	20	1,374	1		69.7	44.8	3.8	63.0
Jul 2		624		141			62	148	23	1,068	0		67.2	51.0	4.6	63.0
Jul 3		427		139			64	159	37	3,626	1		66.3	28.4	4.6	63.0
Jul 4		457		120			50	193	35	4,718	1		68.3	21.7	4.6	63.0
Jul 5		323		78			40	112	28	1,528	0		66.8	45.0	4.6	63.0
Jul 6		440		132			54	241	49	316	0		57.9	47.4	5.8	64.0
Jul 7		499		151			49	152	36	4,170	0		60.3	23.9	5.8	64.0
Jul 8		591		151			48	231	54	2,209	0		63.2	19.0	5.8	64.0
Jul 9		406		119			67	345	88	2,890	0		50.6	15.4	5.8	64.0
Jul 10		371		59			32	291	53	3,688	0		59.4	17.9	5.8	66.0
Jul 11		378		57			21	307	66	235	0		52.2	36.3	5.8	66.0
Jul 12		236		37			18	316	82	177	0		50.1	39.4	5.8	66.0
Jul 13		210		41			8	274	54	216	0		46.3	36.3	5.8	67.0
Jul 14		192		38			5	339	119	453	1		46.7	36.8	5.8	67.0
Jul 15		178		12			18	388	126	193	1		56.4	44.8	6.0	68.0
Jul 16		244		47			9	504	135	361	0		48.2	37.8	6.0	69.0
Jul 17		163		70			9	465	102	322	1		47.3	37.1	6.0	69.0
Jul 18		117		30			6	472	134	328	1		43.7	33.5	6.0	69.0
Jul 19		129		32			10	471	135	328	0		50.3	40.1	6.0	69.0
Jul 20		125		11			3	391	102	506	0		43.9	33.4	6.0	69.0
Jul 21		76		10			2	322	74	50	4		44.8	34.5	6.0	68.0
Jul 22		120		14			0	514	142	85	1		40.4	30.1	6.0	69.0
Jul 23		120		8			1	657	173	49	1		38.5	28.3	6.0	69.0
Jul 24		186		39			0	721	223	168	3		40.6	30.4	6.0	69.0
Jul 25		102		35			1	757	199	92	0		33.8	24.0	6.0	69.0
Jul 26		96		2			1	420	134	80	1		40.3	30.5	6.0	70.0
Jul 27		130		17			0	1,003	325	106	6		36.5	26.6	6.0	70.0
Jul 28		77		11			1	812	251	184	6		37.9	27.6	6.5	69.0
Jul 29		34		11			0	734	212	109	0		40.2	29.7	6.5	69.0
Jul 30		58		5			1	1,115	329	80	1		38.4	28.4	7.1	69.0
Jul 31		44		5			0	644	184	74	0		39.6	29.1	7.1	69.0
TOTAL		7,729		1,736			624	13,616	3,724	29,783	30					
AVG.		249		56			20	439	120	961	1		49.9	32.6	5.8	67.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	55,435	28,223
SUMMER	23,555	9,343
TOTAL	78,990	37,566

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
866	17,894	4,943	78,356	32

TABLE 77

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

AUGUST 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1		55		2	0	0	0	568	194	33	0		37.5	27.1	7.0	69.0
Aug 2		49		3	0	0	0	330	80	12	0		37.2	26.4	7.0	69.0
Aug 3		30		5	0	0	0	223	42	40	0		34.6	24.4	7.0	69.0
Aug 4		18		3	0	0	0	349	117	90	1		38.5	28.3	7.0	69.0
Aug 5		19		14	0	0	0	307	108	239	0		30.4	20.1	7.0	69.0
Aug 6		23		3	0	0	0	200	87	179	0		30.2	20.2	8.6	70.0
Aug 7		33		10	0	0	0	272	83	246	4		31.4	21.2	8.0	70.0
Aug 8		18		6	0	0	0	205	50	14	0		32.1	21.6	8.0	71.0
Aug 9		6		2	0	0	1	123	34	32	0		34.4	24.1	8.0	71.0
Aug 10		14		3	0	0	0	159	44	8	0		34.3	24.3	7.4	71.0
Aug 11		36		6	0	0	0	254	64	13	0		33.0	22.8	7.4	71.0
Aug 12			44	10	0	0	0	238	36	22	1		33.1	23.0	7.4	71.0
Aug 13			33	12	0	0	0	313	77	4	2		33.7	23.5	7.6	70.0
Aug 14			36	11	0	0	0	462	154	29	0		28.0	18.3	7.8	70.0
Aug 15			46	20	0	0	0	491	167	1	1		27.5	20.5	7.8	70.0
Aug 16			98	23	0	0	0	600	209	6	0		30.7	23.8	7.8	70.0
Aug 17			91	25	0	0	0	576	201	8	5		29.4	22.4	7.8	70.0
Aug 18			74	23	0	0	0	798	255	1	0		33.6	26.6	7.8	70.0
Aug 19			114	34	0	0	0	597	197	5	0		34.5	27.8	7.6	70.0
Aug 20			183	57	0	0	0	896	283	5	0		35.7	28.9	7.0	70.0
Aug 21			156	26	0	0	0	1,235	331	125	0		36.4	29.6	7.0	70.0
Aug 22			161	37	0	0	0	1,558	456	8	0		35.5	28.2	7.0	70.0
Aug 23			147	38	0	0	0	1,975	521	5	0		34.2	26.7	7.0	69.0
Aug 24			1,094	220	0	0	0	3,008	938	1	0		32.2	24.8	7.0	69.0
Aug 25			766	196	0	0	0	3,533	983	11	0		25.4	15.6	7.0	69.0
Aug 26			510	232	2	0	0	3,444	895	3	1		26.2	16.5	7.0	69.0
Aug 27			366	274	0	0	0	3,155	791	0	0		30.1	21.2	6.8	69.0
Aug 28			453	554	1	0	0	3,522	871	2	0		31.6	24.6	6.8	69.0
Aug 29			565	677	4	1	0	5,258	1,280	1	0		26.9	20.0	6.8	69.0
Aug 30			692	677	2	0	0	4,360	1,045	-3	0		25.2	18.5	6.8	69.0
Aug 31			575	841	1	0	0	4,688	1,085	0	0		25.5	18.7	6.8	69.0
TOTAL		301	6,204	4,044	10	1	1	43,697	11,678	1,140	15					
AVG.		27	310	130			0	1,410	377	37	0		31.9	23.2	7.3	69.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	55,435	28,223
SUMMER	23,856	9,400
FALL	6,204	3987
TOTAL	85,495	41,610

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
10	1	867	61,591	16,621	79,496	47

TABLE 78

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

SEPTEMBER 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			850	775	8	1		7,094	1,498		0		27.5	0.0	6.8	70.0
Sep 2			830	704	11	2		6,349	1,372		1		24.9	0.0	6.8	70.0
Sep 3			665	1,043	22	10		6,201	1,389		1		25.8	0.0	6.8	70.0
Sep 4			517	1,011	10	1		3,864	884		2		27.8	0.0	6.8	70.0
Sep 5			507	1,264	11	2		4,430	984		0		17.8	0.0	6.8	70.0
Sep 6			672	1,376	25	2		5,421	1,278		2		24.6	0.0	6.8	70.0
Sep 7			1,071	1,775	32	11		6,864	1,618		2		26.0	0.0	6.8	70.0
Sep 8			754	2,427	46	16		7,398	1,692		0		23.5	0.0	7.6	70.0
Sep 9			622	1,746	45	3		5,800	1,325		0		15.2	0.0	7.6	70.0
Sep 10			627	1,845	42	11		6,450	1,435		0		22.0	0.0	7.6	67.0
Sep 11			609	606	4	2		3,194	642		0		31.4	0.0	7.6	67.0
Sep 12			982	1,426	9	2		5,437	1,129		0		29.4	0.0	7.6	67.0
Sep 13			354	1,626	42	18		6,309	1,393		0		21.2	0.0	7.6	67.0
Sep 14			598	1,018	65	4		6,794	1,420		0		25.0	0.0	7.6	67.0
Sep 15			761	1,659	73	4		6,485	1,388		0		29.6	0.0	7.6	67.0
Sep 16			901	1,556	12	2		4,485	1,018		1		28.5	0.0	9.2	67.0
Sep 17			1,350	1,251	37	1		7,689	1,487		0		22.9	0.0	9.2	67.0
Sep 18			414	741	54	6		3,347	647		0		10.1	0.0	9.2	67.0
Sep 19			301	870	20	5		4,478	953		0		12.8	0.0	9.2	67.0
Sep 20			405	772	65	8		5,849	1,188		0		13.8	0.0	9.2	67.0
Sep 21			302	924	45	1		2,789	592		0		18.5	0.0	9.2	67.0
Sep 22			498	885	20	5		4,095	875		0		21.8	0.0	9.2	67.0
Sep 23			543	887	24	4		4,714	905		1		18.3	0.0	9.2	67.0
Sep 24			428	507	34	2		4,084	813		0		12.9	0.0	9.7	67.0
Sep 25			218	617	18	12		4,134	833		0		21.7	0.0	9.7	67.0
Sep 26			183	525	19	6		4,587	936		0		23.4	0.0	9.7	67.0
Sep 27			238	694	34	6		4,199	873		0		13.8	0.0	9.7	67.0
Sep 28			339	664	31	19		6,566	1,406		0		19.7	0.0	9.7	66.0
Sep 29			221	830	155	18		10,437	2,244		0		16.4	0.0	8.9	66.0
Sep 30			204	483	128	18		8,375	1,815		0		17.8	0.0	8.9	66.0
TOTAL			16,964	32,507	1,141	202		167,918	36,032		10					
AVG.			565	1084	38	7		5,597	1,201		0		21.5	0.0	8.3	67.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	55,435	28,223
SUMMER	23,856	9,400
FALL	23,168	36,494
TOTAL	102,459	74,117

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY
1,151	203	867	229,509	52,653	79,496	57

TABLE 79

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ICE HARBOR PROJECT - FISH COUNTS

OCTOBER 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F*
Oct 1			151	571	159	23		11,408	2,560			0	23.8	0.0	8.9	66.0
Oct 2			214	196	44	4		6,210	1,427			0	18.5	0.0	8.9	66.0
Oct 3			102	106	29	2		3,151	677			0	30.0	0.0	6.5	66.0
Oct 4			156	111	20	1		1,951	405			0	16.7	0.0	6.5	66.0
Oct 5			128	114	72	5		5,441	1,258			0	23.2	0.0	6.5	66.0
Oct 6			109	209	89	8		5,716	1,217			1	21.3	0.0	7.2	64.0
Oct 7			81	110	74	11		3,253	754			0	27.0	0.0	7.2	63.0
Oct 8			91	54	66	2		2,364	480			0	22.2	0.0	7.6	63.0
Oct 9			70	113	120	7		5,381	1,411			0	31.4	0.0	7.6	63.0
Oct 10			65	78	101	8		4,966	1,174			0	20.8	0.0	7.6	62.0
Oct 11			39	67	91	16		5,181	1,182			0	22.9	0.0	7.6	62.0
Oct 12			33	33	104	6		4,652	1,178			0	27.3	0.0	7.6	62.0
Oct 13			41	46	167	6		4,028	942			0	27.4	0.0	7.6	62.0
Oct 14			13	20	101	1		2,512	606			0	23.8	0.0	7.6	62.0
Oct 15			23	20	102	1		2,286	624			0	29.7	0.0	7.0	62.0
Oct 16			32	41	122	8		2,671	743			0	24.5	0.0	7.0	62.0
Oct 17			26	31	78	1		1,341	356			0	14.0	0.0	7.0	62.0
Oct 18			20	21	108	10		1,396	344			0	12.2	0.0	6.8	62.0
Oct 19			20	22	84	2		741	168			0	24.4	0.0	6.8	62.0
Oct 20			40	24	288	18		1,602	413			0	20.5	0.0	6.8	62.0
Oct 21			54	31	269	20		2,696	692			0	18.6	0.0	6.8	61.0
Oct 22			26	17	387	26		4,483	1,218			0	20.1	0.0	6.8	59.0
Oct 23			10	19	277	30		2,800	774			0	23.9	0.0	6.8	59.0
Oct 24			29	12	230	7		2,666	718			0	13.6	0.0	6.8	59.0
Oct 25			19	14	223	17		1,979	446			0	16.2	0.0	6.8	59.0
Oct 26			34	0	153	12		1,737	404			0	16.0	0.0	6.8	59.0
Oct 27			16	12	52	7		1,439	392			0	16.8	0.0	6.5	59.0
Oct 28			6	6	35	7		963	302			0	25.7	0.0	6.5	59.0
Oct 29			5	8	43	4		856	240			0	18.8	0.0	6.4	59.0
Oct 30			3	5	40	6		1,193	323			0	18.8	0.0	6.4	59.0
Oct 31			0	6	68	10		1,533	353			0	9.9	0.0	6.4	59.0
TOTAL			1,656	2,117	3,796	286		98,596	23,781			1				
AVG.			53	68	122	9		3,181	767			0	21.3	0.0	7.1	61.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	55,435	28,223
SUMMER	23,856	9,400
FALL	24,824	38,611
TOTAL	104,115	76,234

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	STURGEON
4,947	489	867	328,105	76,434	79,496	57	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 - 2009

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	24.0	0.0	6.4	57.0
Nov 2	20.1	0.0	6.4	58.0
Nov 3	24.0	0.0	6.4	56.0
Nov 4	16.2	0.0	6.6	56.0
Nov 5	18.4	0.0	6.6	56.0
Nov 6	19.9	0.0	6.6	56.0
Nov 7	18.9	0.0	6.6	56.0
Nov 8	15.9	0.0	6.6	56.0
Nov 9	27.2	0.0	6.6	56.0
Nov 10	14.5	0.0	6.6	55.0
Nov 11	13.4	0.0	6.6	54.0
Nov 12	18.3	0.0	6.6	54.0
Nov 13	24.0	0.0	6.6	54.0
Nov 14	14.9	0.0	6.4	54.0
Nov 15	16.1	0.0	7.0	54.0
Nov 16	23.0	0.0	7.0	54.0
Nov 17	27.6	0.0	7.0	54.0
Nov 18	18.1	0.0	7.0	52.0
Nov 19	15.3	0.0	7.0	51.0
Nov 20	13.2	0.0	7.0	51.0
Nov 21	13.5	0.0	7.0	51.0
Nov 22	14.1	0.0	6.6	51.0
Nov 23	20.4	0.0	6.6	51.0
Nov 24	18.0	0.0	7.2	51.0
Nov 25	16.3	0.0	7.2	51.0
Nov 26	17.0	0.0	7.2	50.0
Nov 27	15.6	0.0	7.2	50.0
Nov 28	20.0	0.0	7.2	49.0
Nov 29	21.1	0.0	7.2	49.0
Nov 30	14.0	0.0	7.2	48.0
AVG.	18.4	0.0	6.8	53.2

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	23.7	0.0	7.2	48.0
Dec 2	23.6	0.0	7.2	48.0
Dec 3	14.8	0.0	7.2	47.0
Dec 4	13.6	0.0	7.2	47.0
Dec 5	13.1	0.0	7.2	47.0
Dec 6	14.0	0.0	7.2	47.0
Dec 7	20.0	0.0	7.2	45.0
Dec 8	19.4	0.0	7.6	45.0
Dec 9	14.9	0.0	7.6	44.0
Dec 10	19.9	0.0	7.8	44.0
Dec 11	22.8	0.0	7.8	44.0
Dec 12	20.5	0.0	8.0	44.0
Dec 13	11.7	0.0	8.0	43.0
Dec 14	28.7	0.0	8.0	43.0
Dec 15	15.6	0.0	8.2	43.0
Dec 16	22.6	0.0	8.2	43.0
Dec 17	20.6	0.0	8.2	41.0
Dec 18	25.1	0.0	9.0	41.0
Dec 19	16.8	0.0	8.6	41.0
Dec 20	25.0	0.0	8.6	41.0
Dec 21	22.0	0.0	8.6	41.0
Dec 22	19.1	0.0	8.6	41.0
Dec 23	25.0	0.0	8.6	41.0
Dec 24	18.7	0.0	8.6	40.0
Dec 25	17.6	0.0	8.6	40.0
Dec 26	23.2	0.0	8.6	40.0
Dec 27	17.7	0.0	8.6	40.0
Dec 28	19.8	0.0	8.6	40.0
Dec 29	18.6	0.0	8.6	40.0
Dec 30	19.9	0.0	8.6	40.0
Dec 31	14.6	0.0	8.6	40.0
AVG.	19.4	0.0	8.1	42.9

TABLE 81

YEARLY TOTALS OF SALMONIDS COUNTED OVER ICE HARBOR DAM 1962 - 2009

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	143,197	186,474	37	1,431	331,139
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
Totals	2,925,523	4,743,891	12,312	65,302	7,747,028
10-Year Average	118,210	191,964	197	2,124	312,495

***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 - 2009

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	3,315	1,773			31,842	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
TOTAL		1	344	476,877	1,069,946	537,864	245,548	59,779	416,678	115,176	3,356	87	2,925,656	1,723,004	622,959	579,451
10-Year Average				21,285	41,006	23,007	4,469	2,712	21,412	4,283			118,223	71,298	18,707	28,194

***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.

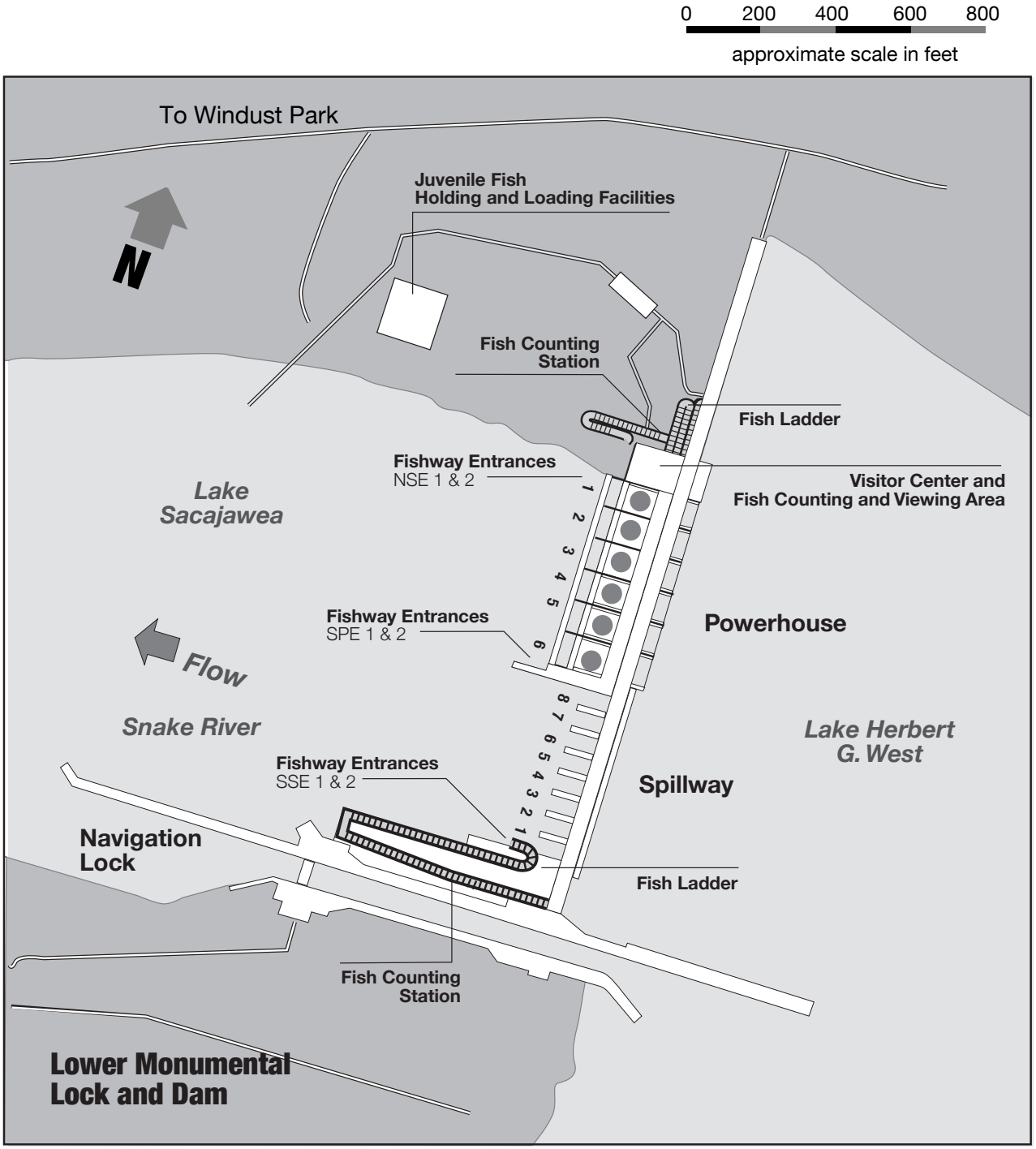
TABLE 83

MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2009

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
Totals	268	287	25,574	109,342	21,800	22,697	213,656	423,599	2,376,252	1,460,045	81,529	14,043	4,749,092
10-Year Average				2,174	126	1,277	9,883	18,425	100,333	54,470			192,485

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

South Ladder

1 Janurary – 10 February	Ladder in service.
10 February – 2 March	Ladder dewatered for annual maintenance.
2 March – 31 December	Ladder in service.

FISHWAY ACTIVITIES

Water temperatures were recorded hourly from fish ladder exit pools and the down stream end of the primary de-waterer. Hourly readings were taken from 23 June to 6 October. The purpose is to determine if summer spill has any effects on exit pool temperatures.

Fish pumps were out of service from 4 January through 6 February as evaluating their condition and rebuilding FP 3 was going on. Two fish pump operation occurred for all of the adult fish passage season while pump 3 was out of service for repair. Fish ladder operating criteria was met for the most part throughout the season with only two pumps in operation.

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

Second year of RSW operation and testing.

TABLE 84

MONTHLY TOTALS OF SALMONIDS, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER MONUMENTAL DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				483	64,754	45,527	10,839	7,310	49,587	4,951			183,451
STEELHEAD				4,294	426	1,358	12,112	23,920	167,680	107,485			317,275
SOCKEYE						241	911	11	-1	0			1,162
COHO*								6	1,222	4,389			5,617
PINK													0
TOTAL				4,777	65,180	47,126	23,862	31,247	218,488	116,825			507,505
LAMPREY					4	11	20	11	10	2			58
STURGEON													0
BULL TROUT					2	3							5

***Jacks included**

TABLE 85

DISCHARGE AND WATER OUALITY DATA

LOWER MONUMENTAL PROJECT 2009

JANUARY

DATE	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	*TURBIDITY *DEG F
Jan 1	19.4	0.0		
Jan 2	24.5	0.0		
Jan 3	31.5	0.0		
Jan 4	26.9	0.0		
Jan 5	23.9	0.0		
Jan 6	24.9	0.0		
Jan 7	25.4	0.0		
Jan 8	49.1	0.0		
Jan 9	68.5	0.0		
Jan 10	51.2	0.0		
Jan 11	44.0	0.0		
Jan 12	38.8	0.0		
Jan 13	47.2	0.0		
Jan 14	46.3	0.0		
Jan 15	43.6	0.0		
Jan 16	45.6	0.0		
Jan 17	38.4	0.0		
Jan 18	42.8	0.0		
Jan 19	39.2	0.0		
Jan 20	38.1	0.0		
Jan 21	35.8	0.0		
Jan 22	32.9	0.0		
Jan 23	37.2	0.0		
Jan 24	33.2	0.0		
Jan 25	29.1	0.0		
Jan 26	39.2	0.0		
Jan 27	46.0	0.0		
Jan 28	21.5	0.0		
Jan 29	29.1	0.0		
Jan 30	29.7	0.0		
Jan 31	27.3	0.0		
AVG	36.5	0.0		

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	*TURBIDITY *DEG F
Feb 1	28.3	0.0		
Feb 2	28.9	0.0		
Feb 3	20.8	3.4		
Feb 4	28.3	0.0		
Feb 5	23.0	0.0		
Feb 6	24.7	0.0		
Feb 7	31.3	0.0		
Feb 8	20.8	0.0		
Feb 9	26.5	1.7		
Feb 10	38.3	0.0		
Feb 11	26.5	0.0		
Feb 12	25.4	0.0		
Feb 13	30.9	0.0		
Feb 14	24.9	0.0		
Feb 15	20.9	0.0		
Feb 16	21.4	0.0		
Feb 17	22.9	0.0		
Feb 18	29.9	0.0		
Feb 19	25.0	2.2		
Feb 20	26.7	1.7		
Feb 21	21.8	0.0		
Feb 22	23.6	0.0		
Feb 23	27.4	0.0		
Feb 24	23.6	0.0	3.0	37.0
Feb 25	40.6	0.0	3.0	37.0
Feb 26	38.7	0.0	3.0	37.0
Feb 27	40.7	0.0	3.0	37.0
Feb 28	35.2	0.0		
AVG	27.8	0.3	3.0	37.0

MARCH

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Mar 1	36.9	0.0	3.0	38.0
Mar 2	32.9	0.0	3.0	38.0
Mar 3	43.3	0.0	3.0	38.0
Mar 4	54.2	0.0	3.0	38.0
Mar 5	46.0	0.0	3.0	39.0
Mar 6	40.0	0.0	3.0	39.0
Mar 7	39.6	0.0	3.0	39.0
Mar 8	36.7	0.0	3.0	39.0
Mar 9	36.0	0.0	3.0	39.0
Mar 10	31.5	0.0	*	*
Mar 11	39.5	0.0	3.0	39.0
Mar 12	37.4	0.0	3.0	39.0
Mar 13	36.9	0.0	3.0	39.0
Mar 14	34.5	0.0	3.0	39.0
Mar 15	30.0	0.0	3.0	40.0
Mar 16	31.7	0.0	3.0	40.0
Mar 17	41.7	0.0	3.0	40.0
Mar 18	37.4	0.0	3.0	40.0
Mar 19	33.6	0.0	3.0	40.0
Mar 20	35.3	0.0	3.0	40.0
Mar 21	41.2	0.0	3.0	40.0
Mar 22	47.2	0.0	3.0	40.0
Mar 23	45.1	0.0	3.0	41.0
Mar 24	55.1	0.0	3.0	41.0
Mar 25	54.6	0.0	3.0	41.0
Mar 26	52.8	0.0	3.0	41.0
Mar 27	41.6	0.0	3.0	41.0
Mar 28	41.2	0.0	1.3	41.0
Mar 29	51.9	0.0	1.0	41.0
Mar 30	50.1	0.0	1.0	41.0
Mar 31	56.5	0.0	1.5	42.0
AVG	41.7	0.0	2.8	39.8

*Data unavailable

TABLE 86

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

APRIL 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Apr 1	0			0				172	61				60.9	0.0	1.5	42.0
Apr 2	0			0				138	55				64.2	0.0	1.5	42.0
Apr 3	0			0				198	67				66.6	26.7	1.5	42.0
Apr 4	1			0				248	96				59.1	27.0	1.5	42.0
Apr 5	0			0				256	90				63.8	26.8	1.5	43.0
Apr 6	0			0				127	29				68.2	29.9	1.0	43.0
Apr 7	0			0				211	77				67.7	32.0	1.0	44.0
Apr 8	2			0				152	59				64.0	28.5	1.0	44.0
Apr 9	10			0				152	70				85.1	25.2	1.0	45.0
Apr 10	10			0				178	60				83.0	24.5	1.0	45.0
Apr 11	1			0				186	67				82.5	27.0	1.0	45.0
Apr 12	2			0				181	65				85.3	29.8	2.0	45.0
Apr 13	1			0				189	100				87.6	30.8	1.0	46.0
Apr 14	3			0				173	67				96.4	29.9	1.0	46.0
Apr 15	1			0				152	62				93.7	29.5	1.0	46.0
Apr 16	1			0				166	75				80.4	28.9	1.0	47.0
Apr 17	1			0				212	128				84.2	29.0	1.5	47.0
Apr 18	1			0				163	98				83.5	29.0	1.5	47.0
Apr 19	2			0				122	75				81.7	29.0	1.5	47.0
Apr 20	10			0				175	105				88.6	25.9	1.5	47.0
Apr 21	7			0				128	63				104.1	24.0	1.5	48.0
Apr 22	9			0				140	87				119.6	24.0	2.0	48.0
Apr 23	16			0				95	61				138.8	24.2	2.0	48.0
Apr 24	30			0				103	58				142.0	28.2	2.0	49.0
Apr 25	17			0				59	36				119.4	29.0	2.0	49.0
Apr 26	50			0				62	36				108.6	29.1	2.0	50.0
Apr 27	70			0				52	34				99.6	28.7	2.0	50.0
Apr 28	39			4				38	31				88.3	26.3	2.0	50.0
Apr 29	69			1				29	17				85.7	26.1	1.0	50.0
Apr 30	123			2				37	25				80.7	32.6	1.0	48.0
TOTAL	476			7				4,294	1,954							
AVG.	16			0				143	65				87.8	26.1	1.4	46.2

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 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	201			10				34	20		0	0	77.2	36.2	1.0	48.0
May 2	225			14				32	22		0	0	74.3	30.9	1.0	48.0
May 3	250			10				28	23		0	0	74.3	28.9	1.0	48.0
May 4	382			19				34	27		0	0	85.9	33.7	1.0	48.0
May 5	683			52				18	10		0	0	84.8	37.0	1.0	49.0
May 6	1,189			119				29	23		0	1	109.7	27.2	1.0	49.0
May 7	1,365			157				41	25		0	0	108.1	25.5	2.0	50.0
May 8	1,153			151				21	20		0	0	108.8	33.9	2.0	50.0
May 9	1,812			297				16	12		0	0	93.9	33.5	2.0	50.0
May 10	2,298			450				19	11		2	0	88.9	35.1	2.0	51.0
May 11	1,793			269				35	18		0	0	77.2	34.4	2.0	52.0
May 12	2,313			331				14	12		0	0	81.0	26.9	2.0	52.0
May 13	2,362			422				11	10		0	0	84.6	24.9	2.0	52.0
May 14	1,908			376				7	7		0	0	87.1	31.8	2.0	51.0
May 15	3,495			757				11	9		0	0	93.5	32.8	2.0	51.0
May 16	3,183			1,250				14	6		0	0	97.1	27.5	2.0	52.0
May 17	2,457			737				11	7		0	0	98.0	26.3	2.0	52.0
May 18	2,533			560				14	8		0	0	106.7	25.6	2.0	52.0
May 19	2,762			639				3	2		0	0	139.2	28.9	2.0	52.0
May 20	2,017			757				8	4		0	0	156.0	39.8	2.0	53.0
May 21	1,456			627				3	2		0	1	162.4	46.0	2.0	53.0
May 22	2,493			461				2	1		0	0	139.3	27.5	2.0	53.0
May 23	2,343			666				6	3		0	0	132.5	24.6	2.5	54.0
May 24	1,595			378				6	1		0	0	144.0	35.1	3.0	55.0
May 25	1,514			434				1	0		0	0	161.5	46.0	3.0	56.0
May 26	745			517				-4	-4		0	0	160.1	43.4	2.0	56.0
May 27	1,207			704				1	1		0	0	156.4	40.4	2.0	56.0
May 28	612			462				3	3		0	1	150.8	36.7	2.0	55.0
May 29	1,573			915				0	0		0	1	158.8	42.5	2.0	56.0
May 30	1,574			1,068				4	2		0	0	159.8	43.1	2.0	56.0
May 31	997			655				4	1		0	0	167.8	50.5	2.0	56.0
TOTAL	50,490			14,264				426	286		2	4				
AVG.	1,629			460				14	9		0	0	116.8	34.1	1.9	52.1

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
SPRING	50,966	14,271	4,720	2,240	2	4

TABLE 88

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — JUNE 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	947			517			0	7	2		0	0	162.7	54.3	2.0	55.0
Jun 2	1,422			479			0	4	0		0	0	158.5	49.1	3.0	56.0
Jun 3	1,128			463			2	8	0		0	0	145.5	29.6	3.0	56.0
Jun 4	1,566			576			0	12	2		1	0	138.3	24.1	3.0	56.0
Jun 5	911			405			0	16	3		0	0	143.4	27.1	3.0	56.0
Jun 6	1,195			366			1	17	10		0	0	153.6	37.1	3.0	57.0
Jun 7	1,228			377			0	10	1		0	0	166.4	49.3	3.0	57.0
Jun 8	1,001			381			0	8	0		0	0	154.1	36.9	3.0	57.0
Jun 9	1,248			488			0	15	0		0	0	137.1	29.9	3.0	57.0
Jun 10	1,028			411			0	8	2		0	4	119.6	20.0	3.0	58.0
Jun 11	1,360			486			0	32	6		0	0	103.3	19.7	3.0	58.0
Jun 12	1,773			394			0	16	0		0	0	103.6	20.0	2.5	58.0
Jun 13	1,158			395			1	27	3		0	1	93.8	19.5	2.5	58.0
Jun 14		1,551		373			0	23	9		0	1	94.5	20.0	2.5	58.0
Jun 15		1,371		203			0	37	2		0	0	97.8	20.2	2.5	58.0
Jun 16		1,162		359			0	56	2		0	1	105.3	21.9	2.5	60.0
Jun 17		1,478		410			1	40	-1		0	0	98.5	21.3	2.5	60.0
Jun 18		1,600		340			0	43	2		0	0	100.5	23.0	2.5	61.0
Jun 19		1,157		455			0	56	1		0	0	99.3	24.4	3.0	61.0
Jun 20		1,158		485			0	78	6		1	0	87.7	25.8	3.0	61.0
Jun 21		1,120		485			2	103	9		0	0	85.0	17.2	3.0	61.0
Jun 22		883		433			8	81	7		1	2	83.8	17.5	3.0	61.0
Jun 23		1,113		315			8	70	8		0	1	106.8	17.0	3.0	61.0
Jun 24		1,079		353			14	63	9		0	0	94.6	17.5	3.0	61.0
Jun 25		831		262			20	82	9		0	0	80.0	17.3	3.0	61.0
Jun 26		566		479			31	75	16		0	0	81.8	17.5	3.0	61.0
Jun 27		573		537			17	71	14		0	0	77.2	17.2	3.0	61.0
Jun 28		423		355			47	73	11		0	0	77.8	17.5	3.0	61.0
Jun 29		687		240			45	126	18		0	1	74.7	17.2	2.5	61.0
Jun 30		781		207			44	101	17		0	0	71.6	17.5	2.5	61.0
TOTAL	15,965	17,533		12,029			241	1,358	168		3	11				
AVG.	1,228	1,031		401			8	45	6		0	0	109.9	24.9	2.8	58.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	66,931	20,009
SUMMER	17,533	6,291
TOTAL	84,464	26,300

SOCKEYE	STEELHEAD	unclipped STEELHEAD
241	6,078	2,408

BULL TROUT	LAMPREY
5	15

TABLE 89

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

JULY 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jul 1		376		448			53	112	17			0	67.8	17.2	2.5	63.0
Jul 2		238		517			50	113	22			0	65.9	17.5	2.5	62.0
Jul 3		515		292			65	143	26			1	64.3	17.1	3.5	63.0
Jul 4		340		276			71	177	45			1	66.1	17.5	3.5	64.0
Jul 5		295		214			84	210	36			0	64.5	17.2	3.5	66.0
Jul 6		240		174			55	192	56			1	57.4	17.5	3.5	66.0
Jul 7		329		186			54	207	51			0	58.5	17.2	3.5	66.0
Jul 8		470		242			56	215	58			1	61.9	17.5	3.5	67.0
Jul 9		488		219			61	246	62			1	49.7	17.1	3.5	67.0
Jul 10		228		393			74	268	74			0	58.7	17.5	3.5	67.0
Jul 11		84		504			70	406	85			0	49.1	17.1	3.5	68.0
Jul 12		66		355			48	298	82			1	48.0	17.5	3.5	67.0
Jul 13		112		130			22	327	93			1	44.7	17.0	3.5	67.0
Jul 14		198		152			35	485	163			1	46.3	17.4	3.5	68.0
Jul 15		170		119			10	301	115			1	53.0	17.0	3.5	68.0
Jul 16		110		54			17	356	130			0	45.6	17.4	3.5	68.0
Jul 17		66		113			17	392	118			0	45.4	17.0	3.0	68.0
Jul 18		124		153			15	484	142			1	44.1	17.5	3.0	68.0
Jul 19		97		134			13	498	137			1	46.8	17.2	3.0	68.0
Jul 20		54		75			9	363	96			3	43.8	20.5	3.5	68.0
Jul 21		64		45			11	429	149			0	42.7	16.9	3.5	68.0
Jul 22		122		58			4	390	116			1	40.2	17.4	3.5	67.0
Jul 23		199		100			6	643	192			0	37.0	17.2	3.5	67.0
Jul 24		94		57			1	546	203			1	39.6	17.4	3.5	67.0
Jul 25		112		56			2	558	183			1	32.1	17.0	3.5	67.0
Jul 26		36		56			4	420	151			0	40.9	17.5	4.0	68.0
Jul 27		66		26			0	472	193			3	35.2	17.2	4.0	68.0
Jul 28		65		23			0	528	245			0	37.0	17.5	4.0	68.0
Jul 29		100		29			1	700	262			0	38.8	16.8	4.0	68.0
Jul 30		103		34			0	1,079	452			0	37.3	17.4	4.0	69.0
Jul 31		18		26			3	554	218			0	37.9	16.9	4.0	69.0
TOTAL		5,579		5,260			911	12,112	3,972			20				
AVG.		180		170			29	391	128			1	48.4	17.4	3.5	66.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	66,931	20,009
SUMMER	23,112	11,551
TOTAL	90,043	31,560

SOCKEYE	STEELHEAD	unclipped STEELHEAD
1,152	18,190	6,380

BULL TROUT	LAMPREY
5	35

TABLE 90

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

AUGUST2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1		23		16	0		0	549	237			1	36.9	17.5	4.0	69.0
Aug 2		28		23	0		5	794	294			1	34.8	17.1	4.0	69.0
Aug 3		11		12	0		4	560	230			0	32.7	17.5	4.0	69.0
Aug 4		30		23	0		0	615	252			2	35.7	17.1	4.0	69.0
Aug 5		17		12	0		0	353	143			0	30.4	17.4	*	*
Aug 6		10		7	0		0	230	96			1	29.3	17.1	4.0	70.0
Aug 7		13		6	0		0	222	92			0	29.7	17.4	4.0	69.0
Aug 8		18		9	0		0	420	153			0	29.5	17.3	4.0	69.0
Aug 9		12		8	0		0	312	120			0	33.3	17.5	4.0	69.0
Aug 10		18		12	0		0	311	94			1	32.8	17.1	4.0	69.0
Aug 11		13		28	0		0	176	57			0	32.1	17.4	4.0	68.0
Aug 12		18		12	0		0	131	39			0	32.0	17.2	4.0	68.0
Aug 13		30		14	0		0	211	56			0	31.9	17.5	4.0	69.0
Aug 14			19	32	0		0	293	98			1	26.5	14.4	4.0	68.0
Aug 15			28	14	0		0	282	96			0	27.3	15.3	4.0	68.0
Aug 16			29	20	0		0	276	84			0	28.4	15.9	4.0	68.0
Aug 17			38	47	0		0	282	69			0	28.8	16.6	4.0	68.0
Aug 18			82	39	0		0	551	186			1	31.6	17.2	4.0	68.0
Aug 19			74	26	0		0	503	165			0	33.2	17.4	4.0	68.0
Aug 20			97	35	0		0	575	237			0	33.5	17.4	4.0	68.0
Aug 21			138	96	0		0	661	181			0	36.2	17.5	4.0	68.0
Aug 22			205	147	0		1	712	166			1	32.9	17.5	4.0	68.0
Aug 23			140	89	0		1	1,014	315			1	31.4	17.5	4.0	68.0
Aug 24			90	132	0		0	1,037	267			0	30.8	17.5	4.0	68.0
Aug 25			611	259	0		0	1,510	446			0	24.3	12.2	4.0	68.0
Aug 26			559	268	1		0	1,343	417			0	26.5	14.0	4.0	67.0
Aug 27			308	177	0		-1	1,606	487			1	28.9	16.6	4.0	67.0
Aug 28			296	201	0		2	1,759	585			0	29.6	17.5	4.0	67.0
Aug 29			401	430	1		0	2,672	775			0	25.8	13.8	4.0	67.0
Aug 30			421	460	1		0	1,978	548			0	25.3	13.3	4.0	67.0
Aug 31			445	434	3		-1	1,982	599			0	23.0	10.9	4.0	67.0
TOTAL		241	3,981	3,088	6		11	23,920	7,584			11				
AVG.		19	221	100	0		0	772	245			0	30.5	16.4	4.0	68.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	66,931	20,009
SUMMER	23,353	11,733
FALL	3,981	2,906
TOTAL	94,265	34,648

COHO ADULT	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
6	1,163	42,110	13,964	5	46

TABLE 91

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS

SEPTEMBER 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			337	1,354	0	0	0	6,251	1,710			2	27.2	0.0	4.0	67.0
Sep 2			413	2,352	0	0	-1	6,474	1,556			0	24.3	0.0	4.0	66.0
Sep 3			845	1,579	0	0	0	6,414	1,631			2	28.1	0.0	4.0	66.0
Sep 4			970	624	19	0	0	8,747	2,175			1	27.6	0.0	4.0	67.0
Sep 5			513	668	10	1	0	5,381	1,245			0	18.3	0.0	4.0	67.0
Sep 6			716	809	6	2	0	4,865	1,114			0	24.9	0.0	4.0	67.0
Sep 7			859	1,090	28	0	0	7,043	1,623			2	25.8	0.0	4.0	67.0
Sep 8			1,041	1,038	20	0	1	5,215	1,266			0	23.9	0.0	3.5	67.0
Sep 9			993	1,309	19	6	0	4,867	1,156			0	24.8	0.0	3.5	67.0
Sep 10			1,073	1,052	30	3	0	6,804	1,572			0	22.1	0.0	3.5	67.0
Sep 11			711	1,554	12	3	0	4,829	1,080			0	30.8	0.0	3.5	67.0
Sep 12			441	1,042	3	1	0	4,588	1,040			0	28.6	0.0	3.5	67.0
Sep 13			676	1,521	9	0	0	5,204	1,122			1	19.8	0.0	3.5	67.0
Sep 14			623	1,541	13	3	0	5,210	1,195			0	23.8	0.0	3.5	67.0
Sep 15			678	1,066	15	2	-1	6,159	1,335			0	30.2	0.0	3.5	67.0
Sep 16			723	963	14	6	0	4,957	1,132			0	26.4	0.0	3.5	67.0
Sep 17			708	985	16	9	0	4,729	1,052			0	25.8	0.0	3.5	67.0
Sep 18			501	1,512	75	25	0	5,897	1,273			0	15.6	0.0	3.5	67.0
Sep 19			333	1,584	26	6	0	6,021	1,257			0	12.4	0.0	3.5	67.0
Sep 20			433	1,264	47	7	0	6,117	1,252			1	14.9	0.0	3.5	67.0
Sep 21			195	826	50	24	0	4,747	1,019			0	16.5	0.0	*	*
Sep 22			409	1,145	36	20	0	5,873	1,236			0	22.2	0.0	*	*
Sep 23			413	1,266	63	41	0	4,742	1,017			0	18.2	0.0	4.0	67.0
Sep 24			347	1,095	60	31	0	3,855	835			1	13.4	0.0	4.0	67.0
Sep 25			402	538	37	17	0	3,446	744			0	21.5	0.0	3.5	67.0
Sep 26			376	459	45	10	0	3,956	775			0	22.7	0.0	3.5	67.0
Sep 27			349	439	50	6	0	4,665	929			0	15.5	0.0	3.5	66.0
Sep 28			222	404	35	13	0	4,659	964			0	20.5	0.0	3.5	66.0
Sep 29			338	785	111	27	0	7,594	1,656			0	17.1	0.0	3.5	66.0
Sep 30			338	747	87	23	0	8,371	1,798			0	17.6	0.0	3.5	65.0
TOTAL			16,976	32,611	936	286	-1	167,680	37,759			10				
AVG.			566	1,087	31	10		5,589	1,259			0	22.0	0.0	3.7	66.8

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	66,931	20,009
SUMMER	23,353	11,733
FALL	20,957	35,517
TOTAL	111,241	67,259

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
942	286	1,162	209,790	51,723

BULL TROUT	LAMPREY
5	56

TABLE 92

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT. PORTLAND

LOWER MONUMENTAL PROJECT - FISH COUNTS — OCTOBER 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	STURGEON	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Oct 1			148	401	73	17		5,417	1,114			0	23.1	0.0	3.5	65.0
Oct 2			155	606	94	65		9,530	2,076			0	18.7	0.0	3.5	65.0
Oct 3			71	258	78	34		4,470	989			0	28.5	0.0	3.5	65.0
Oct 4			61	218	59	13		4,018	886			0	20.4	0.0	3.5	66.0
Oct 5			72	355	108	33		6,515	1,408			0	23.1	0.0	3.5	66.0
Oct 6			88	203	75	42		3,830	842			0	18.5	0.0	3.5	66.0
Oct 7			102	252	84	33		4,531	916			0	28.4	0.0	3.5	63.0
Oct 8			80	214	88	17		5,581	1,138			0	25.2	0.0	3.5	62.0
Oct 9			50	133	102	7		4,313	977			0	30.8	0.0	3.5	62.0
Oct 10			86	167	162	13		5,161	1,250			0	20.9	0.0	3.5	61.0
Oct 11			36	138	106	14		4,729	1,070			0	23.8	0.0	3.5	62.0
Oct 12			44	100	140	11		3,921	894			0	26.9	0.0	3.5	60.0
Oct 13			8	30	99	48		3,297	751			0	27.8	0.0	3.5	60.0
Oct 14			11	78	94	18		2,300	522			0	25.1	0.0	*	*
Oct 15			17	103	211	12		4,918	1,165			0	30.3	0.0	3.0	59.0
Oct 16			21	60	174	14		4,048	960			0	23.9	0.0	3.0	59.0
Oct 17			12	29	78	1		2,266	495			0	14.2	0.0	3.0	59.0
Oct 18			26	29	132	7		2,285	615			0	13.3	0.0	3.0	59.0
Oct 19			20	30	84	3		1,210	282			0	22.9	0.0	3.0	59.0
Oct 20			13	31	95	5		1,519	322			0	21.4	0.0	3.0	59.0
Oct 21			6	24	193	7		1,642	426			0	20.2	0.0	3.0	59.0
Oct 22			6	44	356	35		2,424	648			0	20.5	0.0	3.0	59.0
Oct 23			16	32	129	45		2,516	698			0	22.4	0.0	3.0	59.0
Oct 24			21	32	297	77		3,557	910			1	12.8	0.0	3.0	58.0
Oct 25			15	36	138	60		2,998	848			1	17.2	0.0	3.0	57.0
Oct 26			7	27	109	38		2,277	596			0	15.8	0.0	*	*
Oct 27			16	27	66	35		2,064	604			0	19.4	0.0	3.0	57.0
Oct 28			7	20	49	17		1,659	431			0	22.6	0.0	3.0	56.0
Oct 29			4	12	32	6		886	253			0	21.1	0.0	3.0	56.0
Oct 30			6	30	74	6		1,328	429			0	18.4	0.0	3.0	56.0
Oct 31			2	5	62	15		2,275	772			0	12.4	0.0	3.0	56.0
TOTAL			1,227	3,724	3,641	748		107,485	25,287			2				
AVG.			40	120	117	24		3,467	816			0	21.6	0.0	3.2	60.3

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	66,931	20,009
SUMMER	23,353	11,733
FALL	22,184	39,241
TOTAL	112,468	70,983

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD
4,583	1,034	1,162	317,275	77,010

BULL TROUT	LAMPREY
5	58

TABLE 93

DISCHARGE AND WATER QUALITY DATA

LOWER MONUMENTAL PROJECT 2009

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	17.8	0.0	3.0	55.0
Nov 2	23.3	0.0	3.0	55.0
Nov 3	25.1	0.0	3.0	55.0
Nov 4	13.0	0.0	3.5	55.0
Nov 5	20.5	0.0	3.5	55.0
Nov 6	20.4	0.0	3.5	55.0
Nov 7	18.7	0.0	3.5	54.0
Nov 8	16.8	0.0	3.5	54.0
Nov 9	27.7	0.0	3.5	54.0
Nov 10	14.9	0.0	3.5	53.0
Nov 11	12.9	0.0	3.5	53.0
Nov 12	18.3	0.0	3.5	52.0
Nov 13	24.7	0.0	3.5	52.0
Nov 14	15.7	0.0	3.5	52.0
Nov 15	14.2	0.0	3.5	52.0
Nov 16	23.3	0.0	3.5	52.0
Nov 17	28.4	0.0	3.5	50.0
Nov 18	18.0	0.0	3.5	50.0
Nov 19	14.5	0.0	3.5	49.0
Nov 20	13.7	0.0	3.5	50.0
Nov 21	14.7	0.0	3.5	50.0
Nov 22	12.5	0.0	3.5	49.0
Nov 23	21.1	0.0	3.5	49.0
Nov 24	17.5	0.0	3.5	48.0
Nov 25	16.3	0.0	3.5	48.0
Nov 26	16.9	0.0	3.5	48.0
Nov 27	16.3	0.0	3.5	48.0
Nov 28	20.6	0.0	3.5	48.0
Nov 29	19.7	0.0	3.5	47.0
Nov 30	15.3	0.0	3.5	47.0
AVG.	18.4	0.0	3.5	51.3

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	24.3	0.0	3.5	47.0
Dec 2	22.8	0.0	3.5	46.0
Dec 3	15.1	0.0	3.5	46.0
Dec 4	12.9	0.0	4.0	45.0
Dec 5	12.6	0.0	4.0	45.0
Dec 6	14.8	0.0	4.0	45.0
Dec 7	20.6	0.2	4.0	45.0
Dec 8	19.0	0.0	4.0	43.0
Dec 9	15.3	0.0	4.0	42.0
Dec 10	19.5	0.0	4.0	42.0
Dec 11	26.0	0.0	4.0	41.0
Dec 12	18.3	0.0	4.0	41.0
Dec 13	12.9	0.0	4.0	41.0
Dec 14	27.2	0.0	4.0	41.0
Dec 15	15.8	0.0	4.0	40.0
Dec 16	21.8	0.0	4.0	40.0
Dec 17	19.8	0.0	4.0	39.0
Dec 18	26.0	0.0	*	*
Dec 19	17.3	0.0	*	*
Dec 20	23.2	0.0	*	*
Dec 21	23.5	0.0	*	*
Dec 22	19.4	0.0	*	*
Dec 23	24.3	0.0	*	*
Dec 24	20.7	0.0	*	*
Dec 25	18.1	0.0	*	*
Dec 26	20.9	0.0	*	*
Dec 27	17.8	0.0	*	*
Dec 28	20.1	0.0	*	*
Dec 29	16.5	0.0	*	*
Dec 30	20.4	0.0	*	*
Dec 31	16.8	0.0	*	*
AVG.	19.5	0.0	3.9	42.9

*Data unavailable

TABLE 94

YEARLY TOTALS OF SALMONIDS COUNTED OVER LOWER MONUMENTAL DAM 1969 - 2009

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	24,238	0	1	52,454
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	122,817	172,596	14	999	296,426
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
Total	2,273,102	3,954,464	7,025	38,927	6,273,518
10-Year Average	114,294	190,935	243	2,242	307,714

*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
1969-2009

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
Total	2	0	60	339,296	894,782	477,800	170,169	37,303	269,858	81,663	1,487	23	2,272,443
10-Year Average				18,719	39,197	24,358	5,556	2,194	19,399	4,800			114,328

***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

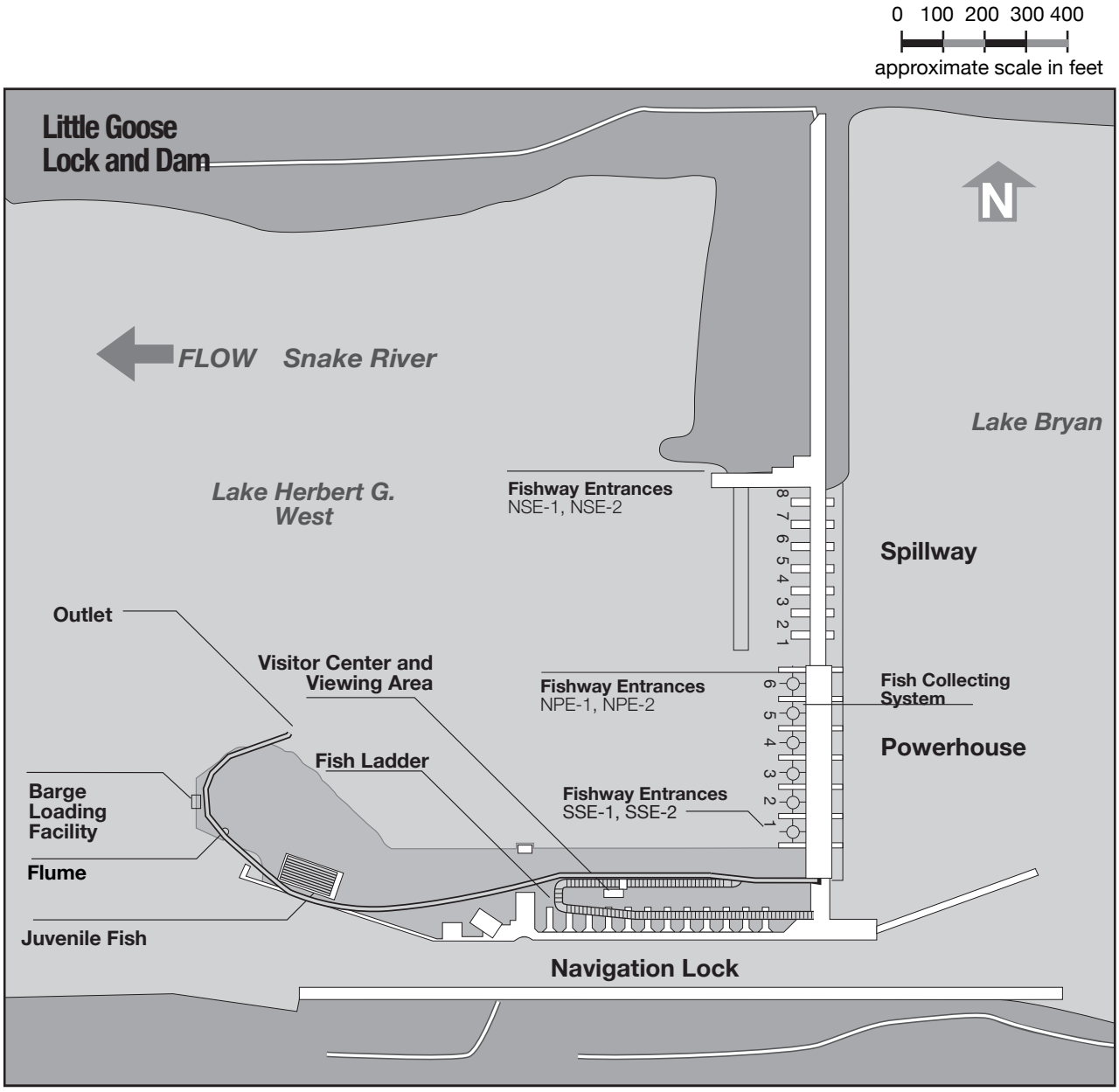
MONTHLY COUNT OF STEELHEAD

LOWER MONUMENTAL DAM
1969 - 2009

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
Total	4,829	7,610	14,839	96,798	19,929	14,910	166,922	321,005	1,852,996	1,426,423	49,239	14,375	3,989,875
10-Year Average				2,432	181	1,035	8,896	14,320	94,339	63,496			192,410

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 – 5 January	Ladder in service.
6 January – 4 February	Ladder dewatered for annual maintenance.
29 February – 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.

Idaho Cooperative Fisheries Research Unit continued to evaluate adult salmon and steelhead migration past the adult ladder at Little Goose dam.

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

Washington State Dept. of Fish and Wildlife (contracted fish counters) will continue to monitor and report Bull Trout migration past the adult fish ladder at Little Goose. Sightings are reported annually to U.S. Fish and Wildlife Services.

TABLE 97

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

2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				173	52,369	43,467	11,800	4,289	44,304	7,160			163,562
STEELHEAD				4,839	538	595	5,655	13,821	160,927	119,061			305,436
SOCKEYE						154	908	3	-2	-2			1,061
COHO								2	1,250	3,987			5,239
PINK													0
TOTAL				5,012	52,907	44,216	18,363	18,115	206,479	130,206			475,298
LAMPREY					1	1	12	6	13	1			34
STURGEON													0
BULL TROUT				3	6	20	6						35

***Jacks included**

TABLE 98

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2009

JANUARY

DATE	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	*DEG F
Jan 1	17.4	0.0		
Jan 2	21.3	0.0		
Jan 3	28.0	0.0		
Jan 4	25.0	0.0		
Jan 5	21.9	0.0		
Jan 6	23.5	0.0		
Jan 7	24.8	0.0		
Jan 8	44.4	0.0		
Jan 9	56.2	0.0		
Jan 10	43.6	0.0		
Jan 11	39.0	0.0		
Jan 12	35.4	0.0		
Jan 13	42.6	0.0		
Jan 14	44.5	0.0		
Jan 15	38.3	0.0		
Jan 16	43.1	0.0		
Jan 17	37.7	0.0		
Jan 18	38.8	0.0		
Jan 19	36.9	0.0		
Jan 20	35.3	0.0		
Jan 21	34.6	0.0		
Jan 22	32.2	0.0		
Jan 23	35.2	0.0		
Jan 24	33.0	0.0		
Jan 25	26.2	0.0		
Jan 26	35.1	0.0		
Jan 27	46.8	0.0		
Jan 28	20.0	2.0		
Jan 29	28.2	0.0		
Jan 30	28.1	0.0		
Jan 31	25.6	0.0		
AVG.	33.6	0.1		

FEBRUARY

DATE	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	*DEG F
Feb 1	26.7	0.0		
Feb 2	23.5	0.0		
Feb 3	25.2	0.0		
Feb 4	27.0	0.0		
Feb 5	24.5	0.0		
Feb 6	22.3	0.0		
Feb 7	28.8	0.0		
Feb 8	17.7	0.0		
Feb 9	29.0	0.0		
Feb 10	35.5	0.0		
Feb 11	24.9	0.0		
Feb 12	24.6	0.0		
Feb 13	30.4	0.0		
Feb 14	23.4	0.0		
Feb 15	19.2	0.0		
Feb 16	20.5	0.0		
Feb 17	23.1	0.0		
Feb 18	23.3	0.0		
Feb 19	28.2	0.0		
Feb 20	24.8	0.0		
Feb 21	22.9	0.0		
Feb 22	21.7	0.0		
Feb 23	26.7	0.0		
Feb 24	23.5	0.0		
Feb 25	37.5	0.0		
Feb 26	35.7	0.0		
Feb 27	36.5	0.0		
Feb 28	31.9	0.0		
AVG.	26.4	0.0		

MARCH

DATE	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	* DEG F
Mar 1	33.2	0.0		
Mar 2	29.8	0.0		
Mar 3	39.4	0.0		
Mar 4	50.5	0.0		
Mar 5	39.1	0.0		
Mar 6	37.9	0.0		
Mar 7	37.3	0.0		
Mar 8	35.0	0.0		
Mar 9	32.6	0.0		
Mar 10	30.6	0.0		
Mar 11	36.2	0.5		
Mar 12	35.4	0.0		
Mar 13	36.3	0.0		
Mar 14	32.6	0.0		
Mar 15	26.7	0.0		
Mar 16	27.8	0.8		
Mar 17	36.2	2.1		
Mar 18	32.9	2.6		
Mar 19	30.8	2.0		
Mar 20	32.0	0.0		
Mar 21	38.6	2.4		
Mar 22	44.0	1.4		
Mar 23	39.0	1.4		
Mar 24	47.3	1.4		
Mar 25	49.9	1.4		
Mar 26	47.4	1.2		
Mar 27	39.1	0.0		
Mar 28	38.0	0.0		
Mar 29	48.7	0.0		
Mar 30	44.1	0.2		
Mar 31	50.1	0.0		
AVG.	38.0	0.6		

*Data unavailable

TABLE 99

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

APRIL 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Apr 1	0			0				257	72	0		51.0	0.0	1.8	43.7
Apr 2	0			0				174	53	0		58.5	0.1	*	*
Apr 3	0			0				149	47	0		62.6	18.7	*	*
Apr 4	1			0				133	47	0		53.9	16.2	*	*
Apr 5	0			0				112	32	0		61.8	18.5	*	*
Apr 6	0			0				136	41	0		64.8	19.3	2.6	43.7
Apr 7	0			0				140	34	0		66.2	19.9	2.2	43.8
Apr 8	0			0				153	43	0		61.5	18.2	*	*
Apr 9	0			0				227	55	0		79.7	23.8	*	*
Apr 10	1			0				305	94	0		79.2	23.9	2.3	46.3
Apr 11	0			0				291	107	0		78.3	23.5	*	*
Apr 12	4			0				257	88	0		80.9	24.3	*	*
Apr 13	6			0				229	79	0		84.5	25.3	*	*
Apr 14	6			0				239	78	0		90.5	27.0	2.1	47.3
Apr 15	0			0				195	76	0		88.3	26.5	*	*
Apr 16	1			0				119	46	0		78.6	24.2	*	*
Apr 17	0			0				153	55	0		79.9	23.9	*	*
Apr 18	1			0				216	97	0		79.9	23.9	1.9	47.4
Apr 19	0			0				185	70	0		79.9	23.8	*	*
Apr 20	1			0				141	65	0		86.2	25.8	*	*
Apr 21	7			0				177	74	1		100.8	30.1	2.7	47.2
Apr 22	17			0				226	113	0		114.4	31.5	3.0	49.2
Apr 23	14			0				144	71	0		134.4	45.8	*	*
Apr 24	12			0				125	79	1		134.8	44.9	1.8	49.8
Apr 25	8			0				101	71	1		113.9	31.3	*	*
Apr 26	24			0				90	55	0		103.2	30.5	2.1	49.1
Apr 27	13			0				62	36	0		96.1	28.9	*	*
Apr 28	19			0				36	20	0		86.3	25.9	2.2	48.0
Apr 29	14			0				35	19	0		84.5	27.4	*	*
Apr 30	23			1				32	20	0		78.6	24.0	*	*
TOTAL	172			1				4,839	1,837	3					
AVG.	6			0				161	61	0		83.8	24.2	2.2	46.9

*Data unavailable

TABLE 100

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

MAY 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
May 1	49			2				51	32	0	0	74.9	22.3	2.2	48.6
May 2	136			5				40	32	0	0	73.5	22.0	*	*
May 3	133			10				30	16	0	0	73.6	22.0	3.3	49.5
May 4	146			4				11	7	0	0	83.9	25.2	*	*
May 5	323			14				54	37	0	0	84.8	25.4	3.2	49.6
May 6	551			20				48	29	0	0	104.5	30.8	*	*
May 7	954			37				64	46	0	0	104.4	30.9	*	*
May 8	966			76				42	28	0	0	103.4	31.2	2.2	51.7
May 9	770			119				15	10	0	0	91.9	27.4	*	*
May 10	1,266			180				18	16	0	0	85.8	25.7	3.1	51.1
May 11	1,520			284				23	13	0	0	76.0	22.8	4.0	52.4
May 12	1,306			259				27	16	0	0	77.7	23.1	*	*
May 13	1,933			466				5	4	0	0	83.5	25.0	*	*
May 14	1,384			557				6	4	0	0	85.5	25.5	*	*
May 15	1,578			749				12	8	0	0	91.7	27.4	2.4	54.3
May 16	2,602			1,093				17	10	0	0	93.8	28.1	2.9	52.3
May 17	1,796			804				11	5	0	0	95.4	28.7	*	*
May 18	2,377			1,459				15	14	0	0	104.2	31.1	*	*
May 19	1,819			970				16	6	0	0	132.6	35.8	3.2	53.0
May 20	1,800			1,409				6	4	1	0	150.0	40.5	*	*
May 21	1,253			1,126				2	2	0	0	152.1	42.1	*	*
May 22	829			644				6	4	2	0	133.2	29.4	1.8	55.2
May 23	1,048			1,290				3	1	0	0	127.6	29.4	*	*
May 24	863			1,165				-1	-1	0	0	137.0	30.9	1.4	51.8
May 25	890			964				1	0	2	0	153.8	45.2	*	*
May 26	1,457			1,223				6	1	0	0	152.5	43.0	2.0	55.1
May 27	1,036			823				4	4	1	0	147.1	37.3	*	*
May 28	812			553				3	1	0	0	145.9	36.1	*	*
May 29	728			395				1	1	0	0	149.9	40.6	1.8	54.1
May 30	1,120			521				3	1	0	1	153.2	44.0	*	*
May 31	1,105			598				-1	-1	0	0	159.7	50.7	2.1	55.1
TOTAL	34,550			17,819				538	350	6	1				
AVG.	1,115			575				17	11	0	0	112.4	31.6	2.5	52.4

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	34,722	17,820

STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
5,377	2,187	9	1

TABLE 101

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS — JUNE 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jun 1	742			526			0	4	4	0	0	156.4	47.7	*	*
Jun 2	1,372			668			0	4	2	0	0	151.0	41.6	1.8	55.3
Jun 3	1,301			598			0	1	0	0	0	138.3	28.9	*	*
Jun 4	912			422			0	2	0	0	0	132.4	25.8	*	*
Jun 5	1,372			468			0	1	0	0	0	137.4	29.3	*	*
Jun 6	1,152			391			0	8	2	1	0	148.0	40.2	2.0	56.2
Jun 7	974			334			0	8	0	0	0	158.7	49.7	1.9	56.1
Jun 8	1,147			389			0	14	1	1	0	147.7	41.6	*	*
Jun 9	1,014			262			0	4	0	0	0	130.9	30.1	*	*
Jun 10	960			233			0	5	1	0	0	117.4	30.0	*	*
Jun 11	1,134			292			0	4	0	1	0	102.7	29.0	2.0	58.9
Jun 12	1,564			484			0	6	0	0	0	101.6	30.5	2.1	59.0
Jun 13	1,559			484			0	14	1	0	0	94.0	28.2	*	*
Jun 14	1,386			400			1	26	1	2	0	93.9	28.1	2.3	58.8
Jun 15	1,331			560			0	17	1	3	-1	97.2	29.2	3.1	60.2
Jun 16		1,262		474			0	29	1	1	2	102.9	31.1	*	*
Jun 17		772		379			0	22	2	1	-1	97.5	29.1	*	*
Jun 18		1,241		491			4	32	2	0	0	96.8	29.0	*	*
Jun 19		1,084		402			0	14	1	0	0	97.4	29.4	2.8	60.3
Jun 20		1,290		589			1	26	0	1	0	86.4	26.0	*	*
Jun 21		950		451			5	32	0	0	0	83.9	25.2	2.9	60.1
Jun 22		1,054		534			0	32	4	0	0	83.7	25.1	*	*
Jun 23		658		317			4	29	0	1	0	103.7	31.0	*	*
Jun 24		888		511			7	24	0	2	0	94.9	28.7	3.0	60.7
Jun 25		668		466			11	29	5	3	0	78.6	23.3	*	*
Jun 26		703		623			19	36	4	1	0	82.5	24.8	3.8	60.9
Jun 27		559		400			31	36	6	1	0	76.7	23.1	3.5	60.1
Jun 28		518		443			18	53	13	0	1	80.0	23.8	*	*
Jun 29		324		299			24	36	6	1	0	75.3	22.4	*	*
Jun 30		343		343			29	47	12	0	0	70.6	21.0	4.2	64.1
TOTAL	17,920	12,314		13,233			154	595	69	20	1				
AVG.	1,195	821		441			5	20	2	1	0	107.3	30.1	2.7	59.3

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	52,642	24,331
SUMMER	12,314	6,722
TOTALS	64,956	31,053

SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
154	5,972	2,256	29	2

TABLE 102

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

JULY 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Jul 1		379		379			42	66	13	1	0	67.2	20.1	*	*
Jul 2		259		389			44	48	6	2	0	66.9	20.2	5.0	65.7
Jul 3		461		266			53	85	18	0	0	64.4	19.3	*	*
Jul 4		509		175			50	51	11	1	0	65.2	19.4	*	*
Jul 5		455		83			60	84	18	0	0	65.5	19.6	4.0	68.2
Jul 6		323		151			70	75	14	0	2	58.3	17.4	*	*
Jul 7		968		408			107	211	55	1	0	59.6	17.7	4.0	67.7
Jul 8		614		223			64	122	31	1	0	62.6	18.7	*	*
Jul 9		544		264			82	144	37	0	1	52.7	15.8	3.6	67.8
Jul 10		360		340			54	98	30	0	1	59.4	17.9	*	*
Jul 11		391		179			64	128	43	0	4	50.3	15.3	4.6	69.1
Jul 12		323		193			42	176	52	0	0	50.5	15.3	*	*
Jul 13		130		178			31	143	35	0	0	47.1	14.0	*	*
Jul 14		253		145			28	299	78	0	0	49.5	14.8	3.8	68.0
Jul 15		256		88			31	260	76	0	0	54.2	16.0	*	*
Jul 16		107		61			8	166	60	0	0	46.7	14.0	4.8	69.3
Jul 17		136		61			13	159	55	0	0	47.5	14.2	4.8	70.2
Jul 18		67		37			6	134	52	0	0	47.2	14.3	*	*
Jul 19		175		145			17	236	74	0	2	48.6	14.7	*	*
Jul 20		120		119			12	219	80	0	1	45.2	13.6	*	*
Jul 21		62		61			4	207	76	0	0	44.5	13.3	4.0	71.1
Jul 22		48		17			2	64	20	0	0	42.0	12.5	*	*
Jul 23		77		82			10	272	103	0	-1	38.5	11.5	4.2	69.6
Jul 24		142		36			5	417	151	0	1	40.5	12.2	*	*
Jul 25		122		37			5	377	115	0	0	34.2	10.1	*	*
Jul 26		74		24			1	288	74	0	1	41.4	12.3	4.5	69.9
Jul 27		48		2			2	112	52	0	0	36.3	10.8	*	*
Jul 28		12		6			0	74	37	0	0	39.6	11.8	5.5	75.3
Jul 29		11		5			0	104	42	0	0	38.5	11.4	*	*
Jul 30		56		58			1	446	186	0	0	39.5	11.8	*	*
Jul 31		71		35			0	390	172	0	0	39.5	11.8	5.0	73.4
TOTAL		7,553		4,247			908	5,655	1,866	6	12				
AVG.		244		137			29	182	60		0	49.8	14.9	4.4	69.6

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	52,642	24,331
SUMMER	19,867	10,969
TOTAL	72,509	35,300

SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
1,062	11,627	4,122	35	14

TABLE 103

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

AUGUST 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Aug 1		30		26	0		0	294	130		0	38.2	11.3	4.2	74.6
Aug 2		43		31	0		0	386	142		1	35.9	10.6	*	*
Aug 3		38		35	0		1	290	108		1	33.7	9.9	*	*
Aug 4		52		18	0		1	326	136		0	36.8	10.9	5.0	69.7
Aug 5		43		17	0		0	376	132		0	33.3	9.9	*	*
Aug 6		24		6	0		0	237	92		0	30.9	9.2	*	*
Aug 7		38		30	0		1	245	90		0	30.7	9.2	*	*
Aug 8		17		17	0		0	252	92		1	30.3	9.1	*	*
Aug 9		14		4	0		0	241	90		0	33.8	9.9	5.2	69.6
Aug 10		14		6	0		0	183	77		0	33.7	9.9	5.0	69.6
Aug 11		11		4	0		0	165	59		1	33.7	9.9	*	*
Aug 12		10		1	0		0	153	41		1	33.7	9.9	4.0	69.8
Aug 13		11		7	0		0	159	40		0	33.7	9.9	*	*
Aug 14		24		10	0		0	252	91		0	26.6	8.1	4.6	68.0
Aug 15		104		26	0		0	407	138		0	28.6	8.6	*	*
Aug 16			83	17	0		0	464	180		0	29.3	8.7	4.1	68.3
Aug 17			28	10	0		0	167	59		0	28.5	8.9	*	*
Aug 18			32	6	0		0	157	55		0	33.9	11.3	4.3	69.1
Aug 19			53	11	0		0	185	59		0	34.6	11.6	*	*
Aug 20			41	14	0		0	214	72		0	35.7	11.6	4.0	69.4
Aug 21			54	7	0		0	384	118		-1	37.6	11.6	*	*
Aug 22			92	17	0		0	449	157		1	34.5	11.6	*	*
Aug 23			131	34	0		0	539	161		1	32.2	11.6	4.9	68.9
Aug 24			139	41	0		-1	412	114		0	30.9	11.6	*	*
Aug 25			37	16	0		0	400	106		0	25.5	11.6	5.0	68.3
Aug 26			217	53	0		0	589	203		0	28.4	10.6	*	*
Aug 27			367	96	0		1	707	191		0	29.7	9.7	4.5	68.7
Aug 28			274	103	1		0	889	239		0	31.0	9.7	*	*
Aug 29			394	218	1		0	1,972	584		0	26.2	8.4	4.7	66.2
Aug 30			374	215	0		0	1,495	463		0	25.6	7.9	3.2	68.5
Aug 31			242	162	0		0	832	218		0	23.0	7.7	*	*
TOTAL		473	2,558	1,258	2		3	13,821	4,437		6				
AVG.		32	160	41	0		0	446	143		0	31.6	10.0	4.5	69.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
SPRING	52,642	24,331	2	1,065	25,448	8,559	35	20
SUMMER	20,340	11,207						
FALL	2,558	1,020						
TOTALS	75,540	36,558						

TABLE 104

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS

SEPTEMBER 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Sep 1			450	272	1	0	0	1,113	325		0	27.1	0.0	*	*
Sep 2			436	365	0	0	0	1,048	286		0	23.9	0.2	4.5	70.1
Sep 3			1,224	1,163	0	0	0	3,934	1,088		0	27.8	0.0	*	*
Sep 4			1,075	905	2	0	1	7,208	1,940		0	26.7	0.0	4.2	68.5
Sep 5			689	679	0	0	0	6,355	1,435		1	18.6	0.0	*	*
Sep 6			716	700	4	2	0	9,114	2,149		0	24.8	0.0	*	*
Sep 7			953	947	11	2	-1	7,482	1,604		6	24.9	0.0	3.8	68.1
Sep 8			728	917	11	4	0	5,784	1,031		1	24.1	0.0	*	*
Sep 9			684	890	19	10	0	4,647	851		0	24.9	0.0	*	*
Sep 10			760	906	34	13	0	4,098	799		1	27.0	0.0	2.5	67.7
Sep 11			923	1,428	7	8	0	5,059	1,002		0	29.3	0.0	*	*
Sep 12			940	1,379	10	10	0	5,678	1,054		0	26.2	0.0	*	*
Sep 13			593	982	22	6	0	5,928	1,147		0	18.6	0.0	5.5	67.4
Sep 14			630	1,043	26	13	-1	4,441	810		0	23.6	0.0	*	*
Sep 15			673	1,763	38	5	0	5,965	1,069		0	27.3	0.0	5.5	67.0
Sep 16			472	1,308	41	8	0	6,576	1,208		0	25.5	0.0	*	*
Sep 17			383	1,010	38	8	0	5,812	1,058		0	23.6	0.0	5.5	67.1
Sep 18			678	1,136	70	16	0	6,173	1,127		1	20.1	0.0	4.0	66.8
Sep 19			728	1,250	55	12	0	5,084	1,022		0	12.2	0.0	5.6	66.7
Sep 20			600	1,190	54	8	0	7,735	1,508		0	13.4	0.0	*	*
Sep 21			528	668	62	19	0	5,588	872		0	15.1	0.2	*	*
Sep 22			238	557	60	11	0	4,430	742		1	23.4	0.0	*	*
Sep 23			409	786	72	17	0	5,371	1,051		0	18.4	0.0	6.0	66.4
Sep 24			347	812	49	13	0	3,973	686		0	14.8	0.2	*	*
Sep 25			546	823	71	6	0	5,589	923		1	20.3	0.0	5.0	66.0
Sep 26			389	590	25	7	0	3,966	695		0	22.1	0.0	*	*
Sep 27			271	488	54	2	0	5,311	907		0	16.4	0.0	*	*
Sep 28			275	480	37	5	-1	4,793	852		0	19.0	0.0	>6.0	66.1
Sep 29			163	356	50	8	0	5,097	769		1	17.7	0.0	6.0	65.7
Sep 30			352	658	88	26	0	7,575	1,208		0	16.3	0.0	*	*
TOTAL			17,853	26,451	1,011	239	-2	160,927	31,218		13				
AVG.			595	882	34	8	0	5,364	1,041		0	21.8	0.0	4.8	67.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	52,642	24,331
SUMMER	20,340	11,207
FALL	20,411	27,471
TOTALS	93,393	63,009

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
1,013	239	1,063	186,375	39,777	35	33

TABLE 105

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LITTLE GOOSE PROJECT - FISH COUNTS — OCTOBER 2009

DATE	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Oct 1			389	630	121	16	0	7,187	1,303		0	21.9	0.0	*	*
Oct 2			139	328	116	10	0	6,057	1,016		0	18.3	0.0	6.0	64.7
Oct 3			221	487	140	8	0	7,053	1,205		0	26.7	0.0	*	*
Oct 4			107	250	98	7	0	5,903	937		0	21.4	0.0	*	*
Oct 5			157	342	115	12	-1	6,003	895		0	22.7	0.0	5.5	63.5
Oct 6			114	294	84	8	0	5,021	893		0	18.2	0.0	5.6	63.6
Oct 7			108	240	84	19	-1	4,539	775		0	28.0	0.0	*	*
Oct 8			160	264	126	13	0	5,109	992		0	24.1	0.0	*	*
Oct 9			102	158	103	20	0	5,770	1,054		1	30.0	0.0	4.8	62.6
Oct 10			82	194	114	20	0	5,998	1,122		0	20.1	0.0	*	*
Oct 11			72	137	133	22	0	5,073	926		0	23.3	0.0	*	*
Oct 12			77	143	156	19	0	5,065	1,031		0	26.2	0.0	4.8	61.3
Oct 13			56	67	52	4	0	2,991	466		0	26.7	0.0	*	*
Oct 14			84	78	80	6	0	3,294	619		0	26.1	0.0	5.4	60.6
Oct 15			106	97	166	8	0	4,298	818		0	28.1	0.0	*	*
Oct 16			88	100	179	23	0	3,852	664		0	24.1	0.0	4.6	59.2
Oct 17			31	60	155	20	0	3,558	620		0	14.3	0.0	*	*
Oct 18			44	53	122	25	0	3,738	744		0	13.0	0.0	*	*
Oct 19			54	49	128	12	0	2,421	491		0	21.2	0.0	*	*
Oct 20			25	37	62	10	0	2,287	432		0	20.7	0.0	*	*
Oct 21			25	25	47	0	0	1,686	346		0	20.1	0.0	>6.0	58.5
Oct 22			49	41	122	7	0	1,196	244		0	20.3	0.0	*	*
Oct 23			53	42	161	29	0	1,920	389		0	21.2	0.0	4.2	58.1
Oct 24			77	61	212	35	0	2,829	548		0	13.1	0.0	*	*
Oct 25			78	73	230	28	0	2,933	601		0	16.8	0.0	*	*
Oct 26			40	48	146	28	0	2,025	452		0	15.4	0.0	*	*
Oct 27			42	37	103	23	0	3,209	720		0	19.1	0.0	>6.0	56.7
Oct 28			28	34	102	10	0	2,802	619		0	21.2	0.0	*	*
Oct 29			30	37	31	1	0	1,557	322		0	21.2	0.0	>6.0	55.6
Oct 30			41	26	19	5	0	1,944	438		0	18.5	0.0	5.2	55.2
Oct 31			30	19	28	4	0	1,743	368		0	12.3	0.0	*	*
TOTAL			2,709	4,451	3,535	452	-2	119,061	22,050		1				
AVG.			87	144	114	15	0	3,841	711		0	21.1	0.0	5.1	60.0

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	52,642	24,331
SUMMER	20,340	11,207
FALL	23,120	31,922
TOTALS	96,102	67,460

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	BULL TROUT	LAMPREY
4,548	691	1,061	305,436	61,827	35	34

TABLE 106

DISCHARGE AND WATER QUALITY DATA

LITTLE GOOSE PROJECT 2009

NOVEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Nov 1	17.6	0.0	*	*
Nov 2	20.6	0.0	5.8	54.5
Nov 3	24.7	0.0	6.0	54.4
Nov 4	13.4	0.0	*	*
Nov 5	18.3	0.0	*	*
Nov 6	19.7	0.0	5.6	53.3
Nov 7	19.6	0.0	*	*
Nov 8	16.8	0.0	*	*
Nov 9	26.2	0.0	6.0	52.3
Nov 10	14.7	0.0	*	*
Nov 11	12.9	0.0	*	*
Nov 12	18.1	0.0	*	*
Nov 13	23.6	0.0	6.0	51.7
Nov 14	15.5	0.0	*	*
Nov 15	14.5	0.0	*	*
Nov 16	22.2	0.0	6.0	50.3
Nov 17	27.4	0.0	*	*
Nov 18	18.4	0.0	6.0	49.3
Nov 19	13.3	0.0	6.0	48.9
Nov 20	13.4	0.0	*	*
Nov 21	13.6	0.0	*	*
Nov 22	13.1	0.0	*	*
Nov 23	19.5	0.0	6.0	47.6
Nov 24	16.3	0.0	6.0	47.4
Nov 25	15.9	0.0	6.0	46.9
Nov 26	16.8	0.0	*	*
Nov 27	16.6	0.0	*	*
Nov 28	19.5	0.0	*	*
Nov 29	18.7	0.0	*	*
Nov 30	15.3	0.0	6.0	45.8
AVG.	17.9	0.0	6.0	50.2

DECEMBER

DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TURBIDITY DEG F
Dec 1	23.1	0.0	*	*
Dec 2	20.3	0.0	*	*
Dec 3	16.8	0.0	6.0	45.1
Dec 4	10.7	0.0	*	*
Dec 5	14.1	0.0	*	*
Dec 6	11.8	0.0	*	*
Dec 7	17.4	0.0	6.0	43.1
Dec 8	17.1	0.0	*	*
Dec 9	14.9	0.0	6.0	42.0
Dec 10	16.8	0.0	6.0	41.4
Dec 11	23.7	0.0	*	*
Dec 12	17.0	0.0	*	*
Dec 13	17.5	0.0	*	*
Dec 14	23.6	0.0	6.0	39.7
Dec 15	19.5	0.0	*	*
Dec 16	18.6	0.0	*	*
Dec 17	20.3	0.0	6.0	38.9
Dec 18	20.9	0.0	*	*
Dec 19	19.6	0.0	*	*
Dec 20	21.3	0.0	*	*
Dec 21	17.9	0.0	6.0	38.9
Dec 22	19.6	0.0	6.0	38.7
Dec 23	21.6	0.0	*	*
Dec 24	21.6	0.0	*	*
Dec 25	21.7	0.0	*	*
Dec 26	18.6	0.0	*	*
Dec 27	18.0	0.0	*	*
Dec 28	17.7	0.0	*	*
Dec 29	16.2	0.0	6.0	36.7
Dec 30	17.4	0.0	*	*
Dec 31	18.7	0.0	*	*
AVG.	18.5	0.0	6.0	40.5

*Data unavailable

TABLE 107

YEARLY TOTALS OF SALMONIDS COUNTED OVER LITTLE GOOSE DAM 1970 - 1981, 1991 - 2009

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	114,458	161,026	23	807	276,314
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
Total	1,723,024	2,903,935	6,069	29,850	4,662,878
10-Yr Avg	103,666	176,678	224	1,921	282,489

***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, 1991-2009

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
Total			3	232,597	674,647	392,696	146,901	23,207	190,729	60,928	1,732	28	1,723,468
10-Year Average				16,281	36,102	23,485	5,855	1,411	15,803	4,656			103,710

**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 a December 0600-1600 PST.

TABLE 109

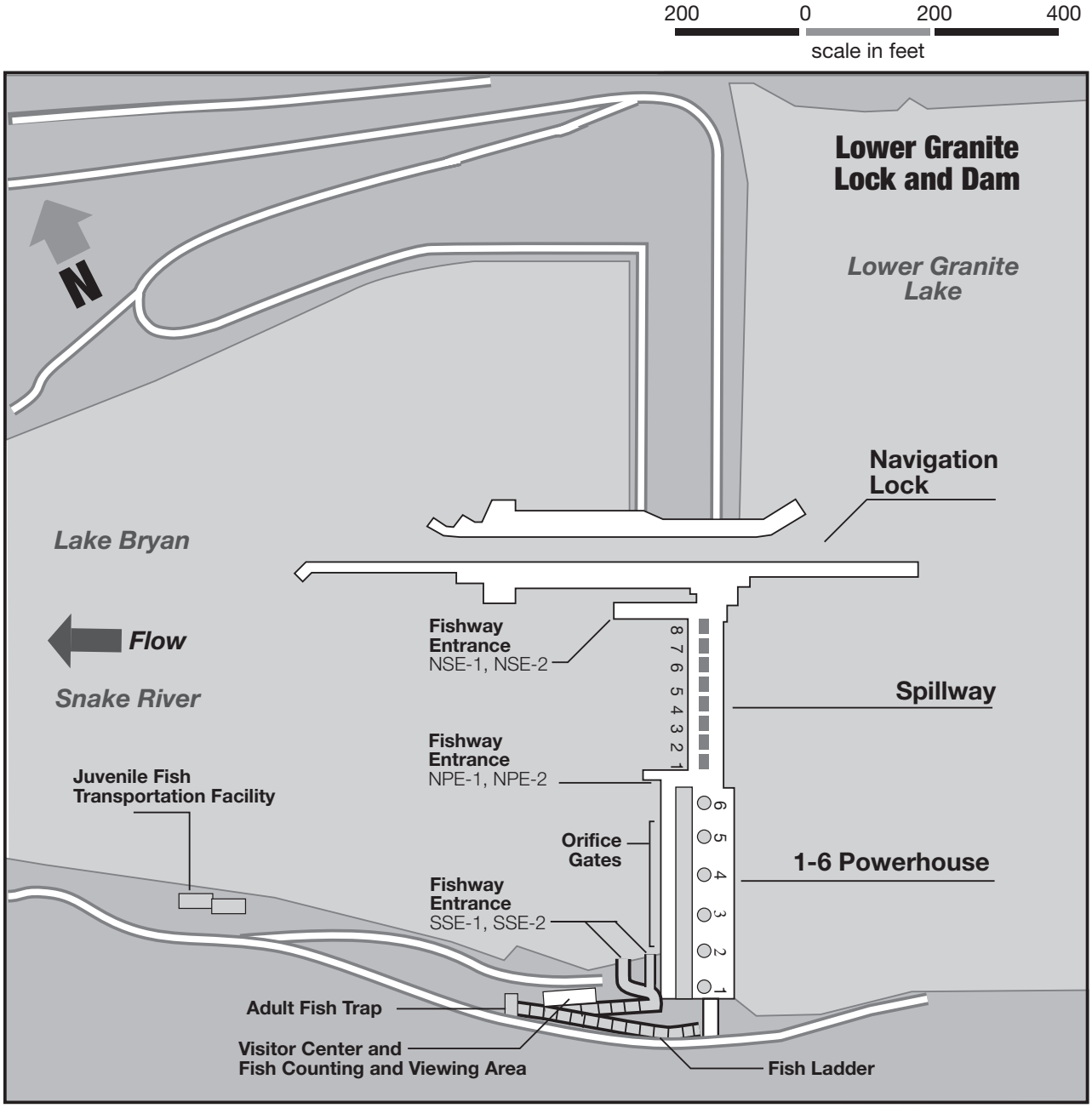
MONTHLY COUNT OF STEELHEAD
LITTLE GOOSE DAM

1970 - 1981, 1991 - 2009

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	1,029	2,051	829	65	1,249	2,856	16,650	12,420	1,129	319	38,810
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
Total	1,084	5,065	19,305	56,280	11,448	7,296	73,326	180,129	1,295,269	1,187,870	68,316	13,704	2,919,092
10-Year Average				2,487	226	519	4,389	9,743	85,241	69,119			178,194

** 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 – 30 September	Video counting daily 2000 – 0400 hours PST.
1 November – 30 December	Video counting daily 0600 – 1600 hours PST.

FISH LADDER OPERATING SCHEDULE

1 January	Ladder in service
6 January – 2 March	Ladder dewatered for annual maintenance.
2 March – 16 November	Ladder in service
17 November – 17 November	Ladder OOS for diffuser 14 controller valve install
18 November – 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 2009, readings were taken from June to 30 September.

During 2009, the adult fish trap was operated continuously from 3 March through 15 November with the exception of two time periods. The first period ran from 20 July to 17 August when there was a problem with the air valve control for the slide gate to the anesthetic tank and water temperatures were also too high for fish handling. The second period ran from September 1-5 when the trap was out of operation due to water temperatures in excess of 70°F.

During the initial phase of trap operation, the trap was operated at a 10% sample rate to examine the last phase of the steelhead run for A and B run composition and for hatchery-wild determination. The sample rate was reduced to 5% between May 18 and July 19 when spring and summer chinook were present. During this time period, scale samples were taken from both hatchery and adult wild chinook and tissue samples were also taken from wild chinook. Lemhi-origin PIT-tagged chinook were also fitted with radio tags through June 12.

Due to high water temperatures in the fish ladder, and previously mentioned air valve control problems on a slide gate, sampling operations at the adult trap were stopped on July 20. Beginning August 18, the trap resumed operation with the water temperatures in the high 60°F range. The system was set to randomly divert 12% of all

fish ascending the ladder. The goal was to maintain a 12% sample rate through the fall season – if possible. In addition, a target of 5,000 unclipped (wild) steelhead were to be PIT-tagged by Idaho Fish and Game (IDFG) personnel assigned to the trap operation.

On September 1, the trap was taken out of operation, per Fish Passage Plan guidelines, due to water temperatures in excess of 70°F. The trap resumed operations on September 6 and the sample rate was reduced down to 9% on September 8. Adult trap operations then continued unimpeded through the duration of the season ending on November 15.

Trucking of fall chinook to both Lyons Ferry Hatchery and the Nez Perce Cherry Lane Hatchery for run supplementation purposes also took place during the fall operational period and ended on 16 November. A total of 3,396 fall chinook (1,716 adults and 1,680 jacks) was hauled to Lyons Ferry Hatchery. The Nez Perce Tribal Hatchery received 1,968 fall chinook (976 adults and 992 jacks).

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

TABLE 110

MONTHLY TOTALS OF SALMONIDS, SHAD, LAMPREY, STURGEON, AND BULL TROUT COUNTED OVER LOWER GRANITE DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				95	52,614	45,565	12,404	2,871	44,432	9,630	419	2	168,032
STEELHEAD			4,313	5,918	550	486	3,806	8,978	154,804	129,599	14,574	669	323,697
SOCKEYE						94	1,090	31	2	2	0		1,219
COHO*									539	4,082	290	1	4,912
PINK													
TOTAL			4,313	6,013	53,164	46,145	17,300	11,880	199,777	143,313	15,283	672	497,860
SHAD						523	2,770	164	0				3,457
LAMPREY						1	3	8	0	0			12
STURGEON													0
BULL TROUT					0	2							2

***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 2009

JANUARY

	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	*DEG F
Jan 1	17.2	0.0		
Jan 2	21.6	0.0		
Jan 3	28.6	0.0		
Jan 4	25.5	0.0		
Jan 5	22.0	4.2		
Jan 6	27.0	0.0		
Jan 7	25.3	0.0		
Jan 8	47.9	0.0		
Jan 9	58.5	0.0		
Jan 10	44.2	0.0		
Jan 11	39.1	0.0		
Jan 12	37.3	0.0		
Jan 13	44.4	0.0		
Jan 14	44.5	0.0		
Jan 15	42.9	0.0		
Jan 16	42.2	0.0		
Jan 17	38.0	0.0		
Jan 18	39.5	0.0		
Jan 19	36.1	0.0		
Jan 20	35.9	0.0		
Jan 21	35.6	0.0		
Jan 22	33.3	0.0		
Jan 23	36.1	0.0		
Jan 24	32.1	0.0		
Jan 25	29.9	0.0		
Jan 26	35.7	0.0		
Jan 27	38.7	0.0		
Jan 28	26.9	0.0		
Jan 29	31.4	0.0		
Jan 30	29.4	0.0		
Jan 31	26.3	0.0		
AVG.	34.6	0.1		

FEBRUARY

	DISCH KCFS	SPILL KCFS	*TURBIDITY SECCHI	*DEG F
Feb 1	26.9	0.0		
Feb 2	23.0	0.0		
Feb 3	28.8	0.0		
Feb 4	25.4	0.0		
Feb 5	23.6	0.0		
Feb 6	24.0	0.0		
Feb 7	27.9	0.0		
Feb 8	20.3	0.0		
Feb 9	30.0	0.0		
Feb 10	32.6	0.0		
Feb 11	25.5	0.0		
Feb 12	28.0	0.0		
Feb 13	30.7	0.0		
Feb 14	24.0	0.0		
Feb 15	19.6	0.0		
Feb 16	20.4	0.0		
Feb 17	23.6	0.0		
Feb 18	21.9	0.0		
Feb 19	28.8	0.0		
Feb 20	25.0	0.0		
Feb 21	23.2	0.0		
Feb 22	20.4	0.0		
Feb 23	28.1	0.0		
Feb 24	23.4	0.0		
Feb 25	38.8	0.0		
Feb 26	39.2	0.0		
Feb 27	36.9	0.0		
Feb 28	34.0	0.0		
AVG.	26.9	0.0		

*Data unavailable

TABLE 112

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

MARCH 2009

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													33.8	0.0	*	*
Mar 2													27.4	0.0	*	*
Mar 3								34	12				42.7	0.0	3.0	43.2
Mar 4								149	34				50.0	0.0	2.6	39.5
Mar 5								46	6				34.7	0.0	3.2	39.6
Mar 6								73	18				45.8	0.0	*	*
Mar 7								77	20				38.8	0.0	*	*
Mar 8								282	49				35.0	0.0	*	*
Mar 9								135	23				33.8	0.0	*	*
Mar 10								132	32				32.5	0.0	2.5	40.0
Mar 11								90	15				38.2	0.0	2.7	39.5
Mar 12								32	6				35.4	0.0	3.5	39.5
Mar 13								75	15				31.5	0.0	*	*
Mar 14								41	9				28.3	0.0	*	*
Mar 15								86	25				26.5	0.0	*	*
Mar 16								44	6				30.5	0.0	*	*
Mar 17								50	14				37.6	0.0	5.0	39.0
Mar 18								62	17				34.6	0.0	5.0	39.5
Mar 19								33	9				32.2	0.0	4.2	41.6
Mar 20								175	49				33.1	0.0	*	*
Mar 21								409	71				41.3	0.0	*	*
Mar 22								290	69				45.4	0.0	*	*
Mar 23								157	25				49.5	0.0	2.9	44.5
Mar 24								204	38				48.4	0.0	*	*
Mar 25								236	48				49.8	0.0	3.1	45.5
Mar 26								202	46				50.0	0.0	2.3	45.5
Mar 27								236	42				44.9	0.0	*	*
Mar 28								311	35				39.7	0.0	*	*
Mar 29								137	19				43.7	0.0	*	*
Mar 30								194	30				42.7	0.0	2.4	46.1
Mar 31								321	45				54.6	0.0	*	*
TOTAL								4,313	827							
AVG.								149	29				39.1	0.0	3.3	45.4

*Data unavailable

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 2009

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				309	92				53.5	0.0	2.5	46.1
Apr 2	0			0				361	107				58.7	0.0	2.1	46.1
Apr 3	0			0				265	84				63.9	20.1	1.9	44.5
Apr 4	0			0				282	102				59.4	20.2	1.9	45.2
Apr 5	0			0				242	66				64.0	20.2	*	*
Apr 6	0			0				232	82				64.1	20.3	1.5	45.6
Apr 7	0			0				204	71				64.9	20.5	*	*
Apr 8	0			0				230	58				66.2	20.6	*	*
Apr 9	0			0				294	96				79.8	20.6	*	*
Apr 10	0			0				268	89				83.0	20.6	2.4	49.6
Apr 11	0			0				345	110				80.4	20.3	*	*
Apr 12	1			0				252	98				83.4	20.4	*	*
Apr 13	0			0				258	84				88.0	20.3	2.4	49.1
Apr 14	0			0				238	68				94.5	20.4	2.6	48.6
Apr 15	1			0				210	72				89.9	20.5	*	*
Apr 16	1			0				184	76				82.1	20.4	*	*
Apr 17	0			0				160	50				82.5	20.5	2.2	48.1
Apr 18	2			0				183	71				81.1	20.4	*	*
Apr 19	0			0				152	49				83.6	20.5	*	*
Apr 20	0			0				214	82				90.5	20.4	2.5	49.7
Apr 21	2			1				167	82				103.8	20.5	3.0	51.1
Apr 22	0			0				152	70				122.7	22.3	*	*
Apr 23	1			0				167	73				140.7	33.0	*	*
Apr 24	10			0				131	83				139.8	36.3	2.2	51.0
Apr 25	13			0				100	56				120.8	21.1	*	*
Apr 26	10			0				92	48				108.8	20.4	*	*
Apr 27	6			0				61	42				98.2	19.7	1.9	49.9
Apr 28	16			0				71	43				91.1	20.5	2.5	50.3
Apr 29	14			0				53	29				87.6	20.5	*	*
Apr 30	17			0				41	29				81.5	20.5	*	*
TOTAL	94			1				5,918	2,162							
AVG.	3			0				197	72				87.0	20.1	2.3	48.2

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	unclipped STEELHEAD
	94	1	10,231	2,989

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 2009

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
May 1	24			0				41	23				78.9	20.5	3.2	50.0
May 2	48			4				37	20				74.9	20.5	3.9	50.0
May 3	74			1				43	23				77.1	20.5	3.6	*
May 4	80			10				22	16				86.0	22.8	3.2	*
May 5	121			2				18	12				89.0	20.4	*	*
May 6	262			18				43	31				109.2	20.6	*	*
May 7	416			35				39	35				107.1	20.7	*	*
May 8	800			56				43	31				107.3	20.5	*	*
May 9	892			137				38	30				98.4	20.6	2.6	54.4
May 10	756			144				32	20				87.2	20.5	2.8	54.3
May 11	1,066			164				32	26				78.5	20.4	3.2	53.3
May 12	1,436			324				20	14				82.5	20.6	*	*
May 13	1,195			262				18	11				84.5	20.3	*	*
May 14	1,769			454				11	10				90.1	20.5	*	*
May 15	1,752			592				8	6				95.1	20.5	3.0	53.0
May 16	1,590			724				17	13				96.2	20.6	3.8	55.2
May 17	2,430			1,291				21	16				99.3	20.6	3.9	55.0
May 18	1,602			1,171				13	11				108.6	20.6	*	*
May 19	1,765			1,808				22	16				139.8	31.4	3.6	56.5
May 20	1,909			1,698				4	4				162.2	59.1	*	*
May 21	1,648			1,676				9	7				161.1	51.7	*	*
May 22	1,157			1,254				1	1				143.0	37.0	*	*
May 23	634			775				2	2				137.7	43.2	0.8	55.0
May 24	1,081			1,518				2	2				145.2	56.9	1.1	54.0
May 25	1,526			2,068				2	2				164.6	57.1	*	*
May 26	671			1,081				5	4				163.9	56.5	*	*
May 27	972			1,250				1	1				156.9	52.9	2.0	55.2
May 28	1,234			1,061				0	0				157.3	54.3	*	*
May 29	928			904				2	1				160.9	57.2	1.8	54.7
May 30	587			452				2	2				160.9	64.8	1.8	57.0
May 31	745			510				2	1				169.3	76.7	1.6	*
TOTAL	31,170			21,444				550	391							
AVG.	1005			692				18	13				118.5	34.5	2.7	54.1

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	31,264	21,445

STEELHEAD	unclipped STEELHEAD
10,781	3,380

TABLE 115

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JUNE 2009

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
Jun 1	768			649			0	1	0	0	0	0	167.6	75.3	*	*
Jun 2	940			763			0	1	1	0	0	0	160.1	63.8	*	*
Jun 3	1,474			856			0	2	2	0	0	0	148.7	43.3	*	*
Jun 4	1,307			688			0	0	0	0	0	0	142.5	40.5	*	*
Jun 5	1,228			624			0	4	2	0	0	0	147.6	40.1	1.8	56.7
Jun 6	1,435			642			0	1	1	0	0	0	158.2	49.7	2.0	57.0
Jun 7	803			397			0	1	0	0	0	0	171.2	61.4	1.5	*
Jun 8	604			383			0	1	0	0	0	0	158.0	48.2	*	*
Jun 9	972			493			0	1	0	0	0	0	138.5	29.5	*	*
Jun 10	799			487			0	9	2	0	0	0	125.6	20.6	*	*
Jun 11	1,235			449			0	6	1	0	0	0	109.5	20.5	*	60.0
Jun 12	1,111			380			0	8	1	1	0	0	106.6	20.8	2.4	61.0
Jun 13	1,400			509			0	7	0	2	0	0	96.7	20.7	*	*
Jun 14	1,567			650			0	7	0	2	0	0	99.7	20.8	2.1	61.0
Jun 15	758			390			0	13	2	6	0	0	101.0	20.6	*	*
Jun 16	1,192			679			1	17	0	1	0	0	108.4	20.5	*	*
Jun 17	810			580			0	13	1	6	0	0	104.2	20.5	3.5	60.5
Jun 18		658		557			0	17	0	7	0	0	101.5	20.7	*	*
Jun 19		1132		575			1	23	4	16	0	1	102.8	20.7	3.2	61.3
Jun 20		1094		571			0	25	2	28	0	0	92.8	20.7	3.5	61.5
Jun 21		1242		700			0	29	1	31	0	0	88.5	18.8	*	*
Jun 22		732		511			1	26	1	22	0	0	89.0	18.7	*	*
Jun 23		978		787			2	31	1	29	0	0	108.2	18.8	3.8	60.1
Jun 24		436		490			2	26	1	13	0	0	97.8	18.8	3.0	59.5
Jun 25		552		701			5	43	5	60	0	0	85.2	18.7	3.1	61.5
Jun 26		718		743			6	28	6	59	0	0	85.2	18.8	3.5	61.1
Jun 27		524		702			7	24	0	40	1	0	80.7	18.8	3.5	61.8
Jun 28		661		780			23	39	4	85	0	1	84.1	18.7	*	*
Jun 29		383		547			17	34	6	47	0	0	77.8	18.8	3.7	63.4
Jun 30		373		396			29	49	13	68	0	0	75.1	18.7	4.5	64.8
TOTAL	18,403	9,483		17,679			94	486	57	523	1	2				
AVG.	1,083	729		589			3	16	2	17	0	0	113.8	28.9	3.0	60.7

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	9,483	8,060
TOTAL	59,150	39,124

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
94	11,267	3,437	523	1	2

TABLE 116

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

JULY 2009

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
Jul 1		378		488			35	30	8	122	0		71.9	18.6	*	*
Jul 2		418		434			44	66	18	86	0		69.5	18.7	*	*
Jul 3		215		485			37	81	19	86	0		68.7	18.8	*	65.8
Jul 4		277		454			43	70	12	91	0		68.8	18.8	*	*
Jul 5		289		407			36	61	13	91	0		68.2	18.8	4.5	66.3
Jul 6		169		392			54	65	11	86	0		62.3	18.6	4.5	66.7
Jul 7		137		301			72	88	26	60	0		62.4	18.7	*	*
Jul 8		401		691			80	123	34	114	0		63.2	18.6	4.5	66.6
Jul 9		401		563			103	138	42	194	0		55.8	18.5	*	*
Jul 10		335		518			79	114	40	133	0		58.3	18.5	4.5	69.0
Jul 11		281		466			76	131	29	221	0		53.5	18.4	*	*
Jul 12		235		382			92	149	47	148	0		50.8	18.7	4.7	69.0
Jul 13		179		361			73	125	40	104	0		49.0	18.8	5.0	65.7
Jul 14		109		287			52	183	64	76	0		49.8	18.6	*	*
Jul 15		120		260			44	184	71	137	0		53.7	18.8	*	*
Jul 16		100		212			38	240	61	118	1		48.7	18.7	*	*
Jul 17		43		164			17	176	62	54	1		47.4	18.7	*	*
Jul 18		46		91			25	149	46	62	0		48.4	18.8	4.1	68.5
Jul 19		40		80			14	119	47	68	0		51.0	18.7	4.3	68.5
Jul 20		77		134			10	114	40	35	0		45.9	18.8	5.0	66.9
Jul 21		79		112			17	170	61	91	0		44.7	18.7	*	*
Jul 22		42		49			10	119	52	38	0		43.6	18.7	*	*
Jul 23		40		65			13	149	47	90	0		39.9	18.7	*	*
Jul 24		43		118			5	145	53	61	0		41.3	18.7	5.0	67.5
Jul 25		31		97			6	198	59	44	0		36.6	18.6	5.0	69.5
Jul 26		40		73			5	195	73	108	0		40.8	18.7	*	*
Jul 27		11		58			2	101	42	52	0		38.3	18.7	5.0	67.2
Jul 28		4		16			1	57	26	58	0		40.4	18.6	*	*
Jul 29		20		18			2	82	35	43	1		40.1	18.5	*	*
Jul 30		14		32			1	146	46	61	0		40.1	18.7	5.0	66.7
Jul 31		6		16			4	38	20	38	0		40.6	18.8	5.0	69.5
TOTAL		4,580		7,824			1,090	3,806	1,244	2,770	3					
AVG.		148		252			35	123	40	89	0		51.4	18.7	4.7	67.6

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	14,063	15,884
TOTAL	63,730	46,948

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
1,184	15,073	4,681	3,293	4	2

TABLE 117

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

AUGUST 2009

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		12		31			1	114	60	11	0		39.5	18.7	5.0	69.5
Aug 2		59		60			4	332	146	31	1		36.3	18.7	5.0	69.5
Aug 3		28		62			2	227	88	28	2		35.2	18.7	5.0	66.2
Aug 4		42		68			4	291	139	5	1		37.4	18.8	*	*
Aug 5		30		32			1	286	125	2	0		33.3	18.6	*	*
Aug 6		11		12			1	147	65	4	0		32.6	18.8	*	*
Aug 7		43		49			2	347	137	4	0		31.5	18.8	5.0	68.5
Aug 8		16		16			1	280	118	22	0		31.6	18.9	5.0	68.5
Aug 9		16		20			1	379	155	6	0		34.3	18.6	*	*
Aug 10		7		19			0	293	120	1	1		34.6	23.9	5.0	65.2
Aug 11		22		18			2	294	132	1	0		34.3	23.8	5.0	64.6
Aug 12		8		6			4	183	82	2	0		33.2	24.0	*	*
Aug 13		16		8			2	159	73	11	0		34.6	24.4	4.8	*
Aug 14		8		5			1	150	67	2	0		28.7	19.8	*	*
Aug 15		17		14			2	367	143	8	0		29.6	16.7	5.0	68.0
Aug 16		32		34			1	322	119	4	1		29.8	16.8	5.0	68.0
Aug 17		52		29			1	301	113	1	0		30.5	17.6	5.0	68.0
Aug 18			7	36			0	272	92	4	1		34.5	18.8	5.0	68.5
Aug 19			29	23			0	213	82	4	0		35.0	18.6	*	*
Aug 20			29	11			0	211	80	1	0		36.3	18.5	*	*
Aug 21			80	35			0	268	100	2	0		38.8	18.6	*	*
Aug 22			77	48			1	309	121	1	0		35.3	18.6	5.0	63.5
Aug 23			55	44			0	342	124	4	0		33.1	18.7	*	*
Aug 24			88	19			0	339	137	-1	0		30.8	17.9	5.0	64.4
Aug 25			80	52			0	316	110	4	0		26.5	16.2	5.0	65.7
Aug 26			95	44			0	357	118	0	0		29.8	16.8	5.0	65.7
Aug 27			64	37			0	289	89	1	0		30.9	18.0	*	*
Aug 28			131	60			0	274	100	0	0		31.2	18.5	4.5	68.0
Aug 29			192	128			0	285	91	1	0		25.8	13.0	4.8	68.0
Aug 30			161	130			0	527	197	0	1		26.3	13.6	5.0	68.0
Aug 31			140	74			0	504	162	0	0		23.8	10.9	5.0	67.1
TOTAL		419	1,228	1,224			31	8,978	3,485	164	8					
AVG		25	88	39			1	290	112	5	0		32.4	18.5	5.0	67.1

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	14,482	16,367
FALL	1,228	741
TOTAL	65,377	48,172

SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
1,215	24,051	8,166	3,457	12	2

TABLE 118

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

SEPTEMBER 2009

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
Sep 1			180	230	0	0	0	1,205	397		0		28.2	0.3	*	*
Sep 2			275	272	0	0	0	540	174		0		25.5	0.0	*	*
Sep 3			385	508	0	0	0	651	259		0		29.5	0.0	*	*
Sep 4			552	944	0	0	0	2,249	780		0		28.2	0.0	*	*
Sep 5			376	856	0	0	0	4,057	1,157		0		25.3	0.0	4.3	69.0
Sep 6			850	1,849	0	0	1	6,630	1,901		0		24.6	0.0	4.5	69.0
Sep 7			570	1,139	1	0	1	10,912	2,849		0		25.3	0.0	4.8	68.0
Sep 8			433	846	1	0	0	5,708	1,436		0		25.2	0.0	*	*
Sep 9			347	898	1	1	0	4,772	1,219		0		27.2	0.0	5.0	69.0
Sep 10			445	1,385	1	2	0	5,358	1,175		0		28.9	0.0	*	*
Sep 11			374	1,019	1	0	0	4,560	1,010		0		26.8	0.0	*	*
Sep 12			580	935	1	0	0	3,414	761		1		27.1	0.0	*	*
Sep 13			468	1,307	1	0	0	3,314	782		0		24.6	0.0	4.3	69.0
Sep 14			830	2,158	1	4	0	6,672	1,588		0		23.5	0.0	*	*
Sep 15			480	1,910	5	0	0	9,278	1,902		0		24.6	0.0	5.0	69.0
Sep 16			325	1,332	6	1	0	4,721	1,021		0		22.3	0.0	5.0	69.0
Sep 17			493	2,192	5	2	0	7,603	1,645		0		25.0	0.0	5.0	69.0
Sep 18			326	613	4	2	0	6,661	1,385		0		22.0	0.0	*	*
Sep 19			427	1,400	18	2	0	4,435	913		0		16.9	0.0	*	*
Sep 20			436	2,252	32	11	0	9,988	1,985		0		14.8	0.0	*	*
Sep 21			360	1,121	16	0	0	5,633	1,150		-1		15.0	0.0	5.0	69.0
Sep 22			362	1,140	31	8	0	5,782	1,104		0		25.2	0.0	*	*
Sep 23			389	856	26	2	0	5,275	1,141		0		23.5	0.0	*	*
Sep 24			257	814	20	6	0	4,431	880		0		22.4	0.0	*	*
Sep 25			133	1,018	40	8	0	4,834	1,004		0		20.8	0.0	5.0	69.0
Sep 26			155	866	36	10	0	4,369	870		0		23.8	0.0	*	*
Sep 27			239	1,033	50	2	0	6,384	1,315		0		20.2	0.0	5.0	69.0
Sep 28			119	686	34	0	0	4,193	833		0		19.1	0.0	5.0	*
Sep 29			270	931	44	6	0	6,618	1,414		0		17.6	0.0	*	*
Sep 30			58	428	38	59	0	4,557	899		0		17.8	0.0	*	*
TOTAL			11,494	32,938	413	126	2	154,804	34,949		0					
AVG.			383	1,098	14	4	0	5,160	1,165		0		23.4	0.0	4.8	68.9

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	14,482	16,367
FALL	12,722	33,679
TOTAL	76,871	81,110

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
413	126	1,217	178,855	43,115	3,457	12	2

TABLE 119

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

OCTOBER 2009

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
Oct 1			162	685	43	1	0	5,866	1,218				22.9	0.0	5.0	*
Oct 2			155	695	50	2	0	6,153	1,424				22.1	0.0	5.0	67.0
Oct 3			113	608	61	7	0	6,368	1,392				26.5	0.0	*	*
Oct 4			109	356	64	1	1	5,810	1,206				23.4	0.0	*	*
Oct 5			112	420	121	7	1	8,210	1,765				22.5	0.0	*	*
Oct 6			89	335	70	13	0	5,653	1,164				20.0	0.0		*
Oct 7			56	360	97	5	0	6,317	1,332				25.6	0.0	5.0	62.5
Oct 8			82	349	127	6	0	6,991	1,428				25.9	0.0		*
Oct 9			188	367	143	12	0	5,723	1,138				31.1	0.0	5.0	62.0
Oct 10			125	340	110	7	0	5,212	1,205				22.8	0.0	*	*
Oct 11			70	223	124	4	0	5,163	1,033				24.1	0.0	*	*
Oct 12			107	217	134	1	0	5,274	1,194				29.3	0.0	*	*
Oct 13			91	202	124	1	0	4,102	935				27.0	0.0	*	*
Oct 14			89	180	116	2	0	3,725	810				28.2	0.0	*	*
Oct 15			86	193	115	2	0	3,995	910				29.0	0.0	5.0	59.6
Oct 16			59	235	187	4	0	4,786	1,078				24.6	0.0	5.0	
Oct 17			26	161	113	0	0	3,403	775				15.0	0.0	5.0	59.0
Oct 18			38	134	162	5	0	3,459	751				13.5	0.0	5.0	59.0
Oct 19			46	80	190	5	0	3,273	686				22.3	0.0	5.0	57.6
Oct 20			18	82	103	1	0	2,746	658				21.4	0.0	*	*
Oct 21			35	138	138	0	0	2,973	752				21.9	0.0	5.0	58.3
Oct 22			60	92	76	7	0	2,617	643				21.3	0.0	*	*
Oct 23			50	83	98	2	0	2,039	526				21.2	0.0	5.0	59.0
Oct 24			50	101	240	5	0	2,428	646				12.5	0.0	*	*
Oct 25			54	73	192	0	0	2,336	601				17.1	0.0	5.0	57.1
Oct 26			53	127	260	6	0	2,785	714				17.6	0.0	*	*
Oct 27			47	107	244	6	0	2,893	769				20.8	0.0	5.0	56.7
Oct 28			48	79	198	12	0	2,556	720				20.8	0.0	*	*
Oct 29			55	116	126	10	0	2,414	642				22.8	0.0	5.0	56.0
Oct 30			31	88	59	4	0	2,323	552				19.9	0.0	4.2	*
Oct 31			32	68	55	4	0	2,006	496				12.9	0.0	3.5	54.3
TOTAL			2,336	7,294	3,940	142	2	129,599	29,163							
AVG.			75	235	127	5	0	4,181	941				22.1	0.0	4.9	59.1

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	14,482	16,367
FALL	15,058	40,973
TOTAL	79,207	88,404

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
4,353	268	1,219	308,454	72,278	3,457	12	2

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 2009

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
Nov 1			7	53	37	1		1,954	409				18.0	0.0	4.2	57.0
Nov 2			12	28	32	2		909	206				20.9	0.0	5.0	54.9
Nov 3			7	20	26	2		903	229				25.5	0.0	*	*
Nov 4			7	23	28	0		965	242				14.9	0.0	*	*
Nov 5			3	29	16	0		783	201				18.5	0.0	*	*
Nov 6			5	20	5	0		745	167				20.0	0.0	*	*
Nov 7			6	24	25	0		857	189				21.0	0.0	*	*
Nov 8			10	28	21	2		1,084	272				17.6	0.0	*	*
Nov 9			7	10	23	1		720	195				24.4	0.0	*	52.6
Nov 10			5	11	16	2		894	239				16.0	0.0	4.6	54.0
Nov 11			5	12	18	3		532	170				15.8	0.0	*	*
Nov 12			3	8	12	0		434	128				19.0	0.0	5.0	51.3
Nov 13			3	12	4	0		366	102				24.5	0.0	*	*
Nov 14			5	7	2	1		358	112				16.6	0.0	*	*
Nov 15			3	10	3	0		229	59				16.5	0.0	*	*
Nov 16			3	2	0	0		122	34				24.6	0.0	*	*
Nov 17													21.0	0.0	*	*
Nov 18			5	3	1	0		638	207				20.2	0.0	*	*
Nov 19			7	1	2	0		357	105				12.9	0.0	5.0	49.5
Nov 20			1	6	2	1		349	102				15.6	0.0	*	*
Nov 21			0	0	1	0		325	80				15.5	0.0	*	*
Nov 22			-1	1	0	0		207	52				16.8	0.0	*	*
Nov 23			0	0	2	0		77	21				21.2	0.0	5.0	48.3
Nov 24			1	1	-1	0		67	15				17.3	0.0	5.0	48.1
Nov 25			0	3	0	0		102	30				18.3	0.0	5.0	47.9
Nov 26			0	0	0	0		217	51				16.7	0.0	*	*
Nov 27			1	0	0	0		104	27				17.6	0.0	*	*
Nov 28			1	1	0	0		100	33				19.4	0.0	*	*
Nov 29			0	0	0	0		130	34				20.5	0.0	*	*
Nov 30			0	0	0	0		46	13				14.9	0.0	5.0	46.9
TOTAL			106	313	275	15		14,574	3,724							
AVG.			4	11	9	1		503	128				18.7	0.0	4.9	51.1

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	14,482	16,367
FALL	15,164	41,286
TOTAL	79,313	88,717

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
4,628	283	1,219	323,028	76,002	3,457	12	2

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 count on November 17 due to dewater.

TABLE 121

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT - FISH COUNTS

DECEMBER 2009

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
Dec 1			2	0	0			73	24				22.1	0.0	*	*
Dec 2			1	0	0			51	19				22.6	0.0	5.0	46.6
Dec 3			0	0	1			25	6				16.0	0.0	5.0	46.4
Dec 4			0	0	0			44	16				12.4	0.0	*	*
Dec 5			0	0	0			24	5				12.6	0.0	*	*
Dec 6			0	0	0			39	18				14.3	0.0	*	*
Dec 7			0	-1	0			59	18				18.6	0.0	5.0	44.9
Dec 8			0	0	0			45	13				18.4	0.0	5.0	44.3
Dec 9			0	0	0			16	4				16.0	0.0	5.0	44.0
Dec 10			0	0	0			33	8				19.1	0.0	5.0	43.2
Dec 11			0	0	0			35	12				26.2	0.0	*	*
Dec 12			0	0	0			22	8				18.8	0.0	*	*
Dec 13			0	0	0			19	6				18.7	0.0	*	*
Dec 14			0	0	0			4	2				26.5	0.0	5.0	40.7
Dec 15			0	0	0			4	0				19.4	0.0	5.0	39.2
Dec 16			0	0	0			6	2				20.5	0.0	5.0	40.8
Dec 17			0	0	0			8	1				21.0	0.0	5.0	*
Dec 18			0	0	0			12	3				22.5	0.0	*	*
Dec 19			0	0	0			5	-1				19.7	0.0	*	*
Dec 20			0	0	0			9	1				21.9	0.0	*	*
Dec 21			0	0	0			5	0				20.1	0.0	5.0	38.5
Dec 22			0	0	0			8	4				20.1	0.0	5.0	45.5
Dec 23			0	0	0			27	7				22.7	0.0	5.0	*
Dec 24			0	0	0			20	6				22.7	0.0	*	*
Dec 25			0	0	0			34	11				17.6	0.0	*	*
Dec 26			0	0	0			9	1				18.5	0.0	*	*
Dec 27			0	0	0			13	2				18.0	0.0	*	*
Dec 28			0	0	0			8	3				17.7	0.0	*	*
Dec 29			0	0	0			9	1				16.3	0.0	4.0	*
Dec 30			0	0	0			3	1				18.9	0.0	3.0	42.0
Dec 31													18.7	0.0	*	*
TOTAL			3	-1	1			669	201							
AVG.			0	0	0			22	7				19.3	0.0	4.8	43.0

*Data unavailable

RUN YEAR TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	49,667	31,064
SUMMER	14,482	16,367
FALL	15,167	41,285
TOTAL	79,316	88,716

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	unclipped STEELHEAD	SHAD	LAMPREY	BULL TROUT
4,629	283	1,219	323,527	76,163	3,457	12	2

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 - 2009

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
Total	1,690,602	3,709,948	4,948	26,611	5,432,109
10-Year Average	106,280	188,786	273	2,367	297,705

*Jacks included

TABLE 123

MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 - 2009

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
Total			15	193,724	669,516	416,068	136,905	18,383	180,830	70,403	4,698	60	1,690,602
10-Year Average				14,874	36,421	25,751	6,619	1,104	15,763	5,447	295		106,280

*Jacks included

TABLE 124

MONTHLY COUNT OF STEELHEAD

LOWER GRANITE DAM
1975 - 2009

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
Total	539	790	103,151	105,466	13,609	5,636	61,866	157,855	1,381,316	1,606,821	242,129	30,770	3,709,948
10-Yr Average			4,852	3,447	273	384	3,266	7,071	79,669	77,711	10,551	1,563	188,786

TABLE 125

NIGHT COUNT OF SOCKEYE
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**

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
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

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
2009

FISH COUNTING SCHEDULE – PRIEST RAPIDS DAM

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

FISH COUNTING SCHEDULE – WANAPUM DAM

Jan 1 – 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 – 26 Jan	Out of criteria for annual inspection, maintenance, and repairs.
27 Jan – 24 Nov	In service.
25 Nov – 31 Dec	Out of criteria for annual inspection, maintenance, and repairs.

Right Bank Ladder

01 Jan – 26 Jan	In service.
27 Jan – 08 Mar	Out of criteria for annual inspection, maintenance and repairs.
09 Mar – 31 Dec	In service.

FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – WANAPUM DAM

Left Bank Ladder

01 Jan – 27 Feb	In service.
28 Feb – 08 Mar	Out of criteria for repairs.
09 Mar – 31 Dec	In service.

Right Bank Ladder

01 Jan – 24 Mar	Out of criteria for annual inspection, maintenance and repairs.
25 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.

FISHWAY ACTIVITIES

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 data are streamed 24 hours per day to digital video recorders at each dam. Fish counters then playback these data on computers in a fast-forward mode to identify and count passing fish. At the end of each day all counts are tallied and a fish-count report is generated and posted on Grant PUD's Fish, Wildlife, and Water Quality website (http://www.gcpud.org/resources/resFish/fishCounts.htm). The fish-counting season for the Priest Rapids Hydroelectric Project runs from April 15 through November 15, annually.

PIT-tag Detection

The PIT-tag detection array at Priest Rapids Dam operated continuously when the fishways were fully operational.

Fish Trapping

Washington Department of Fish and Wildlife (WDFW) operated the Priest Rapids off-ladder adult fish trap (OLAFT) a total of 27 days between 16 July and 15 October, 2009 as part of its steelhead stock assessment (Table 1). WDFW also trapped and sampled adult fall Chinook salmon to study age composition a total of 11 days from 3 September to 8 October, 2009 (Table 2). The Yakama Nation trapped adult sockeye salmon a total of 11 days from 25 June to 9 July, 2009 for a restocking program in Lake Cle Elum (Table 3).

Table 1 **2009 steelhead trapping dates for the Priest Rapids Dam off-ladder adult fish trap, Columbia River (river mile 397.1), Washington, USA.**

Steelhead Trapping Dates 2009 (WDFW)	
July 16	September 8
July 22	September 10
July 23	September 1
July 28	September 14
July 30	September 15
August 4	September 22
August 6	September 24
August 11	September 29
August 13	October 1
August 18	October 6
August 20	October 8
August 25	October 13
August 27	October 15
September 3	

Table 2 **2009 fall Chinook trapping dates for the Priest Rapids Dam off-ladder adult fish trap, Columbia River (river mile 397.1), Washington, USA.**

Fall Chinook Trapping Dates 2009 (WDFW)	
September 3	September 24
September 8	September 29
September 10	October 1
September 14	October 6
September 15	October 8
September 22	

Table 3 **2009 sockeye trapping dates for the Priest Rapids Dam off-ladder adult fish trap, Columbia River (river mile 397.1), Washington, USA.**

Sockeye Trapping Dates 2009 (Yakama Nation Fisheries)	
June 25	July 3
June 26	July 6
June 29	July 7
June 30	July 8
July 1	July 9
July 2	

TABLE 127

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER PRIEST RAPIDS DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				25	12,585	24,990	28,719	7,348	26,439	13,065	966		114,137
STEELHEAD				24	34	78	2,330	13,537	19,965	4,034	91		40,093
SOCKEYE						45,712	107,251	502	1				153,466
COHO*							0	258	3,532	7,316	187		11,293
PINK													
TOTAL				49	12,619	70,780	138,300	21,645	49,937	24,415	1,244		318,989
SHAD							240	34	0	2			276
LAMPREY						5	437	1,531	711	30			2,714

***Jacks included**

TABLE 128

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — APRIL 2009

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										86.7	2.5	38.8
Apr 2											47.2	0.0	38.9
Apr 3											45.1	0.0	39.1
Apr 4											57.0	0.0	39.3
Apr 5											36.5	0.0	39.5
Apr 6											62.8	0.0	39.8
Apr 7											69.1	0.0	40.2
Apr 8											81.2	0.0	40.7
Apr 9											88.4	0.0	41.0
Apr 10											107.6	0.0	41.0
Apr 11											95.1	0.0	40.8
Apr 12											120.3	0.0	40.9
Apr 13											91.1	0.0	40.8
Apr 14											130.0	0.0	40.6
Apr 15	1			0				1			123.7	0.0	40.7
Apr 16	0			0				0			133.3	0.0	40.8
Apr 17	0			1				2			128.2	0.0	41.0
Apr 18	2			0				2			136.1	2.2	41.3
Apr 19	0			0				2			109.3	0.0	41.5
Apr 20	1			0				1			123.1	0.2	41.9
Apr 21	2			0				1			131.0	0.0	42.3
Apr 22	1			0				1			122.2	0.1	42.5
Apr 23	3			0				3			133.8	0.3	42.7
Apr 24	2			2				3			151.1	13.6	42.6
Apr 25	0			0				1			127.6	0.0	42.6
Apr 26	3			0				0			139.6	0.0	42.7
Apr 27	0			0				2			144.2	2.3	43.0
Apr 28	0			0				1			146.0	0.3	42.8
Apr 29	4			0				1			142.4	0.0	42.7
Apr 30	3			0				3			133.0	0.0	43.0
TOTAL	22			3				24					
AVG.	1			0				2			108.1	0.7	41.2

TABLE 129

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — MAY 2009

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	4			0				0			118.3	0.0	43.4
May 2	26			1				1			103.5	0.0	44.0
May 3	7			0				0			56.4	0.0	44.3
May 4	22			0				0			123.5	0.0	44.7
May 5	68			3				2			95.5	0.0	45.1
May 6	116			3				1			73.6	0.0	45.5
May 7	189			10				2			81.6	0.0	45.6
May 8	233			9				1			121.0	0.0	46.0
May 9	220			15				1			120.9	0.0	46.6
May 10	318			51				0			98.1	0.0	46.9
May 11	473			30				1			118.4	0.0	47.4
May 12	321			48				1			124.1	0.0	47.5
May 13	515			87				0			125.9	0.0	47.0
May 14	436			39				2			119.4	0.0	46.9
May 15	349			119				6			133.4	0.0	47.4
May 16	598			99				0			108.4	0.0	47.9
May 17	608			165				4			112.1	0.0	48.4
May 18	446			159				0			118.2	0.0	48.6
May 19	579			141				2			120.6	0.0	49.3
May 20	521			234				1			109.6	0.0	49.8
May 21	465			130				1			119.5	0.0	50.0
May 22	377			113				0			121.8	0.0	50.5
May 23	427			148				1			133.3	0.0	51.1
May 24	355			214				0			135.4	0.0	51.1
May 25	435			129				0			125.8	0.0	50.7
May 26	511			92				1			140.3	0.0	51.1
May 27	373			178				3			154.5	0.0	51.8
May 28	188			45				0			156.8	0.0	51.9
May 29	410			41				0			158.0	0.0	52.0
May 30	331			78				1			142.0	0.0	52.7
May 31	224			59				2			136.2	0.0	52.9
TOTAL	10,145			2,440				34					
AVG.	327			79				1			119.5	0.0	48.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD
SPRING	10,167	2443	58

TABLE 130

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — JUNE 2009

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	236			26			0	0	0	0	140.2	0.0	52.7
Jun 2	233			87			0	0	0	0	143.6	0.0	53.2
Jun 3	212			45			0	0	0	0	168.7	0.0	53.7
Jun 4	155			20			0	0	0	0	174.8	0.0	53.6
Jun 5	179			36			0	0	0	0	166.5	0.0	53.6
Jun 6	167			34			0	0	0	0	143.0	0.0	54.7
Jun 7	139			30			2	1	0	0	145.2	0.0	55.2
Jun 8	187			14			2	0	0	0	170.0	0.0	55.2
Jun 9	200			52			28	1	0	0	161.8	0.0	55.2
Jun 10	227			27			26	1	0	0	160.2	14.5	55.5
Jun 11	323			31			27	3	0	0	147.8	13.3	56.2
Jun 12	437			22			92	1	0	1	147.9	13.5	56.4
Jun 13	607			43			91	4	0	0	132.8	11.0	57.0
Jun 14		637		23			149	4	0	0	104.8	9.7	57.3
Jun 15		385		28			205	5	0	0	94.1	13.0	57.7
Jun 16		793		25			474	0	2	4	104.5	12.7	58.0
Jun 17		579		17			846	1	4	0	129.9	11.8	58.7
Jun 18		1,085		40			1,011	1	0	-1	150.2	13.0	58.7
Jun 19		661		2			848	1	0	0	149.2	12.7	57.9
Jun 20		885		57			1,116	3	-1	1	140.5	12.6	57.5
Jun 21		2,054		37			1,868	1	1	0	143.4	10.3	58.0
Jun 22		577		45			1,628	4	0	0	161.6	34.2	57.5
Jun 23		1,110		29			1,595	4	3	0	159.4	15.2	57.0
Jun 24		1,499		37			2,364	2	3	0	153.7	13.6	57.5
Jun 25		1,684		71			3,304	3	0	0	146.6	14.0	58.2
Jun 26		1,623		32			3,557	2	5	0	146.2	12.5	58.4
Jun 27		2,286		119			5,762	13	1	0	141.4	11.2	58.6
Jun 28		1,091		10			5,312	7	0	0	144.8	10.0	59.1
Jun 29		2,036		41			7,549	7	1	0	157.8	19.9	59.3
Jun 30		1,581		42			7,856	9	0	0	108.4	12.5	58.7
TOTAL	3,302	20,566		1,122			45,712	78	19	5			
AVG.		1210		37			1,524	3	1	0	144.6	9.7	56.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	13,469	2,910
SUMMER	20,566	655
TOTAL	34,035	3,565

SOCKEYE	STEELHEAD	SHAD	LAMPREY
45,712	136	19	5

TABLE 131

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — JULY 2009

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		1,216		59			6,300	23	6	1	73.2	8.5	58.9
Jul 2		1,631		29			9,716	26	13	3	96.1	7.6	59.3
Jul 3		2,003		30			7,338	17	21	2	76.0	7.4	60.3
Jul 4		1,877		107			10,934	12	28	3	74.7	6.7	61.0
Jul 5		2,145		373			9,829	38	29	4	72.7	5.6	61.3
Jul 6		1,165		54			9,412	22	35	0	107.1	10.4	61.5
Jul 7		910		50			6,461	30	8	4	142.4	11.8	61.4
Jul 8		1,298		61			6,189	21	4	0	120.4	14.0	61.1
Jul 9		1,164		75			6,240	17	1	11	132.6	11.2	60.8
Jul 10		1,560		67			7,003	37	17	13	132.9	10.6	60.9
Jul 11		1,118		22			4,440	38	6	5	123.1	8.1	60.8
Jul 12		1,337		50			4,277	40	6	4	104.8	7.1	61.0
Jul 13		982		12			3,436	43	11	7	122.2	9.9	61.2
Jul 14		629		7			2,253	52	27	4	118.2	9.7	61.5
Jul 15		508		7			1,865	45	2	1	107.4	9.3	61.9
Jul 16		870		9			1,869	48	3	15	103.1	9.0	62.2
Jul 17		488		31			2,130	52	2	7	103.5	9.0	62.7
Jul 18		455		25			1,493	65	1	13	81.9	7.1	62.8
Jul 19		718		52			1,352	71	0	12	79.1	7.1	63.4
Jul 20		330		13			814	73	0	16	103.3	8.6	64.0
Jul 21		199		1			520	43	3	5	103.4	8.8	64.5
Jul 22		612		13			656	89	7	29	86.2	7.4	64.5
Jul 23		163		24			482	69	1	28	82.4	6.8	64.7
Jul 24		630		52			561	120	0	29	87.4	7.3	64.7
Jul 25		435		30			380	119	1	29	81.8	7.1	64.4
Jul 26		806		9			440	136	0	25	90.0	6.3	63.8
Jul 27		741		31			255	129	0	44	115.0	9.0	63.7
Jul 28		526		26			211	218	1	36	116.2	9.1	64.3
Jul 29		315		23			170	216	1	31	111.4	9.6	64.6
Jul 30		336		8			117	181	2	34	110.8	9.5	63.5
Jul 31		194		8			108	240	4	22	109.5	9.0	64.2
TOTAL		27,361		1,358			107,251	2,330	240	437			
AVG.		883		44			3,460	75	8	14	102.2	8.7	62.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	13,469	2,910
SUMMER	47,927	2,013
TOTAL	61,396	4,923

SOCKEYE	STEELHEAD	SHAD	LAMPREY
152,963	2,466	259	442

TABLE 132

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — AUGUST 2009

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		90		5	0	0	79	213	0	34	83.9	6.3	63.9
Aug 2		146		6	0	0	29	328	4	30	59.5	5.5	65.4
Aug 3		111		9	0	0	19	278	1	28	84.6	8.1	65.8
Aug 4		277		5	0	0	22	328	0	45	90.0	7.6	66.4
Aug 5		139		3	0	0	17	309	-1	43	96.2	7.3	66.2
Aug 6		71		6	0	0	18	191	0	30	96.7	7.2	66.1
Aug 7		47		2	0	0	27	146	5	38	81.6	7.4	65.3
Aug 8		99		16	0	0	47	153	6	54	57.8	5.5	65.3
Aug 9		73		12	0	0	41	105	9	66	55.0	5.0	64.4
Aug 10		76		0	0	0	23	172	0	49	82.8	7.0	64.6
Aug 11		100		9	0	0	6	171	1	78	89.2	6.6	65.0
Aug 12		121		10	0	0	8	168	0	50	68.2	6.6	65.2
Aug 13		140		21	0	0	31	128	0	55	62.7	6.3	65.1
Aug 14			206	37	0	0	32	135	2	56	60.6	4.9	64.9
Aug 15			222	17	0	0	23	154	1	43	48.8	0.0	64.7
Aug 16			173	19	0	0	9	193	0	43	46.7	0.0	64.7
Aug 17			193	16	6	1	31	209	0	59	82.4	0.0	64.5
Aug 18			223	21	12	0	11	271	0	37	87.3	0.0	64.4
Aug 19			139	55	35	0	0	297	2	33	92.8	0.0	64.9
Aug 20			206	21	91	2	4	321	0	25	85.3	7.1	65.2
Aug 21			181	34	7	0	3	366	0	55	80.4	7.5	65.1
Aug 22			242	32	1	1	2	456	0	65	63.2	5.0	64.9
Aug 23			256	48	5	6	14	584	0	67	51.2	4.5	64.8
Aug 24			115	50	4	0	6	558	0	51	88.5	7.7	64.7
Aug 25			233	12	7	2	0	880	0	82	84.1	7.8	65.5
Aug 26			445	47	2	0	0	1,068	0	54	82.9	7.3	65.9
Aug 27			757	79	9	0	0	1,085	4	55	76.6	6.4	66.3
Aug 28			469	65	3	0	0	1,248	0	38	68.2	6.8	66.3
Aug 29			377	50	26	4	0	1,154	0	33	59.4	5.0	66.2
Aug 30			257	53	5	0	0	879	0	87	59.5	4.9	66.2
Aug 31			357	47	28	1	0	989	0	48	70.5	6.5	66.2
TOTAL		1,490	5,051	807	241	17	502	13,537	34	1,531			
AVG.		115	281	26	8	1	16	437	1	49	74.1	5.4	65.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	13,469	2,910
SUMMER	49,417	2,117
FALL	5,051	703
TOTAL	67,937	5,730

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
241	17	153,465	16,003	293	1,973

TABLE 133

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — SEPTEMBER 2009

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			694	83	16	1	1	989		39	58.0	0.0	67.6
Sep 2			861	59	140	30	0	1,380		81	64.2	0.0	68.0
Sep 3			1,362	171	156	11	0	1,775		24	51.2	0.0	68.3
Sep 4			1,092	182	104	2	0	1,573		34	58.8	0.0	67.8
Sep 5			683	164	95	8	0	1,408		42	46.4	0.0	67.8
Sep 6			817	108	43	2	0	932		14	50.0	0.0	67.5
Sep 7			889	109	94	4	0	767		34	47.9	0.0	67.1
Sep 8			701	73	64	9	0	685		26	61.1	0.0	66.7
Sep 9			916	140	116	17	0	908		29	46.1	0.0	66.8
Sep 10			976	130	124	9	0	779		28	51.4	0.0	66.5
Sep 11			747	126	119	0	0	697		46	36.4	0.0	66.8
Sep 12			1,522	160	57	1	0	720		28	44.0	0.0	67.0
Sep 13			842	136	112	12	0	584		15	35.4	0.0	67.2
Sep 14			954	97	156	13	0	494		35	41.7	0.0	67.7
Sep 15			1,074	113	211	29	0	529		10	52.3	0.0	67.2
Sep 16			699	153	112	1	0	497		13	46.8	0.0	67.0
Sep 17			657	275	66	6	0	617		20	58.7	0.0	66.8
Sep 18			717	129	101	2	0	442		20	62.0	0.0	66.5
Sep 19			1,112	108	120	4	0	439		17	31.2	0.0	66.3
Sep 20			976	154	209	4	0	508		7	45.3	0.0	65.9
Sep 21			492	80	79	2	0	306		7	62.2	0.0	65.6
Sep 22			437	84	132	5	0	384		12	66.1	0.0	65.8
Sep 23			473	94	174	2	0	392		10	75.5	0.0	66.0
Sep 24			393	96	143	4	0	285		23	66.8	0.0	66.5
Sep 25			409	99	81	1	0	337		20	56.1	0.0	66.1
Sep 26			620	97	103	0	0	374		43	55.0	0.0	65.8
Sep 27			512	126	95	3	0	359		14	51.0	0.0	65.3
Sep 28			395	50	74	0	0	222		3	60.7	0.0	64.9
Sep 29			444	53	101	3	0	304		12	55.6	0.0	64.5
Sep 30			449	75	148	2	0	279		5	51.9	0.0	63.6
TOTAL			22,915	3,524	3,345	187	1	19,965		711			
AVG.			764	117	112	6	0	666		24	53.0	0.0	66.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	13,469	2,910
SUMMER	49,417	2,117
FALL	27,966	4,227
TOTAL	90,852	9,254

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
3,586	204	153,466	35,968	293	2,684

TABLE 134

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — OCTOBER 2009

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			348	45	112	11		282	0	1	61.5	0.0	62.9
Oct 2			521	35	297	1		341	1	2	56.2	0.0	62.3
Oct 3			553	62	277	5		356	0	14	47.8	0.0	62.0
Oct 4			380	87	456	1		629	0	6	32.9	0.0	61.7
Oct 5			328	13	221	3		204	0	1	57.6	0.0	61.3
Oct 6			138	2	159	29		114	0	2	58.1	0.0	61.2
Oct 7			89	16	120	3		114	0	0	70.9	0.0	61.2
Oct 8			102	33	144	5		125	0	1	65.8	0.0	61.4
Oct 9			175	7	173	13		141	0	0	53.6	0.0	60.9
Oct 10			180	24	76	12		118	0	0	51.4	0.0	60.2
Oct 11			223	35	140	15		134	0	1	50.8	0.0	59.5
Oct 12			219	18	142	13		66	0	0	75.5	0.0	59.1
Oct 13			190	19	205	32		117	0	0	64.1	0.0	58.8
Oct 14			442	30	198	0		101	0	0	55.8	0.0	58.7
Oct 15			275	28	329	1		97	1	1	50.9	0.0	58.4
Oct 16			257	3	284	12		108	0	0	60.9	0.0	58.4
Oct 17			329	5	242	3		58	0	0	44.1	0.0	58.4
Oct 18			278	32	128	1		52	0	0	41.2	0.0	58.2
Oct 19			275	31	139	8		71	0	1	64.7	0.0	58.4
Oct 20			353	29	195	2		76	0	0	71.4	0.0	58.5
Oct 21			462	22	358	1		52	0	0	53.9	0.0	58.6
Oct 22			713	35	636	15		115	0	0	63.2	0.0	58.4
Oct 23			617	67	838	2		121	0	0	61.7	0.0	58.5
Oct 24			636	76	349	1		97	0	0	58.4	0.0	58.2
Oct 25			876	118	230	5		134	0	0	51.5	0.0	58.0
Oct 26			726	84	212	0		62	0	0	58.9	0.0	57.8
Oct 27			742	34	164	0		40	0	0	70.7	0.0	57.3
Oct 28			616	39	88	0		21	0	0	61.2	0.0	56.7
Oct 29			316	31	75	3		39	0	0	77.7	0.0	56.8
Oct 30			151	23	72	0		23	0	0	62.1	0.0	56.8
Oct 31			449	23	58	2		26	0	0	39.8	0.0	57.0
TOTALS			11,959	1,106	7,117	199		4,034	2	30			
AVG.			386	36	230	6		130	0	1	57.9	0.0	59.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	13,469	2,910
SUMMER	49,417	2,117
FALL	39,925	5,333
TOTAL	102,811	10,360

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
10,703	403	153,466	40,002	295	2,714

TABLE 135

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

PRIEST RAPIDS PROJECT- FISH COUNTS — NOVEMBER 2009

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			294	35	24	0		19			47.3	0.0	56.7
Nov 2			265	12	37	0		18			78.7	0.0	56.4
Nov 3			148	14	81	4		19			83.2	0.0	56.1
Nov 4			76	0	20	0		2			88.1	0.0	56.2
Nov 5			0	0	0	0		0			70.9	0.0	56.1
Nov 6			0	0	0	0		0			92.3	0.0	55.4
Nov 7			0	0	0	0		0			73.3	0.0	54.9
Nov 8			0	0	0	0		0			78.3	0.0	54.8
Nov 9			15	1	0	0		7			84.4	0.0	54.7
Nov 10			18	0	1	0		4			74.3	0.0	54.2
Nov 11			19	3	4	0		4			79.3	0.0	54.0
Nov 12			19	1	6	0		6			75.7	0.0	53.9
Nov 13			27	0	2	1		8			93.5	0.0	53.5
Nov 14			12	0	3	1		1			77.7	0.7	52.8
Nov 15			7	0	3	0		3			61.9	0.0	52.4
Nov 16											83.8	0.0	52.2
Nov 17											105.0	0.0	51.9
Nov 18											115.9	8.0	51.7
Nov 19											103.3	5.5	52.0
Nov 20											96.8	0.0	51.9
Nov 21											90.5	0.0	51.5
Nov 22											63.8	0.0	51.3
Nov 23											80.6	0.0	51.0
Nov 24											76.0	0.0	50.9
Nov 25											81.0	0.0	50.9
Nov 26											75.3	0.0	50.8
Nov 27											71.7	0.0	50.8
Nov 28											82.9	0.0	50.6
Nov 29											90.4	0.0	50.4
Nov 30											87.5	38.8	50.4
TOTALS			900	66	181	6		91					
AVG.			60	4	12	0		6			82.1	1.8	53.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	13,469	2,910
SUMMER	49,417	2,117
FALL	40,825	5,399
TOTAL	103,711	10,426

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
10,884	409	153,466	40,093	295	2,714

TABLE 136

YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
1982 - 2009

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
Totals	1,950,417	433,109	1,871,341	61,816	4,316,683
10-Year Average	116,833	18,858	88,647	5,866	230,204

***Jacks included**

TABLE 137

MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2009

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
TOTAL	40	56	288	4,040	8,951	7,076	62,772	180,673	268,409	69,187	4,283	63	605,838
10-Year Average				14	33	204	2,570	5,955	8,382	1,604	95		18,858

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 – Dec 31	Fishway in service.

Middle Ladder

Jan 1 – Feb 3	Fishway in service.
Feb 4 – Mar 1	Fishway out of service for 2008/2009 annual maintenance.
Mar 2 – Dec 31	Fishway in service.

Right Bank Ladder

Jan 1 – Feb 3	Fishway out of service for 2008/2009 annual maintenance.
Feb 4 – Dec 9	Fishway in service.
Dec 10 – Dec 31	Fishway out of service for 2009/2010 annual maintenance.

Fish Facility Activities

The Rock Island Bypass Trap was operated by Chelan County PUD Natural Resource Department employees from 1 April through 31 August 2009. Juvenile fish were sampled daily during that time period.

The adult fish PIT tag system was operational throughout the 2009 adult fish migration. PIT tag detections from all three fishways were uploaded daily to PTAGIS.

In 2009, the Chelan County PUD monitored passage of radio-tagged adult bull trout at the Rock Island Project and in the tributaries through 19 June. The purpose of the bull trout study was to assess the behavior of the fish as they migrated through the dam, associated pool and tributaries. Monitoring occurred from 16 May 2005 through 19 June 2009. A final report will be available in 2010.

From 9 June to 9 July 2009, the Chelan County PUD operated two to four Northern pikeminnow (*Ptychocheilus oregonensis*) traps in the upper and lower right bank fish ladder. A total of 2,131 pikeminnow were trapped and removed from the river.

TABLE 138

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				13	12,718	22,069	32,570	6,667	8,310	4,212	861		87,420
STEELHEAD				62	41	47	1,502	10,229	22,154	3,565	200		37,800
SOCKEYE					0	22,945	139,450	421	14	0			162,830
COHO								41	7,439	13,705	720		21,905
PINK													0
TOTAL				75	12,759	45,061	173,522	17,358	37,917	21,482	1,781		309,955
LAMPREY						0	20	213	138	4			375
BULL TROUT					8	25	26	1					60

TABLE 139

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

APRIL 2009

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												92.0	0.0	39.0
Apr 2												47.8	0.0	39.3
Apr 3												44.9	0.0	39.7
Apr 4												56.5	0.0	40.2
Apr 5												38.0	0.0	45.0
Apr 6												62.5	0.0	51.4
Apr 7												69.7	0.0	46.1
Apr 8												79.9	0.0	45.0
Apr 9												90.3	0.0	41.5
Apr 10												109.0	0.0	41.7
Apr 11												95.9	0.0	41.5
Apr 12												124.0	0.0	41.3
Apr 13												91.4	0.0	41.3
Apr 14	1							4	4			129.2	0.0	41.1
Apr 15	0							7	4			126.0	0.0	41.0
Apr 16	0							2	0			130.4	0.0	41.4
Apr 17	0							2	1			131.6	12.5	41.4
Apr 18	1							2	1			138.8	11.4	41.7
Apr 19	0							10	5			114.5	12.0	42.0
Apr 20	0							7	3			123.8	13.7	42.5
Apr 21	0							5	3			136.3	13.8	42.8
Apr 22	0							2	0			129.6	13.8	43.1
Apr 23	1							8	5			139.2	13.8	43.1
Apr 24	4							5	3			157.2	14.0	43.0
Apr 25	4							0	0			133.0	14.3	43.2
Apr 26	1							1	1			145.7	14.3	43.2
Apr 27	1							2	1			150.1	14.3	43.4
Apr 28	0							3	1			152.4	15.1	43.3
Apr 29	0							1	0			145.9	14.4	43.1
Apr 30	0							1	1			138.4	14.3	43.4
TOTAL	13							62	33					
AVG.	1							4	2			110.8	6.4	42.5

TABLE 140

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — MAY 2009

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	1			0				3	1	0		123.1	13.6	43.8
May 2	1			0				1	1	0		109.5	9.8	44.2
May 3	0			0				2	2	0		59.4	9.8	47.2
May 4	1			0				0	0	0		124.7	11.7	44.0
May 5	5			0				1	0	0		101.1	12.5	45.4
May 6	5			0				1	0	0		77.8	10.6	46.0
May 7	18			2				1	1	0		82.6	9.0	45.2
May 8	36			3				1	0	1		124.2	10.5	46.3
May 9	88			18				2	0	0		128.4	11.5	46.9
May 10	171			11				0	0	0		103.7	10.1	47.4
May 11	167			23				1	0	0		121.1	11.0	47.9
May 12	313			36				3	3	0		129.2	9.8	47.9
May 13	321			42				2	1	0		132.4	23.6	47.6
May 14	279			57				3	1	1		123.1	23.5	47.3
May 15	385			82				2	1	0		138.4	25.5	47.6
May 16	581			120				0	0	0		112.6	11.0	48.3
May 17	570			136				2	1	1		118.9	11.4	49.0
May 18	454			223				1	0	0		126.1	13.5	49.2
May 19	666			254				3	1	0		130.8	14.0	49.5
May 20	479			267				2	1	0		118.6	12.3	49.9
May 21	491			188				2	2	0		127.9	12.3	50.2
May 22	489			428				0	0	1		128.2	12.9	50.7
May 23	365			371				1	1	0		140.1	14.3	51.4
May 24	287			382				1	1	0		144.0	14.3	51.5
May 25	491			234				0	0	0		133.9	13.9	51.4
May 26	367			271				2	1	0		151.1	15.9	51.3
May 27	273			351				1	0	1		163.9	14.7	51.8
May 28	381			212				1	0	0		166.7	15.1	52.2
May 29	320			187				0	0	1		167.2	16.5	51.9
May 30	215			172				1	0	1		154.9	16.0	52.8
May 31	248			180				1	1	1		150.1	14.6	53.3
TOTAL	8,468			4,250				41	20	8				
AVG.	273			137				1	1	0		126.2	13.7	48.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	8,481	4,250

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
0	103	53	8

TABLE 141

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — JUNE 2009

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	303			201			0	0	0	1		152.9	17.2	53.0
Jun 2	219			143			0	1	1	0		155.2	16.5	53.3
Jun 3	163			115			0	1	0	0		181.5	16.4	53.7
Jun 4	173			115			0	1	1	0		186.8	19.1	53.9
Jun 5	160			110			0	3	2	0		178.3	19.1	53.7
Jun 6	196			90			1	0	0	1		155.5	17.1	54.3
Jun 7	165			79			0	1	1	1		159.8	16.2	55.2
Jun 8	156			85			0	1	1	2		177.0	17.7	55.3
Jun 9	105			41			1	1	0	0		172.0	17.1	55.5
Jun 10	191			68			0	0	0	1		170.4	34.1	55.6
Jun 11	201			63			2	4	4	0		157.7	31.1	56.2
Jun 12	175			74			9	0	0	3		155.7	32.4	56.5
Jun 13	300			99			7	1	0	1		144.3	25.5	57.0
Jun 14	394			108			18	2	1	1		115.5	23.5	57.3
Jun 15	393			96			59	2	2	0		103.5	30.2	57.6
Jun 16	459			107			62	0	0	1		110.1	24.1	58.1
Jun 17	401			159			101	2	1	1		136.6	28.3	58.5
Jun 18	525			162			154	0	0	1		157.3	30.7	59.1
Jun 19	636			126			355	0	0	3		156.5	29.8	58.5
Jun 20	746			128			382	1	0	1		147.7	30.8	57.7
Jun 21	995			139			928	0	0	1		147.4	23.9	57.9
Jun 22	579			100			646	3	2	3		164.3	30.0	57.9
Jun 23	1,127			126			684	1	1	0		163.8	31.0	57.3
Jun 24		645		103			1,012	1	1	0		156.1	32.0	57.5
Jun 25		1,184		157			2,086	4	4	1		148.3	31.3	58.4
Jun 26		1,450		196			2,076	0	0	1		147.9	28.7	58.6
Jun 27		1,341		231			2,880	2	1	1		145.7	25.7	58.8
Jun 28		1,156		163			2,950	3	2	0		148.2	22.9	59.3
Jun 29		2,085		258			3,684	4	2	0		160.1	28.9	59.5
Jun 30		1,644		160			4,848	8	3	0		115.2	23.3	59.0
TOTAL	8,762	9,505		3,802			22,945	47	30	25				
AVG.	381	1,358		127			765	2	1	1		152.4	25.1	56.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,243	6,784
SUMMER	9,505	1,268
TOTALS	26,748	8,052

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
22,945	150	83	33

TABLE 142

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — JULY 2009

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		1,402		160			7,160	4	1	1	0	78.5	22.7	59.5
Jul 2		739		116			5,690	8	4	0	0	97.6	18.1	59.6
Jul 3		1,137		190			7,663	3	2	1	0	80.5	16.6	60.5
Jul 4		1,648		217			10,504	6	3	2	0	77.4	14.3	61.5
Jul 5		1,969		198			8,713	16	8	0	0	75.3	15.5	61.9
Jul 6		1,174		187			9,829	11	6	0	1	107.5	20.7	62.1
Jul 7		2,143		309			11,190	20	12	3	0	146.4	26.7	62.0
Jul 8		1,804		206			11,649	14	9	4	0	121.5	24.6	61.5
Jul 9		964		177			9,113	19	12	3	0	133.4	26.6	61.3
Jul 10		664		135			7,158	30	19	1	0	133.7	26.7	61.4
Jul 11		871		143			7,643	21	13	2	0	127.5	19.2	61.5
Jul 12		1,094		161			7,186	21	8	0	0	105.8	18.9	61.5
Jul 13		1,128		116			7,646	16	9	0	0	126.4	23.7	61.7
Jul 14		1,292		244			5,404	21	14	0	0	121.4	24.0	61.8
Jul 15		1,330		138			5,361	47	30	0	1	110.1	24.0	62.3
Jul 16		774		159			3,363	41	22	0	0	101.8	22.4	62.7
Jul 17		580		118			2,603	52	27	0	0	105.0	22.7	63.2
Jul 18		686		162			2,165	41	26	1	2	85.8	18.8	63.6
Jul 19		446		89			1,949	38	21	0	0	78.7	16.6	63.8
Jul 20		504		115			1,586	63	39	1	2	101.3	21.5	64.4
Jul 21		385		102			1,388	48	26	0	2	104.9	20.4	64.9
Jul 22		620		136			976	79	41	0	3	89.1	18.4	64.8
Jul 23		549		123			855	71	35	3	0	82.9	18.0	65.5
Jul 24		360		93			549	60	32	1	0	88.6	19.1	65.2
Jul 25		492		101			513	79	42	0	1	83.4	18.1	65.1
Jul 26		546		109			398	68	35	1	1	90.5	15.7	65.0
Jul 27		411		102			312	83	46	1	1	115.4	22.5	64.4
Jul 28		583		176			291	110	63	1	1	117.7	22.2	64.7
Jul 29		769		178			261	129	59	0	2	112.7	23.3	65.3
Jul 30		558		158			204	140	76	0	1	109.4	23.3	65.2
Jul 31		250		80			128	143	75	0	2	109.4	22.6	64.9
TOTAL		27,872		4,698			139,450	1,502	815	26	20			
AVG.		899		152			4,498	48	26	1	1	103.9	20.9	63.0

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,243	6,784
SUMMER	37,377	5,966
TOTALS	54,620	12,750

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
162,395	1,652	898	59	20

TABLE 143

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS

AUGUST 2009

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		309		79	0	0	85	152	68	0	5	86.6	14.8	65.2
Aug 2		231		69	0	0	76	165	79	0	3	60.0	13.1	65.7
Aug 3		201		67	0	0	54	143	61	0	2	85.1	20.0	66.4
Aug 4		165		41	0	0	42	192	89	0	3	89.8	18.6	66.5
Aug 5		176		42	0	0	27	239	103	0	6	95.8	19.0	66.9
Aug 6		153		86	0	0	22	263	139	1	1	98.4	18.9	66.5
Aug 7		123		70	0	0	20	171	74	0	4	82.5	19.0	66.1
Aug 8		85		49	0	0	19	185	73	0	5	57.2	13.8	66.0
Aug 9		89		56	0	0	10	158	66	0	7	52.9	12.4	65.9
Aug 10		65		48	0	0	8	201	65	0	10	83.9	16.3	65.8
Aug 11		93		50	0	1	1	185	86	0	1	89.1	15.4	65.4
Aug 12		68		44	0	0	0	166	69	0	14	68.7	16.3	65.6
Aug 13		74		49	0	0	8	182	74	0	3	64.4	12.6	65.7
Aug 14		67		55	0	0	1	150	70	0	5	59.3	11.7	65.2
Aug 15		125		57	0	0	3	152	55	0	6	49.1	10.0	65.0
Aug 16		119		48	0	0	3	122	51	0	12	47.6	9.4	65.1
Aug 17		167		70	0	0	5	132	55	0	5	82.3	15.1	65.2
Aug 18		168		53	0	2	3	175	70	0	16	87.7	0.0	65.1
Aug 19		245		63	0	4	5	207	84	0	15	90.9	0.0	65.2
Aug 20		229		87	0	2	2	301	82	0	20	86.9	0.0	65.7
Aug 21		156		63	0	0	7	327	119	0	11	78.0	0.0	65.6
Aug 22		116		89	0	0	3	382	134	0	7	64.5	0.0	65.7
Aug 23		161		60	1	1	2	405	140	0	5	48.8	0.0	65.2
Aug 24		116		65	0	1	3	386	117	0	9	86.3	0.0	64.9
Aug 25		165		69	0	3	2	586	191	0	4	85.0	0.0	65.2
Aug 26		132		61	0	3	5	659	210	0	6	82.4	0.0	65.9
Aug 27		87		63	1	2	2	654	224	0	8	75.5	0.0	66.4
Aug 28		174		100	1	3	1	808	243	0	4	66.6	0.0	66.7
Aug 29		120		61	1	0	1	697	203	0	7	58.8	0.0	66.7
Aug 30		333		129	1	1	0	992	275	0	6	58.0	0.0	66.7
Aug 31		157		55	4	9	1	692	203	0	3	70.6	0.0	66.8
TOTAL		4,669		1,998	9	32	421	10,229	3,572	1	213			
AVG.		151		64		1	14	330	115	0	7	74.0	8.3	65.8

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,243	6,784
SUMMER	42,046	7,964
TOTALS	59,289	14,748

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
9	32	162,816	11,881	4,470	60	233

TABLE 144

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — SEPTEMBER 2009

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		185		68	4	12	1	856	273		5	58.7	0.0	
Sep 2			112	99	1	19	0	948	291		4	64.4	0.0	
Sep 3			193	55	29	19	4	1,038	274		8	50.4	0.0	
Sep 4			192	87	17	14	0	1,473	436		1	58.6	0.0	
Sep 5			247	82	26	6	0	1,361	416		9	47.0	0.0	
Sep 6			290	94	38	17	1	1,545	472		7	51.1	0.0	
Sep 7			336	82	101	56	3	1,747	452		5	46.8	0.0	
Sep 8			316	33	141	68	0	1,217	292		4	61.8	0.0	
Sep 9			220	60	92	41	1	883	254		6	47.7	0.0	
Sep 10			223	32	179	34	0	702	164		3	49.9	0.0	
Sep 11			192	76	99	25	2	717	204		9	37.8	0.0	
Sep 12			170	67	210	40	0	744	213		7	43.2	0.0	
Sep 13			246	76	186	42	0	666	205		8	35.8	0.0	
Sep 14			253	49	277	50	0	549	152		7	41.6	0.0	
Sep 15			313	66	218	47	0	628	168		4	50.3	0.0	
Sep 16			400	49	313	113	1	854	241		3	45.6	0.0	
Sep 17			266	80	212	33	0	659	219		6	57.8	0.0	
Sep 18			205	47	235	77	0	680	177		7	62.0	0.0	
Sep 19			171	59	159	48	0	399	120		4	32.1	0.0	
Sep 20			148	48	169	30	0	410	144		4	44.7	0.0	
Sep 21			236	57	343	52	0	469	125		1	60.6	0.0	
Sep 22			222	57	303	62	0	420	124		3	66.4	0.0	
Sep 23			186	72	265	72	0	518	177		7	76.1	0.0	
Sep 24			181	75	294	76	1	448	146		5	66.7	0.0	
Sep 25			136	74	327	76	0	493	182		4	55.9	0.0	
Sep 26			95	42	273	56	0	317	117		1	55.1	0.0	
Sep 27			148	62	359	69	0	332	117		2	50.6	0.0	
Sep 28			205	87	425	47	0	403	124		1	62.0	0.0	
Sep 29			162	31	382	44	0	320	86		3	55.4	0.0	
Sep 30			183	12	366	51	0	358	100		0	51.8	0.0	
TOTAL		185	6,247	1,878	6,043	1,396	14	22,154	6,465		138			
AVG.			215	63	201	47	0	738	216		5	52.9	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,243	6,784
SUMMER	42,231	8,032
FALL	6,247	1,810
TOTALS	65,721	16,626

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
6,052	1,428	162,830	34,035	10,935	60	371

TABLE 145

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — OCTOBER 2009

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			105	48	202	19		249	82		3	61.6	0.0	
Oct 2			86	33	186	14		203	67		1	56.5	0.0	
Oct 3			88	36	217	21		234	70		0	47.6	0.0	
Oct 4			70	27	321	21		271	90		0	33.2	0.0	
Oct 5			84	48	471	26		297	82		0	55.9	0.0	
Oct 6			116	42	545	14		223	54		0	58.1	0.0	
Oct 7			95	28	777	30		236	56		0	69.8	0.0	
Oct 8			39	17	362	18		118	40		0	67.0	0.0	
Oct 9			30	23	391	30		146	56		0	52.6	0.0	
Oct 10			24	14	369	14		122	36		0	50.5	0.0	
Oct 11			42	12	289	29		112	34		0	49.5	0.0	
Oct 12			38	12	300	22		88	27		0	75.1	0.0	
Oct 13			107	26	515	23		159	36		0	64.0	0.0	
Oct 14			86	13	516	18		152	41		0	55.7	0.0	
Oct 15			47	13	292	14		49	14		0	51.0	0.0	
Oct 16			49	12	367	12		51	24		0	60.2	0.0	
Oct 17			79	10	277	5		68	17		0	43.5	0.0	
Oct 18			57	18	354	7		52	21		0	42.6	0.0	
Oct 19			117	20	395	7		76	19		0	65.0	0.0	
Oct 20			111	32	361	13		76	18		0	71.3	0.0	
Oct 21			115	21	439	8		76	13		0	54.4	0.0	
Oct 22			46	12	313	15		37	10		0	62.5	0.0	
Oct 23			51	10	414	19		44	20		0	63.9	0.0	
Oct 24			241	43	704	23		43	20		0	58.9	0.0	
Oct 25			284	49	640	36		51	23		0	52.4	0.0	
Oct 26			233	30	912	49		76	24		0	58.7	0.0	
Oct 27			251	14	709	45		93	16		0	73.5	0.0	
Oct 28			357	22	639	30		68	14		0	61.1	0.0	
Oct 29			139	7	429	24		34	17		0	79.7	0.0	
Oct 30			117	18	198	8		31	17		0	61.8	0.0	
Oct 31			183	15	180	7		30	11		0	44.5	0.0	
TOTAL			3,487	725	13,084	621		3,565	1,069		4			
AVG.			112	23	422	20		115	34		0	58.1	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,243	6,784
SUMMER	42,231	8,032
FALL	9,734	2,535
TOTALS	69,208	17,351

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
19,136	2,049	162,830	37,600	12,004	60	375

TABLE 146

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCK ISLAND PROJECT- FISH COUNTS — NOVEMBER 2009

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			133	20	134	11		16	6			52.8	0.0	
Nov 2			130	6	118	3		23	7			82.6	0.0	
Nov 3			89	8	72	12		20	14			84.2	0.0	
Nov 4			143	13	82	6		25	12			90.2	0.0	
Nov 5			62	7	54	4		10	3			70.2	0.0	
Nov 6			36	8	45	1		13	7			89.6	0.0	
Nov 7			44	7	64	8		25	8			75.4	0.0	
Nov 8			28	5	29	1		14	7			78.3	0.0	
Nov 9			17	3	10	2		12	6			86.6	0.0	
Nov 10			26	5	23	1		4	1			75.2	0.0	
Nov 11			19	3	10	0		11	6			81.6	0.0	
Nov 12			16	4	17	1		7	3			76.2	0.0	
Nov 13			10	5	3	0		9	5			92.9	0.0	
Nov 14			6	2	5	1		4	1			78.4	0.0	
Nov 15			4	2	3	0		7	5			62.5	0.0	
Nov 16												81.2	0.0	
Nov 17												103.3	0.0	
Nov 18												101.4	0.0	
Nov 19												98.9	0.0	
Nov 20												78.5	0.0	
Nov 21												71.1	0.0	
Nov 22												56.7	0.0	
Nov 23												77.1	0.0	
Nov 24												88.7	0.0	
Nov 25												92.1	0.0	
Nov 26												66.3	0.0	
Nov 27												75.8	0.0	
Nov 28												84.1	0.0	
Nov 29												70.1	0.0	
Nov 30												90.7	0.0	
TOTAL			763	98	669	51		200	91					
AVG.			51	7	45	3		13	6			80.4	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	17,243	6,784
SUMMER	42,231	8,032
FALL	10,497	2,633
TOTALS	69,971	17,449

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
19,805	2,100	162,830	37,800	12,095	60	375

TABLE 147

MONTHLY COUNT OF STEELHEAD

ROCK ISLAND DAM 1981 - 2009

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
Total				1,844	2,169	3,536	39,611	116,226	187,252	54,255	5,300		410,193
10-Year Average				51	40	129	1,816	5,244	8,840	1,822	124		18,064

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 Mar 8	Fishway out of service for 2008/2009 annual maintenance.
Mar 9 to Nov 30	Fishway in service.
Dec 1 to Dec 31	Fishway out of service for 2009/2010 annual maintenance.

Fish Facility Activities

The adult fish PIT tag system was operational throughout the 2009 adult fish migration. PIT tag detections in the fishway were uploaded daily to PTAGIS.

In 2009, the Chelan County PUD monitored passage of radio-tagged adult bull trout at the Rocky Reach Project and in the tributaries through 19 June. The purpose of the bull trout study was to assess the behavior of the fish as they migrated through the dam, associated pool and tributaries. Monitoring occurred from 16 May 2005 through 19 June 2009. A final report will be available in 2010.

From 9 to 29 June 2009, the Chelan County PUD operated two Northern pikeminnow (*Ptychocheilus oregonensis*) traps in the upper fish ladder. A total of 505 pikeminnow were trapped and removed from the river.

The juvenile fish bypass system was operated for fish passage from 1 April to 31 August 2009. Juvenile fish sampling occurred over the same time frame. The annual bypass (biological) evaluation included an acoustic tag survival study and collection of data on species composition and fish condition.

TABLE 148

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				3	4,640	10,951	27,680	6,497	5,311	3,430	836		59,348
STEELHEAD				302	134	49	967	7,355	17,011	3,509	220		29,547
SOCKEYE					0	13,391	118,876	813	23	3			133,106
COHO								13	984	4,495	445		5,937
PINK													0
TOTAL				305	4,774	24,391	147,523	14,678	23,329	11,437	1,501		227,938
LAMPREY							13	155	105	4			277
BULL TROUT				1	15	43	21	1	1	0	1		83

TABLE 149

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS

APRIL 2009

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												86.7	2.5	38.8
Apr 2												47.2	0.0	38.9
Apr 3												45.1	0.0	39.1
Apr 4												57.0	0.0	39.3
Apr 5												36.5	0.0	39.5
Apr 6												62.8	0.0	39.8
Apr 7												69.1	0.0	40.2
Apr 8												81.2	0.0	40.7
Apr 9												88.4	0.0	41.0
Apr 10												107.6	0.0	41.0
Apr 11												95.1	0.0	40.8
Apr 12												120.3	0.0	40.9
Apr 13												91.1	0.0	40.8
Apr 14	0							16	10	1		130.0	0.0	40.6
Apr 15	0							28	14	0		123.7	0.0	40.7
Apr 16	0							15	10	0		133.3	0.0	40.8
Apr 17	0							18	7	0		128.2	0.0	41.0
Apr 18	0							17	9	0		136.1	2.2	41.3
Apr 19	0							29	11	0		109.3	0.0	41.5
Apr 20	0							30	16	0		123.1	0.2	41.9
Apr 21	0							29	20	0		131.0	0.0	42.3
Apr 22	1							23	10	0		122.2	0.1	42.5
Apr 23	0							13	5	0		133.8	0.3	42.7
Apr 24	0							24	8	0		151.1	13.6	42.6
Apr 25	0							20	11	0		127.6	0.0	42.6
Apr 26	0							13	3	0		139.6	0.0	42.7
Apr 27	1							9	3	0		144.2	2.3	43.0
Apr 28	0							6	3	0		146.0	0.3	42.8
Apr 29	1							6	0	0		142.4	0.0	42.7
Apr 30	0							6	3	0		133.0	0.0	43.0
TOTAL	3							302	143	1				
AVG.	0							18	8	0		108.1	0.7	41.2

TABLE 150

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — MAY 2009

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				2	1	0		118.3	0.0	43.4
May 2	0			0				6	2	0		103.5	0.0	44.0
May 3	0			0				13	9	0		56.4	0.0	44.3
May 4	0			0				13	6	0		123.5	0.0	44.7
May 5	0			0				4	2	0		95.5	0.0	45.1
May 6	0			0				2	1	0		73.6	0.0	45.5
May 7	2			0				3	2	0		81.6	0.0	45.6
May 8	4			0				3	2	0		121.0	0.0	46.0
May 9	7			0				7	4	0		120.9	0.0	46.6
May 10	43			1				5	1	0		98.1	0.0	46.9
May 11	53			5				6	1	0		118.4	0.0	47.4
May 12	80			4				3	2	0		124.1	0.0	47.5
May 13	63			9				8	3	0		125.9	0.0	47.0
May 14	135			16				1	0	0		119.4	0.0	46.9
May 15	120			3				1	1	0		133.4	0.0	47.4
May 16	141			6				7	4	1		108.4	0.0	47.9
May 17	172			8				4	2	1		112.1	0.0	48.4
May 18	252			21				2	1	0		118.2	0.0	48.6
May 19	165			11				2	1	2		120.6	0.0	49.3
May 20	411			21				5	1	2		109.6	0.0	49.8
May 21	177			104				6	2	0		119.5	0.0	50.0
May 22	236			14				6	4	1		121.8	0.0	50.5
May 23	336			112				2	2	1		133.3	0.0	51.1
May 24	194			26				2	1	0		135.4	0.0	51.1
May 25	184			99				2	2	1		125.8	0.0	50.7
May 26	254			20				1	1	0		140.3	0.0	51.1
May 27	247			16				4	3	0		154.5	0.0	51.8
May 28	240			27				2	2	3		156.8	0.0	51.9
May 29	156			21				3	1	0		158.0	0.0	52.0
May 30	209			36				7	4	1		142.0	0.0	52.7
May 31	151			28				2	0	2		136.2	0.0	52.9
TOTAL	4,032			608				134	68	15				
AVG.	130			20				4	2	0		119.5	0.0	48.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	WILD STEELHEAD	BULL TROUT
SPRING	4,035	608	436	211	16

TABLE 151

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — JUNE 2009

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	145			17			0	1	0	2	0	140.2	0.0	52.7
Jun 2	128			19			0	0	0	3	0	143.6	0.0	53.2
Jun 3	105			14			0	0	0	4	0	168.7	0.0	53.7
Jun 4	67			32			0	3	3	2	0	174.8	0.0	53.6
Jun 5	75			47			0	2	2	0	0	166.5	0.0	53.6
Jun 6	32			25			0	3	3	1	0	143.0	0.0	54.7
Jun 7	61			44			0	3	2	0	0	145.2	0.0	55.2
Jun 8	36			28			0	3	3	5	0	170.0	0.0	55.2
Jun 9	45			27			0	0	0	2	0	161.8	0.0	55.2
Jun 10	35			5			1	2	1	3	0	160.2	14.5	55.5
Jun 11	44			26			0	0	0	3	0	147.8	13.3	56.2
Jun 12	47			31			0	3	3	0	0	147.9	13.5	56.4
Jun 13	69			11			3	2	2	3	0	132.8	11.0	57.0
Jun 14	59			21			3	3	1	0	0	104.8	9.7	57.3
Jun 15	135			26			8	1	0	2	0	94.1	13.0	57.7
Jun 16	201			32			33	2	2	2	0	104.5	12.7	58.0
Jun 17	184			20			48	1	1	1	0	129.9	11.8	58.7
Jun 18	258			22			70	4	3	0	1	150.2	13.0	58.7
Jun 19	329			31			122	2	2	3	0	149.2	12.7	57.9
Jun 20	307			48			193	2	2	1	0	140.5	12.6	57.5
Jun 21	438			66			309	2	2	0	0	143.4	10.3	58.0
Jun 22	471			40			347	0	0	0	0	161.6	34.2	57.5
Jun 23	140			21			243	1	1	0	0	159.4	15.2	57.0
Jun 24		387		32			354	2	2	1	0	153.7	13.6	57.5
Jun 25		925		57			939	1	0	0	0	146.6	14.0	58.2
Jun 26		674		83			1,562	1	1	1	0	146.2	12.5	58.4
Jun 27		1,117		58			2,093	3	2	0	0	141.4	11.2	58.6
Jun 28		1,056		109			2,335	0	0	1	0	144.8	10.0	59.1
Jun 29		776		84			1,975	1	1	0	0	157.8	19.9	59.3
Jun 30		1,351		178			2,753	1	1	3	0	108.4	12.5	58.7
TOTAL	3,411	6,286		1,254			13,391	49	40	43	1			
AVG.	148	898		42			446	2	1	1	0	144.6	9.7	56.7

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,446	1,261
SUMMER	6,286	601
TOTALS	13,732	1,862

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
13,391	485	251	59	1

TABLE 152

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — JULY 2009

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		1,163		163			3,669	2	1	0	0	73.2	8.5	58.9
Jul 2		990		150			5,775	5	1	0	0	96.1	7.6	59.3
Jul 3		613		105			5,216	5	3	1	0	76.0	7.4	60.3
Jul 4		831		80			6,026	2	1	1	0	74.7	6.7	61.0
Jul 5		1,047		119			5,370	2	1	1	0	72.7	5.6	61.3
Jul 6		929		149			8,588	6	4	0	0	107.1	10.4	61.5
Jul 7		1,065		203			8,212	13	6	1	0	142.4	11.8	61.4
Jul 8		1,549		299			8,830	9	5	0	0	120.4	14.0	61.1
Jul 9		1,170		210			9,927	15	10	0	0	132.6	11.2	60.8
Jul 10		831		148			7,453	11	6	0	0	132.9	10.6	60.9
Jul 11		650		62			6,039	13	6	0	0	123.1	8.1	60.8
Jul 12		658		121			6,330	24	12	2	0	104.8	7.1	61.0
Jul 13		986		111			6,087	23	12	0	0	122.2	9.9	61.2
Jul 14		1,022		117			6,684	16	10	2	1	118.2	9.7	61.5
Jul 15		1,119		134			4,484	23	16	0	0	107.4	9.3	61.9
Jul 16		985		123			4,208	20	11	1	0	103.1	9.0	62.2
Jul 17		850		74			3,052	38	19	0	0	103.5	9.0	62.7
Jul 18		502		79			2,377	22	12	1	1	81.9	7.1	62.8
Jul 19		760		101			2,199	37	17	1	0	79.1	7.1	63.4
Jul 20		414		97			1,573	33	18	4	1	103.3	8.6	64.0
Jul 21		443		99			1,316	33	14	0	1	103.4	8.8	64.5
Jul 22		306		81			1,101	30	21	0	2	86.2	7.4	64.5
Jul 23		687		92			948	44	26	0	1	82.4	6.8	64.7
Jul 24		531		99			847	62	31	0	1	87.4	7.3	64.7
Jul 25		444		38			357	37	13	1	2	81.8	7.1	64.4
Jul 26		300		68			485	45	21	1	0	90.0	6.3	63.8
Jul 27		653		127			391	56	24	0	2	115.0	9.0	63.7
Jul 28		370		91			454	59	25	2	0	116.2	9.1	64.3
Jul 29		736		122			346	81	32	2	0	111.4	9.6	64.6
Jul 30		739		114			299	105	55	0	0	110.8	9.5	63.5
Jul 31		659		102			233	96	49	0	1	109.5	9.0	64.2
TOTALS		24,002		3,678			118,876	967	482	21	13			
AVG.		774		119			3,835	31	16	1	0	102.2	8.7	62.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,446	1,261
SUMMER	30,288	4,279
TOTAL	37,734	5,540

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
132,267	1,452	733	80	14

TABLE 153

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — AUGUST 2009

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		333		85	0	0	212	79	54	0	0	83.9	6.3	63.9
Aug 2		358		38	0	0	146	131	55	0	3	59.5	5.5	65.4
Aug 3		217		70	0	0	86	143	66	0	0	84.6	8.1	65.8
Aug 4		250		42	0	0	52	135	64	0	3	90.0	7.6	66.4
Aug 5		202		51	0	0	55	140	69	0	5	96.2	7.3	66.2
Aug 6		185		33	0	0	36	168	72	0	3	96.7	7.2	66.1
Aug 7		231		57	0	0	33	173	70	0	4	81.6	7.4	65.3
Aug 8		163		33	0	0	17	142	64	0	8	57.8	5.5	65.3
Aug 9		110		28	0	0	15	128	55	0	2	55.0	5.0	64.4
Aug 10		76		29	0	0	18	149	64	0	3	82.8	7.0	64.6
Aug 11		115		39	0	0	7	138	48	0	2	89.2	6.6	65.0
Aug 12		144		19	0	0	14	146	63	0	4	68.2	6.6	65.2
Aug 13		84		27	0	0	5	122	56	0	8	62.7	6.3	65.1
Aug 14		70		26	0	0	7	84	33	0	2	60.6	4.9	64.9
Aug 15		143		44	0	0	6	171	58	0	1	48.8	0.0	64.7
Aug 16		170		34	0	0	3	82	32	0	6	46.7	0.0	64.7
Aug 17		123		44	0	0	6	131	54	0	2	82.4	0.0	64.5
Aug 18		160		40	0	0	9	123	44	0	4	87.3	0.0	64.4
Aug 19		183		38	0	0	6	147	59	0	7	92.8	0.0	64.9
Aug 20		120		55	0	0	10	160	62	0	2	85.3	7.1	65.2
Aug 21		182		41	0	1	9	241	87	0	9	80.4	7.5	65.1
Aug 22		192		79	0	0	9	245	88	0	7	63.2	5.0	64.9
Aug 23		116		33	0	0	1	265	97	0	6	51.2	4.5	64.8
Aug 24		185		69	0	0	9	330	99	0	14	88.5	7.7	64.7
Aug 25		183		35	0	0	6	381	126	0	9	84.1	7.8	65.5
Aug 26		131		27	0	1	8	439	147	0	2	82.9	7.3	65.9
Aug 27		89		37	0	2	7	477	146	0	10	76.6	6.4	66.3
Aug 28		124		43	0	1	3	536	168	1	11	68.2	6.8	66.3
Aug 29		141		36	1	3	8	501	171	0	7	59.4	5.0	66.2
Aug 30		100		31	0	0	5	502	155	0	4	59.5	4.9	66.2
Aug 31		295		59	1	3	5	746	224	0	7	70.5	6.5	66.2
TOTAL		5,175		1,322	2	11	813	7,355	2,650	1	155			
AVG.		167		43	0	0	26	237	85	0	5	74.1	5.4	65.3

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,446	1,261
SUMMER	35,463	5,601
TOTALS	42,909	6,862

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2	11	133,080	8,807	3,383	81	169

TABLE 154

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — SEPTEMBER 2009

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		176		58	2	0	3	560	168	0	6	58.0	0.0	
Sep 2			118	50	4	9	2	718	218	0	6	64.2	0.0	
Sep 3			80	53	0	0	3	823	242	0	6	51.2	0.0	
Sep 4			60	52	0	0	1	816	254	0	6	58.8	0.0	
Sep 5			91	59	0	0	1	814	249	0	2	46.4	0.0	
Sep 6			85	50	3	5	1	853	259	0	4	50.0	0.0	
Sep 7			129	54	0	0	0	1164	324	0	1	47.9	0.0	
Sep 8			422	91	3	7	3	1022	279	0	5	61.1	0.0	
Sep 9			65	42	13	11	1	983	263	0	5	46.1	0.0	
Sep 10			74	36	9	0	2	549	132	0	3	51.4	0.0	
Sep 11			163	49	10	7	1	501	141	0	2	36.4	0.0	
Sep 12			59	41	14	3	2	470	113	0	1	44.0	0.0	
Sep 13			71	32	26	19	0	569	167	0	3	35.4	0.0	
Sep 14			212	75	18	6	0	556	157	0	5	41.7	0.0	
Sep 15			173	39	44	22	0	659	193	1	3	52.3	0.0	
Sep 16			202	67	21	10	0	609	150	0	5	46.8	0.0	
Sep 17			167	58	12	7	0	611	171	0	3	58.7	0.0	
Sep 18			71	31	22	2	0	664	178	0	6	62.0	0.0	
Sep 19			89	40	12	6	1	386	105	0	7	31.2	0.0	
Sep 20			320	67	22	4	0	446	127	0	0	45.3	0.0	
Sep 21			50	23	41	5	1	310	86	0	4	62.2	0.0	
Sep 22			86	31	44	3	0	465	122	0	3	66.1	0.0	
Sep 23			234	39	50	5	0	384	106	0	2	75.5	0.0	
Sep 24			72	32	45	5	0	347	106	0	1	66.8	0.0	
Sep 25			95	48	65	14	1	343	104	0	2	56.1	0.0	
Sep 26			117	55	62	1	0	364	103	0	4	55.0	0.0	
Sep 27			59	40	57	14	0	265	81	0	7	51.0	0.0	
Sep 28			106	52	63	12	0	250	73	0	2	60.7	0.0	
Sep 29			132	45	84	5	0	252	75	0	0	55.6	0.0	
Sep 30			90	34	56	0	0	258	77	0	1	51.9	0.0	
TOTAL		176	3,692	1,443	802	182	23	17,011	4,823	1	105			
AVG.			127	48	27	6	1	567	161	0	4	53.0	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,446	1,261
SUMMER	35,639	5,659
FALL	3,692	1,385
TOTALS	46,777	8,305

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
804	193	133,103	25,818	8,206	82	274

TABLE 155

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — OCTOBER 2009

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			74	22	63	8	0	215	73		2	61.5	0.0	
Oct 2			73	22	71	10	0	231	85		0	56.2	0.0	
Oct 3			66	21	72	7	0	224	67		0	47.8	0.0	
Oct 4			172	28	72	13	0	164	49		0	32.9	0.0	
Oct 5			35	10	71	1	0	137	40		1	57.6	0.0	
Oct 6			14	7	79	2	0	182	49		0	58.1	0.0	
Oct 7			19	28	120	5	0	271	89		0	70.9	0.0	
Oct 8			30	29	153	7	1	232	77		0	65.8	0.0	
Oct 9			44	11	173	4	0	161	49		0	53.6	0.0	
Oct 10			27	27	136	4	0	144	53		0	51.4	0.0	
Oct 11			24	18	125	2	0	136	42		0	50.8	0.0	
Oct 12			36	10	81	2	0	58	14		0	75.5	0.0	
Oct 13			36	9	136	6	0	115	33		0	64.1	0.0	
Oct 14			28	10	127	7	0	104	32		0	55.8	0.0	
Oct 15			44	19	151	6	0	138	55		0	50.9	0.0	
Oct 16			34	12	112	5	0	90	29		0	60.9	0.0	
Oct 17			37	8	155	4	0	67	28		0	44.1	0.0	
Oct 18			99	29	174	4	0	95	36		0	41.2	0.0	
Oct 19			219	31	169	3	0	98	47		0	64.7	0.0	
Oct 20			97	22	146	2	1	77	42		0	71.4	0.0	
Oct 21			43	11	179	0	0	68	25		0	53.9	0.0	
Oct 22			57	12	139	0	1	48	19		0	63.2	0.0	
Oct 23			62	16	107	1	0	49	18		1	61.7	0.0	
Oct 24			86	18	154	2	0	44	14		0	58.4	0.0	
Oct 25			164	17	179	1	0	57	26		0	51.5	0.0	
Oct 26			218	36	216	2	0	45	18		0	58.9	0.0	
Oct 27			238	24	275	4	0	71	40		0	70.7	0.0	
Oct 28			202	18	206	7	0	59	35		0	61.2	0.0	
Oct 29			184	18	210	4	0	32	11		0	77.7	0.0	
Oct 30			192	11	198	3	0	48	18		0	62.1	0.0	
Oct 31			195	27	119	1	0	49	20		0	39.8	0.0	
TOTAL			2,849	581	4,368	127	3	3,509	1,233		4			
AVG.			92	19	141	4	0	113	40		0	57.9	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,446	1,261
SUMMER	35,639	5,659
FALL	6,541	1,966
TOTALS	49,626	8,886

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
5,172	320	133,106	29,327	9,439	82	278

TABLE 156

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROCKY REACH PROJECT- FISH COUNTS — NOVEMBER 2009

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			259	15	110	0		35	20	0		47.3	0.0	
Nov 2			119	9	60	0		23	10	1		78.7	0.0	
Nov 3			75	12	46	0		27	13	0		83.2	0.0	
Nov 4			68	7	38	0		19	9	0		88.1	0.0	
Nov 5			71	2	40	4		10	3	0		70.9	0.0	
Nov 6			42	6	30	0		23	13	0		92.3	0.0	
Nov 7			25	4	22	0		14	9	0		73.3	0.0	
Nov 8			8	0	40	0		7	6	0		78.3	0.0	
Nov 9			30	3	15	0		10	5	0		84.4	0.0	
Nov 10			18	0	9	1		10	5	0		74.3	0.0	
Nov 11			10	2	9	0		9	5	0		79.3	0.0	
Nov 12			12	0	5	0		6	5	0		75.7	0.0	
Nov 13			21	2	10	0		10	6	0		93.5	0.0	
Nov 14			7	1	2	1		8	4	0		77.7	0.7	
Nov 15			6	2	3	0		9	6	0		61.9	0.0	
Nov 16												83.8	0.0	
Nov 17												105.0	0.0	
Nov 18												100.9	0.0	
Nov 19												98.4	0.0	
Nov 20												77.4	0.0	
Nov 21												71.0	0.0	
Nov 22												55.9	0.0	
Nov 23												77.6	0.0	
Nov 24												88.8	0.0	
Nov 25												92.3	0.0	
Nov 26												63.7	0.0	
Nov 27												75.8	0.0	
Nov 28												82.5	0.1	
Nov 29												69.4	0.0	
Nov 30												90.4	0.0	
TOTAL			771	65	439	6		220	119	1				
AVG.			51	4	29	0		15	8	0		79.7	0.0	

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	7,446	1,261
SUMMER	35,639	5,659
FALL	7,312	2,031
TOTALS	50,397	8,951

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
5,611	326	133,106	29,547	9,558	83	278

TABLE 157

MONTHLY COUNT OF STEELHEAD

ROCKY REACH DAM: 1981 - 2009

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
Total				2,520	2,091	2,415	23,969	79,231	134,943	45,697	5,524		296,390
10-Year Average				162	76	92	1,150	3,848	6,780	1,865	208		14,180

WELLS DAM

FISH COUNTING SCHEDULE

Adult counting schedules at Wells are from May 1 through November 15. Fish passage is assessed by reviewing a videotape record made the previous day. Passage by species and ladder is made for each hour of the day. Counts between 1967 and 1997 were reported for 16 hours (0500 – 2100 PST). Starting in 1998, as per the request of the Wells Coordinating Committee, counts were reported in a 24 hour (0000 – 2400) format. Either format is available upon request from Douglas PUD. Chinook are separated into three populations based upon date of passage through the ladders. Spring Chinook pass from May 1 through June 28, summer Chinook between June 29 and August 28, and fall Chinook from August 29 through November 15.

FISH LADDER OPERATING SCHEDULE

East Ladder

December 22 – 31	Outage for Inspection and Maintenance (Outage will extend into 2010)

West Ladder

February 4 – 10	Outage for Inspection and Bi-Annual Maintenance

JUVENILE PASSAGE FACILITES

The juvenile bypass at Wells Dam uses the hydrocombine design of the dam by modifying five of the eleven spill bays. The even numbered spill bays are partially constricted with barriers that improve the attraction flow from the forebay into the spill bay area. Up to 11,000 cfs of water is made available for bypass flow during the juvenile migration.

The operation of the bypass in 2008 was coordinated with the Wells Habitat Conservation Plan Coordinating Committee. In the past, hydroacoustics and fyke netting have provided information on real time data of the fish migration. The fixed dates agreed to by the HCP Coordinating Committee were established from 21 years of hydroacoustic and 14 years of species composition information collected on juvenile run patterns at Wells Dam.

The spring bypass season started on April 12th at 0000 hours and ran continuously through June 13th at 2400 hours. The spring bypass operated for a total of 63 days and utilized a total discharge of 1.09 MAF, or 6.5 percent of total project discharge. During the spring bypass operation, there was forced spill during 22 hours or 1.5 percent of the season. Summer bypass started on June 14th at 0000 hours and ran until August 26th at 2400 hours, for a total of 74 days. There was 1.08 MAF, or 7.2 percent of the total discharge dedicated to summer bypass. During the summer bypass operating period, there were 18 hours or 1.0 percent of the hours with forced spill.

TABLE 158

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER WELLS DAM
2009

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					3,123	6,200	21,958	6,860	3,762	1,911	213		44,027
STEELHEAD					70	37	502	4,777	15,992	3,813	252		25,443
SOCKEYE						7,154	126,162	1,573	46	2			134,937
COHO									210	2,368	436		3,014
TOTAL					3,193	13,391	148,622	13,210	20,010	8,094	901		207,421
LAMPREY							2	7	0	0			9
BULL TROUT					4	30	8	1					43

***Jacks included**

TABLE 159

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS

MAY 2009

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				5	2	0		122.6	8.6	44.0
May 2	0			0				3	0	0		101.6	7.5	44.2
May 3	0			0				5	3	0		59.2	4.8	44.5
May 4	0			0				3	2	0		128.2	8.6	45.0
May 5	0			0				2	1	0		98.2	6.7	45.0
May 6	0			0				2	2	0		74.1	5.5	45.6
May 7	0			0				1	0	0		87.1	6.2	45.9
May 8	0			0				4	3	0		128.8	8.2	46.2
May 9	0			0				2	1	0		119.4	8.2	46.6
May 10	1			0				3	2	0		103.2	7.0	46.7
May 11	0			0				2	1	0		122.6	8.3	46.7
May 12	2			0				6	4	0		126.3	8.6	46.7
May 13	3			0				1	1	0		131.2	8.7	46.9
May 14	31			4				2	2	0		127.3	9.0	47.2
May 15	11			3				2	2	0		137.8	8.9	47.5
May 16	27			6				2	2	0		110.8	7.6	47.5
May 17	57			11				4	3	0		116.6	7.7	48.3
May 18	18			3				1	1	0		120.7	8.3	49.1
May 19	69			24				2	1	0		121.1	8.7	49.4
May 20	44			26				3	2	0		116.3	8.0	49.8
May 21	246			82				4	3	0		117.9	8.8	50.3
May 22	212			42				1	0	0		130.6	8.0	50.3
May 23	286			32				2	2	0		138.0	8.4	49.9
May 24	143			15				0	0	2		135.4	8.6	50.0
May 25	315			62				3	3	0		134.5	8.5	51.0
May 26	72			48				1	1	0		144.0	8.8	51.4
May 27	134			143				2	2	1		158.8	10.0	51.3
May 28	135			94				0	0	0		156.5	10.0	51.6
May 29	124			162				1	1	0		158.0	9.5	52.1
May 30	64			132				0	0	1		144.7	9.5	51.9
May 31	99			141				1	1	0		140.7	8.6	52.2
TOTAL	2,093			1,030				70	48	4				
AVG.	68			33				2	2	0		123.0	8.2	48.2

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	STEELHEAD	WILD STEELHEAD	BULL TROUT
SPRING	2,093	1,030	70	48	4

TABLE 160

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — JUNE 2009

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	20			58			0	3	3	1		144.2	9.0	53.0
Jun 2	66			73			0	0	0	0		148.1	9.1	53.4
Jun 3	22			82			0	2	1	2		174.6	10.0	52.9
Jun 4	55			141			0	1	0	0		179.3	10.4	53.3
Jun 5	80			67			0	0	0	3		170.4	10.0	54.8
Jun 6	37			31			0	0	0	2		146.7	10.0	54.9
Jun 7	42			19			0	2	2	2		148.2	9.2	55.0
Jun 8	41			10			0	2	1	0		174.7	10.0	54.8
Jun 9	55			38			0	0	0	1		163.5	10.0	55.3
Jun 10	36			32			0	2	1	2		164.1	10.0	55.8
Jun 11	40			39			0	3	3	1		149.1	9.4	56.1
Jun 12	51			17			0	0	0	1		149.5	9.2	56.5
Jun 13	41			5			0	3	1	2		130.7	9.5	56.8
Jun 14	30			5			0	1	1	1		96.7	7.4	56.7
Jun 15	15			5			2	1	1	1		97.3	7.1	57.7
Jun 16	17			13			3	2	2	2		104.4	7.7	57.8
Jun 17	99			14			8	0	0	3		126.9	7.7	57.6
Jun 18	65			29			22	0	0	0		152.3	9.5	56.8
Jun 19	95			19			22	1	1	1		148.9	10.0	57.2
Jun 20	145			12			66	0	0	1		141.3	9.4	57.4
Jun 21	347			4			116	4	3	2		147.1	9.3	56.9
Jun 22	212			3			69	4	3	0		169.2	14.9	56.7
Jun 23	204			15			205	1	1	1		156.7	10.6	57.4
Jun 24	276			14			270	1	1	0		161.2	10.0	57.7
Jun 25	391			17			367	0	0	0		153.1	10.0	58.0
Jun 26	548			23			314	2	2	0		149.9	9.1	58.3
Jun 27	652			39			752	1	1	1		145.5	7.5	58.7
Jun 28	532			13			1,182	0	0	0		147.4	8.6	58.4
Jun 29		739		26			1,511	0	0	0		161.6	9.9	57.9
Jun 30		357		27			2,245	1	0	0		98.1	7.6	58.7
TOTAL	4,214	1,096		890			7,154	37	28	30				
AVG.	151	548		30			238	1	1	1		146.7	9.4	56.4

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,307	1,867
SUMMER	1,096	53
TOTAL	7,403	1,920

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT
7,154	107	76	34

TABLE 161

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — JULY 2009

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		503		28			2,482	2	1	1	0	77.1	6.9	59.6
Jul 2		1,606		75			2,501	0	0	0	0	93.5	7.7	59.7
Jul 3		1,716		94			3,501	2	2	0	0	74.5	6.1	59.9
Jul 4		1,153		129			6,765	3	2	1	0	80.3	5.8	60.4
Jul 5		1,334		113			6,916	4	3	1	0	69.9	5.4	60.4
Jul 6		457		44			5,306	4	3	0	0	111.5	7.6	60.4
Jul 7		543		58			6,007	3	0	0	0	140.2	9.0	60.2
Jul 8		664		72			6,400	3	2	1	0	125.6	8.3	60.3
Jul 9		1,251		66			7,729	6	6	0	0	141.8	8.5	60.1
Jul 10		633		77			8,968	6	3	1	0	131.6	8.9	60.1
Jul 11		662		88			9,699	7	6	0	0	126.1	8.6	60.4
Jul 12		1,185		137			7,467	11	6	0	0	104.8	7.9	60.9
Jul 13		418		43			6,754	5	4	1	0	124.4	8.6	61.2
Jul 14		158		54			6,355	11	7	1	0	112.7	7.3	61.3
Jul 15		374		80			5,318	13	9	0	0	113.3	7.8	61.6
Jul 16		621		92			6,136	12	5	0	0	106.4	7.1	61.7
Jul 17		863		144			5,707	16	9	0	0	99.3	7.6	62.7
Jul 18		1,139		100			4,225	17	11	0	0	79.5	7.4	63.3
Jul 19		411		93			4,034	16	10	0	0	75.3	7.8	63.8
Jul 20		124		61			2,745	12	7	0	0	108.2	7.7	63.6
Jul 21		147		72			2,038	19	7	0	0	104.0	7.8	63.4
Jul 22		278		74			1,802	22	12	1	0	84.3	6.6	63.4
Jul 23		1,041		130			1,814	41	15	0	0	84.6	7.0	63.3
Jul 24		502		61			1,160	19	9	0	0	88.4	7.3	62.6
Jul 25		157		67			1,031	19	6	0	0	82.5	6.4	62.7
Jul 26		231		52			899	35	10	0	0	93.8	7.5	63.2
Jul 27		352		59			631	20	13	0	0	116.9	8.8	63.5
Jul 28		102		41			470	36	12	0	0	117.7	8.4	63.0
Jul 29		113		33			354	27	10	0	1	107.2	7.7	63.1
Jul 30		232		66			519	47	23	0	0	111.2	8.3	63.6
Jul 31		602		83			429	64	25	0	1	110.7	8.2	64.3
TOTAL		19,572		2,386			126,162	502	238	8	2			
AVG.		631		77			4070	16	8	0	0	103.1	7.6	61.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,307	1,867
SUMMER	20,668	2,439
TOTAL	26,975	4,306

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
133,316	609	314	42	2

TABLE 162

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — AUGUST 2009

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		107		68			280	24	15	0	0	77.5	6.8	64.9
Aug 2		352		118			234	53	19	1	0	60.1	6.2	65.2
Aug 3		346		106			167	74	29	0	0	83.5	7.2	65.5
Aug 4		450		75			133	52	22	0	0	91.9	7.1	65.6
Aug 5		189		39			82	43	26	0	0	99.2	7.8	65.2
Aug 6		113		54			79	61	18	0	0	98.7	7.4	64.4
Aug 7		15		22			34	33	13	0	0	79.4	6.0	63.8
Aug 8		103		28			43	88	37	0	0	57.6	4.5	64.3
Aug 9		307		93			76	126	50	0	0	59.4	5.2	64.9
Aug 10		257		45			69	76	50	0	0	83.3	6.3	64.7
Aug 11		89		28			57	72	31	0	0	90.7	7.4	64.5
Aug 12		153		31			48	47	22	0	0	68.8	6.5	64.4
Aug 13		87		27			21	87	36	0	0	63.7	6.2	64.2
Aug 14		173		46			16	121	51	0	0	58.3	5.0	63.6
Aug 15		244		52			9	135	78	0	0	48.8	4.6	63.6
Aug 16		287		52			21	77	27	0	0	49.2	3.9	64.2
Aug 17		257		57			27	121	36	0	0	82.4	6.8	64.2
Aug 18		268		53			28	111	38	0	2	88.4	6.3	64.4
Aug 19		193		37			15	120	32	0	1	95.5	7.6	64.2
Aug 20		43		19			14	126	48	0	0	85.0	5.8	63.9
Aug 21		57		24			11	122	56	0	0	80.1	6.0	64.0
Aug 22		140		37			17	108	45	0	1	61.9	4.9	65.1
Aug 23		278		55			33	217	86	0	1	52.9	4.6	65.7
Aug 24		280		59			20	234	97	0	0	90.9	7.2	66.0
Aug 25		68		22			4	122	64	0	2	81.4	6.5	66.1
Aug 26		39		24			4	200	69	0	0	80.8	7.0	65.8
Aug 27		62		34			1	354	103	0	0	82.6	0.0	65.6
Aug 28		100		56			9	405	153	0	0	66.6	0.0	65.3
Aug 29			128	69			7	497	168	0	0	61.8	0.0	65.7
Aug 30			108	47			11	397	119	0	0	57.6	0.0	66.3
Aug 31			54	36			3	474	201	0	0	72.5	0.0	66.4
TOTAL		5,057	290	1,513			1,573	4,777	1,839	1	7			
AVG.		181	97	49			51	154	59	0	0	74.5	5.2	64.9

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,307	1,867
SUMMER	25,725	3,800
FALL	290	152
TOTAL	32,322	5,819

SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
134,889	5,386	2,153	43	9

TABLE 163

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — SEPTEMBER 2009

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			155	68	0	0	4	426	134			61.1	0.0	66.8
Sep 2			97	101	0	0	7	712	227			61.9	0.0	66.8
Sep 3			185	59	0	0	6	569	173			55.9	0.0	66.7
Sep 4			109	62	0	0	0	524	185			57.1	0.0	66.8
Sep 5			53	116	0	0	2	697	248			48.1	0.0	66.2
Sep 6			211	88	0	0	1	562	200			48.1	0.0	65.8
Sep 7			155	65	0	0	2	885	258			53.7	0.0	65.7
Sep 8			46	80	0	0	2	860	241			55.6	0.0	65.4
Sep 9			56	90	0	0	1	524	150			47.4	0.0	65.3
Sep 10			180	82	0	0	7	923	287			49.9	0.0	65.7
Sep 11			75	76	0	0	6	1136	450			36.6	0.0	66.2
Sep 12			46	60	1	0	0	793	253			46.6	0.0	65.8
Sep 13			76	34	2	0	2	617	197			35.5	0.0	65.8
Sep 14			31	33	0	0	1	298	104			43.1	0.0	66.0
Sep 15			70	39	4	0	0	387	164			51.1	0.0	65.6
Sep 16			36	47	0	0	2	472	123			49.0	0.0	66.0
Sep 17			49	44	6	0	0	579	194			58.9	0.0	66.1
Sep 18			85	54	7	0	0	790	254			61.4	0.0	65.9
Sep 19			143	51	12	0	0	491	153			33.4	0.0	65.8
Sep 20			48	19	12	0	0	408	113			44.4	0.0	65.6
Sep 21			22	22	3	1	0	358	95			62.5	0.0	65.3
Sep 22			18	21	7	0	1	307	90			68.6	0.0	65.4
Sep 23			37	26	14	0	1	510	156			73.6	0.0	65.8
Sep 24			12	25	10	0	0	264	82			69.7	0.0	65.9
Sep 25			62	25	13	0	1	231	92			52.3	0.0	72.6
Sep 26			38	31	34	0	0	495	176			58.0	0.0	69.9
Sep 27			54	45	29	0	0	347	119			49.0	0.0	61.7
Sep 28			19	21	17	0	0	255	69			60.1	0.0	50.6
Sep 29			37	32	20	0	0	407	130			56.3	0.0	50.5
Sep 30			16	25	18	0	0	165	42			55.6	0.0	50.5
TOTAL			2,221	1,541	209	1	46	15,992	5,159					
AVG.			74	51	7	0	2	533	172			53.5	0.0	64.6

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,307	1,867
SUMMER	25,725	3,800
FALL	2,511	1,693
TOTAL	34,543	7,360

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
209	1	134,935	21,378	7,312	43	9

TABLE 164

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — OCTOBER 2009

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			27	26	28	0	0	253	88			61.6	0.0	50.5
Oct 2			52	21	30	2	0	363	118			58.1	0.0	50.5
Oct 3			51	19	40	5	0	294	115			49.7	0.0	50.5
Oct 4			184	24	49	0	0	281	106			35.3	0.0	50.5
Oct 5			21	20	20	0	0	131	61			57.0	0.0	50.5
Oct 6			20	15	24	0	1	145	49			63.6	0.0	50.5
Oct 7			22	16	28	0	0	204	82			73.0	0.0	50.5
Oct 8			23	10	40	1	0	183	59			64.9	0.0	50.5
Oct 9			21	28	41	0	0	166	55			55.1	0.0	50.5
Oct 10			17	8	54	0	0	122	41			52.5	0.0	50.5
Oct 11			23	16	99	0	0	202	81			51.2	0.0	50.5
Oct 12			34	13	65	0	0	99	29			75.6	0.0	50.5
Oct 13			36	8	48	2	0	118	48			64.6	0.0	50.5
Oct 14			48	5	39	0	0	102	37			56.4	0.0	50.5
Oct 15			43	17	102	0	0	74	38			48.8	0.0	50.5
Oct 16			56	10	110	0	0	95	40			63.5	0.0	50.5
Oct 17			50	11	103	4	0	149	60			42.2	0.0	50.5
Oct 18			45	20	116	7	0	100	54			40.9	0.0	50.5
Oct 19			55	15	82	0	1	60	24			65.1	0.0	50.5
Oct 20			58	13	110	0	0	85	48			66.8	0.0	50.5
Oct 21			89	18	82	0	0	89	38			55.3	0.0	50.5
Oct 22			76	6	99	0	0	106	46			64.4	0.0	50.5
Oct 23			79	12	80	0	0	80	42			60.3	0.0	50.5
Oct 24			38	8	76	4	0	26	10			52.4	0.0	50.5
Oct 25			37	10	88	0	0	56	29			53.3	0.0	50.5
Oct 26			14	3	80	0	0	25	4			60.9	0.0	50.5
Oct 27			38	5	69	2	0	45	17			61.2	0.0	50.5
Oct 28			45	8	120	0	0	27	4			71.5	0.0	*
Oct 29			78	6	150	0	0	53	17			77.9	0.0	*
Oct 30			71	4	153	0	0	52	22			61.1	0.0	*
Oct 31			56	9	116	0	0	28	21			38.4	0.0	*
TOTAL			1,507	404	2,341	27	2	3,813	1,483					
AVG.			49	13	76	1	0	123	48			58.1	0.0	50.5

*Data unavailable

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,307	1,867
SUMMER	25,725	3,800
FALL	4,018	2,097
TOTAL	36,050	7,764

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2,550	28	134,937	25,191	8,795	43	9

TABLE 165

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

WELLS PROJECT- FISH COUNTS — NOVEMBER 2009

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			63	7	76	0		24	10			42.5	0.0	
Nov 2			51	0	106	0		25	15			78.5	0.0	
Nov 3			14	3	58	0		23	12			86.1	0.0	
Nov 4			26	0	38	0		36	18			84.1	0.0	
Nov 5			14	0	27	0		21	9			75.4	0.0	
Nov 6			4	2	35	0		21	12			89.0	0.0	
Nov 7			11	0	20	0		14	10			69.5	0.0	
Nov 8			7	2	28	1		24	11			82.7	0.0	
Nov 9			2	0	29	0		10	6			84.8	0.0	
Nov 10			0	0	12	0		12	6			79.3	0.0	
Nov 11			1	0	3	0		9	6			75.0	0.0	
Nov 12			4	0	1	0		10	4			81.4	0.0	
Nov 13			0	1	0	0		12	8			92.3	0.0	
Nov 14			1	0	1	0		6	1			74.4	0.0	
Nov 15			0	0	1	0		5	4			64.9	0.0	
Nov 16												86.5	0.0	
Nov 17												106.5	0.0	
Nov 18												98.9	0.0	
Nov 19												95.5	0.0	
Nov 20												80.8	0.0	
Nov 21												71.5	0.0	
Nov 22												58.8	0.0	
Nov 23												74.1	0.0	
Nov 24												90.9	0.0	
Nov 25												91.5	0.0	
Nov 26												64.4	0.0	
Nov 27												81.7	0.0	
Nov 28												78.1	0.0	
Nov 29												72.7	0.0	
Nov 30												86.2	0.0	
TOTALS			198	15	435	1		252	132					
AVG.			13	1	29	0		17	9			79.9	0.0	

*Data unavailable.

RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	6,307	1,867
SUMMER	25,725	3,800
FALL	4,216	2,112
TOTAL	36,248	7,779

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	BULL TROUT	LAMPREY
2,985	29	134,937	25,443	8,927	43	9

TABLE 166

MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2009

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
TOTAL					2,237	1,483	14,762	59,131	117,875	57,872	9,697		263,057
10-Year Average					57	39	570	2,611	5,540	1,957	240		11,015

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