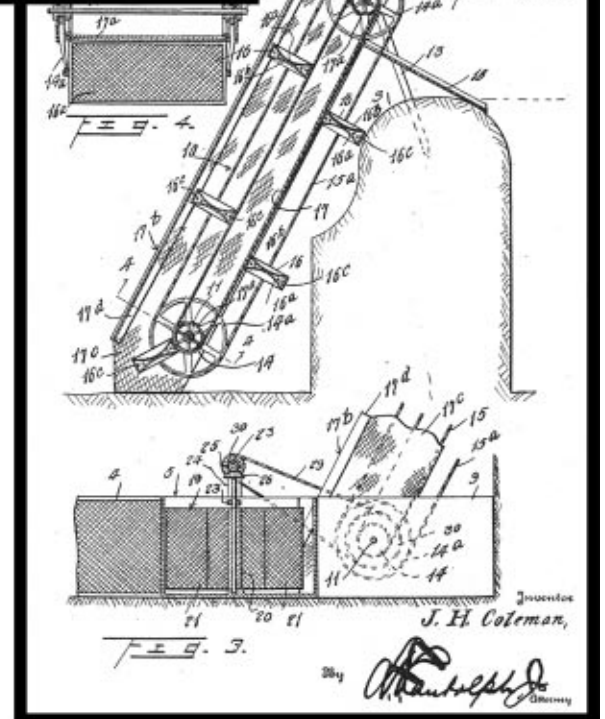
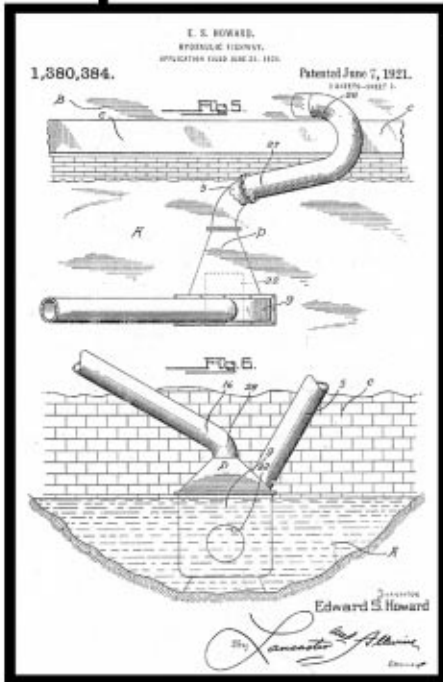
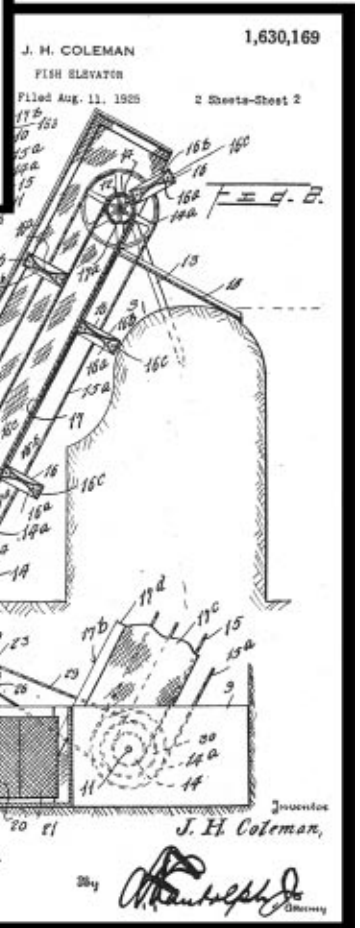
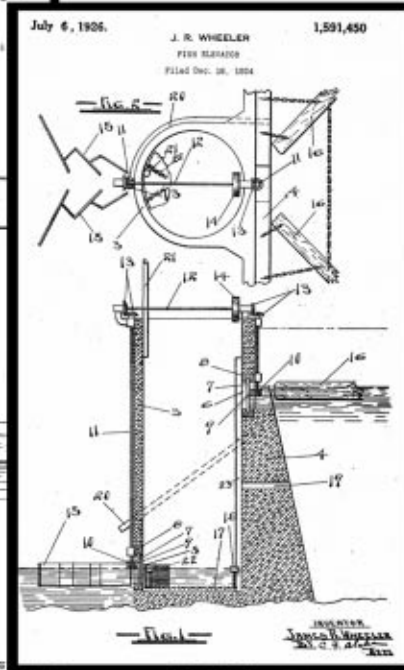
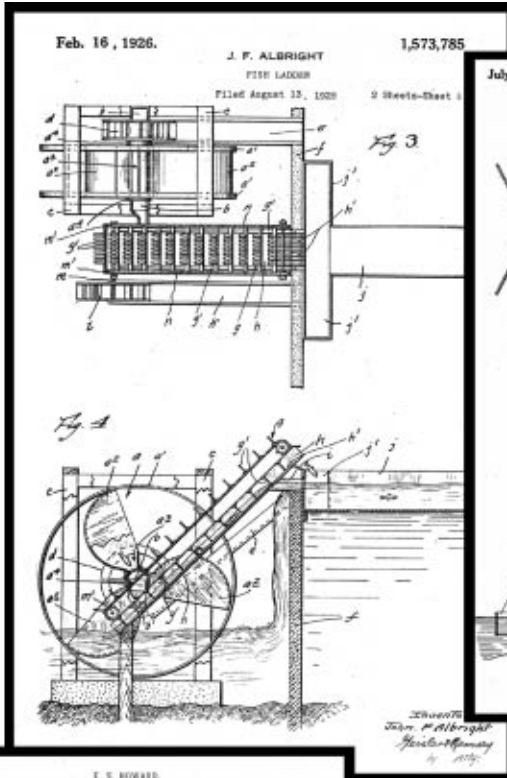




US Army Corps
of Engineers®
Portland District
Walla Walla District

Annual Fish Passage Report 2004

1920's Fish Passage Patents



Columbia and Snake River Projects

2004

**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*

**NORTH PACIFIC DIVISION
U.S. ARMY CORPS OF ENGINEERS**

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

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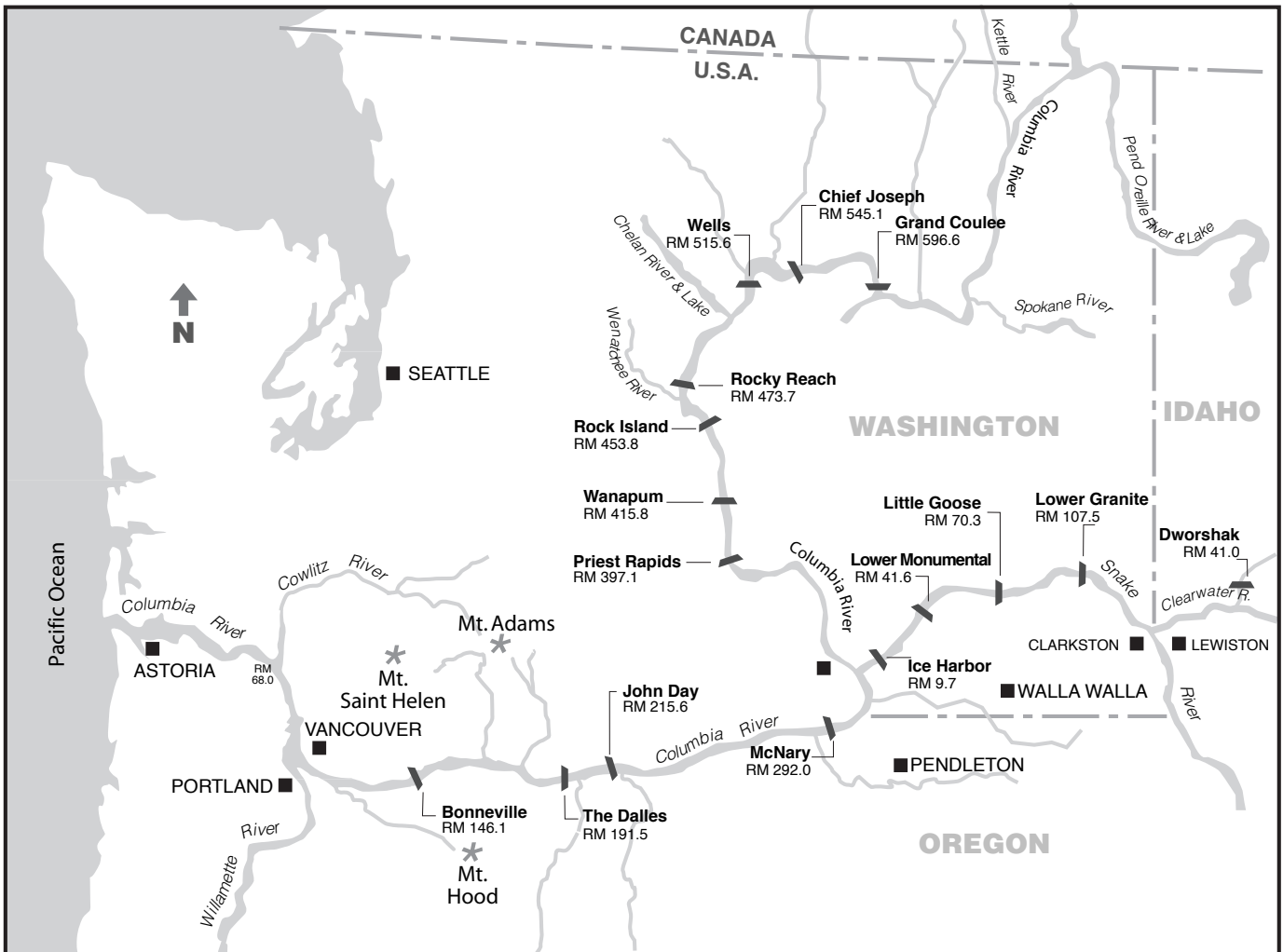
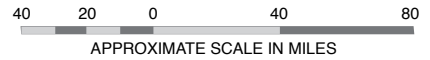


TABLE 1

FISH ESCAPEMENT AT MAIN STEM DAMS
COLUMBIA AND SNAKE RIVERS 2000-2004

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	LOWER GRANITE
2000								
CHINOOK	491,905	316,836	394	191,231	64,909	68,961	62,886	62,659
Spring*	199,561	117,749	394	75,644	41,815	45,856	44,482	44,140
Summer*	44,170	35,580	0	27,696	6,638	7,957	7,991	7,695
Fall*	248,174	163,507	0	87,891	16,456	15,148	10,413	10,824
Jacks	90,194	63,769	6,208	38,468	22,591	23,314	20,765	21,204
STEELHEAD	275,178	205,241	483,409	130,332	126,424	112,616	101,030	113,211
SOCKEYE	93,398	73,383	107,869	60,242	215	291	296	299
COHO*	97,032	29,536	885	11,152	1,224	750	313	925
Adults	85,649	24,966	857	10,147	1,023	579	313	889
Jacks	11,383	4,570	28	1,005	201	171	0	36
SHAD	1,244,317	1,556,619	1,796,826	350,457	70,685	74,266	20,185	3,250
LAMPREY	19,002	8,050	4,005	1,281	315	94	71	28
2001								
CHINOOK	971,119	629,334	510,987	489,784	215,697	225,322	214,368	210,381
Spring*	405,539	313,865	270,385	265,372	174,199	182,614	177,811	175,093
Summer*	90,879	82,388	74,235	77,514	17,667	20,899	18,732	17,539
Fall*	474,701	233,081	166,367	146,898	23,831	21,809	17,825	17,749
Jacks	103,391	72,644	57,877	52,664	15,619	11,918	12,782	15,773
STEELHEAD	633,073	503,327	483,409	398,784	283,694	252,923	232,669	262,568
SOCKEYE	114,934	102,562	107,869	97,188	38	32	72	36
COHO*	266,314	64,557	51,181	24,730	1,595	957	540	1,087
Adults	259,533	62,378	48,870	22,918	1,501	798	490	968
Jacks	6,781	2,179	2,311	1,812	94	159	50	119
SHAD	2,297,959	2,724,948	1,796,826	1,063,568	287,874	224,248	63,102	18,432
LAMPREY	27,947	9,061	4,005	2,539	203	60	104	27
2002								
CHINOOK	924,585	583,155	447,729	417,090	137,404	124,673	119,324	119,304
Spring*	275,290	185,046	142,290	133,229	87,033	77,841	79,047	77,114
Summer*	135,388	118,812	110,969	116,747	29,044	25,454	23,108	24,112
Fall*	513,907	279,297	194,470	167,114	21,327	21,378	17,169	18,078
Jacks	54,644	42,982	37,568	36,114	10,342	9,432	8,333	9,769
STEELHEAD	480,309	387,920	390,300	286,805	202,173	212,639	203,494	218,718
SOCKEYE	49,610	40,554	41,915	39,424	61	46	38	55
COHO*	94,901	12,786	9,272	3,192	231	149	133	395
Adults	88,084	9,765	7,669	2,144	199	138	109	246
Jacks	6,817	3,021	1,603	1,048	32	11	24	149
SHAD	3,164,556	3,218,050	1,850,942	599,294	81,373	58,677	15,171	3,119
LAMPREY	100,476	23,417	26,821	11,282	1,127	284	365	138
2003								
CHINOOK	992,231	608,153	467,085	420,603	143,197	122,817	114,458	119,676
Spring*	206,268	142,817	111,642	106,673	86,190	77,947	76,096	78,904
Summer*	128,166	111,931	105,615	104,948	25,343	22,307	17,877	20,559
Fall*	657,797	353,405	249,828	208,982	31,664	22,563	20,485	20,213
Jacks	75,338	61,671	54,606	52,258	23,288	19,855	17,151	20,913
STEELHEAD	361,412	273,172	286,176	230,418	186,474	172,596	161,026	180,072
SOCKEYE	39,291	34,176	35,417	32,037	37	14	23	11
COHO*	133,870	45,374	38,577	19,830	1,431	999	807	1,265
Adults	125,743	42,563	34,453	18,095	1,362	924	734	1,135
Jacks	8,127	2,811	4,124	1,735	69	75	73	130
SHAD	4,558,550	4,258,889	2,735,108	1,077,670	245,805	160,292	56,834	17,545
LAMPREY	117,027	28,995	20,922	13,324	1,702	468	660	282
2004								
CHINOOK	905,809	560,420	446,303	382,946	130,213	113,885	100,733	109,061
Spring*	179,037	137,957	118,520	115,179	81,752	75,363	65,862	75,224
Summer*	105,032	87,925	83,060	74,217	16,185	12,789	11,567	11,277
Fall*	621,740	334,538	244,723	193,550	32,276	25,733	23,304	22,560
Jacks	60,245	48,653	47,696	40,644	18,825	11,902	10,999	14,592
STEELHEAD	310,893	238,242	227,199	201,071	168,897	149,429	142,092	154,389
SOCKEYE	123,291	107,466	113,497	89,707	91	80	81	113
COHO*	119,826	40,564	34,755	20,132	3,519	3,606	3,029	3,904
Adults	115,018	38,661	32,627	19,004	3,473	3,441	2,898	3,802
Jacks	4,808	1,903	2,128	1,128	46	165	131	102
SHAD	5,355,677	5,472,400	0	1,751,728	365,493	0	0	33,987
LAMPREY	61,780	14,873	11,663	5,888	805	194	243	117

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	15 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 - 15 DEC	14 AUG - 31 OCT	16 AUG - 31 OCT	18 AUG - 15 DEC

*Includes Jack Counts.

TABLE 2

FISH ESCAPEMENT AT MID COLUMBIA RIVER DAMS: 2000 - 2004

SPECIES	PRIEST RAPIDS	ROCK ISLAND	ROCKY REACH	WELLS
2000				
CHINOOK*	91,223 *	61,118 *	31,693 *	16,161 *
Spring*	21,190 *	16,410 *	5,728 *	2,587 *
Summer*	24,810 *	32,307 *	18,831 *	10,156 *
Fall*	45,223 *	12,401 *	7,134 *	3,418 *
Jacks	10,006	16,627	5,954	5,372
STEELHEAD	11,331	10,516	8,275	6,280
SOCKEYE	89,547	76,515	57,428	59,944
COHO*	378 *	1,624	550	0
Adults	336	1,624	550	0
Jacks	42	**	**	0
SHAD	2,464	**	**	**
LAMPREY	1,468	822	767	155
2001				
CHINOOK*	139,929 *	123,184 *	72,941 *	58,587 *
Spring*	52,120 *	41,603 *	15,191 *	10,871 *
Summer*	57,052 *	61,930 *	44,722 *	38,126 *
Fall*	30,757 *	19,651 *	13,028 *	9,590 *
Jacks	10,725	21,141	10,037	8,427
STEELHEAD	30,090	28,613	22,045	18,503
SOCKEYE	111,326	104,847	66,222	74,490
COHO*	11,189 *	10,465	1,628	612 *
Adults	10,143	10,465	1,628	612
Jacks	1,046	**	**	0
SHAD	4,417	**	**	**
LAMPREY	1,622	1,460	805	259
2002				
CHINOOK*	161,510 *	130,491 *	98,756 *	76,716 *
Spring*	34,279 *	24,844 *	10,160 *	7,626 *
Summer*	97,784 *	90,041 *	75,911 *	62,626 *
Fall*	29,447 *	15,606 *	12,685 *	6,464 *
Jacks	4,279	5,135	4,281	659
STEELHEAD	15,895	15,282	11,853	9,482
SOCKEYE	47,883	44,320	12,372	10,762
COHO*	1,555 *	1,751 *	481	132 *
Adults	1,143	1,750	481	132
Jacks	412	1	0	0
SHAD	4,836	**	**	**
LAMPREY	4,008	4,878	1,842	342
2003				
CHINOOK*	160,433 *	132,167 *	88,011 *	59,346 *
Spring*	18,792 *	17,634 *	4,669 *	4,702 *
Summer*	86,837 *	88,401 *	69,362 *	46,391 *
Fall*	54,804 *	26,132 *	13,980 *	8,253 *
Jacks	10,847	11,939	9,363	2,984
STEELHEAD	17,652	17,509	13,650	9,963
SOCKEYE	36,551	34,779	30,355	28,977
COHO*	5,216 *	5,869 *	993	168 *
Adults	4,803	5,869	993	168
Jacks	413	0	0	0
SHAD	7,067	0	0	0
LAMPREY	4,338	5,000	2,521	1,408
2004				
CHINOOK*	134,620 *	97,765 *	65,538 *	43,417 *
Spring*	14,541 *	11,876 *	5,099 *	4,793 *
Summer*	72,673 *	67,145 *	49,625 *	32,847 *
Fall*	47,406 *	18,744 *	10,814 *	5,777 *
Jacks	10,526	7,854	10,324	2,083
STEELHEAD	18,727	19,547	14,580	9,317
SOCKEYE	124,943	106,666	81,338	78,053
COHO*	5,624 *	5,814 *	786	291 *
Adults	4,830	5,982	786	291
Jacks	794	0	0	0
SHAD	10,589	0	0	0
LAMPREY	2,647	2,362	1,043	403

ASSUMED 2004 DATES FOR CHINOOK RUNS (MAY VARY FROM PREVIOUS YEARS)

SPRING	15 APR - 13 JUN	14 APR - 23 JUN	16 APR - 23 JUN	1 MAY - 28 JUN
SUMMER	14 JUN - 13 AUG	24 JUN - 2 SEP	24 JUN - 2 SEP	29 JUN - 28 AUG
FALL	14 AUG - 15 NOV	3 SEP - 14 NOV	3 SEP - 14 NOV	29 AUG - 15 NOV

*Includes jack counts.

TABLE 3 and TABLE 4

**STEELHEAD OVER COLUMBIA AND SNAKE RIVER DAMS 1953-2004
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 overwintering behavior of summer steelhead, especially Snake River stocks, which often have sizeable proportions of the run remaining below mainstem projects during the winter months. Movement 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 - 2004
 BY RUN-YEAR (JUNE 1 - MAY 31)

RUN-YEAR	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE**	LOWER GRANITE
1953-54			8,252 *				
1954-55			72,913				
1955-56			84,434				
1956-57	3,531 *		40,660				
1957-58	128,124		105,136				
1958-59	120,170		87,413				
1959-60	155,892		111,288				
1960-61	110,955		95,556				
1961-62	134,740		104,679	9,474 *			
1962-63	163,125		163,333	108,186			
1963-64	118,899		113,676	76,788			
1964-65	110,509		99,872	58,025			
1965-66	142,376		120,469	62,566			
1966-67	144,267		144,461	64,987			
1967-68	122,231	6,598 *	83,948	47,536			
1968-69	147,844	122,649	107,806	85,273	16,240 *		
1969-70	111,617	81,623	74,933	58,172	63,269	9,256 *	
1970-71	99,319	81,238	68,598	54,445	58,430	54,257	
1971-72	151,329	117,402	110,450	66,196	68,704	70,867	
1972-73	135,730	149,704	95,837	63,584	66,650	63,033	
1973-74	100,924	93,951	62,158	37,245	38,288	37,099	
1974-75	71,336	40,868	26,191	12,170	14,851	13,818	2,789 *
1975-76	57,695	33,640	25,150	15,895	17,236	15,177	16,592
1976-77	83,194	59,368	54,409	24,140	21,801	21,109	22,562
1977-78	133,096	102,193	86,962	54,911	48,160	47,617	57,029
1978-79	58,995	43,554	34,580	27,252	19,849	24,050	26,473
1979-80	86,317	59,825	54,213	26,790	20,073	23,816	28,758
1980-81	93,309	77,113	63,957	47,778	32,599	36,680	37,996
1981-82	112,265	96,663	62,955	43,274	37,755	36,896	42,420
1982-83	116,178	105,438	72,246	70,236	60,775	**	72,384
1983-84	172,033	157,602	126,706	90,030	82,555		88,760
1984-85	221,299	204,595	142,246	101,008	92,947		104,417
1985-86	274,826	245,087	181,635	123,187	104,400		116,147
1986-87	280,671	234,651	193,096	142,273	121,107		129,983
1987-88	219,822	172,290	151,587	77,565	64,717		71,280
1988-89	197,669	163,283	150,361	98,950	81,324		87,137
1989-90	236,584	193,951	170,014	149,361	131,050	**	131,420
1990-91	128,123	107,117	94,522	54,370	44,518	1,070	56,865
1991-92	199,244	158,790	168,156	122,874	97,454	96,421	99,052
1992-93	233,430	197,715	197,739	166,654	136,820	118,949	128,265
1993-94	123,449	94,080	90,359	68,568	65,883	58,747	59,768
1994-95	111,378	92,362	92,568	49,450	48,231	46,258	47,302
1995-96	146,152	123,319	114,813	91,938	89,953	77,417	79,126
1996-97	162,447	156,924	124,820	101,384	96,785	82,573	86,898
1997-98	164,657	159,442	129,772	104,220	85,959	74,845	86,617
1998-99	116,262	156,628	98,606	84,135	65,173	62,641	70,721
1999-00	157,062	165,239	84,413	84,253	73,135	65,505	73,811
2000-01	205,801	219,433	131,330	126,989	113,454	102,074	116,490
2001-02	504,704	489,215	401,881	286,874	298,042	270,031	269,281
2002-03	389,119	393,339	292,034	222,199	230,466	214,586	234,815
2003-04	281,586	298,452	234,893	189,143	181,005	170,558	172,487
Total	7,258,699	5,156,889	5,573,193	3,461,205	2,708,653	1,724,792	2,445,158
10-Year Average	217,509	217,322	163,360	127,938	122,355	110,659	118,340

Extended 1996-2001 count seasons, using video counts November 1-December 15, at Ice Harbor and Lower Granite dams are included.
 Extended 2001 video counts November 1 - December 31 at Lower Monumental and Little Goose are included
 Extended 2002 video counts November 1 - December 15 at Ice Harbor are included.
 Extended 2002 video counts January, February, and March at Lower Monumental and Little Goose are included.
 Extended 2002 video counts for November and December at Lower Monumental, Little Goose, and Lower Granite are included.
 Extended 2003 video counts January 1 - March 31 at Lower Monumental and Little Goose are included.
 Extended 2004 video counts March, November, and December at Lower Granite are included.

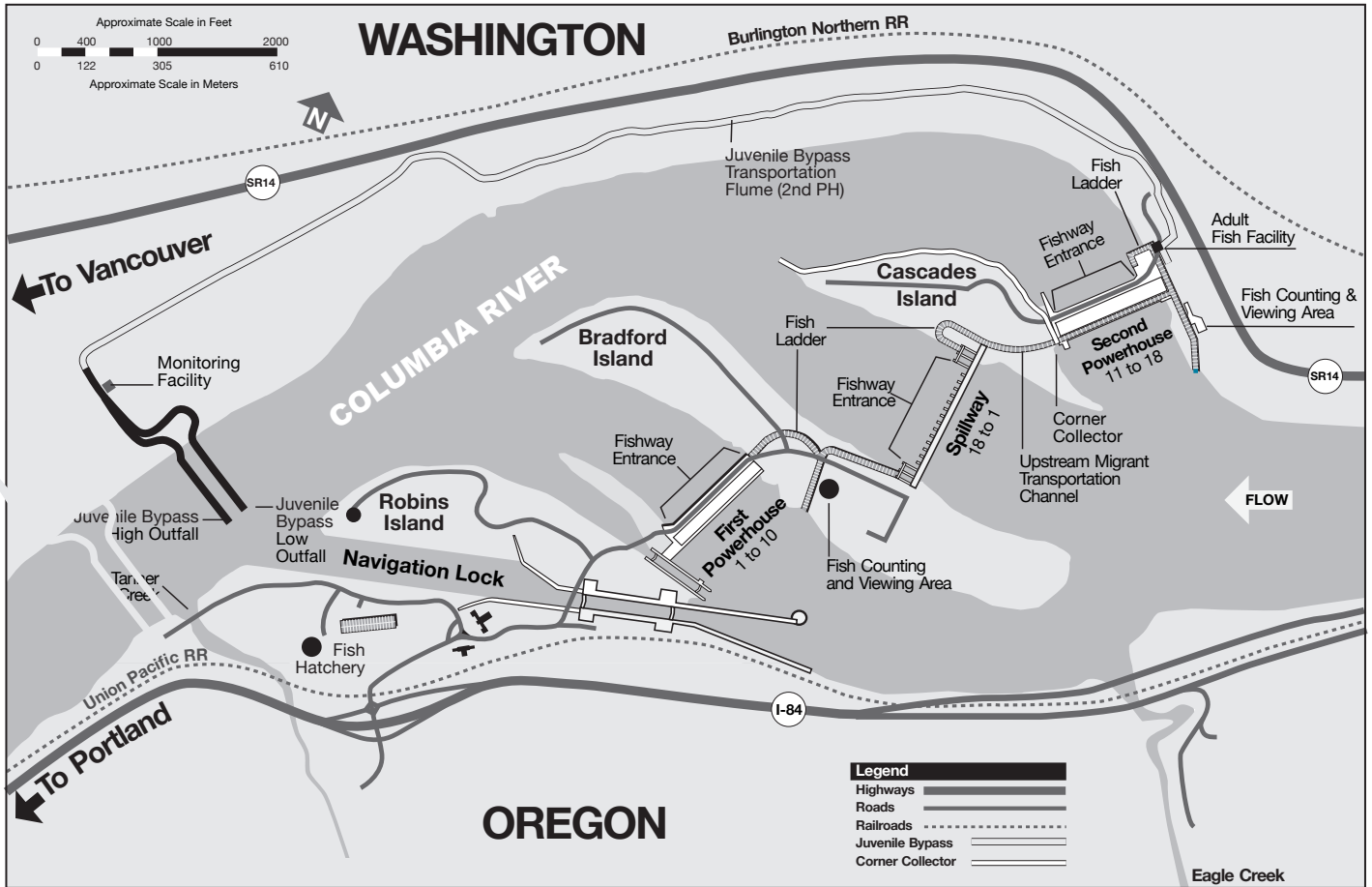
TABLE 4

**STEELHEAD OVER MID COLUMBIA RIVER DAMS 1959 - 2004
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	28,575	11,718	9,430
2003-04	17,729	17,633	13,919	10,016
Total	492,326	314,963	210,731	197,186
10-Year Average	11,748	12,152	8,245	6,180

*Partial year

Plate 2 Bonneville Lock and Dam



BONNEVILLE DAM

FISH COUNTING SCHEDULE

Jan 1 – Mar 31 Video counting daily 16 hours/day.
Apr 1 – Oct 31 Visual counting daily 0400-2000 hours Pacific Standard Time.
Nov 1 – Dec 31 Video counting daily 0400-2000 hours Pacific Standard Time.

ADULT FISH FACILITIES OPERATING SCHEDULE

Bradford Island Fish Ladder:

16 Jan 04 – 12 Feb 04 Out of service (OOS) for winter maintenance.
03 Aug 04 – 03 Aug 04 Low flow for ROV inspections.

Cascades Island Fish Ladder:

01 Dec 03 – 13 Jan 04 OOS for winter maintenance.
16 Jan 04 – 20 Jan 04 At orifice flow due to The Dalles oil spill.
04 Aug 04 – 04 Aug 04 Low flow for ROV inspections.

Second Powerhouse Fish Ladder:

08 Dec 03 – 13 Jan 04 OOS for winter maintenance.
16 Jan 04 – 20 Jan 04 At orifice flow due to The Dalles oil spill.
04 Aug 03 – 04 Aug 04 Low flow for ROV inspections.
27 Nov 04 – 31 Dec 04 OOS for winter maintenance.

Adult Fish Facility

08 Dec 03 – 13 Jan 04 OOS for winter maintenance.
29 Nov 04 – Dec 31 04 OOS for winter maintenance.

Fishway Auxiliary Water Supply Turbines:

Fish Unit 1:

03 Dec 03 – 15 Jan 04 OOS for testing and winter maintenance.
05 Feb 04 – 07 Feb 04 OOS to facilitate dredging operations for the new Fish Unit trashracks.
09 Feb 04 – 11 Feb 04 OOS to facilitate dredging operations for the new Fish Unit trashracks.
17 Feb 04 – 19 Feb 04 OOS for rebalancing the generator.
23 Feb 04 – 24 Feb 04 OOS to facilitate trashrack removal.
28 Feb 04 – 01 Mar 04 OOS due to a governor failure.
29 Apr 04 – 29 Apr 04 OOS because the field breaker would not close.
04 May 04 – 04 May 04 OOS for trashrack raking.
23 Aug 04 – 23 Aug 04 OOS for station service transfer.
27 Nov 04 – 31 Dec 04 OOS for winter maintenance at the Washington shore fishway.

Fish Unit 2:

04 May 04 – 04 May 04 OOS for trashrack raking.

16 Aug 04 – 16 Aug 04 OOS for trashrack raking.

27 Nov 04 – 31 Dec 04 OOS for winter maintenance at the Washington shore fishway.

DOWNSTREAM MIGRANT FACILITIES OPERATING SCHEDULE

First Powerhouse:

17 Dec 03 – 15 Sep 04 Out until September.

15 Dec 04 – 31 Dec 04 OOS for winter maintenance.

Second Powerhouse:

01 Dec 04 – 25 Feb 04 OOS for winter maintenance.

20 Dec 04 – Present OOS for winter maintenance.

Corner Collector:

06 Feb 04 – 18 Feb 04 Closed until hydraulic tests

20 Feb 04 – 11 Mar 04 Closed until second Spring Creek release

15 Mar 04 – 13 Apr 04 Closed until 2004 spill season

31 Aug 04 – 31 Dec 04 Closed until 2005 spill season

FISHWAY ACTIVITIES

United States Geological Survey (USGS) monitored the behavior, distribution, and passage of yearling chinook, steelhead, and subyearling chinook at Bonneville Lock and Dam. With this information, USGS addressed fish passage efficiency (FPE), corner collector efficiency, fish guidance efficiency (FGE), and route specific survival through the project, which included specific releases into turbine unit 4 (MGR survival study).

Pacific Northwest National Laboratory (PNNL) and BAE Systems evaluated the effects of gatewell modifications at Powerhouse Two by exploring among-intake variation in FGE, orifice passage efficiency, and gap loss above a submerged traveling screen.

PNNL and BAE Systems conducted an evaluation of FPE for the entire project and FGE for turbine units. Hydroacoustic transducers were mounted to cover all major passage routes.

PNNL and BAE Systems described swim paths and entrance efficiencies of smolts approaching the newly constructed Corner Collector at Powerhouse Two. An acoustic camera and hydroacoustic transducers were used to collect the data.

The Columbia River Inter-Tribal Fish Commission (CRITFC) again used the second powerhouse Adult Fish Facility (AFF) to collect salmonids. Fish scales were sampled (to determine age) and biological data collected. The work helps satisfy a requirement of the

U.S. - Canada Pacific Salmon Treaty to identify "indicator stocks". These stocks are monitored to annually evaluate the success of a program designed to rebuild depressed Columbia River salmon populations. All fish were immediately returned to the fish ladder.

CRITFC also took on the task of collecting adult steelhead in the AFF. They trapped steelhead to determine the number and timing of ESA listed steelhead stocks passing Bonneville Dam. The study also assessed stock composition at Bonneville and in the treaty fishery. The study is required by the U.S. v. Oregon Technical Advisory Committee (TAC) which included NMFS and USFWS. All fish trapped were immediately returned to the fish ladder.

Washington Department of Fish and Wildlife (WDFW) collected and tagged chum in the AFF. This study is to determine stock identification and to track the fish to the spawning grounds.

University of Idaho continued to radio tag and track chinook and steelhead at Bonneville. Data collected is used to assess fallback rates, passage times and routes, and survival of salmonids through hydro-facilities as they continue to the Snake River.

The Fish Passage Center continued to coordinate a fishway inspection program that involved monthly fishway inspections by a NOAA Fish inspector at Bonneville.

Pacific States Marine Fisheries Commission (PSMFC) used the juvenile bypass system fish sampling facilities at Bonneville Second Powerhouse to monitor passage of downstream migrants. PH2 JBS work included pit tag sampling and smolt indexing. PH2 sampling ended on 29 October.

PSMFC continued to maintain adult PIT tag detection in all fishways.

NOAA Fisheries marked lamprey for evaluation of a lamprey adult passage system (LAPS) in the AWS channel at Bradford Island. This year, lamprey were able to exit into the forebay. The passage system included pit tag detectors and a counter to monitor and track lamprey movements.

The following agencies participated at Bonneville Dam in the BPA funded Northern Pikeminnow management and research program. Pikeminnows are predators on juvenile salmonids and are believed to cause significant impact, particularly at locations such as the first powerhouse forebay, because prey and predators collect in large numbers.

- The Oregon Department of Fish & Wildlife (ODFW) sampled pikeminnow populations in many areas in the Columbia River including areas within Bonneville's boat restricted zones. Pikeminnow were collected by electrofishing from boats. ODFW is evaluating effectiveness of population control measures.
- The Washington Department of Fish & Wildlife implemented the sport reward fishery.

The WDFW and ODFW cooperated in conducting special fish counting again this year to estimate passage for tule and bright stock fall chinook. The numbers are used for in-season predictions and to assess final run size. This program was implemented in 1979.

The WDFW counted adult fish under contract with the U.S. Army Corps of Engineers. Fish were counted according to the schedule above for 50 minutes of each hour. The 50 minute totals were multiplied by a factor of 1.2 to estimate passage for each full hour.

Pelfrey Sturgeon Hatchery collected broodstock in Bonneville's tailwaters again this year. Their work is supported by ODFW.

TABLE 5

MONTHLY TOTALS OF SALMONID, SHAD AND LAMPREY COUNTED OVER BONNEVILLE DAM
YEAR 2004 COUNTS FROM JANUARY 1 THROUGH DECEMBER 31

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV**	DEC	TOTAL
CHINOOK*		17	593	104,978	73,605	69,622	35,410	111,550	473,727	34,858	1,760	77	906,197
STEELHEAD	236	646	1,799	1,815	2,947	16,183	66,621	111,886	94,482	15,024	972	767	313,378
SOCKEYE					134	100,702	22,253	194	3		5		123,291
COHO*	1							11,171	78,512	29,544	622	1	119,851
CHUM											77	3	80
PINK								1					1
TOTAL	237	663	2,392	106,793	76,686	186,507	124,284	234,802	646,724	79,426	3,436	848	1,462,798
SHAD					662,249	4,544,400	142,236	6,792					5,355,677
LAMPREY				0	1,670	27,515	23,607	6,644	2,170	174			61,780

*Jacks included

**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.

Lamprey are not counted during video counts. Shad are not counted after September 1st.

TABLE 6

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

BONNEVILLE PROJECT
JANUARY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCHI	DEG F
Jan 1	0			0	0	0		6	0			138.9	0.7	0.0	40.0
Jan 2	0			0	0	0		3	-5			122.5	0.8	7.0	39.0
Jan 3	0			0	0	0		16	4			135.4	0.8	7.0	39.0
Jan 4	0			0	1	0		16	8			160.4	0.8	7.0	39.0
Jan 5	0			0	0	0		0	0			171.9	0.7	4.5	37.2
Jan 6	0			0	0	0		-3	-3			166.8	0.7	7.0	36.0
Jan 7	0			0	0	0		3	0			182.6	0.7	7.0	35.0
Jan 8	0			0	0	0		0	0			151.0	0.5	7.0	35.0
Jan 9	0			0	0	0		1	0			154.5	0.7	7.0	35.0
Jan 10	0			0	0	0		-4	-2			112.5	0.6	7.0	35.0
Jan 11	0			0	0	0		0	0			118.9	0.6	7.0	35.0
Jan 12	0			0	0	0		18	2			126.0	0.8	7.0	35.0
Jan 13	0			0	0	0		3	2			139.1	0.8	7.0	35.0
Jan 14	0			0	0	0		18	-1			128.2	0.9	4.0	35.0
Jan 15	0			0	0	0		13	-1			129.3	1.5	4.0	35.0
Jan 16	0			0	0	0		3	-2			147.5	1.6	7.0	35.0
Jan 17	0			0	0	0		-2	0			123.2	0.0	7.0	35.0
Jan 18	0			0	0	0		7	1			133.9	0.0	7.0	35.0
Jan 19	0			0	0	0		21	0			129.2	0.0	7.0	34.0
Jan 20	0			0	0	0		14	1			136.8	0.2	7.0	35.0
Jan 21	0			0	0	0		6	-4			132.5	0.3	7.0	35.0
Jan 22	0			0	0	0		0	0			125.3	0.3	7.0	35.0
Jan 23	0			0	0	0		2	1			128.9	0.0	7.0	35.0
Jan 24	0			0	0	0		-1	-1			136.4	0.0	4.0	35.0
Jan 25	0			0	0	0		-4	-1			112.9	0.0	7.0	35.0
Jan 26	0			0	0	0		9	0			140.2	0.0	7.0	35.0
Jan 27	0			0	0	0		7	1			150.5	0.0	7.0	35.0
Jan 28	0			0	0	0		3	0			153.6	0.0	7.0	36.0
Jan 29	0			0	0	0		35	11			173.2	0.0	5.0	36.0
Jan 30	0			0	0	0		26	13			171.2	0.0	7.0	38.0
Jan 31	0			0	0	0		20	8			186.5	0.0	5.0	37.0
TOTAL	0			0	1	0		236	32						
AVG	0			0	0	0		8	1			142.6	0.5	6.3	35.8

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

TABLE 7

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

BONNEVILLE PROJECT
FEBRUARY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Feb 1	0			0				31	12			132.7	0.0	5.0	37.0
Feb 2	0			0				34	11			172.4	0.0	3.0	37.0
Feb 3	0			0				27	0			154.3	0.0	5.5	37.0
Feb 4	0			0				31	9			145.7	0.0	5.0	37.0
Feb 5	0			0				16	7			157.9	0.0	5.0	38.0
Feb 6	0			0				22	3			145.7	0.0	4.5	38.0
Feb 7	0			0				8	-1			139.2	0.0	5.0	38.0
Feb 8	0			0				18	2			125.9	0.0	7.0	38.0
Feb 9	0			0				27	8			127.8	0.0	7.0	38.0
Feb 10	1			0				33	5			132.2	0.0	7.0	38.0
Feb 11	0			0				30	5			144.3	0.0	7.0	38.0
Feb 12	0			0				27	0			139.8	0.0	5.0	38.0
Feb 13	0			0				34	17			138.8	0.0	0.0	38.0
Feb 14	0			0				20	4			136.0	0.0	5.5	38.0
Feb 15	1			0				27	11			127.2	0.0	5.5	38.0
Feb 16	1			0				34	12			129.7	0.0	5.5	38.0
Feb 17	1			0				19	0			130.6	0.0	5.5	38.0
Feb 18	0			0				8	2			129.0	0.0	5.5	38.0
Feb 19	2			0				16	3			147.0	0.0	5.0	38.0
Feb 20	0			0				21	3			149.5	0.0	3.0	38.0
Feb 21	2			0				17	-1			117.1	0.0	6.0	38.0
Feb 22	1			0				35	8			121.1	0.0	3.8	38.0
Feb 23	3			0				20	0			129.8	0.0	5.0	38.0
Feb 24	0			0				17	1			149.8	0.0	5.0	38.0
Feb 25	0			0				10	1			159.9	0.0	4.0	38.0
Feb 26	0			0				9	2			127.1	0.0	4.0	38.0
Feb 27	2			0				13	4			150.4	0.0	4.5	38.0
Feb 28	1			0				15	6			135.2	0.0	5.0	38.0
Feb 29	2			0				27	4			126.5	0.0	5.0	39.0
TOTAL	17			0				646	138						
AVG	1			0				22	5			138.7	0.0	5.0	37.9

Note: January 1 to March 31 counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. 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 8

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

BONNEVILLE PROJECT

MARCH 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL											SECCHI	DEG F	
Mar 1	2			0				31	6			141.5	1.7	6.0	39.0	
Mar 2	4			0				34	10			142.3	9.9	5.5	39.0	
Mar 3	7			0				29	-2			171.9	50.1	5.5	40.0	
Mar 4	3			0				29	2			155.3	50.3	5.0	40.0	
Mar 5	7			0				14	6			166.9	50.0	5.5	40.0	
Mar 6	7			0				35	4			169.9	42.0	6.0	40.0	
Mar 7	4			0				39	6			121.3	2.1	6.5	40.0	
Mar 8	6			0				37	4			123.3	2.1	6.0	40.0	
Mar 9	8			0				51	8			124.1	2.1	7.0	40.0	
Mar 10	15			0				62	8			135.5	2.2	7.0	40.0	
Mar 11	7			0				79	2			144.4	2.2	0.0	40.0	
Mar 12	32			0				59	5			133.2	2.2	7.0	42.0	
Mar 13	19			0				67	2			144.8	2.2	7.0	42.0	
Mar 14	18			0				41	7			129.7	2.2	5.5	42.0	
Mar 15	21			0				63	7			136.2	2.2	6.0	42.0	
Mar 16	18			0				71	1			170.1	2.2	6.0	42.0	
Mar 17	28			0				71	0			130.2	2.2	6.0	42.0	
Mar 18	14			0				65	15			153.2	2.2	5.5	43.0	
Mar 19	17			0				78	11			170.8	2.3	6.4	43.0	
Mar 20	2			0				56	11			161.0	2.2	4.0	43.0	
Mar 21	11			0				63	14			135.9	2.0	5.8	43.0	
Mar 22	25			0				88	12			159.7	2.0	4.6	43.0	
Mar 23	44			0				60	12			147.6	1.8	4.5	44.0	
Mar 24	63			0				74	13			170.3	2.2	6.0	44.0	
Mar 25	31			0				50	7			158.2	2.2	6.0	45.0	
Mar 26	24			0				51	-3			173.9	2.2	5.0	45.0	
Mar 27	29			0				84	11			157.2	2.0	6.0	45.0	
Mar 28	22			0				98	3			136.4	2.1	5.0	45.0	
Mar 29	27			0				85	3			161.0	2.3	4.0	46.0	
Mar 30	21			0				80	5			153.6	2.2	4.5	46.0	
Mar 31	57			0				55	5			166.0	2.2	0.0	46.0	
TOTAL	593			0				1,799	195							
AVG	19			0				58	6			149.9	8.3	5.3	42.3	

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

TABLE 9

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

BONNEVILLE PROJECT
APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Apr 1	57			0				48	18	0	0	161.5	2.4	4.5	46.0
Apr 2	75			0				53	17	0	0	155.4	2.4	4.0	46.0
Apr 3	88			0				42	11	0	0	147.4	2.5	5.0	46.0
Apr 4	273			0				72	24	0	0	138.2	2.5	3.9	47.0
Apr 5	391			0				70	17	0	0	137.7	2.5	6.0	47.0
Apr 6	235			0				48	20	0	0	141.6	2.4	7.0	47.0
Apr 7	341			0				100	34	0	0	148.9	2.4	6.0	48.0
Apr 8	468			0				90	37	0	0	158.5	2.6	5.0	48.0
Apr 9	710			0				49	20	0	0	151.3	2.4	4.5	49.0
Apr 10	1,202			0				88	32	0	0	150.9	2.4	4.5	49.0
Apr 11	684			0				47	19	0	0	140.8	2.4	6.0	49.0
Apr 12	1,196			0				47	16	0	0	154.5	14.9	5.0	49.0
Apr 13	4,767			2				86	41	0	0	176.6	50.5	4.0	49.0
Apr 14	3,035			3				66	21	0	0	182.6	50.5	5.0	50.0
Apr 15	3,099			8				69	24	0	0	201.3	51.3	4.0	49.0
Apr 16	4,304			17				49	20	0	0	215.7	62.6	4.0	49.0
Apr 17	4,667			10				80	35	0	-1	216.0	75.8	4.0	49.0
Apr 18	9,488			24				70	32	0	0	177.7	75.7	4.3	50.0
Apr 19	8,263			32				64	24	0	0	198.1	75.1	5.5	50.0
Apr 20	12,656			70				102	40	0	0	194.4	74.9	6.0	50.0
Apr 21	6,208			37				89	39	0	0	236.8	85.6	4.5	50.0
Apr 22	13,030			58				56	27	0	0	210.8	93.9	6.0	51.0
Apr 23	8,869			88				69	21	0	0	184.5	94.1	6.0	50.0
Apr 24	3,366			52				42	20	0	0	189.3	94.0	6.0	51.0
Apr 25	2,856			33				31	5	0	0	196.8	89.3	6.0	51.0
Apr 26	4,254			54				30	10	0	1	188.2	85.5	6.0	51.0
Apr 27	4,701			83				48	7	0	0	189.3	87.9	6.0	51.0
Apr 28	2,137			49				37	7	0	0	191.4	88.6	6.0	52.0
Apr 29	1,076			46				32	8	0	0	195.6	89.8	7.0	52.0
Apr 30	1,744			72				41	8	0	0	199.1	92.9	5.0	52.0
TOTAL	104,240			738				1,815	654	0	0				
AVG	3,475			25				61	22	0	0	177.7	48.7	5.2	49.3
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					WILD STEELHEAD		SHAD	LAMPREY				
TOTALS TO DATE		104,694	738					3,007	781	0	0				

TABLE 10

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

BONNEVILLE PROJECT
MAY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SHAD	LAMPREY
May 1	3,208			102			0	69	15	0	0	204.6	93.4	4.0	52.0
May 2	8,023			255			0	100	12	0	0	185.4	94.2	6.2	53.0
May 3	6,480			363			0	93	18	1	0	191.3	92.6	6.0	53.0
May 4	3,736			335			0	86	13	0	2	222.4	90.2	5.0	54.0
May 5	2,342			224			0	62	10	2	5	250.2	87.2	4.0	54.0
May 6	1,740			179			0	60	18	2	7	245.7	89.4	6.0	54.0
May 7	2,481			271			0	58	16	2	11	238.5	95.2	4.0	54.0
May 8	2,355			469			0	64	12	0	29	233.3	94.1	4.0	54.0
May 9	2,244			376			0	49	8	176	35	225.1	94.2	4.5	54.0
May 10	1,746			341			0	36	9	82	26	228.8	93.3	4.5	55.0
May 11	1,208			282			0	59	14	50	23	248.9	89.1	4.5	55.0
May 12	1,164			337			0	76	19	181	0	257.0	90.7	4.5	55.0
May 13	1,182			282			0	75	11	99	13	246.3	93.4	5.0	55.0
May 14	1,352			310			0	102	16	98	29	225.9	94.6	5.0	56.0
May 15	2,266			493			0	107	29	604	11	232.0	92.5	5.6	56.0
May 16	2,380			539			0	107	21	2,440	0	208.3	93.8	5.7	55.0
May 17	1,350			305			0	94	20	6,268	11	240.7	94.7	5.0	55.0
May 18	1,472			250			0	103	27	6,987	13	230.2	95.1	6.0	56.0
May 19	1,043			233			0	121	31	10,455	7	232.9	96.2	5.0	56.0
May 20	2,176			310			0	67	15	12,112	-4	255.8	95.9	5.0	56.0
May 21	1,638			205			0	105	33	15,819	28	253.4	95.8	4.5	56.0
May 22	1,559			169			1	131	25	10,420	25	232.2	96.7	5.0	59.0
May 23	1,476			168			1	94	21	12,607	12	252.4	99.1	4.5	56.0
May 24	1,229			149			6	98	21	40,735	30	261.9	101.3	5.0	56.0
May 25	1,619			195			5	99	21	31,951	466	244.4	101.0	4.0	57.0
May 26	1,471			194			4	115	22	38,545	157	249.6	99.5	4.0	57.0
May 27	1,189			152			9	118	29	132,862	140	286.0	98.4	4.5	57.0
May 28	1,128			162			15	100	21	108,386	136	292.8	100.1	3.5	56.0
May 29	1,642			176			21	175	42	45,834	99	311.7	101.7	4.6	56.0
May 30	1,045			176			25	145	44	60,325	153	269.9	105.1	4.0	56.0
May 31	1,514			145			47	179	52	125,206	206	308.9	104.2	3.5	56.0
TOTAL	65,458			8,147			134	2,947	665	662,249	1,670				
AVG	2,112			263			4	95	21	21,363	54	244.1	95.6	4.7	55.3
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY				
SPRING		170,152	8,885				134	5,954	1,446	662,249	1,670				

TABLE 11

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

BONNEVILLE PROJECT
JUNE 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Jun 1		1,469		216			96	163	49	148,667	229	275.0	97.4	3.5	56.0
Jun 2		1,557		204			159	183	57	193,966	340	292.3	100.8	4.0	57.0
Jun 3		1,451		200			214	211	72	250,608	306	270.3	94.5	4.0	57.0
Jun 4		2,022		308			421	316	79	245,222	912	270.3	93.2	4.0	58.0
Jun 5		1,965		211			472	297	85	206,660	350	285.2	92.8	3.0	58.0
Jun 6		2,500		324			599	399	139	92,779	447	263.1	94.2	3.5	58.0
Jun 7		2,309		291			822	292	103	168,741	307	280.8	95.6	2.5	58.0
Jun 8		1,335		155			708	241	82	249,897	522	273.1	98.8	4.0	58.0
Jun 9		1,399		173			1,241	230	78	244,280	503	259.1	97.9	4.0	58.0
Jun 10		1,897		199			1,353	286	96	245,495	686	265.5	98.0	5.0	58.0
Jun 11		1,900		208			1,579	398	108	172,652	462	276.3	98.9	3.5	58.0
Jun 12		2,110		215			2,199	384	126	191,158	750	285.8	99.3	4.0	57.0
Jun 13		2,184		177			1,973	362	130	203,837	661	268.1	100.3	4.0	57.0
Jun 14		2,022		236			2,519	420	131	110,778	309	273.8	100.6	3.5	57.0
Jun 15		1,868		271			2,940	391	137	88,743	325	261.1	101.3	4.0	57.0
Jun 16		1,847		236			4,247	413	161	137,616	274	271.5	100.0	4.5	58.0
Jun 17		1,911		336			5,786	640	214	172,155	413	232.5	99.1	5.0	59.0
Jun 18		2,384		273			7,108	588	222	239,539	700	239.9	94.5	4.0	59.0
Jun 19		1,832		298			7,133	571	258	236,645	1,106	240.7	96.8	5.0	60.0
Jun 20		2,587		300			8,008	644	299	159,034	1,172	195.0	96.4	5.0	60.0
Jun 21		3,078		383			7,751	728	314	215,308	1,792	245.5	99.2	5.0	60.0
Jun 22		3,105		321			8,000	837	394	205,679	2,037	222.2	68.7	5.0	62.0
Jun 23		3,008		297			7,238	828	392	144,590	2,299	221.6	50.7	4.5	62.0
Jun 24		1,985		249			5,498	735	339	72,365	1,613	192.4	50.3	5.0	62.0
Jun 25		2,050		326			4,572	816	424	41,924	1,605	193.6	50.4	5.2	62.0
Jun 26		1,677		287			3,264	835	424	18,647	1,513	203.4	77.5	5.0	63.0
Jun 27		1,873		313			3,928	756	379	15,247	1,347	199.2	94.9	4.5	63.0
Jun 28		2,482		461			4,338	962	463	31,283	1,263	211.2	67.9	5.0	63.0
Jun 29		2,113		326			3,368	1,186	524	30,508	1,935	192.9	50.9	6.0	64.0
Jun 30		1,659		249			3,168	1,071	534	10,377	1,337	216.6	77.6	5.0	64.0
TOTAL		61,579		8,043			100,702	16,183	6,813	4,544,400	27,515				
AVG		2,053		268			3,357	539	227	151,480	917	245.9	88.0	4.3	59.4
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULT		SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY				
SPRING		170,152	8,885		0		100,836	22,137	8,259	5,206,649	29,185				
SUMMER		61,579	8,043												
TOTAL		231,731	16,928												

TABLE 12

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

BONNEVILLE PROJECT
 JULY 2004

DATE	FISH COUNTS			RIVER CONDITIONS											
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jul 1		1,852		246			3,058	1,195	596	8,973	1588	201.5	94.1	5.0	65.0
Jul 2		1,940		214			2,174	1,247	645	21,353	1164	206.4	70.0	5.0	65.0
Jul 3		1,560		257			2,207	1,065	558	15,727	1059	162.1	50.9	5.5	65.0
Jul 4		1,376		190			1,690	919	465	4,096	1239	176.8	76.6	5.0	65.0
Jul 5		1,350		154			1,434	998	507	4,688	936	181.7	90.3	6.0	65.0
Jul 6		1,585		303			1,810	1,183	613	4,435	1253	203.8	97.0	6.0	65.0
Jul 7		1,593		373			1,499	1,910	961	3,785	1075	190.2	97.0	6.0	65.0
Jul 8		1,427		281			1,365	1,762	858	11,309	697	190.6	69.1	4.0	65.0
Jul 9		1,275		252			1,320	2,182	1,067	9,631	1081	190.9	50.5	5.0	65.0
Jul 10		962		191			1,057	1,718	818	8,185	933	199.1	50.0	4.0	65.0
Jul 11		1,197		168			901	1,887	875	4,485	527	169.7	49.3	5.0	65.0
Jul 12		1,168		141			634	2,031	959	3,308	762	177.8	79.7	5.5	65.0
Jul 13		945		150			486	1,972	972	2,651	946	182.9	93.9	7.0	66.0
Jul 14		1,375		169			441	2,922	1,452	3,504	1335	181.7	89.9	5.0	67.0
Jul 15		1,474		155			420	3,288	1,609	4,147	843	179.0	92.8	4.0	68.0
Jul 16		1,062		166			290	3,951	1,858	5,724	417	145.2	59.4	5.0	68.0
Jul 17		1,140		198			255	3,438	1,513	6,624	951	155.7	50.2	4.0	68.0
Jul 18		700		137			199	3,655	1,657	3,607	457	138.8	72.6	5.0	68.0
Jul 19		833		170			194	3,199	1,477	2,420	627	151.2	80.3	7.0	68.0
Jul 20		761		151			170	2,934	1,361	2,567	522	151.5	62.7	7.0	68.0
Jul 21		614		118			111	2,533	1,121	2,254	373	136.4	50.2	6.0	68.0
Jul 22		569		110			78	2,725	1,264	1,722	344	139.2	51.0	0.0	68.0
Jul 23		601		46			131	2,380	1,136	838	358	147.0	51.5	6.5	68.0
Jul 24		537		75			78	2,054	945	1,516	566	140.5	72.8	7.0	69.0
Jul 25		618		73			43	2,631	1,179	837	379	131.3	82.0	6.8	69.0
Jul 26		288		38			60	2,289	913	689	483	161.2	84.6	6.0	70.0
Jul 27		150		39			49	1,986	792	870	809	161.2	93.8	4.5	70.0
Jul 28		215		37			24	1,724	732	915	727	152.3	66.3	6.0	70.0
Jul 29		477		88			45	1,273	624	590	462	157.6	50.6	5.0	69.0
Jul 30		453		70			17	1,502	700	510	291	172.0	76.4	5.5	69.0
Jul 31		467		86			13	2,068	972	276	403	168.9	88.8	7.0	69.0
TOTAL		30,564		4,846			22,253	66,621	31,199	142,236	23,607				
AVG		986		156			718	2,149	1,006	4,588	762	167.9	72.4	5.4	67.1
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY				
SPRING		170,152	8,885		0	0	123,089	88,758	39,458	5,348,885	52,792				
SUMMER		92,143	12,889												
TOTAL		262,295	21,774												

TABLE 13

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

BONNEVILLE PROJECT
AUGUST 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	PINK	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL												SECCHI	DEG F
Aug 1			553	67	0	0	7	2,014	887	524	261	0	145.5	94.2	7.0	69.0
Aug 2			734	84	1	0	16	2,663	1,201	526	222	0	142.8	88.7	0.0	70.0
Aug 3			965	80	0	2	15	4,662	1,893	522	258	0	144.4	89.7	5.0	70.0
Aug 4			689	81	1	0	49	6,940	2,537	451	274	0	157.4	92.8	5.0	70.0
Aug 5			842	87	1	1	13	7,534	2,481	630	275	0	144.7	89.3	7.0	70.0
Aug 6			548	72	13	0	17	5,875	1,833	526	156	1	129.5	87.8	6.5	70.0
Aug 7			827	77	3	1	2	4,054	1,294	304	332	0	126.6	84.7	5.5	70.0
Aug 8			740	59	11	0	12	4,052	1,294	159	213	0	124.3	82.1	6.2	69.0
Aug 9			675	76	10	1	24	4,890	1,571	349	185	0	123.8	81.2	7.0	69.0
Aug 10			587	90	13	1	2	6,295	1,759	143	610	0	141.8	87.2	5.0	70.0
Aug 11			515	79	22	4	1	8,160	2,260	139	470	0	181.3	97.6	7.0	70.0
Aug 12			255	54	14	4	2	7,339	1,704	292	436	0	162.2	95.2	5.0	70.0
Aug 13			271	39	3	0	11	4,743	1,081	422	266	0	152.9	90.1	7.0	72.0
Aug 14			322	52	9	0	6	2,492	623	399	254	0	129.8	87.3	7.0	72.0
Aug 15			937	84	19	1	10	1,589	511	94	222	0	128.5	84.9	7.0	71.0
Aug 16			773	60	13	0	2	1,550	505	162	243	0	153.6	94.8	5.0	71.0
Aug 17			790	78	9	1	2	1,573	547	108	136	0	151.4	96.2	5.0	71.0
Aug 18			848	112	6	0	1	1,631	515	65	157	0	169.5	103.4	6.0	71.0
Aug 19			748	136	23	1	0	1,621	538	126	138	0	164.0	101.1	7.0	70.4
Aug 20			681	134	10	0	2	1,714	554	96	165	0	165.2	99.1	6.0	71.0
Aug 21			801	94	11	5	0	1,679	499	126	315	0	164.7	100.6	5.0	71.0
Aug 22			588	125	21	2	0	1,920	584	62	496	0	131.2	88.8	6.8	71.0
Aug 23			412	74	8	2	0	1,464	450	45	135	0	130.1	87.3	6.0	71.0
Aug 24			479	79	24	2	0	1,050	292	113	71	0	137.1	92.1	6.0	70.0
Aug 25			1,153	73	10	0	0	902	297	113	51	0	138.5	90.7	4.5	69.0
Aug 26			5,075	270	58	6	0	889	282	61	31	0	155.4	98.5	4.5	68.0
Aug 27			4,833	256	173	9	0	1,029	322	122	21	0	184.3	112.3	5.5	68.0
Aug 28			15,871	720	686	27	0	1,688	504	25	47	0	171.5	104.2	5.0	69.0
Aug 29			27,185	1,440	3,073	179	0	4,702	1,388	40	42	0	160.7	97.2	6.0	69.0
Aug 30			20,106	1,038	3,324	189	0	7,377	1,899	24	77	0	189.5	98.0	7.0	69.0
Aug 31			15,175	802	3,026	138	0	7,795	1,740	24	85	0	182.3	97.0	7.0	69.0
TOTAL			104,978	6,572	10,595	576	194	111,886	33,845	6,792	6,644	1				
AVG			3,386	212	342	19	6	3,609	1,092	219	214	0	151.1	93.4	5.8	70.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	170,152	8,885
SUMMER	92,143	12,889
FALL	104,978	6,572
TOTAL	367,273	28,346

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	PINK
TOTALS TO DATE							
SPRING	10,595	576	123,283	200,644	73,303	5,355,677	59,436
SUMMER							
FALL							
TOTAL							1

TABLE 14

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

BONNEVILLE PROJECT
SEPTEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	PINK	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Sep 1			13,848	843	3,003	163	0	7,107	1,378		132	143.0	2.6	6.0	69.0
Sep 2			12,956	912	1,997	85	1	5,317	1,060		55	154.8	2.2	7.0	69.0
Sep 3			13,488	817	2,677	120	0	4,433	847		76	128.4	2.4	6.0	68.0
Sep 4			16,963	952	3,628	170	0	2,982	658		15	100.4	2.2	6.0	68.0
Sep 5			20,819	1,194	3,996	149	0	2,940	618		63	100.1	2.3	6.0	66.0
Sep 6			26,909	1,246	4,842	328	0	3,723	858		146	100.0	2.2	7.0	66.0
Sep 7			26,765	1,522	4,341	197	0	3,883	828		97	100.3	2.2	7.0	66.0
Sep 8			29,253	1,819	2,341	169	0	3,710	814		108	94.0	2.2	7.0	66.0
Sep 9			24,851	1,501	1,130	80	0	2,986	642		99	93.1	2.2	6.0	66.0
Sep 10			20,640	1,604	1,420	156	0	2,878	681		162	130.5	2.2	7.0	66.0
Sep 11			19,063	1,369	1,509	91	0	2,668	635		90	115.6	2.2	6.0	69.0
Sep 12			19,585	1,293	1,174	75	1	2,439	549		91	102.1	2.3	7.0	66.0
Sep 13			21,566	1,241	2,574	65	0	2,742	595		88	103.5	2.3	6.0	66.0
Sep 14			34,164	1,125	6,148	214	0	4,933	1,142		64	104.2	2.3	7.0	65.0
Sep 15			26,188	870	6,579	132	0	5,176	1,108		242	114.3	2.2	6.0	65.0
Sep 16			12,090	630	3,268	76	0	3,749	759		83	89.5	2.4	6.5	65.0
Sep 17			10,007	555	2,360	79	0	3,759	820		83	106.7	2.2	7.0	65.0
Sep 18			10,462	580	2,081	108	0	3,451	776		71	115.4	2.4	7.0	64.0
Sep 19			9,499	667	1,822	67	0	3,088	705		44	102.2	2.4	6.0	64.0
Sep 20			9,684	658	1,776	123	0	3,033	688		94	115.6	2.3	5.0	64.0
Sep 21			9,321	918	1,363	84	0	2,892	648		30	98.8	2.3	7.0	64.0
Sep 22			7,717	818	1,219	67	1	2,427	531		53	113.5	2.3	6.2	63.0
Sep 23			8,506	1,016	1,510	101	0	2,341	459		47	126.0	2.2	7.0	63.0
Sep 24			7,973	807	1,311	92	0	2,083	448		48	132.5	2.1	6.0	63.0
Sep 25			6,748	673	1,867	105	0	2,244	442		25	119.5	2.2	7.0	63.0
Sep 26			6,917	526	2,149	98	0	1,703	346		10	112.4	2.3	7.0	63.0
Sep 27			6,696	1,014	1,574	78	0	1,757	381		28	121.4	2.2	7.0	63.0
Sep 28			5,157	671	1,611	115	0	1,492	330		13	123.9	2.2	7.0	63.0
Sep 29			4,090	415	1,920	95	0	1,313	305		9	117.7	2.3	7.0	63.0
Sep 30			3,101	445	1,773	67	0	1,233	285		4	118.8	2.1	7.0	63.0

TOTAL	445,026	28,701	74,963	3,549	3	94,482	20,336		2,170
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AVG	14,834	957	2,499	118	0	3,149	678		72	113.3	2.3	6.6	65.1
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RUN YEAR	CHINOOK		COHO		SOCKEYE	STEELHEAD	WILD		SHAD	LAMPREY	PINK
	ADULT	JACK	ADULT	JACK			STEELHEAD	STEELHEAD			
TOTALS TO DATE											
SPRING	170,152	8,885	85,558	4,125	123,286	295,126	93,639	5,355.677	61,606	1	
SUMMER	92,143	12,889									
FALL	550,004	35,273									
TOTAL	812,299	57,047									

TABLE 15

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

BONNEVILLE PROJECT
OCTOBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT		CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	PINK	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER											FALL	SECCHI	DEG F
Oct 1			1,924	324	1,068			988			13	94.9	2.2	7.0	63.0
Oct 2			1,892	346	1,160			862			10	92.6	2.1	7.0	63.0
Oct 3			2,301	394	757			798			10	96.0	2.1	7.0	62.0
Oct 4			2,721	336	783			935			5	119.2	2.0	7.0	62.0
Oct 5			1,524	138	988			894			6	110.1	2.1	8.0	62.0
Oct 6			2,479	197	1,550			1,139			10	107.3	2.1	7.0	62.0
Oct 7			1,705	137	1,230			943			11	124.8	2.2	7.0	63.0
Oct 8			1,342	93	1,063			873			15	146.5	2.2	6.0	62.0
Oct 9			1,709	116	1,731			1,181			7	115.6	2.4	7.0	62.0
Oct 10			1,773	118	1,403			886			11	95.0	2.2	7.0	62.0
Oct 11			1,325	123	1,187			786			6	91.9	2.2	7.0	62.0
Oct 12			1,253	176	630			639			5	93.8	2.4	7.0	61.0
Oct 13			1,162	133	876			500			4	101.7	2.2	7.0	61.0
Oct 14			762	62	960			344			-3	90.4	2.2	7.0	63.0
Oct 15			852	36	1,171			324			4	123.3	2.2	7.0	64.0
Oct 16			707	60	1,624			362			5	85.5	2.2	7.0	64.0
Oct 17			858	50	1,890			272			7	83.3	2.2	7.0	64.0
Oct 18			1,213	57	1,494			247			7	105.5	4.2	7.0	64.0
Oct 19			564	37	984			171			12	115.2	2.2	7.0	64.0
Oct 20			511	32	752			220			2	143.4	3.1	7.0	62.0
Oct 21			531	43	991			212			6	138.8	2.2	7.0	63.0
Oct 22			380	29	898			214			2	135.1	1.9	7.0	62.0
Oct 23			273	28	705			236			1	123.6	2.2	7.0	61.0
Oct 24			367	15	619			205			3	111.0	2.3	7.0	61.0
Oct 25			239	37	346			139			5	113.2	2.2	7.0	60.0
Oct 26			210	1	211			126			-1	125.2	2.3	7.0	60.0
Oct 27			261	10	335			144			2	127.8	2.3	7.0	60.0
Oct 28			239	7	375			74			5	104.8	2.3	7.0	59.0
Oct 29			226	0	483			120			2	108.0	2.2	7.0	59.0
Oct 30			181	11	280			90			0	105.2	2.2	7.0	58.0
Oct 31			222	6	345			100			2	106.8	2.2	7.0	58.0
TOTAL			31,706	3,152	28,889	655		15,024	3,611		174				
AVG			1,023	102	932	21		485	116		6	110.8	2.3	7.0	61.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	170,152	8,885
SUMMER	92,143	12,889
FALL	581,710	38,425
TOTAL	844,005	60,199

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	PINK
114,447	4,780	123,286	310,150	97,250	5,355,677	61,780	1

TABLE 16

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

BONNEVILLE PROJECT
NOVEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	CHUM	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Nov 1		189	3	125	1	0	80	13	1			126.1	2.3	7.0	57.0
Nov 2		194	8	6	0	0	75	0	0			123.9	2.2	6.0	56.0
Nov 3		229	17	20	0	5	61	6	0			124.2	2.2	7.0	56.0
Nov 4		201	2	40	0	0	52	16	0			128.4	2.2	7.0	56.0
Nov 5		137	10	2	7	0	56	8	0			127.8	2.2	7.0	55.0
Nov 6		74	1	112	20	0	99	42	6			128.6	2.3	7.0	55.0
Nov 7		57	0	134	0	0	88	34	6			117.2	2.2	7.0	55.0
Nov 8		56	0	91	0	0	58	25	10			115.4	2.2	7.0	54.0
Nov 9		100	5	9	0	0	48	5	3			119.2	2.2	7.0	54.0
Nov 10		65	-5	6	0	0	16	6	4			121.6	2.3	6.0	54.0
Nov 11		64	0	1	0	0	20	10	1			119.2	2.2	7.0	54.0
Nov 12		65	5	5	0	0	25	6	4			120.0	2.2	7.0	54.0
Nov 13		47	0	9	0	0	31	22	5			117.1	2.2	7.0	53.0
*Nov 14		36	0	16	0	0	15	9	6			121.8	2.2	7.0	52.0
Nov 15		45	0	-5	0	0	19	6	1			117.7	2.2	7.0	53.0
Nov 16		-19	0	1	0	0	9	17	9			121.4	2.2	7.0	53.0
Nov 17		20	0	6	0	0	19	1	0			133.0	2.3	7.0	53.0
Nov 18		0	0	0	0	0	14	1	0			134.5	2.2	7.0	53.0
Nov 19		31	0	2	0	0	-8	-1	2			120.2	2.2	7.0	52.0
Nov 20		25	0	4	0	0	30	7	3			127.2	2.2	7.0	52.0
Nov 21		31	0	2	0	0	37	19	3			134.0	2.2	7.0	51.0
Nov 22		8	0	1	0	0	17	10	7			129.9	2.2	7.0	51.0
Nov 23		24	0	5	0	0	20	7	3			131.1	2.2	7.0	51.0
*Nov 24		19	1	0	0	0	-12	-2	0			128.2	2.2	7.0	51.0
*Nov 25		-11	1	0	0	0	-3	5	0			114.5	2.2	7.0	51.0
*Nov 26		-14	0	0	0	0	15	3	0			133.4	2.2	7.0	51.0
*Nov 27		4	0	0	0	0	20	3	0			116.0	2.3	7.0	51.0
*Nov 28		11	0	-1	0	0	26	4	0			121.0	2.4	7.0	50.0
Nov 29		10	0	3	0	0	13	0	2			130.0	2.3	7.0	50.0
Nov 30		14	0	0	0	0	32	10	1			141.2	2.2	7.0	49.0
TOTAL		1,712	48	594	28	5	972	292	77						

AVG	104	3	38	2	0	50	14	3	124.8	2.2	6.9	52.9
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	PINK	CHUM
TOTALS TO DATE	170,152	8,885	115,018	4,808	123,291	310,893	97,458	5,355,677	61,780	1	77
SPRING	170,152	8,885									
SUMMER	92,143	12,889									
FALL	583,269	38,471									
TOTAL	845,564	60,245									

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. November 16-30 and December counts were not added to fall totals. However, Pink and Chum counts are totals for the entire calendar year.
 *Nov 14 OR shore video tape was unreadable.
 *Nov 24 through 28 WA shore and Cascades Island fish ladder counts were added together. Nov 29 and 30 Washington counts are composed of Cascade Island counts only.
 *Nov 26 and 27 WA shore video did not record. Nov 28 WA shore lights turned off at the 1600 hour.

TABLE 17

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

BONNEVILLE PROJECT
DECEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	CHUM	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Dec 1			2	0	0	0	0	22	-3	0		138.2	0.9	*	*
Dec 2			-5	0	0	0	0	68	12	1		145.8	1.0	*	*
Dec 3			3	0	0	0	0	68	8	0		139.3	1.0	*	*
Dec 4			9	0	-1	0	0	32	17	0		147.3	1.0	7.0	49.0
Dec 5			7	0	1	0	0	17	7	0		149.6	1.1	7.0	49.0
Dec 6			6	0	0	1	0	36	8	0		149.5	1.1	7.0	49.0
Dec 7			4	0	0	0	0	46	9	0		153.9	1.1	7.0	48.0
Dec 8			9	0	0	0	0	22	3	0		158.3	1.2	6.1	48.0
Dec 9			9	0	0	0	0	30	9	0		152.5	1.4	6.9	48.0
Dec 10			6	0	0	0	0	41	8	0		143.9	2.4	6.0	48.0
Dec 11			6	0	0	0	0	45	9	0		146.4	1.8	*	*
Dec 12			4	0	0	0	0	20	3	0		136.3	1.8	*	*
Dec 13			0	0	0	0	0	20	2	0		137.8	1.4	*	*
Dec 14			2	0	0	0	0	22	4	0		135.8	1.0	*	*
Dec 15			1	0	0	0	0	26	2	0		138.0	1.0	7.0	47.0
Dec 16			3	0	0	0	0	37	3	0		156.4	1.0	7.0	47.0
Dec 17			1	0	0	0	0	24	0	0		192.6	1.0	7.0	47.0
Dec 18			1	0	0	0	0	13	8	2		175.1	1.4	7.0	46.0
Dec 19			0	0	0	0	0	24	2	0		147.6	1.2	7.0	46.0
Dec 20			4	0	0	0	0	22	4	0		156.7	1.0	*	*
Dec 21			0	0	0	0	0	14	1	0		188.0	1.4	7.0	46.0
Dec 22			1	0	0	0	0	24	2	0		175.8	1.5	7.0	46.0
Dec 23			1	0	0	0	0	0	3	0		225.8	1.1	6.5	46.0
Dec 24			0	0	0	0	0	39	8	0		147.8	1.1	7.0	46.0
Dec 25			1	0	0	0	0	25	2	0		148.5	1.0	7.0	46.0
Dec 26			1	0	0	0	0	16	1	0		141.8	1.0	7.0	46.0
Dec 27			1	0	0	0	0	14	2	0		150.6	1.0	6.0	45.0
Dec 28			0	0	0	0	0	0	0	0		148.4	1.0	7.0	45.0
Dec 29			0	0	0	0	0	0	0	0		135.1	1.0	7.0	44.0
Dec 30			0	0	0	0	0	0	0	0		153.8	1.0	7.0	44.0
Dec 31			0	0	0	0	0	0	0	0		148.5	1.1	7.0	44.0
TOTAL			77	0	0	1	0	767	134	3					

AVG	4	0	0	0	0	0	0	34	7	0		153.9	1.2	6.8	46.6
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*Data unavailable.

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	PINK	CHUM
TOTALS TO DATE											
SPRING	170,152	8,885	115,018	4,808	123,291	310,893	97,458	5,355,677	61,780	1	80
SUMMER	92,143	12,889									
FALL	583,269	38,471									
TOTAL	845,564	60,245									

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 3 Official Fall Chinook run ended November 15. November 16-30 and December counts were not added to fall totals. However, Pink and Chum counts are totals for the entire calendar year.

TABLE 18

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

1938 - 2004

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
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

TABLE 18
(continued)

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

YEAR	1938 - 2004						SALMONID
	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	CHUM	PINK	
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
Total	26,270,935	12,750,109	5,496,640	2,643,969	39,592	2,901	47,204,146
10-Year Average	583,393	312,098	53,765	86,509	77	78	1,035,920

*Jacks included

TABLE 19

MONTHLY COUNT OF CHINOOK SALMON														SPRING	SUMMER	FALL
BONNEVILLE DAM - 1938 - 2004														Jan 1- May 31	Jun 1- Jul 31	Aug - Dec 31
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*			
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

TABLE 19

(Continued)

MONTHLY COUNT OF CHINOOK SALMON													SPRING	SUMMER	FALL	
BONNEVILLE DAM - 1938-2004													Jan1- May 31	Jun 1- Jul 31	Aug - Dec 31	
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*			
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
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	39,117	24,111	217,716
1999		2	251	19,016	28,831	14,830	16,121	66,546	186,880	14,624	378	7	347,486	48,098	30,951	268,428
2000		4	3,166	130,193	71,222	25,864	19,209	100,658	139,073	11,380	227	16	501,012	204,581	45,073	251,338
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	439,533	99,685	498,127
2002	74	207	1,875	149,293	124,122	89,419	45,969	149,283	344,754	18,449	1,421	255	925,121	275,290	135,388	513,907
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
TOTAL	124	394	97,806	3,962,288	2,742,988	2,065,475	1,548,837	3,042,166	12,285,461	607,575	32,550	1,225	26,386,889	6,802,573	3,613,527	15,960,781
10-Year Average			4,330	96,910	57,147	38,929	24,770	88,221	264,995	18,249	1,239		594,920	142,465	55,138	330,130

*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 and 2004 counts include 16 hour video counts took place 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 - 2004

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

TABLE 20

(Continued)

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM 1938 - 2004

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
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	
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					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	
TOTAL				76	541	8,255	2,371,700	3,087,224	44,084	2,634	137	37	1	5,514,689
10-Year Average					37	41,484	13,860	144						55,523

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 and 2004 counts include 16 hour video counts 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 - 2004

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

TABLE 21

(Continued)

MONTHLY COUNT OF COHO SALMON
BONNEVILLE DAM 1938 - 2004

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	JACKS
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
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	0	19,077	3,010
1997							22	1,441	19,412	6,755	289		27,919	3,206
1998							13	896	35,245	13,047	282	5	49,488	3,630
1999		19					3	951	34,901	9,673	252	5	45,805	4,468
2000						1	3	13,348	55,550	29,698	949	112	99,660	11,383
2001	15					2	145	34,112	205,352	34,401	3,907		277,934	6,781
2002						0	6	4,742	54,917	38,184	2,803	183	100,835	6,817
2003	0	0	0	0	0	0	10	11,389	86,621	35,516	334	4	133,874	8,127
2004	1							11,171	78,512	29,544	622	1	119,851	4,809
TOTAL	37	31	6	1	0	179	5,517	238,514	1,954,031	420,898	46,306	376	2,665,896	565,291
10 Year Average							43	7,946	58,797	20,856	1,029		88,702	5,387

*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 and 2004 counts include 16 hour video counts took place between 0400-2000 PST January 1 through March 31 and November 1 through December 31.

TABLE 22

**MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM; 1938 -2004**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	A-Run	B-Run
														Jan 1- Aug 25	Aug 26- Dec 31
1938					6,622	2,382	19,455	29,231	46,618	2,264	339	92	107,003	49,306	57,697
1939	23	19	570	8,110	1,587	1,490	36,681	38,062	33,891	1,264	216	119	122,032	80,096	41,936
1940	5	96	1,688	4,125	998	4,489	61,188	46,071	64,377	1,786	292	59	185,174	106,724	78,450
1941	37	76	1,641	6,392	1,518	996	21,940	29,600	50,542	3,980	1,063	304	118,089	58,109	59,980
1942	4	37	256	3,642	4,159	1,588	19,905	41,973	77,076	2,412	566	182	151,800	65,219	86,581
1943	14	18	654	3,374	4,698	1,564	7,755	29,894	41,051	2,444	573	94	92,133	41,219	50,914
1944	50	157	1,019	6,142	2,224	1,169	21,868	24,508	35,907	6,129	1,119	226	100,518	51,585	48,933
1945	1,003	1,078	3,008	4,685	1,557	1,109	24,537	40,593	40,194	1,925	302	142	120,133	72,685	47,448
1946	64	551	3,040	9,839	5,482	3,265	20,600	58,466	38,399	2,070	262	769	142,807	93,422	49,385
1947	197	321	1,968	6,889	2,025	1,595	28,134	40,819	50,025	2,905	443	123	135,444	75,035	60,409
1948	154	119	1,631	4,473	1,170	1,895	33,191	53,621	40,609	1,742	381	76	139,062	87,453	51,609
1949	1		1,689	3,293	1,712	1,264	34,314	54,281	20,786	1,161	686	98	119,285	90,762	28,523
1950	13	8	1,156	4,537	1,667	691	25,142	53,904	24,226	1,932	811		114,087	80,191	33,896
1951			375	2,338	1,568	5,187	74,980	39,712	15,357	947	225		140,689	121,100	19,589
1952			278	1,248	1,751	8,202	118,110	79,735	48,293	2,735	638		260,990	190,012	70,978
1953			1,310	5,308	1,456	5,313	106,712	64,006	36,107	2,797	905		223,914	173,135	50,779
1954		6	679	5,511	1,571	6,115	59,443	65,234	34,941	2,209	551		176,260	126,085	50,175
1955			1,006	2,100	1,149	2,418	79,124	84,746	24,239	3,361	268		198,411	161,614	36,797
1956			1,409	2,718	1,582	3,122	48,306	47,148	23,343	2,846	635	7	131,116	99,692	31,424
1957			926	2,081	760	8,434	66,738	34,915	24,029	1,069	231		139,183	105,179	34,004
1958			495	651	1,457	5,645	53,734	22,827	44,478	1,859	291		131,437	79,533	51,904
1959			219	746	1,236	2,562	60,549	38,417	23,579	1,540	178		129,026	98,198	30,828
1960			412	904	1,090	4,314	44,026	33,571	28,058	1,090	211		113,676	77,141	36,535
1961			374	1,161	692	2,246	44,379	41,237	47,409	1,561	660		139,719	79,269	60,450
1962			381	1,957	1,491	3,737	49,789	40,177	64,084	1,798	611		164,025	86,990	77,035
1963			503	1,035	1,385	4,192	51,951	31,441	35,446	2,920	545		129,418	83,858	45,560
1964			490	1,609	769	1,940	50,640	26,892	32,406	1,954	552		117,252	76,135	41,117
1965			211	1,516	1,419	4,265	89,405	29,506	37,529	1,971	631		166,453	120,560	45,893

TABLE 22
(Continued)
MONTHLY COUNT OF STEELHEAD
BONNEVILLE DAM - 1938 -2004

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Jan 1- Aug 25	Aug 26- Dec 31
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
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	530+166	57,472	127,882	53,571	18,428	2,234	84	266,840	177,685	89,155
1998	161	239	984	883	1,655	7,236	36,437	60,403	76,293	12,136	489	585	197,501	87,422	97,672
1999	15	287	699	833	1,308	5,157	48,278	101,610	46,200	6,509	637	585	212,118	138,258	68,230
2000	340	420	1,495	1,235	2,006	13,594	80,259	106,918	68,407	7,306	510	175	282,665	185,066	90,112
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	435,035	198,038
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	285,229	195,080
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
TOTAL	5,820	7,361	69,566	187,775	167,187	458,033	3,772,231	4,467,932	3,374,696	309,183	47,000	10,835	12,877,619	8,270,689	4,510,367
10-Year Average			1,537	1,579	2,188	12,273	77,426	130,722	83,613	13,025	1,831		324,734	198,760	116,013

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 and 2004 counts include 16 hour video counts took place 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 - 2004**

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

TABLE 23
(Continued)

MONTHLY COUNT OF SHAD at
BONNEVILLE DAM 1938 - 2004

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
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
TOTAL			14	401	5,922,647	43,000,786	7,267,938	126,733	4,136	593	36		56,323,284
10 Year Average					307,130	2,151,508	135,734	1,898					2,596,272

Shad are no longer counted past August.

**MONTHLY COUNT OF LAMPREY at
BONNEVILLE DAM 1939¹ - 1969, 1997 - 2004**

Information concerning the lamprey count table.

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 flash board 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.

Despite the lack of certainty in these counts, they can demonstrate approximate trends in migration patterns throughout the fish passage season and a rough estimate of population trends from year to year. Nevertheless, present populations will require more study of these animals.

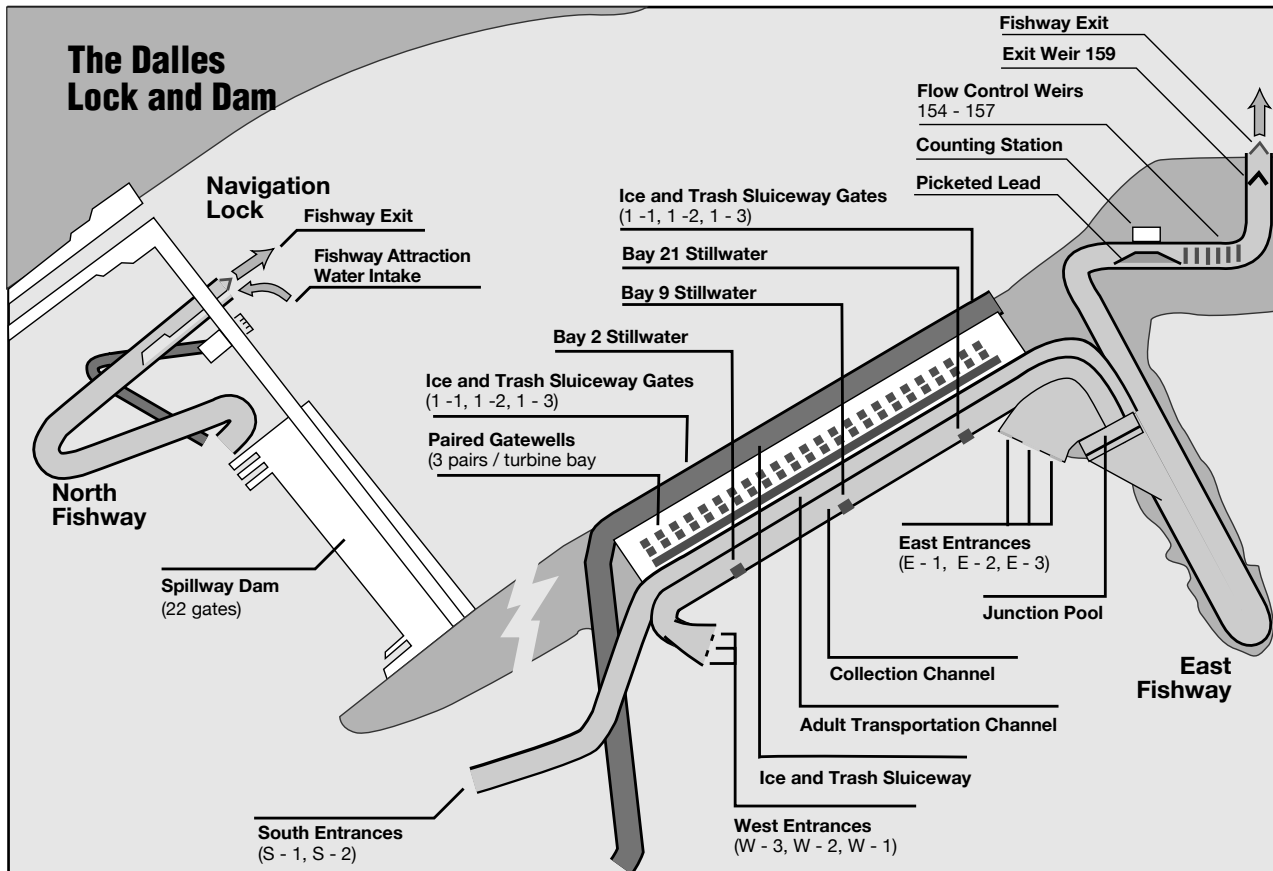
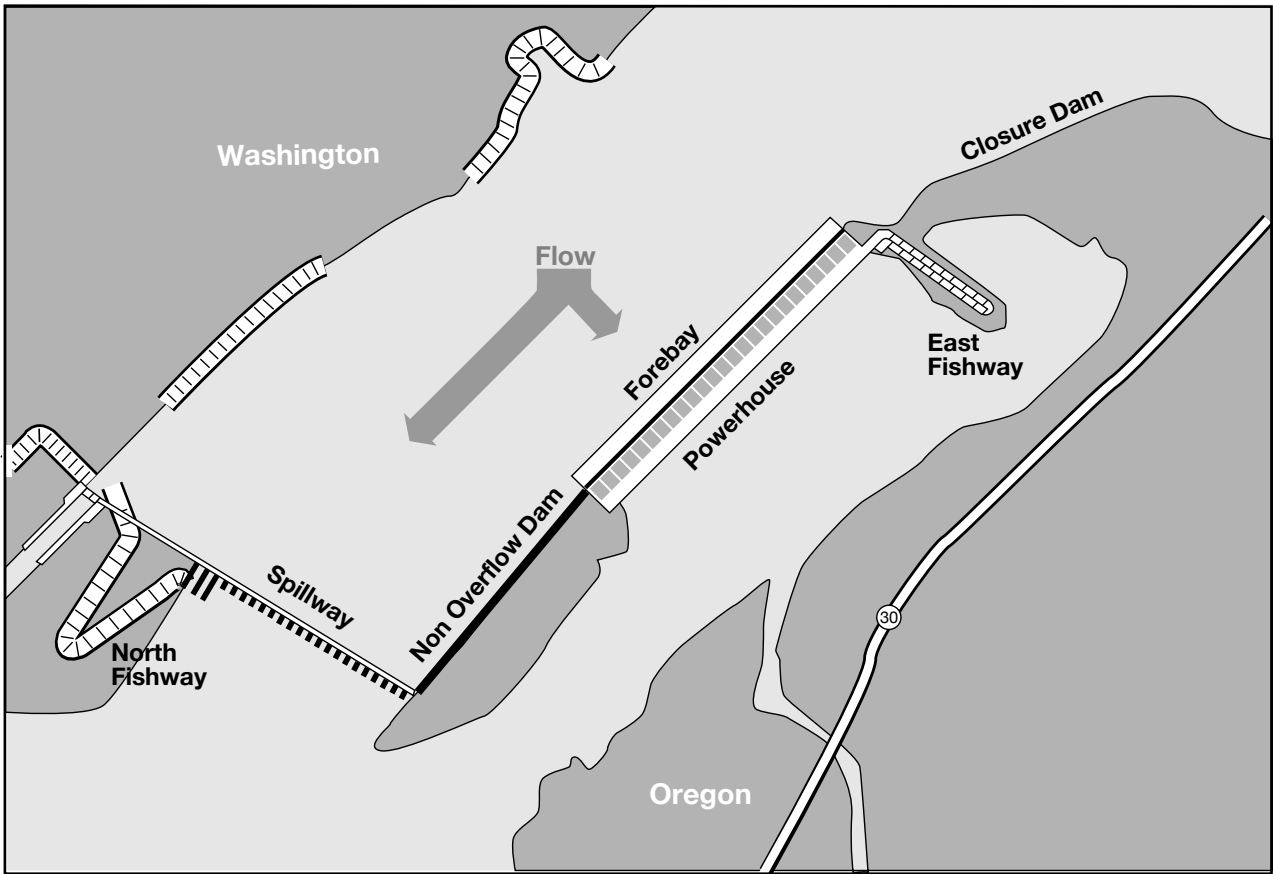
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939				732	9,027	95,814	103,726	14,403	3,349	71	0		227,122
1940				338	24,551	40,642	67,760	20,554	2,217	40	0		156,102
1941				1,428	7,449	6,960	34,952	12,801	1,305	57	2		64,954
1942				13	1,302	3,457	28,641	16,270	2,619	40	19		52,361
1943				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					1,670	27,515	23,607	6,644	2,170	174			61,780
TOTAL				3	4,085	163,410	742,809	1,720,508	856,302	138,092	11,794	1,258	3,638,280
1997-2004 8-Year Average				39	2,348	21,887	18,936	8,434	3,777	303			52,984

¹No data are available for 1938.

²Because of changes in the Washington shore counting station, lamprey counts from 1938-1949 cannot be compared with counts from 1950 on.

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

Plate 3 The Dalles Lock and Dam



THE DALLES DAM

FISH COUNTING SCHEDULE

Feb 20 – Mar 31 Video counting daily 0400-2000 hours Pacific Standard Time.
Apr 1 – Oct 31 Visual counting daily 0400-2000 hours Pacific Standard Time.
Nov 1 – Dec 2 Video counting daily 0400-2000 hours Pacific Standard Time.

ADULT FISHWAY OPERATING 2004 SCHEDULE

The following information includes fishway operation for calendar year 2004. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports. "Out of service" indicates fish ladder dewatered and auxiliary water system off for routine annual maintenance. Dive inspection was conducted. Dive inspections were conducted 8/3/04 at The Dalles and 8/4/04 at John Day, per Fish Passage Plan, requiring a short period of fishway outage, with the auxiliary water system off.

ADULT FISH FACILITY OPERATING SCHEDULE

East Adult Fishway

1/1---in service---1/13---out of service ---2/28 ---in service -----12/07-----out of service-----12/31

North Adult Fishway

1/1---out of service---2/10 (extended due to wall construction) -----in service -----12/31

Ice / Trash Sluiceway (Juvenile)

1/1---orifice flow-----4/1-----in service-----10/01-----day operation only----12/1----no flow-----12/31

Spillway

1/1---closed---4/12-----40%, 24hr -----8/31-----closed-----12/31

2004 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 divers.

Fishway Dewaterings

East ladder (1/13)- Annual inspection and maintenance. Two adult lamprey and 6 juveniles steelhead removed and released to river.

South entrance (1/29) - Annual inspection and maintenance. Seven sturgeon (2' –5' length) and approximately 50 lamprey were removed and released to river.

Collection and transportation channels (2/12)- Annual inspection and maintenance first time in

45 years! Two lamprey were removed and released to river.

Collection and transportation channels (12/16 and 12/20)- Annual inspection and maintenance the second time in two years ! Twenty two lamprey were removed and released to river.

East ladder (12/07)- Annual inspection and maintenance. A 9 'sturgeon and three adult chinook were removed from the upper section and released to forebay. Approximately 50 shad, 2 adult steelhead and 6 juvenile salmonids were pushed to tailwater. Three lamprey provided to Umatilla tribe for restocking program.

South entrance (12/09) - Annual inspection and maintenance. Approximately 100 lamprey were removed and released into forebay.

Fishway Dives

North and east fishway (8/3) – Annual mid season inspection. Grating found in good condition.

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 Dewaterings

Fish turbine unit F1 (1/15) – Routine maintenance. No fish found in scroll case or draft tube.

Main turbine unit 3 (2/25) – Routine maintenance. No fish in scroll case. Two sturgeon removed from draft tube.

Main turbine unit 1 (7/29) – Routine maintenance. No fish in scroll case. 27 sturgeon and one catfish removed from draft tube.

Main turbine unit 11 (12/06)- Routine maintenance. No fish in scroll case. 12 catfish, 4 sturgeon, 1 shad removed from draft tube.

Navigation Lock Dewatering Procedures

Navigation lock dewatering for annual maintenance requires labor intensive fish removal efforts. It is impossible to remove fish from all areas of the navigation lock areas due to access limitations. Fish are removed from the supply conduits and the floor diffuser laterals. Fish are then removed by seine and dipnet and transported to a release site by tank.

Navigation Lock Dewaterings

Navlock dewater for annual inspection/maintenance (3/6-3/20) - no fish found.

2004, 2003, 2002- FISHWAY INSPECTION COMPARISON

Three adult fishway inspections are conducted per day during the adult fish passage season (March 1 to November 31). One adult fishway inspection is conducted per day during the non- passage season. Items shown in *italics* are inspected once per day. All other items are inspected during every fishway inspection. Guidelines are provided by the COE Fish Passage Plan. Weekly fishway status reports are provided throughout the year. Inspections of the John Day Smolt Monitor Facility are made once per two hours, 24 hours per day during the juvenile sampling season (April 1 to Sept 15.) SMF status reports are included in the weekly fishway status report. Increased or continual problem areas indicated in red. Values are rounded to the nearest whole percent.

Fishway Inspection Results

<u>Criteria Item</u>	<u>Percent out of Criteria</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
East Fishway			
Exit differential	0	0	0
Weir 158	3	2	3
Weirs 154 – 157	2	13	8
<i>Count station differential</i>	2	2	2
<i>Weir crest depth</i>	7	5	1
<i>JP2 junction pool</i>	1	22	20
<i>JP4 junction pool</i>	1	22	18
<i>JP6 junction pool</i>	21	40	21
East entrance differential	10	5	12

<u>Criteria Item</u>	<u>Percent out of Criteria</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
E1 entrance depth	0	1	closed
E2 entrance depth	19	17	4
E3 entrance depth	2	1	4
<i>Collection channel velocity</i>	32	19	-
West entrance differential	7	4	18
W1 entrance depth	4	3	9
W2 entrance depth	3	1	8
W3 entrance depth	0	2	closed
South entrance differential	9	4	14
S1 entrance depth	7	4	31
S2 entrance depth	7	3	2
North Fishway			
Exit differential	0	1	0
<i>Count station differential</i>	0	0	0
<i>Weir crest depth</i>	0	2	0
North entrance differential	1	1	1
N1 entrance depth	2	1	1
N2 entrance depth	closed	closed	closed
<i>PUD intake differential</i>	1	1	1
<i>Ice/Trash Sluice gate operation</i>	0	0	0
<i>Spill pattern</i>	0	1	0
<i>Turbine operation priority</i>	0	4	-
<i>Turbine 1% operation</i>	0	2	-

Discussion

Junction pool weirs were manual adjusted throughout the passage season. JP2 and JP4 were frequently pulled completely out of the water as this appeared to be an optimal setting. Automation upgrades are planned for '06 passage season in attempts to resolve the problem. Investigation continues, to determine hydraulic affects of JP weirs to the system. HELCRABS hydraulic modeling may provide some answers as to whether these weirs are needed. Adult radio-telemetry from past several years has not revealed passage problems in this area.

The east entrance E2 weir had poor average due to cable failure in March which was repaired in April. After the repair, out of criteria averaged 1% and was excellent. The south entrance poor average was caused by a problem with PLC early in season. It was fixed in April and the entrance was good afterwards. Collection channel velocity continues to have frequent slow areas at east end of the powerhouse. HELCRABS hydraulic modeling is underway with a goal of optimizing flows through the entire length of collection channel.

COUNT ACTIVITY

Fisheries section continued to enter daily fish counts through the 2004 passage season. This will be discontinued in 2005 as the new computerized system will transmit data directly from the counting stations and data base.

TABLE 25

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

2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			272	74,705	59,127	59,859	30,999	41,935	261,434	32,361	2,017	28	562,737
STEELHEAD	140	1,072	1,066	680	680	7,116	23,581	30,398	152,302	23,099	1,647	22	241,123
SOCKEYE				61	61	84,332	22,978	94	1				107,466
COHO*	-1							565	29,591	10,408	1,072	10	41,645
CHUM											5		5
PINK													0
TOTAL	139	1,344	75,771	59,868	151,307	77,558	72,992	443,328	65,868				952,976
SHAD				14	955,340	4,375,831	137,510	3,705					5,472,400
LAMPREY					33	2,471	8,503	2,663	1,092	111			14,873

*Jacks included

Counting occurred Feb 20 through Dec 15 from 0400-2000 PST. Visual counts occurred Apr 1 - Oct 31.

Video counting occurred during all other times.

Lamprey are not counted during video counts. Shad are not counted after September 1st.

TABLE 26

DISCHARGE AND WATER QUALITY DATA

THE DALLES PROJECT 2004

JANUARY

DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI	DEG F
Jan 1	160.0	0.0	5.5	42.0
Jan 2	123.7	0.0	6.0	42.0
Jan 3	153.4	0.0	6.0	41.0
Jan 4	126.8	0.0	6.0	41.0
Jan 5	177.9	0.0	5.5	42.0
Jan 6	187.4	0.0	6.0	39.0
Jan 7	174.5	0.0	5.5	42.0
Jan 8	169.0	0.0	5.5	38.0
Jan 9	177.7	0.0	5.5	38.0
Jan 10	112.0	0.0	*	*
Jan 11	100.8	0.0	*	*
Jan 12	140.6	0.0	*	*
Jan 13	140.5	0.0	*	*
Jan 14	131.8	0.0	6.0	36.0
Jan 15	123.8	0.0	6.0	36.0
Jan 16	145.0	0.0	6.0	36.0
Jan 17	111.8	0.0	6.0	36.0
Jan 18	104.6	0.0	6.0	36.0
Jan 19	123.7	0.0	*	*
Jan 20	129.5	0.0	*	*
Jan 21	145.6	0.0	*	*
Jan 22	125.8	0.0	*	*
Jan 23	127.4	0.0	*	*
Jan 24	126.3	0.0	*	*
Jan 25	104.4	0.0	*	*
Jan 26	132.1	0.0	*	*
Jan 27	145.1	0.0	*	*
Jan 28	148.5	0.0	*	*
Jan 29	141.8	0.0	*	*
Jan 30	140.5	0.0	*	*
Jan 31	170.9	0.0	*	*
AVG.	139.4	0.0	5.8	38.9

*Data unavailable.

TABLE 27

MONTHLY FISH PASSAGE SUMMARY REPORT											THE DALLES PROJECT			
U.S. ARMY ENGINEER DISTRICT, PORTLAND											FEBRUARY 2004			
DATE	FISH COUNTS							RIVER CONDITIONS						
	CHINOOK ADULT			CHINOOK	COHO	COHO	WILD		SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD		KCFS	KCFS	SECCHI	DEG F
Feb 1											121.4	0.0	*	*
Feb 2											154.2	0.0	*	*
Feb 3											145.4	0.0	*	*
Feb 4											138.2	0.0	*	*
Feb 5											158.8	0.0	*	*
Feb 6											129.7	0.0	*	*
Feb 7											126.1	0.0	*	*
Feb 8											113.4	0.0	*	*
Feb 9											130.0	0.0	*	*
Feb 10											124.6	0.0	*	*
Feb 11											138.1	0.0	*	*
Feb 12											127.2	0.0	5.5	40.0
Feb 13											143.1	0.0	6.0	40.0
Feb 14											133.7	0.0	6.0	40.0
Feb 15											111.9	0.0	5.5	40.0
Feb 16											127.2	0.0	5.0	40.0
Feb 17											126.5	0.0	*	*
Feb 18											109.2	0.0	*	*
Feb 19											118.7	0.0	5.5	39.0
Feb 20	0			0	-1			33	7		141.5	0.0	6.0	39.0
Feb 21	0			0	0			16	8		130.4	0.0	5.5	39.0
Feb 22	0			0	0			5	0		85.5	0.0	5.0	39.0
Feb 23	0			0	0			13	4		142.2	0.0	5.5	40.0
Feb 24	0			0	0			-3	-4		137.6	0.0	5.5	39.0
Feb 25	0			0	0			-2	-2		153.6	0.0	4.5	40.0
Feb 26	0			0	0			14	4		105.6	0.0	4.5	40.0
Feb 27	0			0	0			27	8		158.5	0.0	5.5	40.0
Feb 28	0			0	0			6	2		118.0	0.0	5.5	40.0
Feb 29	0			0	0			31	6		111.4	0.0	5.5	40.0
TOTAL	0			0	-1			140	33					
AVG.	0			0	0			12	3		130.4	0.0	5.4	39.7

*Data unavailable.

Note: From February 20 to March 31, counts were from video tape. The counts are 16-hour counts and occurred between 0400-2000 PST.
 Official Spring Chinook run started April 1. February and March Chinook counts were not added to spring totals.

TABLE 28

MONTHLY FISH PASSAGE SUMMARY REPORT

THE DALLES PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

MARCH 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD						
Mar 1	0			0				8	2			138.5	0.0	4.5	40.0
Mar 2	1			0				5	1			141.0	0.0	4.5	40.0
Mar 3	0			0				8	2			144.5	0.0	4.5	40.0
Mar 4	0			0				19	4			121.7	0.0	5.5	41.0
Mar 5	1			0				126	31			144.1	0.0	5.0	41.0
Mar 6	0			0				53	10			136.8	0.0	5.5	41.0
Mar 7	0			0				56	14			99.8	0.0	5.5	41.0
Mar 8	1			0				72	19			122.6	0.0	6.0	40.0
Mar 9	0			0				120	32			120.1	0.0	4.5	40.0
Mar 10	8			0				112	25			121.0	0.0	5.5	
Mar 11	7			0				107	25			136.5	0.0	5.5	43.0
Mar 12	7			0				63	19			129.8	0.0	4.5	40.0
Mar 13	4			0				69	29			131.9	0.0	5.0	40.0
Mar 14	7			0				0	-2			97.7	0.0	5.0	40.0
Mar 15	15			0				34	-1			144.9	0.0	4.5	44.0
Mar 16	10			0				9	-6			158.8	0.0	5.0	44.0
*Mar 17	0			0				-13	-20			123.2	0.0	5.5	44.0
*Mar 18	10			0				1	-1			141.9	0.0	*	45.0
*Mar 19	17			0				20	2			149.7	0.0	4.0	45.0
*Mar 20	18			0				14	3			142.2	0.0	5.5	45.0
*Mar 21	3			0				17	-1			122.2	0.0	4.5	45.0
*Mar 22	7			0				17	1			152.3	0.0	4.5	46.0
Mar 23	14			0				5	2			136.5	0.0	4.0	46.0
Mar 24	14			0				30	4			183.9	0.0	4.5	46.0
Mar 25	13			0				41	3			163.0	0.0	4.5	46.0
Mar 26	16			0				38	12			167.2	0.0	4.5	46.0
Mar 27	30			0				27	2			138.6	0.0	4.5	47.0
Mar 28	38			0				27	6			115.5	0.0	4.5	46.0
Mar 29	19			0				-10	-6			165.6	0.0	3.5	48.0
Mar 30	12			0				23	4			136.1	0.0	4.5	48.0
Mar 31	0			0				-26	-10			171.1	0.0	3.5	48.0
TOTAL	272			0				1,072	205						
AVG.	9			0				37	7			138.7	0.0	4.8	43.5

*Data unavailable.

Note: From February 20 to March 31, counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST Official Spring Chinook run started April 1. February and March Chinook counts were not added to spring totals

*Mar 17 East ladder camera moved and lost appropriate distance for recording. No counts after 1500

*Mar 18 and 19 East ladder camera aimed too high and too close for recording. Corrected counts.

*Mar 20 through 22, East ladder camera aimed too high and too close for recording. Counts not accurate

TABLE 29

MONTHLY FISH PASSAGE SUMMARY REPORT											THE DALLES PROJECT				
U.S. ARMY ENGINEER DISTRICT, PORTLAND											APRIL 2004				
FISH COUNTS											RIVER CONDITIONS				
DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Apr 1	29			2				55	19	0		150.8	0.0	4.0	48.0
Apr 2	45			1				16	9	0		137.0	0.0	4.5	48.0
Apr 3	23			0				36	14	0		146.3	0.0	4.5	48.0
Apr 4	53			1				37	7	0		124.1	0.0	4.5	49.0
Apr 5	81			0				61	30	0		127.9	0.0	4.0	50.0
Apr 6	138			0				87	44	0		138.0	0.0	4.0	51.0
Apr 7	237			0				78	35	0		146.6	0.0	4.0	49.0
Apr 8	240			0				67	36	0		151.3	0.0	4.0	50.0
Apr 9	355			0				63	30	0		150.0	0.0	4.5	52.0
Apr 10	490			0				34	13	0		143.8	0.0	4.5	52.0
Apr 11	821			0				53	29	0		117.1	0.0	4.5	52.0
Apr 12	709			0				30	12	0		167.2	19.2	3.5	56.0
Apr 13	785			0				37	20	2		140.7	53.2	4.0	55.0
Apr 14	1,089			0				19	7	0		148.1	58.3	4.5	54.0
Apr 15	3,135			1				31	19	0		185.9	73.0	4.0	53.0
Apr 16	2,033			12				42	21	0		191.5	74.8	4.5	50.0
Apr 17	2,123			2				21	11	0		184.8	73.1	4.5	51.0
Apr 18	3,647			44				33	21	1		144.2	55.6	4.5	51.0
Apr 19	5,495			16				30	27	0		166.6	62.8	4.0	52.0
Apr 20	5,137			18				31	18	2		178.4	70.8	4.0	53.0
Apr 21	7,034			26				20	12	0		209.4	83.7	4.5	53.0
Apr 22	7,279			36				23	11	0		170.0	67.0	4.5	53.0
Apr 23	6,640			35				29	24	0		169.2	65.2	4.5	53.0
Apr 24	7,632			62				22	7	0		160.4	61.5	4.5	53.0
Apr 25	4,437			80				16	9	0		162.6	64.5	4.5	53.0
Apr 26	2,345			77				27	12	4		151.8	59.8	4.5	53.0
Apr 27	2,226			44				22	14	1		132.2	51.4	4.5	55.0
Apr 28	4,178			51				20	14	0		196.5	77.1	4.5	55.0
Apr 29	3,690			89				14	7	2		169.0	66.3	4.0	54.0
Apr 30	1,908			74				12	4	2		167.7	65.3	4.5	54.0
TOTAL	74,034			671				1,066	536	14					
AVG.	2,468			22				36	18	0		157.6	40.1	4.3	52.0

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

TABLE 30

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

THE DALLES PROJECT
 MAY 2004

DATE	FISH COUNTS										RIVER CONDITIONS				
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL												
May 1	1,696			83			0	15	3	1	0	174.7	69.0	4.5	54.0
May 2	1,700			88			0	10	1	13	0	159.4	62.6	4.5	54.0
May 3	4,733			146			0	17	6	14	0	167.9	65.7	5.0	56.0
May 4	5,228			230			0	16	7	17	0	201.0	78.5	4.0	55.0
May 5	3,440			235			0	9	1	36	0	218.0	84.3	4.0	56.0
May 6	1,818			261			0	11	3	26	0	221.3	87.1	4.0	56.0
May 7	2,499			246			0	18	7	30	0	212.3	83.1	4.0	55.0
May 8	1,597			169			0	19	9	90	0	207.8	81.5	4.0	54.0
May 9	2,254			280			0	21	7	56	0	201.3	79.3	4.0	54.0
May 10	1,949			426			0	32	13	98	0	204.9	80.8	4.5	57.0
May 11	2,047			281			0	9	0	97	0	225.5	89.0	4.5	57.0
May 12	879			214			0	16	4	277	0	228.9	89.9	4.5	57.0
May 13	941			228			0	15	4	161	0	214.4	83.3	4.5	57.0
May 14	981			305			0	13	1	727	0	201.9	79.6	5.0	58.0
May 15	1,060			265			0	20	7	762	0	197.3	77.7	5.0	58.0
May 16	1,475			284			0	18	4	1,669	0	182.6	72.0	5.0	58.0
May 17	1,709			420			0	19	5	2,068	0	212.5	84.5	5.0	57.0
May 18	1,674			355			0	28	7	48,012	0	199.9	77.3	4.5	58.0
May 19	1,297			247			0	26	2	37,201	0	216.4	85.5	5.0	59.0
May 20	929			168			0	19	6	40,292	0	224.9	88.3	4.5	59.0
May 21	1,060			234			0	35	15	39,119	0	218.8	87.4	4.0	55.0
May 22	1,422			222			0	31	7	30,905	0	215.7	85.2	4.0	57.0
May 23	1,604			188			1	20	9	46,011	1	215.4	83.5	4.0	57.0
May 24	954			124			1	23	6	46,343	8	230.6	90.8	3.0	58.0
May 25	1,024			147			2	23	5	93,464	6	221.7	87.0	3.0	58.0
May 26	1,424			120			2	22	10	62,772	5	237.3	92.9	3.0	58.0
May 27	786			110			2	30	8	70,918	1	257.7	100.4	5.0	59.0
May 28	951			106			6	25	3	101,097	2	258.3	102.1	3.5	58.0
May 29	961			172			4	40	6	150,313	6	289.0	119.0	3.5	58.0
May 30	1,416			166			20	37	11	114,414	2	237.7	93.3	4.0	64.0
May 31	960			139			23	43	8	68,337	2	279.9	115.0	4.0	64.0
TOTAL	52,468			6,659			61	680	185	955,340	33				
AVG.	1693			215			2	22	6	30,817	1	217.3	85.7	4.2	57.3
RUN YEAR		CHINOOK ADULT	CHINOOK JACK						WILD STEELHEAD	SHAD	LAMPREY				
TOTALS TO DATE		126,502	7,330				61	1,746	721	955,354	33				

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 31

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

THE DALLES PROJECT
 JUNE 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Jun 1	1070			108			53	47	9	75,426	0	260.4	101.8	4.0	59.0
Jun 2	1286			109			49	62	13	145,696	6	264.6	103.8	4.0	59.0
Jun 3	1382			170			126	83	17	161,699	12	233.3	92.1	4.0	60.0
Jun 4		1177		152			163	62	12	244,367	33	251.3	101.4	4.0	60.0
Jun 5		1133		226			266	86	19	220,311	24	265.7	106.6	4.0	60.0
Jun 6		1831		161			266	92	34	173,332	22	234.9	92.9	4.0	60.0
Jun 7		1716		140			476	79	24	172,968	15	240.7	94.9	4.0	57.0
Jun 8		2197		187			669	127	42	137,524	37	239.4	94.8	4.0	57.0
Jun 9		2023		168			713	119	43	124,812	26	239.7	94.7	5.0	58.0
Jun 10		955		132			858	122	34	167,239	30	219.4	87.3	4.0	60.0
Jun 11		1109		162			1,057	96	44	137,316	16	261.0	103.3	4.0	60.0
Jun 12		1628		113			1,025	83	23	180,434	13	260.3	103.5	4.0	60.0
Jun 13		1826		197			1,670	151	53	181,364	17	232.6	92.1	4.0	60.0
Jun 14		1830		123			1,783	139	45	161,477	25	244.2	96.3	3.5	60.0
Jun 15		1956		166			1,931	120	54	145,410	2	241.4	95.1	3.5	59.0
Jun 16		1573		123			1,967	112	32	254,160	66	251.1	79.6	4.0	60.0
Jun 17		1578		159			2,921	167	60	247,643	62	191.6	76.0	4.0	61.0
Jun 18		2149		238			4,978	225	74	188,049	52	208.6	83.2	4.5	61.0
Jun 19		2094		209			6,544	279	109	179,921	50	208.4	82.5	4.5	60.0
Jun 20		2315		225			6,843	274	126	205,295	62	169.9	67.2	4.5	60.0
Jun 21		2044		217			6,345	338	144	119,622	97	208.5	81.8	4.5	63.0
Jun 22		2934		315			7,257	396	179	144,214	179	193.5	72.8	4.5	66.0
Jun 23		3010		182			7,290	473	202	170,401	126	211.6	72.9	4.5	65.0
Jun 24		2408		160			6,471	402	188	145,176	193	165.3	53.7	4.0	66.0
Jun 25		1873		172			5,047	435	207	69,661	221	169.3	65.8	4.0	66.0
Jun 26		1708		193			4,209	468	225	71,208	186	176.2	70.6	4.0	67.0
Jun 27		1813		210			3,515	514	252	52,233	272	171.8	68.5	4.0	67.0
Jun 28		1664		148			3,060	492	259	36,426	172	180.5	72.0	4.5	66.0
Jun 29		1944		202			3,934	519	246	32,103	320	177.0	66.6	4.5	67.0
Jun 30		2320		246			2,846	554	277	30,344	135	195.5	78.2	4.0	67.0
TOTAL	3,738	50,808		5,313			84,332	7,116	3,046	4,375,831	2,471				
AVG.	1,246	1882		177			2,811	459	197	282,312	159	218.9	85.1	4.1	61.7
RUN YEAR															
TOTALS TO DATE															
SPRING	130,240	7,717					84,393	8,862	3,767	5,331,185	2,504				
SUMMER	50,808	4,926													
TOTAL	181,048	12,643													

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 32

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

THE DALLES PROJECT
JULY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Jul 1		1,487		172			2,190	550	273	18,799	160	178.7	70.3	4.0	67.0
Jul 2		1,579		256			2,837	823	394	11,837	327	174.8	69.4	4.0	67.0
Jul 3		2,128		141			2,991	784	396	17,080	347	129.5	51.9	4.5	68.0
Jul 4		1,736		137			1,968	838	458	12,709	532	150.6	59.5	4.5	68.0
Jul 5		1,200		172			1,634	724	394	8,866	440	163.0	64.2	4.5	68.0
Jul 6		1,303		101			1,409	654	362	6,381	468	168.0	66.7	4.5	68.0
Jul 7		1,056		105			1,566	508	258	4,528	204	161.1	62.7	4.5	68.0
Jul 8		1,576		123			1,063	637	360	3,257	219	169.1	66.6	5.0	68.0
Jul 9		1,391		186			1,230	835	420	6,005	295	166.7	66.5	4.5	68.0
Jul 10		1,315		186			1,141	909	449	9,116	340	161.2	63.8	4.5	68.0
Jul 11		1,224		161			1,016	1,093	542	10,308	328	131.3	52.3	4.5	69.0
Jul 12		692		121			777	734	378	5,307	378	160.2	63.4	4.0	69.0
Jul 13		891		89			605	884	404	4,505	264	151.2	60.1	5.0	69.0
Jul 14		1,356		118			432	1,262	666	771	268	171.7	68.3	4.0	70.0
Jul 15		1,009		105			388	922	408	1,053	387	142.3	56.3	4.0	70.0
Jul 16		754		115			318	993	490	1,980	273	123.9	48.9	4.0	70.0
Jul 17		816		132			254	1,159	603	1,270	173	132.8	52.8	4.0	69.0
Jul 18		942		137			288	1,668	847	2,435	220	105.6	41.1	4.0	69.0
Jul 19		576		77			151	1,011	420	1,738	170	139.3	54.8	4.0	70.0
Jul 20		664		87			183	986	462	2,360	208	126.0	49.6	4.0	69.0
Jul 21		592		119			120	786	347	1,120	170	114.1	45.3	4.5	69.0
Jul 22		426		101			104	751	350	1,328	303	115.6	45.4	4.0	69.0
Jul 23		490		53			64	697	355	884	295	125.8	50.0	4.0	70.0
Jul 24		392		82			54	519	245	915	290	113.0	45.4	4.0	70.0
Jul 25		517		69			77	599	312	1,211	264	110.2	43.3	4.0	70.0
Jul 26		313		48			29	317	156	468	166	137.2	53.6	4.0	71.0
Jul 27		344		38			35	520	252	350	243	128.8	51.1	4.0	70.0
Jul 28		219		35			5	425	185	397	196	129.1	51.0	4.0	71.0
Jul 29		143		25			15	333	148	237	198	135.1	54.0	4.0	71.0
Jul 30		237		30			16	348	171	178	218	146.4	58.0	4.0	71.0
Jul 31		257		53			18	312	160	117	159	143.4	56.1	4.0	72.0
TOTAL		27,625		3,374			22,978	23,581	11,665	137,510	8,503				
AVG		891		109			741	761	376	4,436	274	142.1	56.2	4.2	69.2
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK				SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY				
SPRING		130,240	7,717				107,371	32,443	15,432	5,468,695	11,007				
SUMMER		78,433	8,300												
TOTAL		208,673	16,017												

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 33

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

THE DALLES PROJECT
 AUGUST 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Aug 1		364		40	0	0	24	411	214	179	140	108.2	44.2	4.0	71.0
Aug 2		419		56	0	0	12	533	273	135	179	123.1	49.5	4.0	72.0
Aug 3		279		34	0	0	8	392	174	60	165	118.7	47.2	4.0	71.0
Aug 4			838	101	0	0	8	962	421	89	78	123.0	49.1	4.5	72.0
Aug 5			407	54	0	0	6	792	348	67	113	120.7	47.8	4.5	73.0
Aug 6			395	57	0	0	2	745	301	70	98	96.9	38.5	4.0	73.0
Aug 7			286	48	0	0	0	538	220	160	71	103.1	40.6	4.0	72.0
Aug 8			321	52	0	0	6	510	175	122	81	87.0	27.5	4.0	72.0
Aug 9			304	56	0	0	6	565	224	185	58	104.2	34.8	4.0	72.0
Aug 10			288	37	1	0	2	461	161	286	66	122.4	44.5	4.5	73.0
Aug 11			258	39	0	0	5	421	148	236	113	156.4	61.8	4.5	74.0
Aug 12			153	32	0	0	2	238	83	130	96	136.2	54.5	5.0	75.0
Aug 13			168	47	0	0	4	251	94	203	84	127.8	49.5	5.0	75.0
Aug 14			145	37	0	0	4	254	81	232	91	96.4	34.4	5.0	75.0
Aug 15			101	38	0	0	1	162	53	317	87	101.0	38.3	5.0	74.0
Aug 16			220	48	0	0	1	305	81	158	104	137.3	49.0	5.0	72.0
Aug 17			343	75	0	0	1	289	93	165	104	124.2	50.2	6.0	73.0
Aug 18			377	91	0	0	1	425	119	108	45	144.0	55.6	6.0	72.0
Aug 19			478	60	0	0	0	499	156	72	78	136.9	54.4	5.0	73.0
Aug 20			484	53	0	0	0	440	140	53	117	135.8	53.7	6.0	73.0
Aug 21			363	68	0	0	0	403	123	82	89	139.4	55.2	6.0	73.0
Aug 22			284	46	0	0	0	353	126	64	103	95.1	35.6	6.0	74.0
Aug 23			366	70	1	0	0	351	121	79	72	104.6	37.9	5.5	72.0
Aug 24			557	95	0	0	1	896	302	41	45	109.7	39.6	4.0	73.0
Aug 25			513	78	0	0	0	573	188	61	66	109.2	42.3	4.5	73.0
Aug 26			585	118	0	0	0	1,518	482	56	77	128.5	48.3	4.0	72.0
Aug 27			1,588	121	6	1	0	3,162	1,070	60	79	153.4	60.8	4.0	71.0
Aug 28			3,260	169	10	1	0	3,222	1,041	27	63	145.0	57.7	4.0	71.0
Aug 29			5,418	277	72	5	0	3,807	1,228	67	37	123.1	48.9	4.0	70.0
Aug 30			9,763	594	118	4	0	2,705	885	104	29	179.0	70.7	4.0	70.0
Aug 31			9,081	838	316	30	0	4,215	1,457	37	35	158.9	61.7	5.0	70.0
TOTAL		1,062	37,344	3,529	524	41	94	30,398	10,582	3,705	2,663				
AVG.		354	1,334	232	35	3	5	1,995	689	237	167	124.2	47.9	4.7	72.5
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULTS	COHO JACKS		SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY			
SPRING		130,240	7,717		524	41		107,465	62,841	26,014	5,472,400	13,670			
SUMMER		79,495	8,430												
FALL		37,344	3,399												
TOTAL		247,079	19,546												

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 34

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

THE DALLES PROJECT
SEPTEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCHI	DEG F
Sep 1		4,977	599	266	35	0	3,753	1,070		51	134.8	0.0	5.0	70.0	
Sep 2		7,189	609	235	33	0	5,455	1,569		42	158.5	0.0	5.0	70.0	
Sep 3		8,555	589	498	38	0	7,429	2,214		32	114.4	0.0	5.5	69.0	
Sep 4		11,992	784	1,100	50	0	12,423	3,501		34	86.7	0.0	4.0	70.0	
Sep 5		10,354	1,336	1,110	55	1	10,468	3,033		51	94.1	0.0	4.0	71.0	
Sep 6		9,246	898	1,211	58	0	8,056	2,275		24	87.8	0.0	4.5	71.0	
Sep 7		11,588	1,188	1,214	49	0	7,003	1,964		36	96.8	0.0	4.0	68.0	
Sep 8		11,129	1,099	1,263	122	0	5,913	1,707		39	104.4	0.0	4.0	68.0	
Sep 9		10,170	1,151	1,003	72	0	5,340	1,468		51	104.5	0.0	4.5	68.0	
Sep 10		11,763	1,427	677	68	0	5,327	1,580		59	129.6	0.0	4.0	68.0	
Sep 11		11,697	1,164	713	91	0	4,634	1,153		29	110.8	0.0	5.0	68.0	
Sep 12		11,707	1,277	714	66	0	4,190	1,072		131	100.6	0.0	5.5	68.0	
Sep 13		9,383	953	592	40	0	4,237	1,114		24	97.0	0.0	5.0	68.0	
Sep 14		10,189	864	1,137	58	0	3,183	813		105	99.7	0.0	6.0	68.0	
Sep 15		9,254	961	2,462	165	0	5,139	1,490		60	110.3	0.0	4.0	67.0	
Sep 16		8,031	939	2,153	68	0	5,975	1,518		40	82.9	0.0	5.5	68.0	
Sep 17		6,482	860	2,084	54	0	4,510	1,091		31	106.0	0.0	5.0	67.0	
Sep 18		7,303	888	1,539	84	0	5,282	1,259		35	109.0	0.0	6.0	67.0	
Sep 19		6,105	707	1,621	42	0	5,458	1,379		26	92.6	0.0	6.0	67.0	
Sep 20		6,701	557	1,168	78	0	4,696	1,206		40	115.6	0.0	5.0	66.0	
Sep 21		5,069	870	854	65	0	4,455	1,139		26	95.3	0.0	5.0	66.0	
Sep 22		5,509	629	847	55	0	4,546	1,165		31	108.9	0.0	5.5	65.0	
Sep 23		6,006	845	503	36	0	3,962	980		13	126.7	0.0	5.5	65.0	
Sep 24		5,040	762	556	40	0	3,952	1,038		31	127.2	0.0	4.0	65.0	
Sep 25		6,710	678	620	38	0	3,990	1,022		8	113.5	0.0	5.5	65.0	
Sep 26		6,788	870	523	32	0	3,432	771		7	109.5	0.0	5.5	65.0	
Sep 27		4,549	514	492	12	0	3,034	729		6	123.3	0.0	5.5	65.0	
Sep 28		3,917	557	351	20	0	2,311	590		13	113.7	0.0	5.0	65.0	
Sep 29		4,473	607	206	17	0	1,956	491		11	123.6	0.0	5.0	65.0	
Sep 30		3,828	548	222	16	0	2,193	594		6	108.3	0.0	4.5	65.0	

TOTAL		235,704	25,730	27,934	1,657	1	152,302	40,995		1,092					
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AVG.		7,857	858	931	55		5,077	1,367		36	109.5	0.0	5.0	67.3
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RUN YEAR TOTALS TO DATE	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY
	ADULT	JACK				STEELHEAD	STEELHEAD		
SPRING	130,240	7,717	28,458	1,698	107,466	215,143	67,009	5,472,400	14,762
SUMMER	79,495	8,430							
FALL	273,048	29,129							
TOTAL	482,783	45,276							

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 35

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

THE DALLES PROJECT
 OCTOBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL		ADULT	JACK		STEELHEAD	STEELHEAD					SECCHI	DEG F
Oct 1			3,103	463	278	16		1,920	529		8	91.1	0.0	5.5	65.0
Oct 2			2,422	340	144	6		1,417	354		6	84.1	0.0	5.5	66.0
Oct 3			1,915	360	99	10		1,348	340		16	99.2	0.0	5.5	66.0
Oct 4			1,685	266	98	10		1,039	268		1	116.9	0.0	6.0	64.0
Oct 5			1,692	185	94	11		825	201		17	109.0	0.0	6.0	64.0
Oct 6			1,636	198	54	5		1,090	240		2	103.7	0.0	5.0	65.0
Oct 7			1,046	152	103	8		1,239	304		4	119.9	0.0	5.5	65.0
Oct 8			1,560	207	162	6		1,466	391		1	150.5	0.0	5.5	65.0
Oct 9			1,540	137	210	0		1,107	267		0	103.6	0.0	5.5	65.0
Oct 10			1,266	111	864	6		1,312	329		2	76.5	0.0	5.0	65.0
Oct 11			1,054	120	750	9		1,248	331		5	97.7	0.0	5.0	63.0
Oct 12			1,412	137	318	9		1,090	263		5	94.4	0.0	6.0	64.0
Oct 13			750	96	106	7		853	177		5	100.7	0.0	5.5	64.0
Oct 14			757	58	102	1		582	132		1	87.4	0.0	6.0	64.0
Oct 15			675	56	150	12		672	162		6	124.4	0.0	5.0	63.0
Oct 16			598	55	129	5		606	173		3	81.5	0.0	5.5	65.0
Oct 17			498	55	112	5		615	160		12	82.3	0.0	5.0	63.0
Oct 18			488	25	78	2		427	102		5	97.1	0.0	6.0	63.0
Oct 19			627	45	846	5		380	121		1	112.2	0.0	6.0	63.0
Oct 20			1,498	50	2,580	22		521	123		5	133.7	0.0	5.0	63.0
Oct 21			469	53	1,769	13		678	196		1	131.7	0.0	6.0	62.0
Oct 22			322	55	340	23		443	147		1	131.3	0.0	6.0	62.0
Oct 23			317	22	196	2		387	141		0	123.5	0.0	6.0	62.0
Oct 24			213	26	102	0		335	118		0	102.2	0.0	6.0	62.0
Oct 25			295	25	79	3		324	125		0	117.1	0.0	6.0	65.0
Oct 26			258	29	62	2		203	70		4	119.5	0.0	5.0	62.0
Oct 27			251	13	68	1		239	62		0	116.9	0.0	5.0	59.0
Oct 28			140	9	52	0		169	59		0	93.6	0.0	5.0	59.0
Oct 29			159	6	95	4		221	58		0	109.3	0.0	5.0	58.0
Oct 30			157	13	82	2		161	52		0	95.2	0.0	4.0	57.0
Oct 31			181	10	81	0		182	56		0	108.9	0.0	5.0	57.0

TOTAL			28,984	3,377	10,203	205		23,099	6,051		111					
AVG.			935	109	329	7		745	195		4	106.9	0.0	5.5	62.9	

RUN YEAR TOTALS TO DATE	CHINOOK		COHO		SOCKEYE	WILD		SHAD	LAMPREY
	ADULT	JACK	ADULT	JACK		STEELHEAD	STEELHEAD		
SPRING	130,240	7,717	38,661	1,903	107,466	238,242	73,060	5,472,400	14,873
SUMMER	79,495	8,430							
FALL	302,032	32,506							
TOTAL	511,767	48,653							

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 36

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

THE DALLES PROJECT
 NOVEMBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
	SPRING	SUMMER	FALL				CHUM	STEELHEAD	STEELHEAD						
Nov 1			158	5	74	3	0	172	53			117.4	0.0	6.0	56.0
Nov 2			140	7	61	0	0	98	32			118.4	0.0	6.0	56.0
Nov 3			160	10	127	0	0	146	50			109.9	0.0	6.0	56.0
Nov 4			185	6	358	5	0	216	75			124.3	0.0	5.0	55.0
Nov 5			176	6	144	4	0	153	56			119.1	0.0	5.0	54.0
Nov 6			119	3	53	1	0	89	26			127.5	0.0	5.0	54.0
Nov 7			132	7	45	2	0	80	24			102.4	0.0	5.5	54.0
*Nov 8			6	0	7	0	0	5	2			111.7	0.0	6.0	55.0
*Nov 9			67	3	6	0	1	52	18			125.5	0.0	6.0	54.0
Nov 10			78	5	15	0	0	53	11			111.8	0.0	6.0	55.0
Nov 11			95	5	9	1	0	52	18			110.4	0.0	6.0	54.0
Nov 12			79	1	13	0	0	55	10			120.0	0.0	6.0	54.0
Nov 13			59	3	6	0	1	52	19			113.5	0.0	5.5	54.0
Nov 14			66	3	9	0	1	38	15			118.8	0.0	5.5	53.0
Nov 15			23	1	13	0	0	9	0			120.8	0.0	6.0	52.0
Nov 16			58	3	4	1	1	47	14			118.9	0.0	6.0	53.0
Nov 17			35	2	7	0	0	21	10			126.1	0.0	5.5	52.0
Nov 18			19	0	13	0	0	28	10			128.3	0.0	5.5	52.0
Nov 19			37	0	12	-1	0	26	9			118.9	0.0	5.5	52.0
Nov 20			29	1	8	0	0	25	12			126.2	0.0	5.5	52.0
Nov 21			34	1	5	0	1	21	8			126.4	0.0	5.5	52.0
Nov 22			19	1	2	0	0	26	3			127.2	0.0	6.0	52.0
Nov 23			41	3	1	0	0	27	12			124.4	0.0	6.0	52.0
Nov 24			25	0	7	0	0	17	2			112.4	0.0	5.5	51.0
Nov 25			15	1	13	0	0	27	12			101.0	0.0	5.0	52.0
Nov 26			25	0	18	0	0	35	14			134.3	0.0	5.5	51.0
Nov 27			18	0	15	0	0	26	10			116.8	0.0	5.5	51.0
Nov 28			11	1	5	0	0	23	8			98.7	0.0	5.5	50.0
Nov 29			10	0	4	0	0	11	4			141.7	0.0	6.0	50.0
Nov 30			20	0	2	0	0	17	4			127.3	0.0	6.0	50.0

TOTAL		1,939	78	1,056	16	5	1,647	541							
AVG.		65	3	35	1	0	55	18			119.3	0.0	5.7	52.9	

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY	CHUM
TOTALS TO DATE										
SPRING	130,240	7,717	38,661	1,903	107,466	238,242	73,060	5,472,400	14,873	5
SUMMER	79,495	8,430								
FALL	302,032	32,506								
TOTAL	511,767	48,653								

Note: Video counts occurred from November 1 through December 7. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Official Fall chinook run ended October 31st. November and December totals were not added to fall totals. Chum counts are total for entire calendar year.
 *Nov 8 power outage at East count station from 0632 to 2000 and at North station from 0645 to 2000.
 *Nov 9 power outage at East station from 0400 to 0744 and at North station from 0400-0754.

TABLE 37

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

THE DALLES PROJECT
DECEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		SOCKEYE	WILD		CHUM	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL		ADULT	JACK		STEELHEAD	STEELHEAD					SECCHI	DEG F
Dec 1			10	0	2	0	0	10	1	0		145.8	0.0	6.0	50.0
Dec 2			17	1	8	0	0	12	7	0		145.5	0.0	6.0	49.0
Dec 3												136.0	0.0	5.5	49.0
Dec 4												138.0	0.0	5.0	48.0
Dec 5												142.1	0.0	5.5	48.0
Dec 6												153.6	0.0	5.5	48.0
Dec 7												142.3	0.0	6.0	48.0
Dec 8												161.5	0.0	6.0	48.0
Dec 9												145.0	0.0	5.5	48.0
Dec 10												120.7	0.0	5.5	48.0
Dec 11												123.4	0.0	5.5	48.0
Dec 12												129.0	0.0	4.0	47.0
Dec 13												137.2	0.0	5.5	47.0
Dec 14												145.4	0.0	6.0	47.0
Dec 15												135.2	0.0	6.0	47.0
Dec 16												164.1	0.0	5.5	46.0
Dec 17												190.2	0.0	5.5	46.0
Dec 18												169.1	0.0	5.0	45.0
Dec 19												144.9	0.0	5.0	44.0
Dec 20												167.0	0.0	5.5	46.0
Dec 21												173.9	0.0	5.5	46.0
Dec 22												179.4	0.0	6.0	45.0
Dec 23												207.9	0.0	5.0	44.0
Dec 24												159.4	0.0	5.0	44.0
Dec 25												135.2	0.0	5.0	44.0
Dec 26												132.1	0.0	4.0	43.0
Dec 27												143.3	0.0	6.0	44.0
Dec 28												137.5	0.0	6.0	44.0
Dec 29												146.4	0.0	6.0	44.0
Dec 30												141.9	0.0	5.5	44.0
Dec 31												140.8	0.0	5.0	43.0

TOTAL			27	1	10	0	0	0	22	8	0					
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AVG.			14	1	5	0	0	0	11	4	0	149.5	0.0	5.5	46.2
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RUN YEAR	CHINOOK		COHO		WILD		SHAD	LAMPREY	CHUM	
	ADULT	JACK	ADULT	JACK	SOCKEYE	STEELHEAD				
TOTALS TO DATE										
SPRING	130,240	7,717	38,661	1,903	107,466	238,242	73,060	5,472,400	14,873	5
SUMMER	79,495	8,430								
FALL	302,032	32,506								
TOTAL	511,767	48,653								

Note: Video counts occurred from November 1 through December 7. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Official Fall chinook run ended October 31st. November and December totals were not added to fall totals. Chum counts are totals for entire calendar year.

TABLE 38

YEARLY TOTALS OF SALMONIDS COUNTED OVER THE DALLES DAM
1957 - 2004

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
Totals	12,492,906	7,769,047	2,807,032	656,732	230	329	23,726,276
10-Year Average	358,734	235,740	44,533	23,049			662,074

*Jacks included

TABLE 40

**MONTHLY COUNT OF SOCKEYE SALMON
THE DALLES DAM 1957 - 2004**

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					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						8,887	66,841	369	6				76,103
1972						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					28,827
1975						7,679	35,291	225	2	1			43,198
1976					1	10,988	16,637	121					27,747
1977					5	60,049	26,146	52					86,252
1978					24	7,158	4,559	104					11,845
1979						14,750	17,734	307					32,791
1980						11,096	30,046	927	19				42,088
1981						17,692	17,686	68	1				35,447
1982						11,430	21,742	144	15				33,331
1983					1	34,684	49,302	197	19	1			84,204
1984						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						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						6,752	2,594	8	2				9,356
1995					1	4,195	2,890	61	15	4			7,166
1996						17,013	7,983	44	15				25,055
1997					4	11,707	20,292	395	29	3			32,430
1998						4,777	3,978	65	6				8,826
1999						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					40,554
2003					8	21,233	12,862	70	3				34,180
2004					61	84,332	22,978	94	1			4	107,466
Total				1	1,557	1,229,429	1,552,348	22,635	1,035	26	1		2,807,036
10-Year Average					22	31,910	12,494	105	9				44,534

TABLE 41

**MONTHLY COUNT OF COHO SALMON
THE DALLES DAM: 1957-2004**

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
Total								1,568	26,914	491,313	135,531	2,110	657,459	191,574
10-Year Average								588	14,806	7,546			23,122	1,865

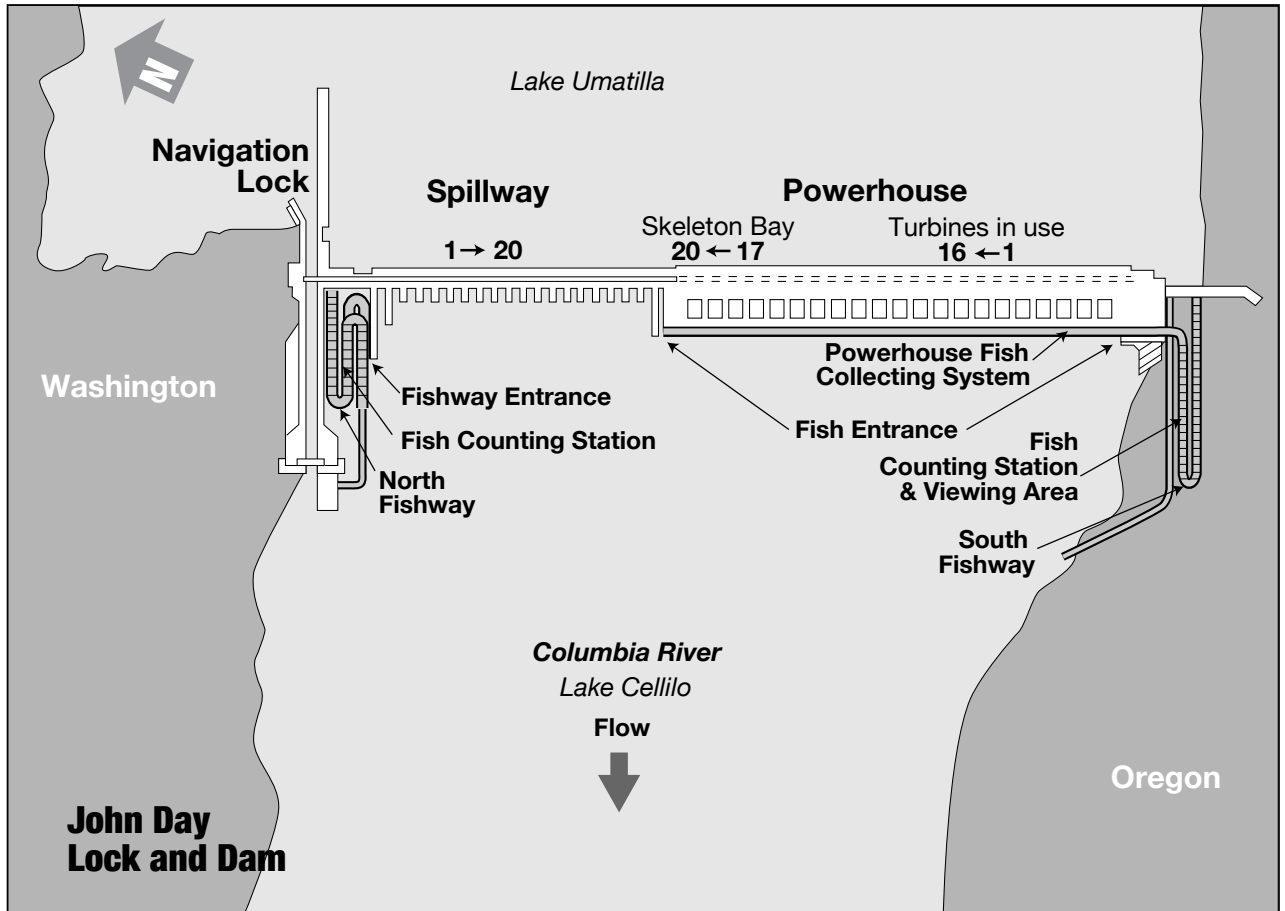
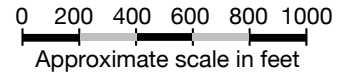
*Includes Jacks

TABLE 42

**MONTHLY COUNT OF STEELHEAD
THE DALLES DAM 1957 - 2004**

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
Total	650	8,702	44,915	32,429	146,904	1,579,037	1,771,921	3,459,330	719,726	14,290			7,778,450
10-Year Average			810	444	4,911	35,231	50,483	113,606	29,966				236,680

Plate 4 John Day Lock and Dam



JOHN DAY DAM

FISH COUNTING SCHEDULE

Feb 20 – Mar 31 Video counting daily 0400-2000 hours Pacific Standard Time.
Apr 1 – Oct 31 Visual counting daily 0400-2000 hours Pacific Standard Time.
Nov 1 – Dec 4 Video counting daily 0400-2000 hours Pacific Standard Time.

ADULT FISHWAY OPERATING 2004 SCHEDULE

The following information includes fishway operation for calendar year 2004. Total length of time for annual fishway outages can be determined by referring to previous years' annual reports. "Out of service" indicates fish ladder dewatered and auxiliary water system off for routine annual maintenance. Dive inspection was conducted. Dive inspections were conducted 8/3/04 at The Dalles and 8/4/04 at John Day, per Fish Passage Plan, requiring a short period of fishway outage, with the auxiliary water system off.

ADULT FISH FACILITY OPERATING SCHEDULE

South Adult Fishway

1/1---out of service---2/28-----in service-----
-----12/31

North Adult Fishway

1/1---in service---1/12---out of service---1/20-----in service-----12/1-----out of
service-----12/31

Smolt Monitor Facility

1/1---out of service---3/31-----in service-----9/16-----out of
service-----12/31

Juvenile Bypass System

1/1---1/3 service---3/1-----in full service -----12/16-----1/3
service-----12/31

Spillway

1/1--closed--4/12----60%, 1800 – 0600 hrs ----7/12----30%, 1900- 0600 hrs ----
8/31---closed---12/31

2004 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 divers.

Fishway Dewaterings

North ladder (1/12)- Annual inspection and maintenance. Approximately 80 adult steelhead , 50 juvenile steelhead and 2 lamprey were pushed to tailwater.

Juvenile Bypass System (12/16) – Annual inspection and maintenance. Nine adult steelhead, one sucker, one catfish, one sturgeon were removed and released to forebay. Five steelhead mortalities found were likely caused by dewatering procedure.

North ladder (12/01) – Annual inspection and maintenance. Approximately 15 adult steelhead , 15 juvenile steelhead, 20 lamprey and 20 shad were pushed to tailwater. ~ 30 lamprey were flushed from the counting station diffuser to tailwater. ~ 100 lamprey were provided to Umatilla tribe for restocking program. Additionally 110 live lamprey were removed from the lower grating section on 12/02.

Smolt Monitor Facility (9/15) – Dewatered for winter. Approximately 75 adult chinook, 12 adult steelhead, 3 adult coho, 60 adult American shad, 100 adult Pacific lamprey, 25 channel catfish, two white sturgeon, two smallmouth bass, and 200 juvenile American shad were evacuated from the Primary Dewatering Structure and flumes.

Fishway Dives

North fishway (1/13)– Annual inspection. Grating found in good condition.

South and north fishway (8/4) – Annual mid season inspection. Grating found in good condition.

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 Dewaterings

Main turbine unit 11 (8/3) – Routine maintenance. Two bass removed from scroll case. Eight small sturgeon removed from draft tube.

Main turbine unit 4 (9/21) – Routine maintenance. One catfish and one carp removed from scroll case. Approximately 300 catfish, 4 sturgeon, 1 sunfish, 3 crappies, 3 juvenile steelhead removed from draft tube.

Main turbine unit 15 (12/22) – No fish found in scroll case. Three catfish removed from draft tube.

Navigation Lock Dewatering Procedures

Navigation lock dewatering for annual maintenance requires labor intensive fish removal efforts. It is impossible to remove fish from all areas of the navigation lock areas due to access limitations. Fish are removed from the supply conduits and the floor diffuser laterals. Fish are then removed by seine and dipnet and transported to a release site by tank.

Navigation Lock Dewaterings

Navlock (3/6-3/20) – Five juvenile steelhead, one yellow perch and one sculpin were removed and released to river on 3/8. One adult steelhead was removed and released to river on 3/11.

2004, 2003, 2002 FISHWAY INSPECTION COMPARISON

Three adult fishway inspections are conducted per day during the adult fish passage season (March 1 to November 31). One adult fishway inspection is conducted per day during the non- passage season. Items shown in *italics* are inspected once per day. All other items are inspected during every fishway inspection. Guidelines are provided by the COE Fish Passage Plan. Weekly fishway status reports are provided throughout the year. Inspections of the John Day Smolt Monitor Facility are made once per two hours, 24 hours per day during the juvenile sampling season (April 1 to Sept 15.) SMF status reports are included in the weekly fishway status report. Increased or continual problem areas indicated in red. Values are rounded to the nearest whole percent.

Fishway Inspection Results

<u>Criteria Item</u>	<u>Percent out of Criteria</u>		
	<u>Year 2004</u>	<u>Year 2003</u>	<u>Year 2002</u>
South Fishway			
Exit differential	0	0	0
<i>Count station differential</i>	0	0	0
<i>Weir crest depth</i>	2	0	0
SE1 differential	0	1	2
SE1 entrance depth	4	3	4
<i>Collection channel velocity</i>	26	20	-
NE1/NE2 differential	0	1	3
NE1 entrance depth	0	0	1
NE2 entrance depth	2	1	2
North Fishway			
Exit differential	0	0	0
<i>Count station differential</i>	1	0	0
<i>Weir crest depth</i>	6	4	0
EW1/EW2 differential	0	3	9
EW1 entrance depth	4	6	11
EW2 entrance depth	closed	closed	closed
<i>JBS Conduit differential</i>	1	4	1
<i>Spill Pattern</i>	0	0	0
Turbine operation priority	0	6	-
<i>Turbine 1% operation</i>	0	1	-

Discussion

The north entrance showed an increase in criteria performance overall. North weir crest depth problems were due to a faulty actuator which failed in October and was promptly replaced with a new part. JBS was significantly better than in 2003. Collection channel velocity is frequently low at the location of the velocity meter. However, subjective observation of flow in the channel does not show obvious slow velocities. Possible causes for this value are: faulty velocity meter, higher surface velocities than at depth, diffuser turbulence influence... Investigation will continue.

COUNT ACTIVITY

Fisheries section continued to enter daily fish counts through the 2004 passage season. This will be discontinued in 2005 as the new computerized system will transmit data directly from the counting stations and data base.

TABLE 43

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER JOHN DAY DAM

2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*			127	62,999	50,288	55,728	30,998	24,383	192,606	29,301	1,410	51	447,891
STEELHEAD	186		2,591	1,437	537	6,840	20,250	24,594	145,241	28,300	3,401	54	233,431
SOCKEYE					34	84,659	28,663	133	5	3			113,497
COHO*								161	24,884	9,710	766	1	35,522
CHUM													0
PINK													0
TOTAL			2,718	64,436	50,859	147,227	79,911	49,271	362,736	67,314	5,577	106	830,341
SHAD													0
LAMPREY				27	230	1,103	6,212	2,699	1,072	320			11,663

*Jacks Included

Lamprey are not counted during video counts. Shad were not counted in 2004.

TABLE 44

DISCHARGE AND WATER QUALITY DATA

JOHN DAY PROJECT 2004

JANUARY

DATE	DISCH		TURBIDITY	
	KCFS	SPILL KCFS	SECCHI	DEG F
Jan 1	121.9	0.0	5.5	42.0
Jan 2	110.1	0.0	5.5	42.0
Jan 3	135.2	0.0	6.0	41.0
Jan 4	118.2	0.0	6.0	40.0
Jan 5	172.9	0.0	*	*
Jan 6	184.5	0.0	5.5	40.0
Jan 7	172.7	0.0	5.5	40.0
Jan 8	160.9	0.0	6.0	38.0
Jan 9	149.2	0.0	*	*
Jan 10	103.4	0.0	*	*
Jan 11	95.4	0.0	*	*
Jan 12	137.0	0.0	*	*
Jan 13	134.1	0.0	*	*
Jan 14	127.3	0.0	*	*
Jan 15	120.5	0.0	6.0	36.0
Jan 16	140.8	0.0	6.0	36.0
Jan 17	107.9	0.0	6.0	36.0
Jan 18	100.4	0.0	6.0	36.0
Jan 19	113.9	0.0	6.0	36.0
Jan 20	127.6	0.0	*	*
Jan 21	137.3	0.0	6.0	36.0
Jan 22	124.4	0.0	*	*
Jan 23	121.1	0.0	6.0	37.0
Jan 24	120.1	0.0	6.0	37.0
Jan 25	96.1	0.0	6.0	37.0
Jan 26	127.5	0.0	6.0	38.0
Jan 27	137.0	0.0	6.0	38.0
Jan 28	144.8	0.0	6.0	38.0
Jan 29	132.5	0.0	*	*
Jan 30	129.1	0.0	6.0	39.0
Jan 31	158.9	0.0	6.0	39.0

AVG. 131.1 0.0 5.9 38.2

*Data unavailable.

TABLE 45

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT
FEBRUARY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL											SECCH	DEG F	
Feb 1												116.5	0.0	6.0	39.0	
Feb 2												146.0	0.0	6.0	40.0	
Feb 3												135.8	0.0	6.0	40.0	
Feb 4												131.0	0.0	6.0	40.0	
Feb 5												152.5	0.0	6.0	40.0	
Feb 6												119.3	0.0	6.0	40.0	
Feb 7												123.7	0.0	6.0	40.0	
Feb 8												110.3	0.0	6.0	40.0	
Feb 9												120.8	0.0	6.0	40.0	
Feb 10												120.8	0.0	6.0	40.0	
Feb 11												130.1	0.0	5.5	40.0	
Feb 12												125.3	0.0	5.5	40.0	
Feb 13												141.2	0.0	5.0	40.0	
Feb 14												128.8	0.0	6.0	40.0	
Feb 15												108.0	0.0	5.5	40.0	
Feb 16												120.6	0.0	5.0	40.0	
Feb 17												117.9	0.0	6.0	39.0	
Feb 18												100.4	0.0	6.0	39.0	
Feb 19												115.7	0.0	5.5	39.0	
Feb 20	0			0				1	-4			135.7	0.0	5.5	39.0	
Feb 21	0			0				21	-15			124.3	0.0	5.5	40.0	
Feb 22	0			0				13	-4			81.9	0.0	5.5	39.0	
Feb 23	0			0				30	9			131.9	0.0	5.5	40.0	
Feb 24	0			0				23	0			132.1	0.0	6.0	40.0	
Feb 25	0			0				24	-7			142.6	0.0	6.0	40.0	
Feb 26	0			0				9	-7			102.9	0.0	5.5	40.0	
Feb 27	0			0				18	-4			154.7	0.0	6.0	40.0	
Feb 28	0			0				4	6			110.1	0.0	5.5	40.0	
Feb 29	0			0				43	2			108.0	0.0	5.0	40.0	
TOTAL	0			0				186	-24							
AVG.	0			0				19	-2			123.8	0.0	5.7	39.8	

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

TABLE 45

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

JOHN DAY PROJECT
MARCH 2004

DATE	FISH COUNTS							RIVER CONDITIONS							
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Mar 1	0			0				-13	-6			131.5	0.0	4.0	40.0
Mar 2	0			0				8	1			139.1	0.0	5.5	42.0
Mar 3	0			0				2	4			134.5	0.0	5.5	41.0
Mar 4	0			0				50	-1			119.4	0.0	5.5	41.0
Mar 5	0			0				40	24			130.2	0.0	5.5	41.0
Mar 6	0			0				162	26			136.1	0.0	5.5	41.0
Mar 7	0			0				154	39			93.9	0.0	5.5	42.0
*Mar 8	0			0				-12	0			120.4	0.0	5.5	42.0
*Mar 9	0			0				-10	-5			113.6	0.0	6.0	44.0
*Mar 10	0			0				8	4			114.9	0.0	6.0	43.0
Mar 11	0			0				126	27			135.5	0.0	6.0	43.0
Mar 12	0			0				165	53			121.1	0.0	4.5	40.0
Mar 13	0			0				176	57			122.2	0.0	4.5	43.0
Mar 14	1			0				193	50			99.7	0.0	5.0	45.0
Mar 15	0			0				89	18			138.2	0.0	5.0	43.0
Mar 16	1			0				81	6			155.1	0.0	5.5	44.0
Mar 17	0			0				49	-6			117.5	0.0	5.5	44.0
Mar 18	2			0				25	-9			130.3	0.0	5.5	44.0
Mar 19	7			0				144	15			143.3	0.0	6.0	45.0
Mar 20	6			0				94	14			133.3	0.0	4.5	47.0
Mar 21	7			0				170	22			116.3	0.0	5.0	48.0
Mar 22	20			0				112	1			144.6	0.0	4.0	46.0
Mar 23	5			0				103	0			134.0	0.0	5.0	47.0
Mar 24	2			0				88	27			170.0	0.0	4.0	47.0
*Mar 25	1			0				52	15			156.6	0.0	4.0	47.0
*Mar 26	0			0				54	0			161.9	0.0	4.0	47.0
*Mar 27	20			0				90	11			128.6	0.0	4.5	47.0
Mar 28	16			0				156	41			112.9	0.0	4.5	47.0
Mar 29	20			0				80	21			148.8	0.0	3.0	47.0
Mar 30	15			0				125	17			130.4	0.0	4.5	48.0
Mar 31	4			0				30	23			164.3	0.0	4.5	48.0
TOTAL	127			0				2,591	489						
AVG.	4			0				85	16			132.2	0.0	5.0	44.3

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

Official Spring Chinook run started April 1. March Chinook counts were not added to spring totals.

*Mar 8 through 10 South ladder power outage until 1447 on the 10th.

*Mar 25 South ladder tape went off at 1114. No video recording for the 26th and 27th until 0903.

TABLE 46

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

JOHN DAY PROJECT
APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL											SECCH	DEG F	
Apr 1	18			0				60	28			144.5	0.0	4.0	48.0	
Apr 2	33			0				93	48			132.8	0.0	4.5	48.0	
Apr 3	20			0				88	37			139.5	0.0	4.5	49.0	
Apr 4	35			0				95	33			116.1	0.0	4.5	49.0	
Apr 5	34			0				53	26		1	120.2	0.0	4.5	49.0	
Apr 6	44			0				74	27		-2	128.9	0.0	4.0	49.0	
Apr 7	94			0				84	44		0	144.1	0.0	4.5	49.0	
Apr 8	161			1				91	61		0	140.9	0.0	4.5	50.0	
Apr 9	138			0				64	27		0	142.3	0.0	4.5	52.0	
Apr 10	160			0				115	60		-1	141.1	0.0	4.5	53.0	
Apr 11	429			0				64	34		-1	112.1	0.0	4.5	53.0	
Apr 12	400			1				61	43		5	161.9	22.7	4.0	55.0	
Apr 13	543			0				35	15		0	134.2	42.7	5.0	52.0	
Apr 14	644			0				37	28		0	146.9	41.4	4.5	54.0	
Apr 15	879			0				19	18		0	182.8	45.2	4.0	52.0	
Apr 16	2,188			1				23	21		1	192.0	47.8	4.0	52.0	
Apr 17	1,950			1				36	30		0	183.1	53.0	4.0	52.0	
Apr 18	2,027			4				32	14		0	141.5	33.9	4.0	52.0	
Apr 19	2,691			19				36	32		0	166.9	44.2	4.5	52.0	
Apr 20	4,395			5				26	14		1	173.7	42.7	4.5	53.0	
Apr 21	4,720			22				41	36		1	204.9	47.8	4.5	53.0	
Apr 22	5,246			8				27	24		0	175.1	46.7	4.5	52.0	
Apr 23	6,972			26				18	11		0	158.0	45.0	4.5	53.0	
Apr 24	6,340			29				30	28		0	158.5	45.2	4.5	53.0	
Apr 25	6,940			18				24	24		4	156.5	43.3	4.5	53.0	
Apr 26	4,418			54				27	5		1	154.1	45.2	5.0	54.0	
Apr 27	2,184			48				28	23		2	129.7	32.0	5.0	55.0	
Apr 28	2,766			40				8	8		0	194.3	55.6	5.0	53.0	
Apr 29	2,694			66				33	26		1	169.0	54.6	5.5	54.0	
Apr 30	3,409			84				15	15		14	165.7	52.5	4.5	54.0	
TOTAL	62,572			427				1,437	840							
AVG.	2,086			14				48	28		1	153.7	28.1	4.5	51.9	

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

Official Spring Chinook run started April 1. March Chinook counts were not added to spring totals.

TABLE 47

MONTHLY FISH PASSAGE SUMMARY REPORT

JOHN DAY PROJECT
MAY 2004

U.S. ARMY ENGINEER DISTRICT, PORTLAND

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
May 1	1,995			88			0	3	1		10	170.6	49.3	4.5	54.0
May 2	1,264			77			0	5	0		10	156.5	44.6	4.5	55.0
May 3	1,515			86			0	13	4		10	165.6	50.2	5.0	56.0
May 4	3,677			114			0	7	2		0	203.4	57.4	5.0	56.0
May 5	3,794			120			0	12	8		4	211.6	63.0	5.0	56.0
May 6	2,789			193			0	20	4		11	215.2	71.8	5.0	57.0
May 7	2,262			290			0	8	-1		14	211.6	69.9	4.0	57.0
May 8	2,202			262			0	19	1		11	200.5	60.7	4.0	56.0
May 9	1,729			185			0	14	9		8	198.4	63.6	4.0	57.0
May 10	1,764			243			0	14	2		7	201.4	60.3	5.0	57.0
May 11	1,686			287			0	20	6		5	222.4	63.5	4.5	57.0
May 12	1,688			308			0	9	2		-5	219.6	59.1	4.5	57.0
May 13	1,042			223			0	7	0		12	207.0	64.2	5.0	57.0
May 14	1,018			228			0	11	2		12	206.0	63.6	5.0	59.0
May 15	949			272			0	18	5		1	188.4	46.9	5.0	58.0
May 16	1,152			228			0	14	2		4	181.4	49.3	5.0	58.0
May 17	1,295			269			0	19	2		4	207.6	56.5	5.0	57.0
May 18	1,362			338			0	25	5		-5	196.1	52.4	5.0	58.0
May 19	1,784			328			0	15	1		5	213.6	58.7	5.0	58.0
May 20	1,027			201			0	39	2		10	220.6	62.8	5.0	59.0
May 21	871			98			0	13	2		10	210.5	55.6	4.0	57.0
May 22	720			136			0	17	3		7	217.4	59.8	4.0	58.0
May 23	1,068			112			0	35	9		25	211.9	65.8	4.0	58.0
May 24	945			146			0	19	12		18	223.7	63.2	5.0	59.0
May 25	657			69			0	24	1		11	215.0	56.7	5.0	59.0
May 26	950			83			2	22	10		2	231.2	58.5	5.0	59.0
May 27	744			72			2	15	2		10	240.4	62.6	4.5	58.0
May 28	861			95			0	18	6		4	260.8	70.1	3.5	58.0
May 29	430			62			8	27	12		6	279.4	69.8	4.0	58.0
May 30	839			89			4	28	7		0	233.7	69.6	4.0	58.0
May 31	784			123			18	27	7		9	267.9	69.1	4.0	58.0
TOTAL	44,863			5,425			34	537	128		230				

AVG.	1447			175			1	17	4		7	212.6	60.3	4.6	57.4
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RUN YEAR TOTALS TO DATE	CHINOOK		WILD			LAMPREY
	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	
SPRING	107,435	5,852	34	1,974	968	257

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 48

MONTHLY FISH PASSAGE SUMMARY REPORT

JOHN DAY PROJECT
JUNE 2004

U.S. ARMY ENGINEER DISTRICT, PORTLAND

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCH	DEG F
Jun 1	639			132			29	70	19		6	259.5	65.4	4.5	59.0
Jun 2	573			96			72	48	8		2	246.2	69.4	4.5	58.0
Jun 3	879			48			48	33	6		6	228.1	65.5	4.0	60.0
Jun 4	1,354			115			135	90	16		4	253.2	62.8	4.0	61.0
Jun 5	1,273			124			145	75	9		12	260.6	66.4	4.0	60.0
Jun 6		1,140		112			234	67	9		7	228.2	66.9	4.0	60.0
Jun 7		1,285		135			272	77	20		7	235.7	64.2	4.0	60.0
Jun 8		1,331		106			332	62	17		2	238.9	68.2	4.0	61.0
Jun 9		1,356		162			425	52	16		13	232.0	67.7	4.0	60.0
Jun 10		1,672		197			759	136	43		5	222.7	64.8	4.0	60.0
Jun 11		932		99			546	60	24		8	252.7	64.9	4.0	60.0
Jun 12		552		123			682	78	33		2	251.2	66.5	4.0	60.0
Jun 13		688		150			922	80	24		7	229.0	66.0	4.0	60.0
Jun 14		1,139		262			1,242	127	31		4	238.3	67.1	4.0	59.0
Jun 15		1,676		160			1,659	163	59		8	240.0	67.9	4.5	59.0
Jun 16		1,677		151			1,776	133	58		11	249.3	72.6	4.0	59.0
Jun 17		1,815		237			2,315	126	30		15	189.5	52.6	4.5	60.0
Jun 18		3,106		202			3,012	181	64		18	202.8	56.5	4.5	61.0
Jun 19		2,412		327			5,185	217	73		21	205.2	53.2	4.0	61.0
Jun 20		2,285		275			5,836	277	118		34	168.3	48.8	4.5	64.0
Jun 21		1,320		171			5,490	238	107		36	207.8	78.2	4.5	67.0
Jun 22		1,759		370			6,089	385	181		61	197.1	58.5	4.5	67.0
Jun 23		2,761		469			7,844	618	217		61	204.0	62.0	4.0	68.0
Jun 24		3,778		529			7,210	439	207		86	166.4	49.6	5.0	64.0
Jun 25		1,993		214			6,716	469	159		54	172.3	51.5	4.0	67.0
Jun 26		1,985		276			6,053	438	216		73	171.9	51.2	4.0	67.0
Jun 27		2,103		234			5,166	474	236		81	174.0	52.2	4.0	67.0
Jun 28		1,705		210			4,815	432	185		120	180.3	53.7	4.5	68.0
Jun 29		2,472		203			5,377	687	330		155	170.5	50.4	4.0	68.0
Jun 30		1,888		291			4,273	508	236		184	205.2	60.8	4.0	67.0

TOTAL	4,718	44,830		6,180			84,659	6,840	2,751		1,103				
AVG.	944	1,793		206			2,822	228	92		37	216.0	61.5	4.2	62.4

RUN YEAR		CHINOOK ADULT	CHINOOK JACK		SOCKEYE	STEELHEAD	WILD STEELHEAD		LAMPREY
TOTALS TO DATE		112,153	6,367		84,693	8,814	3,719		1,360
SPRING									
SUMMER		44,830	5,665						

TOTAL 156,983 112,032

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 49

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

JOHN DAY PROJECT
JULY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCH	DEG F
Jul 1		1,605		198			3,346	592	294		185	176.3	51.7	4.0	67.0
Jul 2		1,918		282			2,755	691	327		168	174.3	52.4	4.0	67.0
Jul 3		1,655		316			3,292	646	315		141	131.1	39.0	4.5	68.0
Jul 4		1,745		328			2,962	881	391		214	148.7	44.9	4.5	68.0
Jul 5		1,406		222			2,013	700	288		193	159.0	48.0	4.5	68.0
Jul 6		1,430		260			2,170	968	447		158	171.2	51.5	4.5	68.0
Jul 7		1,325		139			1,447	482	240		189	157.6	46.8	4.5	68.0
Jul 8		1,031		110			1,550	479	218		207	174.0	52.2	5.0	68.0
Jul 9		1,387		154			1,215	458	233		300	167.0	50.6	4.5	68.0
Jul 10		1,105		219			1,100	535	256		219	154.6	46.2	4.5	68.0
Jul 11		1,072		168			1,149	640	265		237	133.8	39.9	4.5	70.0
Jul 12		887		207			1,050	753	397		305	161.9	48.1	4.0	69.0
Jul 13		543		129			753	547	227		259	154.7	46.4	5.0	70.0
Jul 14		696		133			907	788	327		236	175.0	52.6	4.0	72.0
Jul 15		815		94			386	714	306		159	141.4	42.7	4.0	70.0
Jul 16		848		93			415	890	387		112	125.9	37.9	4.0	69.0
Jul 17		766		205			377	712	359		147	131.4	39.7	4.0	69.0
Jul 18		946		155			303	1,056	575		169	100.6	29.7	4.0	69.0
Jul 19		723		221			325	982	391		141	141.4	41.7	4.0	69.0
Jul 20		746		73			227	995	449		133	124.9	36.5	4.0	69.0
Jul 21		311		107			156	736	286		234	113.5	32.9	4.0	69.0
Jul 22		624		135			231	833	377		276	112.9	33.7	4.5	71.0
Jul 23		350		120			106	592	233		162	124.5	37.9	4.5	72.0
Jul 24		357		94			112	453	251		249	110.3	33.5	4.5	72.0
Jul 25		408		80			88	615	286		160	112.3	34.2	4.0	72.0
Jul 26		485		101			94	663	294		177	136.1	40.2	4.5	73.0
Jul 27		398		102			36	510	278		290	125.8	37.4	4.5	73.0
Jul 28		129		28			34	334	169		184	127.8	38.7	4.5	73.0
Jul 29		263		38			16	397	198		220	134.5	40.3	4.5	73.0
Jul 30		175		63			24	310	142		197	150.7	45.3	4.0	71.0
Jul 31		220		55			24	298	149		191	143.7	43.1	4.0	72.0
TOTAL		26,369		4,629			28,663	20,250	9,355		6,212				
AVG		851		149			925	653	302		200	141.8	42.4	4.3	69.8

RUN YEAR	CHINOOK		COHO ADULT	COHO JACKS	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
	ADULT	JACK						
TOTALS TO DATE								
SPRING	112,153	6,367	0	0	113,356	29,064	13,074	7,572
SUMMER	71,199	10,294						
TOTAL	183,352	16,661						

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 50

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

JOHN DAY PROJECT
AUGUST 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL											SECCHI	DEG F	
Aug 1		199		23	0	0	13	248	119			211	106.4	32.3	4.0	71.0
Aug 2		248		37	0	0	18	387	177			163	122.7	36.8	4.0	72.0
Aug 3		206		44	0	0	16	280	125			115	117.4	35.3	4.0	72.0
Aug 4		138		39	0	0	10	418	165			52	121.6	36.1	4.5	72.0
Aug 5		528		105	0	0	14	431	155			86	119.0	35.7	5.0	73.0
Aug 6			182	72	0	0	9	571	244			60	97.6	29.5	4.5	73.0
Aug 7			178	44	0	0	11	440	152			114	101.2	30.3	4.5	72.0
Aug 8			162	50	0	0	8	546	187			72	76.7	22.9	5.0	72.0
Aug 9			154	75	0	0	6	194	87			108	109.7	32.7	4.0	72.0
Aug 10			240	103	0	0	1	274	101			126	124.8	37.9	5.0	73.0
Aug 11			160	81	0	0	6	244	93			91	154.4	45.7	5.0	75.0
Aug 12			199	41	0	0	4	291	72			83	138.0	41.9	5.0	75.0
Aug 13			150	34	0	0	0	336	126			154	126.4	37.7	5.0	75.0
Aug 14			122	73	0	0	1	305	105			96	99.2	28.9	5.0	75.0
Aug 15			169	90	0	0	4	287	124			63	100.0	30.0	5.0	74.0
Aug 16			88	49	1	0	0	305	86			55	139.3	41.6	5.0	72.0
Aug 17			244	66	0	0	4	300	66			108	125.3	38.1	6.0	73.0
Aug 18			235	94	0	2	1	395	105			113	142.0	43.2	6.0	72.0
Aug 19			194	61	0	0	0	344	98			85	139.7	41.6	5.0	73.0
Aug 20			192	40	0	0	1	359	105			80	137.2	41.0	6.0	73.0
Aug 21			332	56	0	0	0	351	118			97	136.7	41.0	6.0	73.0
Aug 22			111	31	0	0	2	346	101			92	93.4	28.1	6.0	74.0
Aug 23			130	59	0	0	0	337	124			75	106.5	30.8	5.5	72.0
Aug 24			194	75	0	0	0	274	86			70	108.0	32.5	4.0	73.0
Aug 25			329	59	1	0	1	476	153			57	106.3	31.5	4.5	73.0
Aug 26			324	72	0	4	0	509	164			68	128.4	37.9	4.0	72.0
Aug 27			642	90	1	2	2	1,230	414			48	154.6	45.9	4.0	72.0
Aug 28			1,166	121	0	0	1	1,926	582			26	147.3	43.9	4.0	72.0
Aug 29			3,166	129	8	1	0	4,013	1,183			40	123.1	37.3	4.0	72.0
Aug 30			3,729	233	34	11	0	3,316	953			28	179.9	53.7	4.0	70.0
Aug 31			7,566	560	84	12	0	4,861	1,534			63	156.2	46.0	5.0	70.0

TOTAL	1,319	20,358	2,706	129	32	133	24,594	7,904	2,699
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AVG.	264	783	87	4	1	4	793	255	87	123.8	37.0	4.8	72.6
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
TOTALS TO DATE	112,153	6,367	129	32	113,489	53,658	20,978	10,271
SPRING	112,153	6,367						
SUMMER	72,518	10,542						
FALL	20,358	2,458						

TOTAL	205,029	19,367
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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 51

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

JOHN DAY PROJECT
SEPTEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCH	DEG F
Sep 1			6,816	754	185	43	0	4,232	1,287		41	133.7	0.0	5.0	70.0
Sep 2			3,862	478	183	20	2	3,662	1,051		39	159.1	0.4	5.5	69.0
Sep 3			5,492	698	177	34	-4	5,131	1,418		19	105.5	0.8	5.5	70.0
Sep 4			5,427	923	183	21	0	6,264	1,756		42	84.2	0.7	4.0	70.0
Sep 5			7,604	939	347	19	0	8,215	2,430		42	89.8	0.7	4.0	71.0
Sep 6			6,797	933	744	83	0	10,023	2,885		75	83.6	0.8	4.5	71.0
Sep 7			6,142	917	560	78	0	8,163	2,187		26	96.7	0.9	4.0	70.0
Sep 8			6,313	690	359	37	2	4,515	1,266		48	100.6	0.8	4.0	68.0
Sep 9			9,866	1023	768	97	1	6,361	1,612		27	103.3	0.8	4.5	68.0
Sep 10			6,045	1042	942	151	0	4,498	1,270		45	126.9	0.9	4.0	68.0
Sep 11			9,288	1273	725	55	0	4,519	1,318		24	109.3	0.8	5.0	68.0
Sep 12			9,858	1068	984	69	1	4,774	1,488		130	95.8	0.7	5.5	68.0
Sep 13			7,860	998	544	70	0	4,245	1,136		44	92.8	0.7	5.0	68.0
Sep 14			4,608	866	551	78	0	2,976	693		29	94.9	0.6	6.0	68.0
Sep 15			5,834	788	570	54	0	3,475	1,081		72	107.3	0.8	6.0	68.0
Sep 16			7,783	1457	1,759	95	0	4,420	1,212		36	81.1	0.8	5.5	68.0
Sep 17			5,072	708	1,422	103	0	5,073	1,343		39	104.1	0.8	4.5	68.0
Sep 18			6,042	949	1,512	101	0	5,236	1,330		18	104.8	0.8	4.5	67.0
Sep 19			5,893	663	1,660	83	1	5,378	1,364		14	87.4	0.8	5.0	67.0
Sep 20			4,709	703	1,466	76	0	4,653	1,158		13	110.2	0.8	5.0	67.0
Sep 21			2,370	371	1,219	65	0	5,079	1,264		28	92.9	0.8	5.1	66.0
Sep 22			4,402	692	1,568	118	0	4,073	1,159		40	108.3	0.8	4.0	65.0
Sep 23			3,127	513	1,145	76	0	5,140	1,265		20	125.1	0.8	5.5	66.0
Sep 24			4,295	647	841	50	0	4,576	1,218		49	121.6	0.7	4.5	65.0
Sep 25			4,638	932	669	13	1	4,543	1,128		23	111.5	0.6	5.5	64.0
Sep 26			4,667	773	442	43	0	3,913	878		10	105.2	0.8	5.5	65.0
Sep 27			3,983	783	588	52	1	3,986	829		28	122.9	0.6	4.5	65.0
Sep 28			1,950	465	199	15	0	2,905	732		16	110.7	0.8	4.5	65.0
Sep 29			2,881	559	300	22	0	2,337	591		10	121.6	0.8	5.0	65.0
Sep 30			4,672	705	416	35	0	2,876	786		25	104.7	0.8	5.0	65.0

TOTAL			168,296	24,310	23,028	1,856	5	145,241	39,135		1,072					
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AVG.			5,610	810	768	62	0	4,841	1,305		36	106.5	0.7	4.9	67.4	
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*Data unavailable.

RUN YEAR TOTALS TO DATE	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
	ADULT	JACK						
SPRING	112,153	6,367	23,157	1,888	113,494	198,899	60,113	11,343
SUMMER	72,518	10,542						
FALL	188,654	26,768						
TOTAL	373,325	43,677						

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 52

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

JOHN DAY PROJECT
OCTOBER 2004

DATE	FISH COUNTS							RIVER CONDITIONS							
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TURBIDITY DEG F
Oct 1			3,949	624	591	48	0	2,720	799		20	89.3	0.8	5.5	66.0
Oct 2			2,968	429	342	12	0	1,837	516		13	80.8	0.8	5.5	66.0
Oct 3			2,037	433	345	29	1	1,239	288		12	93.9	0.8	5.5	66.0
Oct 4			1,519	328	155	11	0	1,094	344		11	111.7	0.8	5.5	65.0
Oct 5			1,108	268	109	15	0	927	264		30	107.0	0.8	6.0	65.0
Oct 6			1,583	248	67	6	1	950	295		5	100.3	0.8	4.5	65.0
Oct 7			828	200	65	5	0	771	218		10	117.5	0.7	5.0	64.0
Oct 8			891	162	102	7	0	988	277		33	147.2	0.7	5.0	64.0
Oct 9			1,280	221	134	2	0	1,987	541		20	99.8	0.8	5.0	64.0
Oct 10			1,073	120	265	0	1	1,346	438		15	72.1	0.8	5.0	64.0
Oct 11			1,000	128	317	8	0	1,236	329		-1	95.7	0.8	5.0	64.0
Oct 12			752	99	543	8	0	1,195	316		18	93.0	0.8	7.0	65.0
Oct 13			1,350	166	637	20	0	984	233		4	94.0	0.8	6.5	65.0
Oct 14			597	80	161	0	0	807	208		20	86.0	0.8	6.5	65.0
Oct 15			363	57	109	0	0	713	170		30	120.0	0.8	5.0	64.0
Oct 16			576	58	117	0	0	1,031	307		24	80.1	0.8	5.0	64.0
Oct 17			422	55	130	4	0	575	164		27	79.3	0.8	5.5	64.0
Oct 18			229	30	93	4	0	564	169		9	92.0	0.8	5.0	64.0
Oct 19			316	48	78	5	0	647	238		-4	109.2	0.8	6.0	64.0
Oct 20			227	16	264	0	0	567	196		8	128.7	0.8	6.0	63.0
Oct 21			814	64	1,858	6	0	1,070	335		4	128.8	0.8	6.0	61.0
Oct 22			299	30	1,553	25	0	810	222		11	128.4	0.8	6.0	62.0
Oct 23			179	42	636	16	0	776	278		7	119.2	0.8	6.0	62.0
Oct 24			161	18	270	0	0	624	200		14	96.9	0.8	6.0	62.0
Oct 25			63	25	82	0	0	509	169		0	117.3	0.8	6.0	61.0
Oct 26			40	9	86	1	0	341	140		-10	114.1	0.8	6.0	60.0
Oct 27			197	17	76	2	0	454	156		-3	108.6	0.8	6.0	59.0
Oct 28			103	24	79	0	0	330	102		-5	93.6	0.8	6.0	59.0
Oct 29			171	17	86	5	0	537	158		-1	103.1	0.8	5.0	58.0
Oct 30			87	1	60	0	0	295	98		1	94.4	0.8	5.0	58.0
Oct 31			100	2	60	1	0	376	110		-2	108.2	0.7	5.5	57.0
TOTAL			25,282	4,019	9,470	240	3	28,300	8,278		320				
AVG.			816	130	305	8	0	913	267		10	103.6	0.8	5.6	62.9
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY							
SPRING	112,153	6,367	32,627	2,128	113,497	227,199	68,391	11,663							
SUMMER	72,518	10,542													
FALL	213,936	30,787													
TOTAL	398,607	47,696													

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 53

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

JOHN DAY PROJECT
NOVEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	CHUM	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCH	DEG F
Nov 1			17	5	57	28	0	223	71	0		112.5	0.8	6.0	57.0
Nov 2			37	2	69	0	0	194	64	0		114.7	0.8	6.0	56.0
Nov 3			13	2	43	1	0	207	78	0		108.0	0.8	6.0	56.0
Nov 4			51	1	126	0	0	279	107	0		118.4	0.6	6.0	55.0
Nov 5			180	1	146	0	0	356	126	0		116.3	0.8	5.5	55.0
Nov 6			88	0	77	0	0	290	78	0		125.6	0.8	5.5	55.0
Nov 7			75	0	39	0	0	196	74	0		98.3	0.8	5.5	54.0
Nov 8			42	0	45	0	0	103	31	0		105.8	0.7	6.0	54.0
Nov 9			70	0	27	0	0	103	45	0		124.9	0.8	6.0	54.0
Nov 10			69	0	23	0	0	99	39	0		107.3	0.8	6.0	54.0
Nov 11			119	1	21	0	0	74	36	0		110.8	0.8	5.5	54.0
Nov 12			92	0	28	0	0	104	40	0		112.1	0.8	5.5	54.0
Nov 13			46	0	10	0	0	72	24	0		111.8	0.8	6.0	53.0
Nov 14			33	0	4	0	0	83	22	0		116.3	0.8	6.0	53.0
*Nov 15			1	0	0	0	0	16	7	0		121.2	0.8	6.0	53.0
*Nov 16			4	0	-1	0	0	29	8	0		115.8	0.8	4.5	53.0
Nov 17			38	0	2	0	0	103	35	0		124.8	0.8	6.0	53.0
Nov 18			72	0	11	0	0	66	24	0		122.9	0.8	5.5	52.0
Nov 19			47	0	1	0	0	53	20	0		118.3	0.8	5.5	52.0
Nov 20			41	0	0	0	0	51	20	0		127.6	0.8	5.5	52.0
Nov 21			54	0	1	0	0	43	14	0		122.3	0.8	5.5	51.0
Nov 22			35	0	1	0	0	69	19	0		125.8	0.8	6.0	51.0
Nov 23			32	0	0	0	0	39	11	0		121.6	0.8	6.0	51.0
Nov 24			20	0	0	0	0	64	25	0		109.8	0.8	6.0	51.0
Nov 25			31	0	2	0	0	84	31	0		96.0	0.7	6.0	52.0
Nov 26			43	0	1	0	0	104	42	0		131.7	0.7	6.0	51.0
Nov 27			15	0	1	0	0	100	34	0		111.6	0.8	6.0	51.0
Nov 28			19	0	2	0	0	83	26	0		98.9	0.8	6.0	50.0
Nov 29			5	0	0	0	0	80	19	0		141.5	0.0	7.0	50.0
Nov 30			9	0	1	0	0	34	11	0		127.5	0.0	6.0	50.0

TOTAL			1,398	12	737	29	0	3,401	1,181	0					
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AVG.			47	0	25	1	0	113	39	0		116.7	0.7	5.8	52.9
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*Data unavailable.

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
TOTALS TO DATE								
SPRING	112,153	6,367	32,627	2,128	113,497	227,199	68,391	11,663
SUMMER	72,518	10,542						
FALL	213,936	30,787						

TOTAL	398,607	47,696
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Note: November counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Official Fall Chinook run ended October 31st. November and December counts were not added to fall totals.

*Nov 15 and 16 South ladder video tape was blank.

TABLE 54

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

JOHN DAY PROJECT
DECEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	CHUM	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Dec 1			20	0	1	0	0	25	5	0		138.7	0.0	6.0	50.0
Dec 2			17	0	0	0	0	7	3	0		143.3	0.0	6.0	50.0
Dec 3			7	0	0	0	0	15	8	0		136.0	0.0	7.0	49.0
Dec 4			7	0	0	0	0	7	3	0		134.5	0.0	5.5	49.0
Dec 5												136.4	0.0	6.0	49.0
Dec 6												150.0	0.0	10.0	49.0
Dec 7												141.3	0.0	10.0	48.0
Dec 8												160.6	0.0	6.0	48.0
Dec 9												142.2	0.0	6.0	48.0
Dec 10												115.8	0.0	6.0	48.0
Dec 11												121.9	0.0	5.0	48.0
Dec 12												122.5	0.0	5.0	47.0
Dec 13												134.3	0.0	6.0	47.0
Dec 14												140.2	0.0	6.0	47.0
Dec 15												133.1	0.0	6.0	47.0
Dec 16												161.7	0.0	6.0	47.0
Dec 17												187.4	0.0	5.5	47.0
Dec 18												166.7	0.0	5.0	47.0
Dec 19												142.3	0.0	5.0	46.0
Dec 20												163.6	0.0	5.0	46.0
Dec 21												170.6	0.0	5.0	46.0
Dec 22												178.4	0.0	6.0	44.0
Dec 23												209.8	0.0	5.0	46.0
Dec 24												154.1	0.0	4.0	45.0
Dec 25												135.3	0.0	4.5	45.0
Dec 26												128.4	0.0	5.0	45.0
Dec 27												142.8	0.0	6.0	44.0
Dec 28												131.8	0.0	6.0	44.0
Dec 29												146.3	0.0	6.0	44.0
Dec 30												138.9	0.0	5.0	45.0
Dec 31												139.5	0.0	5.0	45.0

TOTAL			51	0	1	0	0	0	54	19	0				
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AVG.			13	0	0	0	0	0	14	5	0	146.7	0.0	5.8	46.8
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RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
	ADULT	JACK						
TOTALS TO DATE								
SPRING	112,153	6,367	32,627	2,128	113,497	227,199	68,391	11,663
SUMMER	72,518	10,542						
FALL	213,936	30,787						
TOTAL	398,607	47,696						

Note: December counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Official Fall Chinook run ended October 31st. November and December counts were not added to fall totals.

TABLE 55

**YEARLY TOTALS OF SALMONIDS COUNTED OVER JOHN DAY DAM
1968 - 2004**

YEAR	CHINOOK*	STEELHEAD	SOCKEYE	COHO*	TOTAL SALMONIDS
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
TOTALS	8,112,087	5,665,155	2,050,838	430,462	16,258,543
10-Year Average	285,952	237,379	48,191	19,088	590,610

*Jacks included

**Includes 1 pink

TABLE 56
MONTHLY COUNT OF CHINOOK SALMON
JOHN DAY DAM 1968 - 2004

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FA
														Apr 1- Jun 5	Jun 6- Aug 5	Au Oc
1968				29,973	46,272	30,702	42,212	16,726	62,709	4,851			233,654	77,482	75,494	80
1969			6	4,266	72,966	35,899	31,071	18,523	103,778	9,542		209	276,051	81,724	64,732	129
1970				35,750	35,248	20,439	21,542	24,784	80,969	3,774			222,506	72,555	43,093	106
1971				13,995	40,620	24,364	25,692	10,403	73,157	5,650			193,881	56,625	50,030	87
1972				28,535	41,882	15,833	27,484	14,208	90,181	7,508			225,631	71,569	44,542	109
1973				67,467	27,091	18,972	15,067	16,995	89,913	13,987			249,492	96,710	34,206	118
1974				5,174	38,058	8,115	18,985	8,112	77,296	12,148			167,888	46,191	25,865	95
1975				7,727	27,989	11,058	21,359	18,250	65,367	7,329			159,079	37,716	32,179	89
1976				10,428	32,985	17,836	18,506	10,114	72,467	13,575			175,911	45,419	36,037	94
1977				55,061	19,422	15,674	13,764	7,853	71,302	11,855			194,931	75,782	29,194	89
1978				34,735	35,206	15,104	16,764	8,149	52,975	11,919			174,852	72,723	30,371	71
1979				8,224	12,568	9,537	13,580	14,128	50,977	8,566	574		118,154	21,981	23,572	72
1980				7,995	18,311	7,125	12,522	9,063	37,023	8,625			100,664	27,202	19,664	53
1981				18,178	18,325	7,292	8,992	8,524	44,626	8,422			114,359	37,677	15,813	60
1982				3,396	30,444	11,031	7,359	10,881	67,271	13,700			144,082	36,530	16,360	91
1983				7,123	25,391	7,990	7,064	8,195	66,078	18,025			139,866	33,480	14,834	91
1984				4,329	26,561	9,706	12,892	15,422	96,399	22,255	809		188,373	32,035	22,795	133
1985				27,539	42,487	15,585	9,663	27,387	178,322	34,192	2,449		337,624	72,389	23,489	241
1986		21		38,075	37,959	13,227	9,703	10,797	194,928	41,990			346,700	77,884	22,051	246
1987				33,985	26,852	13,641	8,948	24,363	196,596	23,367			327,752	62,313	22,244	243
1988				33,323	20,170	14,731	9,648	37,002	147,553	14,824			277,251	55,195	23,569	198
1989				12,510	23,983	12,793	10,124	35,985	101,794	11,065			208,254	37,773	23,868	146
1990				23,689	18,854	11,209	9,199	13,542	71,508	8,312			156,313	43,127	20,532	92
1991				7,419	13,668	8,868	8,390	4,879	64,950	10,747			118,921	21,847	16,872	80
1992				27,538	16,623	9,452	5,263	7,677	58,140	7,332			132,025	45,457	13,910	72
1993				26,309	28,204	13,295	6,311	10,703	51,667	5,216			141,705	56,144	18,364	67
1994				4,436	4,937	6,305	6,397	13,345	79,538	11,687			126,645	9,745	12,935	103
1995				2,034	3,378	4,977	6,273	14,694	61,273	14,648			107,277	5,776	11,476	90
1996				1,860	18,616	7,419	6,356	18,550	68,198	9,603			130,602	21,599	13,148	95
1997				13,579	45,408	16,551	8,328	10,355	81,039	9,980			185,240	62,580	21,769	100
1998				9,279	12,439	10,076	7,535	11,073	62,107	17,519			130,028	22,177	17,780	90
1999				3,008	16,517	10,206	14,226	20,201	86,380	12,744			163,282	20,498	24,714	118
2000				48,176	47,705	19,201	13,579	44,377	86,737	9,596			269,371	98,710	31,056	139
2001				187,104	74,233	46,449	33,904	20,506	128,230	20,561			510,987	270,385	74,235	166
2002				36,677	99,270	69,941	44,890	37,086	143,126	16,739			447,729	142,290	110,969	194
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
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
TOTAL	4,105	#####		1,196,810	688,490	610,372	629,457	3,458,372	519,820	6,689			8,117,311	2,279,452	1,270,437	4,560
10-Year Average				42,590	41,373	30,271	21,187	22,345	111,089	16,936			286,475	87,418	49,382	148

*Jacks included

TABLE 57

**MONTHLY COUNT OF SOCKEYE SALMON
JOHN DAY DAM: 1968 - 2004**

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
TOTAL						80	910,803	1,123,853	15,490	543	68	1	2,050,838
10-Year Average						32,404	15,613	154	12				48,191

TABLE 58

**MONTHLY COUNT OF COHO SALMON
JOHN DAY DAM 1968 - 2004**

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
TOTAL					2	0	97	9,821	302,932	116,302	1,490		430,650
10-Year Average								201	11,310	7,495			19,106

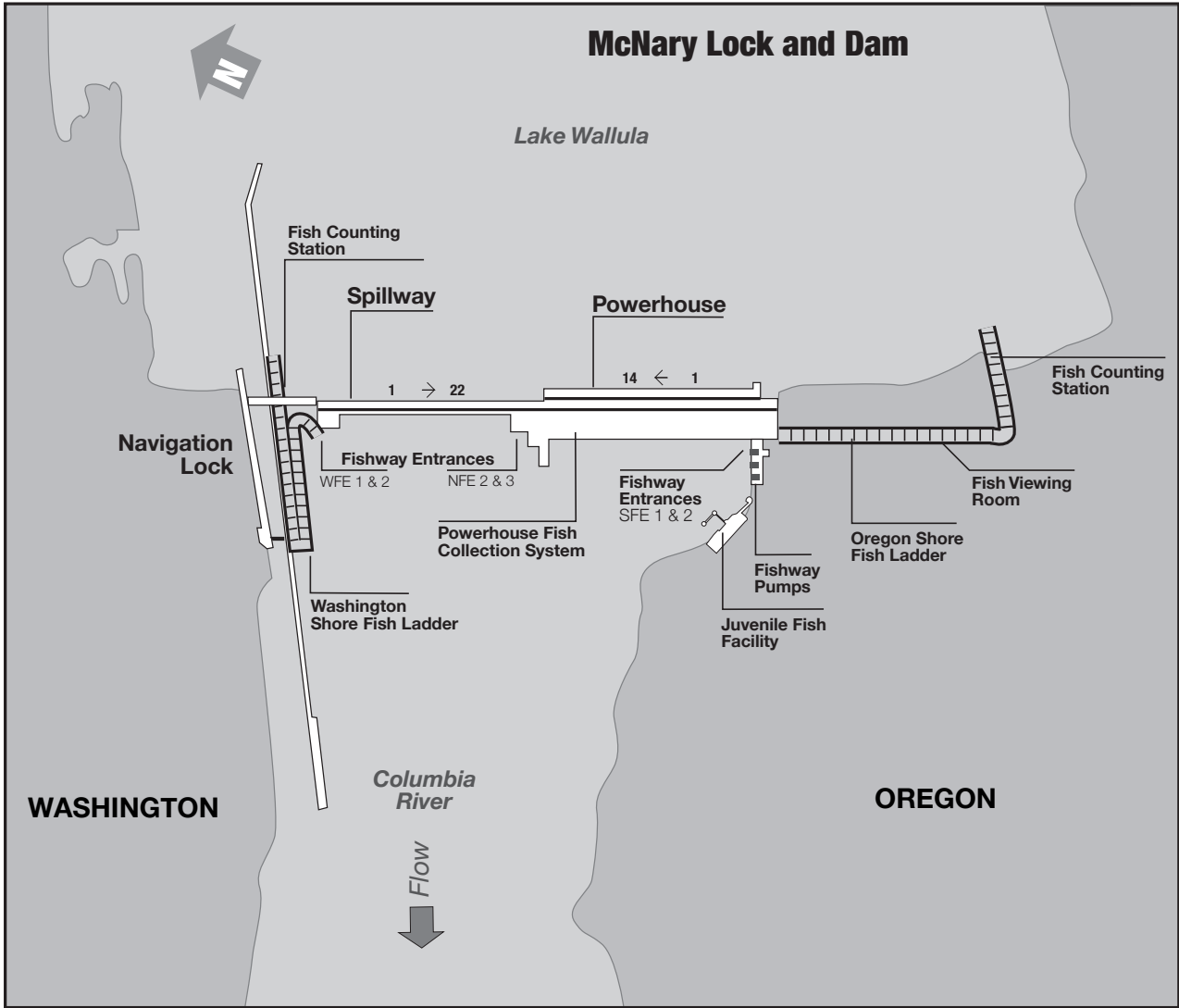
*Jacks included

TABLE 59

**MONTHLY COUNT OF STEELHEAD
JOHN DAY DAM 1968 - 2004**

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
TOTAL			16,308	101,341	37,360	81,944	592,089	862,993	2,789,195	1,176,814	24,329	1,462	5,684,021
10-YR Average			2,698	661	4,292	22,628	33,896	116,503	56,078				239,266

Plate 5 McNary Lock and Dam



McNARY DAM

FISH COUNTING SCHEDULE

1 Jan – 28 Feb	No counting.
1 Mar – 31 Mar	Video counting daily 0400-2000 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400-2000 hours PST.
1 Nov – 31 Dec	Video counting daily 0400-2000 hours PST.

FISH LADDER OPERATING SCHEDULE

Washington Ladder

1 Jan – 16 Feb	Ladder in service.
17 Feb – 26 Feb	Ladder out of service for annual maintenance.
27 Feb – 31 Dec	Ladder in service.

Oregon Ladder

1 Jan – 7 Jan	Ladder in service.
8 Jan – 12 Feb	Ladder out of service for annual maintenance.
13 Feb – 31 Dec	Ladder in service.

FISHWAY ACTIVITIES

Adult chinook and steelhead were radio-tracked past the dam in 2004 as part of a broader, ongoing study by the University of Idaho.

Water temperatures were recorded hourly in six locations within the adult fishways from June to September. The purpose of this effort, ongoing since 1999, is to determine if thermal barriers exist and take corrective action if needed.

The control and electrical systems for the tilting weirs in the Oregon shore fish ladder were upgraded during the winter outage. Similar work was completed at the Washington shore ladder in 2003.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 22 March to 22 December.

TABLE 60

MONTHLY TOTALS OF SALMONIDS, SHAD AND LAMPREY COUNTED OVER McNARY DAM
2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*
CHINOOK*			72	53,405	53,267	47,903	32,067	12,212	149,297	34,795	1,659	131	384,808
STEELHEAD			4,316	1,133	480	3,901	14,376	10,863	132,387	37,931	4,348	2,948	212,683
SOCKEYE					10	61,547	28,107	38	5				89,707
COHO*								17	13,954	6,161	427	11	20,570
CHUM													0
PINK													0
TOTAL			54,538	53,757	113,351	74,550	23,130	295,643	78,887	6,434	3,090	707,768	
SHAD					31,422	1,428,079	281,442	10,785					1,751,728
LAMPREY					7	306	2,786	1,870	764	155			5,888

*Jacks Included

Shad are not counted after September 1st.

TABLE 61
DISCHARGE AND WATER QUALITY DATA
MCNARY PROJECT 2004

JANUARY					FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jan 1	123.9	0.0	6.0	40.0	Feb 1	116.6	0.0	*	40.0
Jan 2	109.3	0.0	6.0	40.0	Feb 2	133.1	0.0	6.0	40.0
Jan 3	129.2	0.0	*	40.0	Feb 3	119.5	0.0	6.0	40.0
Jan 4	118.4	0.0	6.0	39.0	Feb 4	132.8	0.0	6.0	39.0
Jan 5	164.5	0.0	6.0	39.0	Feb 5	133.9	0.0	3.6	39.0
Jan 6	165.0	0.0	6.0	37.0	Feb 6	131.1	0.0	4.0	39.0
Jan 7	170.1	0.0	*	37.0	Feb 7	125.8	0.0	4.4	39.0
Jan 8	151.1	0.0	*	37.0	Feb 8	107.6	0.0	6.0	39.0
Jan 9	147.1	0.0	*	36.0	Feb 9	104.6	0.0	6.0	39.0
Jan 10	115.2	0.0	*	36.0	Feb 10	119.7	0.0	*	*
Jan 11	106.8	0.0	6.0	36.0	Feb 11	129.1	0.0	*	*
Jan 12	123.1	0.0	*	36.0	Feb 12	118.2	0.0	*	38.0
Jan 13	141.1	0.0	6.0	36.0	Feb 13	142.9	0.3	*	38.0
Jan 14	127.9	0.0	6.0	36.0	Feb 14	119.9	0.0	6.0	38.0
Jan 15	123.8	0.0	*	37.0	Feb 15	92.1	0.0	6.0	39.0
Jan 16	128.2	0.0	*	37.0	Feb 16	110.6	0.0	6.0	39.0
Jan 17	112.3	0.0	*	37.0	Feb 17	120.1	0.0	*	39.0
Jan 18	99.5	0.0	*	37.0	Feb 18	103.0	0.0	*	39.0
Jan 19	109.9	0.0	*	37.0	Feb 19	128.4	0.0	*	39.0
Jan 20	126.1	0.0	*	37.0	Feb 20	134.3	0.0	6.0	39.0
Jan 21	127.9	0.0	*	38.0	Feb 21	115.8	0.0	6.0	39.0
Jan 22	113.5	0.0	*	38.0	Feb 22	93.4	0.0	6.0	39.0
Jan 23	133.1	0.0	*	38.0	Feb 23	119.1	0.0	6.0	40.0
Jan 24	117.3	0.0	6.0	38.0	Feb 24	115.4	0.0	5.0	40.0
Jan 25	95.8	0.0	*	39.0	Feb 25	128.5	0.0	*	40.0
Jan 26	121.7	0.0	6.0	39.0	Feb 26	99.4	0.0	6.0	40.0
Jan 27	133.3	0.0	6.0	40.0	Feb 27	147.1	0.0	6.0	40.0
Jan 28	140.3	0.0	6.0	39.0	Feb 28	110.3	0.0	6.0	39.0
Jan 29	126.1	0.0	6.0	39.0	Feb 29	103.7	0.0	6.0	39.0
Jan 30	127.7	0.0	6.0	38.0					
Jan 31	132.5	0.0	6.0	39.0					
AVG.	127.8	0.0	6.0	37.8	AVG.	119.2	0.0	5.7	39.2

*Data unavailable.

TABLE 62

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

MCNARY PROJECT
 MARCH 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL											SECCHI	DEG F	
Mar 1	0			0				168	47			131.0	0.0	6.0	40.0	
Mar 2	0			0				175	37			141.9	0.0	6.0	41.0	
Mar 3	0			0				101	30			119.3	0.0	6.0	41.0	
Mar 4	0			0				133	29			125.3	0.0	6.0	41.0	
Mar 5	0			0				156	34			128.3	0.0	*	41.0	
Mar 6	0			0				128	29			122.0	0.0	5.8	41.0	
Mar 7	0			0				102	35			100.3	0.0	*	41.0	
Mar 8	0			0				76	23			117.8	0.0	*	41.0	
Mar 9	0			0				43	10			109.3	0.0	*	42.0	
Mar 10	0			0				90	18			112.8	0.0	6.0	42.0	
Mar 11	0			0				94	24			124.2	0.0	5.8	42.0	
Mar 12	0			0				98	32			117.3	0.0	5.6	42.0	
Mar 13	0			0				143	47			114.4	0.0	5.7	43.0	
Mar 14	0			0				145	58			98.7	0.0	5.6	43.0	
Mar 15	0			0				131	43			134.2	0.0	*	43.0	
Mar 16	0			0				231	69			131.7	0.0	5.6	43.0	
Mar 17	0			0				202	67			106.4	0.0	5.6	43.0	
Mar 18	0			0				109	27			123.1	0.0	5.7	43.0	
Mar 19	0			0				153	50			130.3	0.0	5.7	43.0	
Mar 20	4			0				119	33			124.9	0.0	5.8	43.0	
Mar 21	5			0				92	26			112.4	0.0	5.7	46.0	
Mar 22	3			0				199	40			136.3	0.0	5.7	46.0	
Mar 23	1			0				194	46			147.7	0.0	5.9	46.0	
Mar 24	0			0				305	84			141.3	0.0	5.8	46.0	
Mar 25	7			1				218	74			134.0	0.0	5.9	47.0	
Mar 26	5			0				145	45			154.9	0.0	5.7	47.0	
Mar 27	6			0				135	53			131.0	0.0	4.7	47.0	
Mar 28	4			0				108	38			119.3	0.0	4.8	47.0	
Mar 29	10			0				105	32			135.3	0.0	5.2	47.0	
Mar 30	10			0				95	25			121.8	0.0	4.7	47.0	
Mar 31	16			0				123	38			144.0	0.0	4.7	47.0	
TOTAL	71			1				4,316	1,243							*Data unavailable.
AVG.	2			0				140	40			125.5	0.0	5.6	43.6	

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

TABLE 63

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

MCNARY PROJECT
APRIL 2004

DATE	FISH COUNTS							RIVER CONDITIONS							
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Apr 1	22			0				102	46			126.6	0.1	4.8	48.0
Apr 2	12			0				35	4			139.1	0.4	4.8	48.0
Apr 3	7			0				71	30			145.6	0.0	4.4	48.0
Apr 4	14			0				51	20			135.7	0.0	4.6	48.0
Apr 5	30			1				72	28			119.7	0.0	4.2	49.0
Apr 6	16			0				81	32			119.0	0.0	4.2	49.0
Apr 7	22			0				44	11			144.4	0.0	4.2	49.0
Apr 8	51			0				87	45			120.0	0.0	4.8	49.0
Apr 9	69			0				31	1			129.3	0.0	4.9	49.0
Apr 10	68			0				30	10			128.4	0.0	4.7	49.0
Apr 11	133			0				45	14			128.8	0.0	*	50.0
Apr 12	139			1				54	36			152.4	29.5	4.6	50.0
Apr 13	253			0				60	31			131.2	40.3	4.9	51.0
Apr 14	542			1				48	28			148.2	47.0	4.9	51.0
Apr 15	636			8				31	22			178.3	63.8	4.9	51.0
Apr 16	498			2				40	29			189.1	64.5	5.2	51.0
Apr 17	643			1				38	20			165.7	37.8	5.2	51.0
Apr 18	2,344			5				22	12			159.3	41.9	5.2	51.0
Apr 19	1,475			1				21	12			166.9	55.8	5.1	52.0
Apr 20	962			0				17	16			198.7	66.2	5.4	52.0
Apr 21	2,659			9				18	8			196.1	67.9	5.1	52.0
Apr 22	4,163			30				12	11			171.6	55.9	5.4	52.0
Apr 23	4,226			90				26	14			154.1	45.7	5.2	52.0
Apr 24	4,493			58				14	12			155.0	39.1	5.3	51.0
Apr 25	6,035			84				11	6			153.1	33.4	5.3	52.0
Apr 26	6,630			88				19	13			154.1	37.3	5.3	52.0
Apr 27	6,127			107				3	0			169.7	53.2	5.2	52.0
Apr 28	4,907			92				21	17			179.3	55.5	5.4	52.0
Apr 29	2,900			60				19	8			175.4	58.0	5.0	53.0
Apr 30	2,653			38				10	6			166.5	55.1	5.0	53.0
TOTAL	52,729			676				1,133	542						
AVG.	1758			23				38	18			153.4	31.6	4.9	50.6

*Data unavailable.

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. March chinook counts were not added to spring totals.

TABLE 64

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

MCNARY PROJECT
MAY 2004

DATE	FISH COUNTS						RIVER CONDITIONS								
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	TOTAL STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
May 1	2,643			46			0	9	4	1	0	164.7	52.1	5.7	53.0
May 2	3,597			90			0	12	11	0	0	164.5	52.9	5.7	53.0
May 3	2,725			80			0	15	8	0	0	170.2	57.4	5.6	53.0
May 4	1,197			72			0	7	1	0	0	206.9	87.2	5.8	53.0
May 5	1,675			97			0	5	1	1	0	226.0	98.7	5.8	53.0
May 6	2,911			136			0	10	7	0	0	219.7	91.6	5.5	53.0
May 7	3,184			153			0	4	0	7	0	211.6	81.8	5.5	56.0
May 8	2,817			209			0	11	2	0	0	202.2	87.3	5.3	56.0
May 9	2,626			301			0	17	3	0	0	201.5	82.3	5.5	56.0
May 10	2,178			229			0	13	6	2	0	216.8	97.0	5.3	56.0
May 11	1,783			212			0	16	6	0	0	224.8	95.4	5.4	55.0
May 12	1,940			272			0	18	4	6	0	221.6	98.1	5.6	56.0
May 13	1,334			227			0	14	2	1	0	210.4	85.8	5.6	56.0
May 14	1,079			256			0	22	11	13	0	209.2	86.1	5.5	54.0
May 15	1,077			290			0	9	3	2	0	200.6	86.2	5.5	57.0
May 16	1,131			244			0	11	2	26	0	188.9	80.4	5.5	56.0
May 17	713			216			0	7	2	27	0	204.1	88.4	5.6	57.0
May 18	840			216			0	18	1	31	0	208.7	89.6	6.0	57.0
May 19	1,182			188			0	12	5	78	0	207.1	90.0	*	57.0
May 20	1,270			402			0	14	5	226	2	234.3	99.8	*	57.0
May 21	1,408			372			0	10	3	732	0	215.3	92.2	6.0	57.0
May 22	984			247			0	28	3	1,240	0	214.9	90.1	6.0	57.0
May 23	858			171			0	29	6	1,712	1	212.6	91.9	6.0	56.0
May 24	672			151			0	26	8	2,698	0	209.0	91.9	5.8	57.0
May 25	895			192			0	19	5	2,110	0	207.3	91.4	5.8	56.0
May 26	1,018			176			0	24	6	3,774	0	234.3	106.6	5.8	56.0
May 27	781			138			0	31	7	4,149	1	240.0	91.4	5.8	57.0
May 28	891			156			6	20	2	6,445	0	273.7	103.2	5.8	57.0
May 29	690			125			2	12	5	2,172	1	269.8	111.6	5.0	57.0
May 30	663			81			2	19	6	4,261	0	238.4	94.2	4.5	57.0
May 31	654			106			0	18	6	1,708	2	265.6	112.5	4.5	57.0
TOTAL	47,416			5,851			10	480	141	31,422	7				
AVG.	1,530			189			0	15	5	1,014		215.3	89.2	5.6	55.7

*Data unavailable.

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	WILD STEELHEAD
TOTALS TO DATE	100,145	6,527	683

SOCKEYE	STEELHEAD	SHAD	LAMPREY
10	1,613	31,422	7

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 65

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

MCNARY PROJECT
JUNE 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Jun 1	747			134			9	19	3	3,158	4	257.9	107.0	4.3	57.0
Jun 2	919			161			8	29	9	25,260	5	246.9	81.2	3.9	57.0
Jun 3	771			147			15	24	3	25,680	17	232.8	78.1	4.1	57.0
Jun 4	757			116			15	27	3	23,501	14	255.5	91.3	3.9	57.0
Jun 5	820			140			32	41	4	17,561	6	279.9	111.6	3.8	58.0
Jun 6	1,313			182			80	78	13	23,745	10	225.4	76.6	3.9	58.0
Jun 7	1,100			142			104	55	11	22,149	9	239.9	79.3	3.9	58.0
Jun 8	925			133			170	48	9	21,934	11	239.0	74.6	4.0	58.0
Jun 9		1,518		120			219	68	8	32,448	2	234.0	73.7	4.4	58.0
Jun 10		972		108			187	49	12	30,718	3	236.9	85.1	4.4	58.0
Jun 11		1,640		158			387	55	20	23,491	1	253.3	88.3	4.4	58.0
Jun 12		1,438		124			586	70	25	48,137	1	253.6	85.8	4.4	58.0
Jun 13		1,402		102			585	81	22	48,546	1	242.1	72.8	4.5	58.0
Jun 14		994		75			753	70	18	52,631	2	234.2	71.5	4.3	58.0
Jun 15		591		158			899	64	25	72,486	14	241.2	74.9	5.0	60.0
Jun 16		1,038		177			913	85	27	59,427	14	247.0	75.4	5.0	60.0
Jun 17		1,225		223			1,112	92	25	59,023	16	205.3	75.4	5.0	60.0
Jun 18		1,808		149			1,630	88	26	53,211	13	209.1	74.5	5.0	61.0
Jun 19		1,969		159			2,094	100	42	60,560	12	194.0	71.7	3.8	61.0
Jun 20		2,327		173			2,326	97	37	49,524	7	184.9	66.1	4.8	61.0
Jun 21		2,687		257			4,197	143	46	70,925	16	211.3	72.2	4.5	62.0
Jun 22		1,066		245			5,818	193	70	70,804	9	204.1	67.2	4.5	62.0
Jun 23		2,117		206			5,718	195	73	91,088	4	189.9	31.9	4.6	62.0
Jun 24		1,766		233			5,291	235	96	67,754	6	174.2	0.0	4.6	62.0
Jun 25		1,706		256			6,602	217	67	81,600	10	174.7	0.0	4.6	63.0
Jun 26		1,998		246			5,899	299	106	64,445	25	168.3	0.0	5.6	63.0
Jun 27		2,092		183			4,941	345	151	55,333	15	166.6	0.0	5.2	64.0
Jun 28		1,614		180			4,068	359	132	68,115	24	174.7	7.7	4.8	65.0
Jun 29		2,091		168			4,010	356	150	52,349	12	187.6	15.2	4.9	67.0
Jun 30		1,494		143			2,879	319	126	52,476	23	198.7	26.7	5.1	65.0
TOTAL	7,352	35,553		4,998			61,547	3,901	1,359	1,428,079	306				
AVG.	919	1616		167			2,052	130	45	47,603	10	218.8	61.2	4.5	60.2
RUN YEAR															
TOTALS TO DATE															
SPRING															
SUMMER															
TOTAL															

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 66

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

MCNARY PROJECT
JULY 2004
RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					KCFS	SECCHI
Jul 1		2,151		170			3,483	334	151	39,777	26	189.8	19.7	5.1	67.0
Jul 2		1,502		381			3,234	344	156	39,769	19	166.9	0.0	5.2	67.0
Jul 3		1,091		204			2,374	268	105	28,704	13	136.9	0.0	*	67.0
Jul 4		1,576		287			2,005	427	165	28,480	41	144.9	0.0	*	67.0
Jul 5		1,462		253			2,287	409	162	22,005	43	160.7	0.0	5.3	68.0
Jul 6		1,606		330			2,010	413	168	26,519	34	169.1	0.0	5.3	69.0
Jul 7		1,763		182			2,106	607	250	13,281	72	168.7	0.0	5.3	69.0
Jul 8		1,202		261			1,336	562	223	11,416	65	163.0	0.0	5.3	69.0
Jul 9		1,581		213			1,320	510	249	9,270	97	173.8	0.0	*	68.0
Jul 10		1,147		148			1,356	360	174	7,812	115	149.0	0.0	*	67.0
Jul 11		1,263		157			1,111	378	167	5,449	82	135.4	0.0	*	67.0
Jul 12		1,152		217			906	371	163	7,397	98	155.3	0.0	*	68.0
Jul 13		889		162			801	271	100	5,182	62	164.2	0.0	*	68.0
Jul 14		769		99			551	299	108	6,593	49	168.2	0.0	5.3	68.0
Jul 15		594		89			545	368	121	5,178	83	152.4	0.0	*	68.0
Jul 16		519		84			586	517	226	3,501	159	125.0	0.0	5.4	68.0
Jul 17		428		88			346	398	153	3,298	212	126.5	0.0	5.4	69.0
Jul 18		561		98			339	434	168	2,181	144	106.1	0.0	*	71.0
Jul 19		954		119			344	617	270	1,836	126	146.6	0.0	5.6	71.0
Jul 20		792		108			201	752	391	1,347	142	120.0	0.0	5.9	71.0
Jul 21		797		145			242	782	342	1,546	125	121.0	0.0	5.9	71.0
Jul 22		550		77			102	748	331	855	133	111.8	0.0	5.9	71.0
Jul 23		440		106			104	643	246	1,441	119	126.7	0.0	5.9	71.0
Jul 24		448		90			119	619	249	1,445	93	115.6	0.0	5.0	70.0
Jul 25		423		71			101	561	233	990	76	117.8	0.0	5.6	71.0
Jul 26		260		75			64	407	188	1,217	112	129.7	0.0	5.5	71.0
Jul 27		406		84			52	479	179	2,175	124	116.2	0.0	5.5	72.0
Jul 28		434		84			38	576	236	970	68	142.3	0.0	5.5	72.0
Jul 29		261		52			22	339	127	683	99	137.5	0.0	5.4	71.0
Jul 30		303		48			13	310	150	651	50	149.9	0.0	5.5	74.0
Jul 31		219		42			9	273	128	474	105	144.4	0.0	5.5	74.0
TOTAL		27,543		4,524			28,107	14,376	6,079	281,442	2,786				
AVG.		888		146			907	464	196	9,079	90	143.1	0.6	5.5	69.5

*Data unavailable.

RUN YEAR	CHINOOK		WILD				
	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE							
SPRING	107,497	7,682	89,664	19,890	8,121	1,740,943	3,099
SUMMER	63,096	8,367					
TOTAL	170,593	16,049					

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

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

TABLE 67

MCNARY PROJECT
 AUGUST 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	TEMP DEG F
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD						
Aug 1		192		33	0	0	4	261	116	1446	90	114.2	0.0	5.5	71.0
Aug 2		252		27	0	0	5	223	99	1008	83	118.7	0.0	*	71.0
Aug 3		273		56	0	0	2	214	108	845	78	117.8	0.0	5.6	no
Aug 4		306		37	0	0	4	228	100	828	76	116.4	0.0	5.6	71.0
Aug 5		276		39	0	0	0	255	120	474	80	120.8	0.0	5.5	72.0
Aug 6		292		66	0	0	0	288	100	387	57	105.7	0.0	*	71.0
Aug 7		543		78	0	0	4	374	144	239	72	100.6	0.0	5.5	71.0
Aug 8		227		57	0	0	0	338	132	383	97	74.3	0.0	5.6	71.0
Aug 9			154	35	0	0	0	286	102	310	70	113.5	0.0	5.3	71.0
Aug 10			195	46	0	0	2	332	135	483	37	125.8	0.0	4.7	71.0
Aug 11			134	40	0	0	2	262	83	422	53	155.1	0.0	4.1	71.0
Aug 12			96	24	0	0	5	176	62	206	93	136.1	0.0	*	71.0
Aug 13			95	36	1	1	2	162	42	432	86	126.4	0.0	*	71.0
Aug 14			97	19	0	0	0	154	51	617	91	115.3	0.0	*	73.0
Aug 15			116	21	0	0	0	114	38	396	76	100.7	0.0	5.3	73.0
Aug 16			43	14	0	0	2	78	24	257	57	135.7	0.0	5.3	74.0
Aug 17			121	37	0	0	0	174	46	346	43	126.0	0.0	*	74.0
Aug 18			154	57	0	1	0	286	104	148	90	135.6	0.0	5.2	72.0
Aug 19			183	38	0	0	1	204	62	120	62	148.1	0.0	6.0	74.0
Aug 20			233	85	0	0	0	215	76	402	69	146.4	0.0	6.0	73.0
Aug 21			192	43	0	0	0	202	56	184	82	137.7	0.0	6.0	73.0
Aug 22			243	32	0	0	0	236	83	165	62	91.6	0.0	5.4	72.0
Aug 23			339	40	2	1	0	314	95	48	46	102.5	0.0	5.7	72.0
Aug 24			153	45	0	1	0	210	57	29	24	110.9	0.0	*	72.0
Aug 25			175	55	0	1	0	253	68	66	15	102.7	0.0	4.3	71.0
Aug 26			192	53	0	1	0	216	66	61	42	136.9	0.0	4.3	71.0
Aug 27			187	51	0	0	0	392	113	144	36	155.4	0.0	5.2	70.0
Aug 28			238	73	0	0	2	321	85	162	18	146.9	0.0	5.2	70.0
Aug 29			652	85	6	0	2	704	191	59	23	136.0	0.0	4.9	69.0
Aug 30			1,145	120	0	1	0	1,154	374	60	27	152.8	0.0	4.7	69.0
Aug 31			3,054	218	0	1	1	2,237	706	58	35	149.4	0.0	4.7	70.0

TOTAL	2,361	8,191	1,660	9	8	38	10,863	3,638	10,785	1,870
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AVG.	295	356	54	0	0	1	350	117	348	60	124.4	0.0	5.2	71.5
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*Data unavailable.

RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY
	ADULT	JACK			SOCKEYE	STEELHEAD	STEELHEAD		
TOTALS TO DATE									
SPRING	107,497	7,682	9	8	89,702	30,753	11,759	1,751,728	4,969
SUMMER	65,457	8,760							
FALL	8,191	1,267							

TOTAL	181,145	17,709
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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 68

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

MCNARY PROJECT
 SEPTEMBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	WILD			SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			KCFS	KCFS	SECCHI	DEG F
Sep 1			3,141	219	5	6	1	2,299	761		47	171.5	27.3	*	70.0
Sep 2			3,624	330	30	2	0	2,749	834		29	146.6	9.1	4.6	70.0
Sep 3			3,888	593	66	20	0	2,892	961		43	113.5	0.0	4.8	70.0
Sep 4			3,835	606	118	21	1	3,709	1115		32	85.5	0.0	4.8	70.0
Sep 5			4,588	695	83	15	0	3,607	1021		36	80.0	0.0	4.9	69.0
Sep 6			4,788	692	82	16	0	4,216	1092		36	84.7	0.0	*	69.0
Sep 7			5,491	303	149	4	0	3,508	1200		47	109.1	0.0	4.9	68.0
Sep 8			5,836	396	279	2	1	5,769	1743		42	112.2	0.0	*	68.0
Sep 9			3,359	739	462	8	2	9,760	2576		24	102.2	0.0	5.4	68.0
Sep 10			2,993	527	344	21	0	7,376	2022		43	127.4	0.0	*	69.0
Sep 11			4,964	833	452	42	0	4,915	1278		35	118.4	0.0	5.2	68.0
Sep 12			7,776	875	438	51	0	5,327	1429		30	95.2	0.0	5.4	68.0
Sep 13			7,415	915	500	29	0	5,559	1556		24	96.9	0.0	4.3	68.0
Sep 14			8,371	1,286	491	38	0	5,292	1471		40	96.6	0.0	5.0	68.0
Sep 15			4,772	862	434	30	0	4,125	1072		40	109.7	0.0	5.2	68.0
Sep 16			5,139	996	451	45	0	4,630	1170		27	77.8	0.0	5.0	68.0
Sep 17			3,192	603	300	20	0	3,248	741		19	108.5	0.0	5.2	66.0
Sep 18			4,758	803	481	29	0	4,159	931		15	102.0	0.0	4.9	66.0
Sep 19			5,481	803	748	36	0	4,977	1181		13	92.0	0.0	4.9	66.0
Sep 20			5,753	806	812	43	0	4,733	1190		15	106.7	0.0	5.1	66.0
Sep 21			5,677	607	920	57	0	4,843	1157		3	100.5	0.0	6.2	65.0
Sep 22			2,317	386	686	45	0	3,539	828		16	112.4	0.0	5.7	64.0
Sep 23			1,901	233	579	29	0	3,036	646		11	126.8	0.0	*	64.0
Sep 24			2,791	499	639	38	0	4,867	1149		11	123.3	0.0	4.3	65.0
Sep 25			2,504	528	661	38	0	4,195	1015		13	113.0	0.0	5.2	65.0
Sep 26			4,055	599	693	39	0	4,538	1126		10	104.2	0.0	6.0	65.0
Sep 27			4,472	609	514	29	0	3,834	860		20	121.9	0.0	6.0	65.0
Sep 28			3,594	386	624	32	0	4,088	1025		8	112.3	0.0	6.0	65.0
Sep 29			2,314	310	388	10	0	3,070	762		17	121.5	0.0	6.0	66.0
Sep 30			2,162	307	670	60	0	3,527	955		18	108.6	0.0	6.0	66.0

TOTAL			130,951	18,346	13,099	855	5	132,387	34,867		764				
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AVG.			4,365	612	437	29	0	4,413	1,162		25	109.4	1.2	5.2	67.1
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*Data unavailable.

RUN YEAR	CHINOOK		COHO		WILD			SHAD	LAMPREY
	ADULT	JACK	ADULTS	JACKS	SOCKEYE	STEELHEAD	STEELHEAD		
TOTALS TO DATE									
SPRING	107,497	7,682	13,108	863	89,707	163,140	46,626	1,751,728	5,733
SUMMER	65,457	8,760							
FALL	139,142	19,613							
TOTAL	312,096	36,055							

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 69

MONTHLY FISH PASSAGE SUMMARY REPORT

MCNARY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

OCTOBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Oct 1			2,230	407	350	42		3,726	962		8	111.6	0.0	6.0	66.0
Oct 2			2,904	418	264	10		2,438	604		13	92.8	0.0	6.0	66.0
Oct 3			3,871	468	274	29		2,077	474		9	86.5	0.0	6.0	66.0
Oct 4			3,295	399	322	9		1,984	469		12	117.0	0.0	6.0	65.0
Oct 5			2,645	406	183	4		2,283	602		20	107.6	0.0	5.1	65.0
Oct 6			1,323	307	167	9		2,034	472		11	102.2	0.0	6.0	65.0
Oct 7			924	274	150	9		1,689	442		13	119.4	0.0	*	65.0
Oct 8			616	138	79	6		1,312	298		10	142.6	0.0	*	65.0
Oct 9			1,022	186	119	6		1,143	285		1	101.6	0.0	*	65.0
Oct 10			1,112	199	115	6		1,307	369		9	69.8	0.0	*	65.0
Oct 11			1,104	132	75	7		1,067	248		8	92.9	0.0	*	64.0
Oct 12			898	109	75	3		1,140	251		17	104.3	0.0	6.0	64.0
Oct 13			909	124	147	8		958	251		5	92.2	0.0	5.7	64.0
Oct 14			986	101	179	8		981	259		2	92.6	0.0	5.3	64.0
Oct 15			825	117	174	6		1,265	316		0	122.4	0.0	*	64.0
Oct 16			963	142	262	18		1,542	380		3	85.8	0.0	5.5	63.0
Oct 17			480	102	161	9		1,331	290		2	76.0	0.0	*	63.0
Oct 18			291	48	74	7		615	144		0	85.9	0.0	*	63.0
Oct 19			405	59	88	6		695	178		4	108.1	0.0	5.4	63.0
Oct 20			325	39	59	2		424	89		4	130.3	0.0	6.0	62.0
Oct 21			282	66	92	6		604	156		2	136.9	0.0	6.0	62.0
Oct 22			681	79	264	8		1,021	285		2	135.1	0.0	6.0	60.0
Oct 23			781	60	795	15		1,200	332		0	117.5	0.0	*	62.0
Oct 24			389	42	565	10		960	265		0	99.0	0.0	6.0	58.0
Oct 25			242	25	370	5		781	210		0	103.8	0.0	6.0	58.0
Oct 26			118	31	138	7		602	178		0	107.6	0.0	6.0	58.0
Oct 27			73	25	100	5		504	133		0	123.2	0.0	*	58.0
Oct 28			68	17	47	2		414	113		0	96.5	0.0	6.0	58.0
Oct 29			99	26	83	1		592	181		0	102.7	0.0	6.3	58.0
Oct 30			205	31	85	2		723	224		0	96.7	0.0	7.0	57.0
Oct 31			140	12	40	0		519	117		0	110.9	0.0	6.0	57.0

TOTAL			30,206	4,589	5,896	265		37,931	9,577		155					
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AVG.			974	148	190	9		1,224	309		5		105.5	0.0	5.9	62.4
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*Data unavailable.

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULTS	COHO JACKS	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE									
SPRING	107,497	7,682	19,004	1,128	89,707	201,071	56,203	1,751,728	5,888
SUMMER	65,457	8,760							
FALL	169,348	24,202							
TOTAL	342,302	40,644							

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

TABLE 70

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

MCNARY PROJECT
NOVEMBER 2004

DATE	CHINOOK ADULT			CHINOOK	COHO	COHO	WILD			SHAD	LAMPREY	RIVER CONDITIONS				
	SPRING	SUMMER	FALL	JACK	ADULT	JACK	SOCKEYE	STEELHEAD	STEELHEAD			DISCH	SPILL	TURBIDITY	DEG F	
Nov 1			128	9	44	0			475	118			104.8	0.0	7+	57.0
Nov 2			53	4	26	1			248	73			121.4	0.0	6.0	56.0
Nov 3			58	2	45	0			276	69			105.8	0.0	5.4	55.0
Nov 4			72	2	43	2			221	45			118.1	0.0	6.0	54.0
Nov 5			54	2	25	0			196	50			113.7	0.0	6.0	54.0
Nov 6			59	1	45	0			246	70			120.9	0.0	6.0	54.0
Nov 7			100	7	83	2			252	84			96.9	0.0	6.0	54.0
Nov 8			108	11	43	3			253	83			97.7	0.0	6.0	54.0
Nov 9			58	5	10	0			228	77			119.3	0.0	6.0	53.0
Nov 10			84	6	14	1			212	73			116.5	0.0	6.0	53.0
Nov 11			37	3	2	1			161	60			104.6	0.0	6.0	53.0
Nov 12			65	3	2	0			141	51			113.5	0.0	6.0	53.0
Nov 13			79	1	-2	0			113	41			113.4	0.0	6.0	53.0
Nov 14			130	6	2	0			70	22			131.1	0.0	6.0	53.0
Nov 15			66	5	3	0			116	36			115.4	0.0	6.0	53.0
Nov 16			37	1	2	0			107	30			123.4	0.0	6.0	53.0
Nov 17			25	5	1	0			74	18			120.5	0.0	6.0	53.0
Nov 18			32	2	2	0			84	26			116.6	0.0	6.0	53.0
Nov 19			6	1	0	0			95	25			119.8	0.0	6.0	53.0
Nov 20			48	0	2	0			75	20			134.4	0.0	6.0	53.0
Nov 21			16	2	2	0			93	36			120.8	0.0	6.0	53.0
Nov 22			32	1	3	0			70	18			124.4	0.0	6.0	52.0
Nov 23			65	1	3	0			56	21			120.9	0.0	*	52.0
Nov 24			37	1	1	0			63	17			113.1	0.0	6+	51.0
Nov 25			20	2	0	0			83	28			102.3	0.0	no	51.0
Nov 26			31	2	1	0			68	24			125.7	0.0	6.0	51.0
Nov 27			24	1	3	1			54	19			102.2	0.0	6.0	51.0
Nov 28			22	0	1	0			87	25			99.7	0.0	6.0	50.0
Nov 29			12	0	2	0			58	20			127.9	0.0	6.0	50.0
Nov 30			14	1	7	1			73	29			148.6	0.0	6.0	51.0

TOTAL			1,572	87	415	12			4,348	1,308						
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AVG.			52	3	14	0			145	44			116.4	0.0	6.0	52.9
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*Data unavailable.

RUN YEAR	CHINOOK		COHO		WILD			SHAD	LAMPREY
	ADULT	JACK	ADULTS	JACKS	SOCKEYE	STEELHEAD	STEELHEAD		
TOTALS TO DATE									
SPRING	107,497	7,682	19,004	1,128	89,707	201,071	56,203	1,751,728	5,888
SUMMER	65,457	8,760							
FALL	169,348	24,202							

TOTAL	342,302	40,644
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Note: November counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST. Official Fall Chinook run ended October 31. November and December chinook counts were not added to fall totals.

TABLE 71

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

MCNARY PROJECT
DECEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Dec 1			5	0	2			116	41			144.5	0.0	6.0	50.0
Dec 2			7	0	0			90	30			142.5	0.0	6.0	50.0
Dec 3			14	0	0			56	19			133.4	0.0	6.0	48.0
Dec 4			16	1	0			62	19			134.1	0.0	6.0	48.0
Dec 5			11	1	0			43	16			137.1	0.0	6.0	48.0
Dec 6			4	0	1			36	15			138.2	0.0	6.0	48.0
Dec 7			8	0	0			44	16			147.9	0.0	6.0	47.0
Dec 8			4	0	1			29	12			170.3	0.0	6+	47.0
Dec 9			7	0	0			34	12			140.6	0.0	6.0	47.0
Dec 10			15	0	0			42	18			119.5	0.0	*	47.0
Dec 11			8	0	0			32	12			106.6	0.0	6.0	47.0
Dec 12			4	0	1			24	3			128.8	0.0	*	47.0
Dec 13			1	0	1			49	14			144.9	0.0	6.0	50.0
Dec 14			3	0	1			107	40			138.9	0.0	6.0	50.0
Dec 15			0	0	2			114	39			133.6	0.0	6.0	50.0
Dec 16			1	0	0			224	82			166.5	0.0	6.0	50.0
Dec 17			2	0	0			397	127			187.8	0.0	6.0	50.0
Dec 18			2	0	1			286	97			174.0	0.0	6.0	48.0
Dec 19			3	0	0			288	92			135.3	0.0	6.0	47.0
Dec 20			2	0	1			192	68			160.0	0.0	*	46.0
Dec 21			4	0	0			160	80			171.8	0.0	6.0	46.0
Dec 22			1	0	0			152	45			174.6	0.0	*	46.0
Dec 23			3	0	0			89	25			209.8	0.0	*	46.0
Dec 24			1	0	0			70	19			145.5	0.0	6.0	45.0
Dec 25			1	0	0			60	26			145.2	0.0	6.0	44.0
Dec 26			2	0	0			38	14			120.2	0.0	6.0	44.0
Dec 27			-2	0	0			28	12			149.5	0.0	6.0	44.0
Dec 28			1	0	0			22	9			130.9	0.0	6.0	44.0
Dec 29			0	0	0			18	11			142.8	0.0	6.0	44.0
Dec 30			0	0	0			22	9			144.0	0.0	6.0	44.0
Dec 31			1	0	0			24	11			131.4	0.0	*	42.0

TOTAL			129	2	11			2,948	1,033						
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AVG.			4	0	0			95	33			146.8	0.0	6.0	46.9
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*Data unavailable.

RUN YEAR	CHINOOK		COHO		WILD			SHAD	LAMPREY	
	TOTALS TO DATE	ADULT	JACK	ADULTS	JACKS	SOCKEYE	STEELHEAD			STEELHEAD
SPRING	107,497	7,682		19,004	1,128	89,707	201,071	56,203	1,751,728	5,888
SUMMER	65,457	8,760								
FALL	169,348	24,202								
TOTAL	342,302	40,644								

Note: December counts were from video tape. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.

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

TABLE 72

**YEARLY TOTALS OF SALMONIDS COUNTED OVER McNARY DAM
1954 - 2004**

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
Totals	9,454,654	6,005,874	2,933,729	486,917	18,881,174
10-Year Average	253,131	181,172	41,482	9,604	485,389

*Jacks included

TABLE 73
MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM: 1954 - 2004

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

TABLE 73

(Continued)

MONTHLY COUNT OF CHINOOK SALMON

McNARY DAM: 1954 - 2004

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
Total			987	915,188	1,714,912	1,103,229	1,154,368	632,502	3,232,554	694,085	9,270	324	9,457,419	2,829,857	2,217,266	4,406,595
10-Year Average				32,839	42,740	28,623	23,736	15,235	89,284	20,489			253,407	81,059	49,234	122,744

*Jacks included

TABLE 74

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM; 1954 - 2004**

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 74

(Continued)

**MONTHLY COUNT OF SOCKEYE SALMON
McNARY DAM; 1954 - 2004**

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					32,037	
2004					10	61,547	28,107	38	5				89,707	
Total					1	204	634,613	2,200,151	85,555	9,401	3,798	5	1	2,933,729
10-Year Average						23,078	18,247	151	5					41,482

TABLE 75

**MONTHLY COUNT OF COHO SALMON
McNARY DAM; 1954 - 2004**

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 75

(Continued)

MONTHLY COUNT OF COHO SALMON

McNARY DAM; 1954 - 2004

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
TOTAL	1	14	50	515	19,968	366,469	96,109	4,161	31	487,318			
10-Year Average								47	5,284	4,229			9,644

*Jacks included

TABLE 76

**MONTHLY COUNT OF STEELHEAD
McNARY DAM: 1954-2004**

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 76

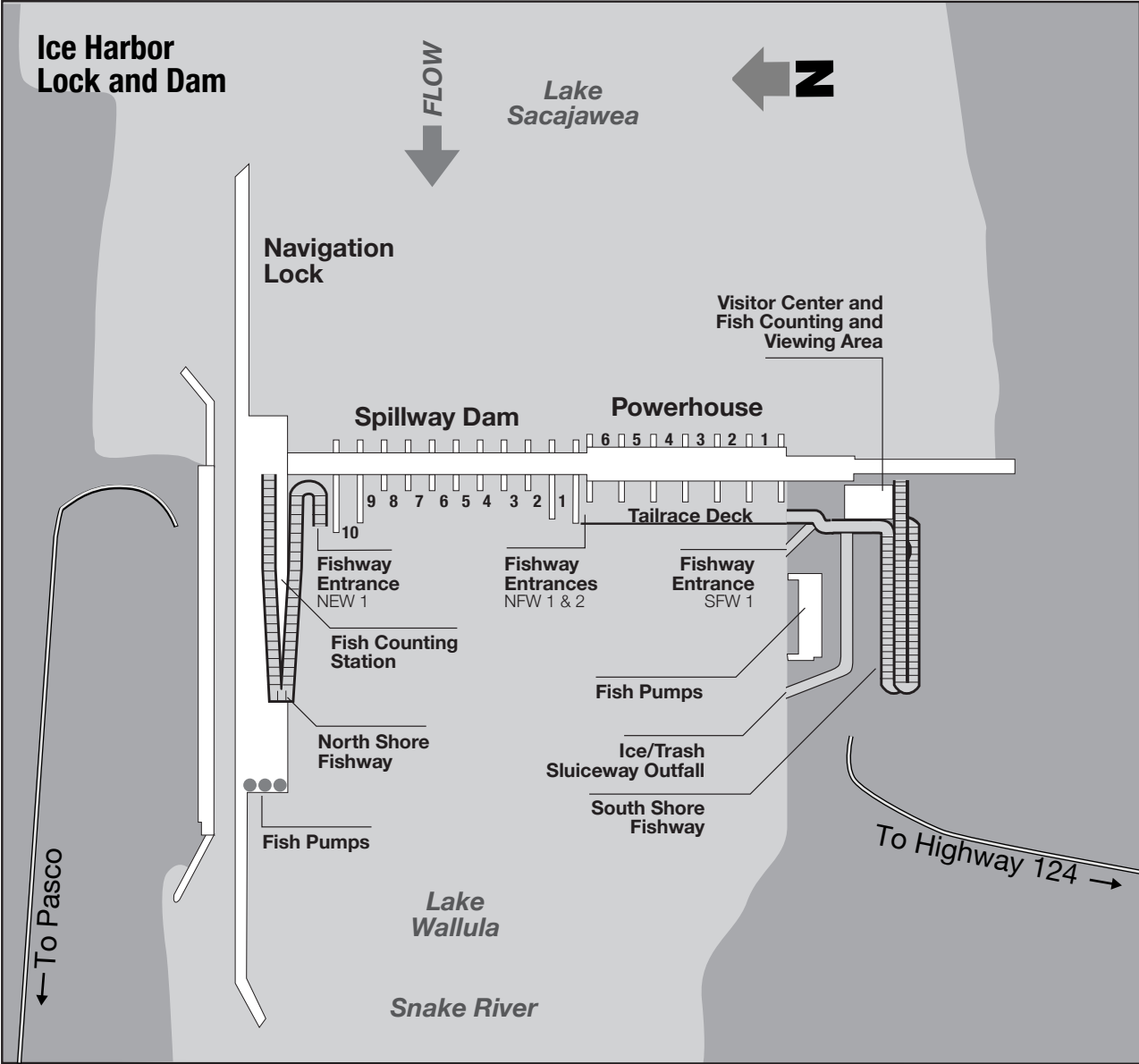
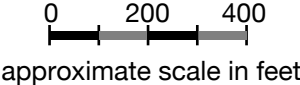
(Continued)

MONTHLY COUNT OF STEELHEAD

McNARY DAM; 1954 - 2004

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
Total	1,059	925	23,909	102,205	39,340	64,228	543,202	1,037,783	2,839,357	1,321,519	39,419	9,678	6,022,624
10-Year Avg.				1,319	329	2,428	16,858	25,554	87,039	46,484			182,820

Plate 6 Ice Harbor Lock and Dam



ICE HARBOR DAM

FISH COUNTING SCHEDULE

1 Jan – 28 Feb	No counting.
1 Mar – 31 Mar	Video counting daily 0600-1600 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400-2000 hours PST.
1 Nov – 31 Dec	No counting.

FISH LADDER OPERATING SCHEDULE

North Ladder

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

South Ladder

1 Jan – 1 Feb	Ladder in service.
2 Feb – 4 Feb	Ladder out of service for annual maintenance.
5 Feb – 31 Dec	Ladder in service.

FISHWAY ACTIVITIES

Adult chinook and steelhead were radio-tracked past the dam in 2004 as part of a broader, ongoing study by the University of Idaho. As part of this study, salmon and steelhead were outfitted with DST tags in the south ladder's adult fish trap from early July to late September. These tagged fish were later recaptured in the adult fish trap at Lower Granite Dam.

Water temperatures were recorded hourly in six locations within the adult fishways from June to September. The purpose of this effort, ongoing since 1999, is to determine if thermal barriers exist and take corrective action if needed.

The Walla Walla District continued a hydraulic evaluation of the adult fishways in 2004. The purpose was to analyze existing operating conditions and investigate alternatives to improve fish passage.

During the winter outage, two of the eight south shore AWS pumps had their butterfly valves rehabbed, and mud valves associated with the south shore AWS conduit were repaired.

The three new north shore AWS pumps installed in early 2003 were found to have various problems associated with the gearboxes (vibration, oil contamination, defective oil seals and bearings). To fix the problems one pump at a time was taken out of service for one month from December 2003 to February 2004.

The juvenile fish facility was operated for juvenile fish bypass and adult fallbacks from 12 March to 17 December.

TABLE 77

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER ICE HARBOR DAM
COUNTS FROM MARCH 1 THROUGH OCTOBER 31, 2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			5	36,168	37,934	19,580	4,094	908	26,998	4,531			130,218
STEELHEAD			2,483	1,690	118	1,467	9,875	6,593	111,826	37,328			171,380
SOCKEYE						53	38						91
COHO*									2,114	1,405			3,519
PINK													0
TOTAL			2,488	37,858	38,052	21,100	14,007	7,501	140,938	43,264			305,208
SHAD					43	238,127	126,148	1,175					365,493
LAMPREY					8	23	453	283	21	17			805

*Jacks included

These counts include the extended season videotaped counts that were made between 0600 and 1600 hours in March.
Shad are not counted after September 1st.

TABLE 78

DISCHARGE AND WATER QUALITY DATA
ICE HARBOR PROJECT 2004

JANUARY					FEBRUARY				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F*	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F*
Jan 1	15.1	0.0	10.0	41.0	Feb 1	28.0	0.0	8.5	38.0
Jan 2	17.4	0.0	10.0	41.0	Feb 2	22.6	0.0	8.5	38.0
Jan 3	20.2	0.0	10.0	40.0	Feb 3	26.0	0.0	8.5	38.0
Jan 4	20.2	0.0	10.0	40.0	Feb 4	31.6	0.0	11.6	38.0
Jan 5	24.7	0.0	10.0	39.0	Feb 5	24.9	0.0	11.0	38.0
Jan 6	32.3	0.0	10.0	39.0	Feb 6	28.2	0.0	11.0	38.0
Jan 7	24.9	0.0	10.0	38.0	Feb 7	23.3	0.0	11.0	38.0
Jan 8	21.7	0.0	10.0	37.0	Feb 8	19.6	0.0	10.0	38.0
Jan 9	23.5	0.0	10.0	37.0	Feb 9	23.8	0.0	10.0	38.0
Jan 10	13.3	0.0	10.0	37.0	Feb 10	25.7	0.0	10.0	38.0
Jan 11	17.9	0.0	10.0	37.0	Feb 11	24.4	0.0	10.0	38.0
Jan 12	32.6	0.0	10.0	37.0	Feb 12	24.4	0.0	12.0	38.0
Jan 13	20.8	0.0	10.0	37.0	Feb 13	28.4	0.0	12.0	38.0
Jan 14	22.6	0.0	10.0	37.0	Feb 14	28.5	0.0	12.0	38.0
Jan 15	20.0	0.0	10.0	37.0	Feb 15	18.7	0.0	12.0	38.0
Jan 16	26.0	0.0	10.0	37.0	Feb 16	24.9	0.0	12.0	38.0
Jan 17	22.6	0.0	10.0	37.0	Feb 17	33.6	0.0	8.0	39.0
Jan 18	20.3	0.0	10.0	37.0	Feb 18	27.4	0.0	8.0	39.0
Jan 19	26.7	0.0	10.0	37.0	Feb 19	42.2	0.0	7.8	39.0
Jan 20	38.5	0.0	10.0	37.0	Feb 20	35.9	0.0	7.8	39.0
Jan 21	18.9	0.3	10.0	37.0	Feb 21	33.2	0.0	7.8	39.0
Jan 22	11.3	0.1	10.0	37.0	Feb 22	31.8	0.0	7.8	40.0
Jan 23	16.8	0.0	10.0	37.0	Feb 23	40.6	0.0	7.8	40.0
Jan 24	20.0	0.0	10.0	38.0	Feb 24	37.6	0.0	7.8	40.0
Jan 25	17.5	0.0	8.5	38.0	Feb 25	33.4	0.0	7.8	40.0
Jan 26	22.7	0.0	8.5	38.0	Feb 26	32.7	0.0	7.8	40.0
Jan 27	21.1	0.0	8.5	38.0	Feb 27	40.9	0.0	7.0	40.0
Jan 28	27.9	0.0	8.5	38.0	Feb 28	37.5	0.0	7.0	40.0
Jan 29	28.3	0.0	8.5	38.0	Feb 29	28.4	0.0	7.0	40.0
Jan 30	42.3	0.0	8.5	38.0					
Jan 31	40.7	0.0	8.5	38.0					
AVG.	23.5	0.0	9.7	37.9	AVG.	29.6	0.0	9.3	38.7

TABLE 79

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

ICE HARBOR PROJECT
MARCH 2004

DATE	FISH COUNTS						RIVER CONDITIONS								
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	0			0				5	0			35.0	0.0	7.0	40.0
Mar 2	0			0				4	0			33.3	0.0	7.0	40.0
Mar 3	0			0				5	1			34.4	0.0	7.0	35.0
Mar 4	0			0				16	1			33.1	0.0	3.5	40.0
Mar 5	0			0				20	2			37.4	0.0	3.5	40.0
Mar 6	0			0				72	8			31.2	0.0	3.5	40.0
Mar 7	0			0				0	0			26.5	0.0	3.5	40.0
Mar 8	0			0				34	4			33.7	0.0	3.5	41.0
Mar 9	0			0				77	17			31.3	0.0	3.5	41.0
Mar 10	0			0				75	12			29.6	0.0	6.0	41.0
Mar 11	0			0				58	9			39.8	0.2	6.0	41.0
Mar 12	0			0				100	15			41.0	0.0	5.9	42.0
Mar 13	0			0				67	12			38.1	0.0	5.9	42.0
Mar 14	0			0				104	18			29.9	0.0	5.9	42.0
Mar 15	0			0				86	12			48.8	0.0	5.9	42.0
Mar 16	0			0				176	29			43.1	0.1	5.9	42.0
Mar 17	0			0				146	23			32.9	0.5	5.9	42.0
Mar 18	0			0				63	9			49.4	1.2	5.9	42.0
Mar 19	0			0				183	18			48.9	0.4	5.0	42.0
Mar 20	0			0				132	19			44.9	1.0	5.0	42.0
Mar 21	0			0				88	16			46.7	0.4	5.0	44.0
Mar 22	0			0				102	17			53.9	1.1	5.0	44.0
Mar 23	0			0				0	0			65.5	0.4	5.0	44.0
Mar 24	0			0				0	0			41.3	1.1	5.0	45.0
Mar 25	0			0				207	17			59.1	1.0	5.0	45.0
Mar 26	0			0				136	45			66.9	0.4	5.0	45.0
Mar 27	0			0				102	26			51.1	0.2	5.0	46.0
Mar 28	0			0				97	21			53.1	0.2	5.0	46.0
Mar 29	0			0				72	14			51.3	0.0	5.0	46.0
Mar 30	2			0				139	35			47.9	0.0	5.0	46.0
Mar 31	2			1				117	47			55.0	0.0	5.0	46.0
TOTAL	4			1				2,483	447						
AVG.	0			0				79	13			43.0	0.3	5.2	42.4

Note: March counts were from video tape. The counts are 10-hour counts and occurred between the hours of 0600-1600 PST.
Official Spring Chinook run started April 1. March Chinook counts were not added to spring totals.

TABLE 80

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

ICE HARBOR PROJECT
 APRIL 2004

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	TEMP DEG F
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD						
Apr 1	11			0				202	91			57.6	0.0	5.0	46.0
Apr 2	7			1				117	51			47.2	0.0	5.0	46.0
Apr 3	12			0				131	53			39.4	0.0	5.0	48.0
Apr 4	15			0				167	54			46.0	0.0	5.0	48.0
Apr 5	32			2				96	32			41.6	0.0	5.0	48.0
Apr 6	15			1				77	18			59.9	0.0	5.0	48.0
Apr 7	23			1				101	39			50.3	0.0	5.0	49.0
Apr 8	15			0				108	34			49.5	0.0	5.0	49.0
Apr 9	19			0				74	37			54.2	0.0	4.8	49.0
Apr 10	24			0				54	27			53.4	0.0	4.8	50.0
Apr 11	23			0				53	28			47.8	0.0	4.8	50.0
Apr 12	121			0				57	27			43.6	0.0	4.8	51.0
Apr 13	81			0				72	25			55.0	10.7	4.8	51.0
Apr 14	198			0				63	29			62.4	44.9	4.0	52.0
Apr 15	120			0				55	21			73.5	66.2	4.0	52.0
Apr 16	544			0				46	23			61.1	53.4	4.0	52.0
Apr 17	640			1				39	19			51.2	40.7	4.0	52.0
Apr 18	733			1				34	19			56.3	44.8	4.0	52.0
Apr 19	1,208			0				27	14			53.3	44.8	4.0	52.0
Apr 20	1,186			2				19	16			48.2	39.1	5.0	52.0
Apr 21	1,167			1				22	18			48.0	38.7	5.0	52.0
Apr 22	1,632			11				21	13			49.4	39.8	5.4	52.0
Apr 23	2,675			13				18	8			41.6	32.7	5.4	53.0
Apr 24	4,695			28				6	5			44.2	33.6	5.0	53.0
Apr 25	3,429			6				11	10			49.0	38.9	5.0	53.0
Apr 26	4,423			81				10	10			48.5	35.0	5.0	53.0
Apr 27	3,763			79				0	0			47.5	38.7	4.2	53.0
Apr 28	3,388			45				5	4			56.6	48.3	4.2	53.0
Apr 29	3,047			30				0	4			60.3	47.9	4.2	54.0
Apr 30	2,536			83				5	2			57.5	44.7	4.5	54.0
TOTAL	35,782			386				1,690	731						
AVG.	1193			13				56	24			51.8	24.8	4.7	50.9

Note: Visual counts occurred April 1 through October 31. The counts are 16-hour counts and occurred between the hours of 0400-2000 PST.
 South shore ladder was counted by direct observation while the north shore ladder was by closed circuit TV.
 Official Spring Chinook run started April 1. March Chinook counts were not added to spring totals.

TABLE 81

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

ICE HARBOR PROJECT
MAY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD				DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	SHAD			LAMPREY	SECCHI	DEG F
May 1	2,789			58				8	7	0	0	52.9	39.6	4.5	54.0
May 2	2,011			61				6	5	0	0	54.6	44.8	4.5	54.0
May 3	2,352			83				6	4	0	0	66.8	44.7	4.5	54.0
May 4	2,222			44				7	5	0	0	75.7	44.5	4.5	54.0
May 5	912			24				4	2	0	0	81.3	60.1	4.5	54.0
May 6	1,160			62				2	2	0	0	93.4	80.1	4.5	54.0
May 7	1,750			83				8	5	0	1	87.5	51.4	4.5	55.0
May 8	1,550			78				2	1	0	0	83.3	43.0	4.5	55.0
May 9	2,224			127				0	0	0	2	77.5	65.1	4.5	56.0
May 10	1,162			104				7	3	0	0	77.3	70.0	4.5	56.0
May 11	1,229			162				2	0	0	0	75.6	37.9	4.5	56.0
May 12	830			78				0	0	0	0	76.5	44.6	4.5	56.0
May 13	1,202			121				2	2	0	0	70.5	59.0	4.5	56.0
May 14	1,103			153				2	2	0	0	64.7	54.5	4.5	56.0
May 15	886			129				0	0	0	0	64.4	42.4	4.5	56.0
May 16	888			167				7	1	0	0	62.1	44.9	4.5	56.0
May 17	769			128				0	0	0	0	74.1	65.6	4.5	56.0
May 18	618			159				2	0	0	0	66.4	58.8	5.0	56.0
May 19	734			146				0	0	0	0	75.0	43.6	4.5	56.0
May 20	782			144				6	0	0	0	79.0	42.0	4.2	56.0
May 21	900			153				6	1	0	2	84.5	75.6	4.2	56.0
May 22	894			147				4	0	0	1	86.4	75.5	4.0	56.0
May 23	563			144				6	2	2	1	88.8	53.9	4.0	56.0
May 24	478			118				6	0	2	0	96.7	45.0	4.0	56.0
May 25	827			105				8	0	0	0	95.9	73.6	4.5	56.0
May 26	757			133				11	0	6	0	92.8	84.6	4.3	56.0
May 27	1,161			141				6	0	22	1	101.3	51.2	4.2	56.0
May 28	697			69				0	0	7	0	121.7	45.3	4.2	56.0
May 29	138			17				0	0	2	0	140.3	82.4	4.2	56.0
May 30	214			47				0	0	2	0	128.9	90.5	1.8	56.0
May 31	845			102				0	0	0	0	126.5	53.3	1.8	56.0
TOTAL	34,647			3,287				118	42	43	8				
AVG.	1118			106				4	1	1	0	84.6	57.0	4.2	55.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	70,429	13,673
SPRING		

WILD STEELHEAD	SHAD	LAMPREY
1,808	43	8

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

TABLE 82

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

ICE HARBOR PROJECT
JUNE 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Jun 1	461			63			0	0	0	1	0	121.8	44.8	1.4	56.0
Jun 2	173			44			0	0	0	2	0	107.6	75.1	1.4	56.0
Jun 3	686			88			0	5	2	11	0	106.8	81.0	1.2	56.0
Jun 4	754			114			0	7	1	2	0	107.7	52.5	1.2	56.0
Jun 5	432			51			0	6	0	1	0	116.6	45.1	1.2	56.0
Jun 6	145			32			0	4	0	2	0	111.6	75.1	1.2	56.0
Jun 7	430			42			1	2	0	4	0	120.8	82.9	1.2	56.0
Jun 8	1,539			194			0	19	6	69	0	109.4	52.6	1.2	56.0
Jun 9	894			121			0	5	2	682	0	104.4	45.0	1.2	57.0
Jun 10	570			118			0	8	1	900	0	96.9	73.6	1.2	57.0
Jun 11	593			106			0	34	10	1,368	0	94.7	81.1	1.2	57.0
Jun 12		905		145			2	20	6	2,789	0	91.3	52.9	1.2	57.0
Jun 13		854		139			1	23	1	1,925	2	80.5	44.9	1.2	57.0
Jun 14		690		60			1	21	5	1,284	1	81.8	68.6	1.2	57.0
Jun 15		699		95			2	29	5	645	0	80.0	67.9	1.2	58.0
Jun 16		408		114			2	24	5	1,728	0	65.6	45.5	4.2	58.0
Jun 17		549		110			4	26	4	5,861	0	55.7	40.6	4.2	58.0
Jun 18		519		96			1	20	4	2,555	4	58.6	46.6	4.2	58.0
Jun 19		427		74			0	33	9	4,001	0	54.1	46.5	4.6	58.0
Jun 20		409		74			0	37	12	9,840	0	52.7	38.9	5.2	58.0
Jun 21		334		71			0	29	2	15,452	2	52.0	37.8	5.2	58.0
Jun 22		751		132			5	49	15	9,762	2	54.4	44.6	5.2	58.0
Jun 23		676		135			4	91	21	12,790	4	50.1	42.9	6.0	59.0
Jun 24		481		94			8	102	29	18,172	0	60.8	45.1	6.0	59.0
Jun 25		378		146			1	84	26	19,381	4	56.8	41.2	6.0	60.0
Jun 26		480		122			5	126	37	22,915	2	48.2	39.5	6.0	60.0
Jun 27		434		118			2	116	42	29,813	1	46.2	37.9	5.0	60.0
Jun 28		362		108			5	154	54	41,454	0	50.0	39.1	5.0	60.0
Jun 29		252		61			4	166	50	18,356	1	38.3	23.2	5.0	60.0
Jun 30		374		54			5	227	81	16,362	0	41.3	33.9	5.0	60.0
TOTAL	6,677	9,982		2,921			53	1,467	430	238,127	23				
AVG.	607	525		97			2	49	14	7938	1	77.2	51.5	3.2	57.7
RUN YEAR															
TOTALS TO DATE															
SPRING															
SUMMER															
TOTAL															

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 83

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

ICE HARBOR PROJECT
 JULY 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEADS	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Jul 1		284		46			3	202	55	15,497	1	45.6	29.9	5.0	60.0
Jul 2		273		106			6	196	58	15,309	1	43.9	34.3	5.0	62.0
Jul 3		185		85			6	210	76	15,642	2	49.8	39.3	5.0	63.0
Jul 4		194		69			2	321	109	8,186	5	40.0	32.6	5.0	65.0
Jul 5		150		48			1	243	87	5,719	4	38.4	31.2	5.0	65.0
Jul 6		158		90			0	233	59	17,016	10	39.2	31.8	5.0	66.0
Jul 7		201		72			6	264	74	12,814	4	41.8	31.3	5.0	66.0
Jul 8		140		52			1	257	70	4,934	23	38.3	31.5	5.0	66.0
Jul 9		237		66			2	286	102	4,190	8	37.6	30.6	5.0	66.0
Jul 10		169		53			4	288	86	6,500	17	36.9	29.3	5.0	66.0
Jul 11		127		53			0	264	80	3,990	7	41.7	33.4	5.0	66.0
Jul 12		78		19			0	239	77	2,681	6	40.5	32.6	5.0	67.0
Jul 13		75		38			2	175	60	1,751	14	43.1	35.3	5.0	67.0
Jul 14		89		25			0	235	67	3,492	18	44.7	34.8	5.0	68.0
Jul 15		47		14			0	207	65	1,549	14	40.7	31.1	5.0	68.0
Jul 16		39		18			0	204	53	813	13	42.6	35.0	5.0	68.0
Jul 17		102		44			2	318	74	552	27	34.4	27.0	5.0	70.0
Jul 18		52		17			0	276	79	1,192	31	35.9	26.6	5.0	70.0
Jul 19		31		14			0	310	57	926	35	36.4	29.2	6.6	70.0
Jul 20		70		24			2	330	59	373	23	37.8	28.9	5.0	70.0
Jul 21		45		12			0	230	49	324	25	35.8	28.5	5.0	70.0
Jul 22		87		28			0	489	104	439	17	39.9	31.6	5.0	70.0
Jul 23		29		12			1	408	119	215	14	35.1	26.6	5.0	70.0
Jul 24		41		9			0	541	159	149	25	36.1	29.0	7.5	70.0
Jul 25		33		9			0	588	169	566	15	31.5	22.4	7.5	70.0
Jul 26		20		2			0	462	145	94	20	34.0	23.9	7.5	70.0
Jul 27		19		0			0	705	197	53	18	30.1	19.9	7.5	70.0
Jul 28		12		2			0	378	88	87	17	32.4	25.0	7.5	70.0
Jul 29		24		0			0	336	84	300	5	27.9	20.2	7.5	70.0
Jul 30		21		6			0	406	78	422	23	33.6	26.0	7.5	70.0
Jul 31		24		5			0	274	70	373	11	26.3	18.7	7.5	70.0
TOTAL		3,056		1,038			38	9,875	2,709	126,148	453				
AVG.		99		33			1	319	87	4,069	15	37.8	29.3	5.7	67.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	77,106	4,646
SUMMER	13,038	2,986
TOTAL	90,144	7,632

WILD				
SOCKEYE	STEELHEADS	STEELHEAD	SHAD	LAMPREY
91	13,150	3,912	364,318	484

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 84

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

ICE HARBOR PROJECT
 AUGUST 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCHI	DEG F
Aug 1		12		3			0	374	80	121	19	27.8	17.4	7.5	70.0
Aug 2		2		1			0	236	57	93	14	28.5	18.8	7.5	71.0
Aug 3		16		2			0	227	72	78	16	29.7	20.5	7.5	71.0
Aug 4		6		2			0	112	39	43	6	26.4	15.4	7.5	71.0
Aug 5		7		1			0	136	35	81	0	30.2	20.7	7.5	71.0
Aug 6		10		1			0	104	33	73	10	26.2	15.7	7.5	71.0
Aug 7		8		0			0	150	31	91	17	28.1	18.6	7.5	71.0
Aug 8		23		8			0	94	19	40	5	26.7	17.5	7.5	71.0
Aug 9		24		1			0	189	44	60	10	26.8	17.0	7.5	71.0
Aug 10		14		0			0	196	37	60	6	30.1	21.0	7.5	71.0
Aug 11		13		7			0	149	37	19	8	24.9	16.0	6.5	71.0
Aug 12			7	5			0	166	32	50	10	28.9	18.0	6.5	71.0
Aug 13			12	1			0	254	55	45	21	24.0	14.5	6.5	71.0
Aug 14			7	2			0	129	26	45	8	24.3	14.6	6.5	71.0
Aug 15			8	12			0	141	44	17	3	23.8	15.1	6.5	71.0
Aug 16			11	2			0	167	24	76	18	27.4	19.8	6.5	71.0
Aug 17			9	0			0	142	33	19	8	24.1	17.1	6.8	71.0
Aug 18			8	2			0	163	40	28	8	25.0	17.8	6.8	71.0
Aug 19			8	0			0	168	34	4	37	26.5	17.5	6.8	71.0
Aug 20			18	10			0	186	35	19	0	26.4	16.9	6.8	71.0
Aug 21			36	3			0	260	41	24	4	27.4	18.1	6.8	71.0
Aug 22			15	7			0	184	32	14	4	25.8	16.2	6.8	71.0
Aug 23			23	3			0	176	39	10	2	25.9	18.9	6.8	71.0
Aug 24			17	2			0	129	13	1	4	30.8	24.0	6.8	71.0
Aug 25			31	13			0	198	45	13	5	31.5	24.8	6.8	71.0
Aug 26			28	3			0	146	31	6	1	34.1	27.2	6.8	71.0
Aug 27			31	11			0	281	54	17	2	32.4	23.2	6.4	71.0
Aug 28			53	31			0	357	67	13	8	34.7	27.9	6.4	69.0
Aug 29			46	14			0	341	51	13	15	30.5	23.9	6.4	69.0
Aug 30			83	20			0	382	84	2	6	31.6	24.9	6.4	69.0
Aug 31			129	26			0	656	158	0	8	33.3	26.4	6.4	69.0
TOTAL		135	580	193			0	6,593	1,422	1,175	283				
AVG.		12	29	6			0	213	46	38	9	28.2	19.5	6.9	70.7

RUN YEAR	CHINOOK		COHO ADULTS	COHO JACKS	WILD			SHAD	LAMPREY
	ADULT	JACK			SOCKEYE	STEELHEAD	STEELHEAD		
TOTALS TO DATE									
SPRING	77,106	4,646	0	0	91	19,743	5,334	365,493	767
SUMMER	13,173	3,012							
FALL	580	167							
TOTAL	90,859	7,825							

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 85

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

ICE HARBOR PROJECT
SEPTEMBER 2004

DATE	FISH COUNTS				RIVER CONDITIONS										
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	PINK	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Sep 1			494	135	0	0		1,199	251	0	0	21.6	0.1	5.2	69.0
Sep 2			522	168	0	0		1,285	278	0	0	23.1	0.0	5.2	69.0
Sep 3			504	150	0	0		1,625	399	0	0	22.9	0.0	5.2	69.0
Sep 4			548	189	0	0		1,412	337	0	0	21.4	0.0	5.2	69.0
Sep 5			523	232	0	0		1,820	499	0	0	17.0	0.0	5.2	69.0
Sep 6			643	224	2	0		1,433	312	0	0	18.5	0.0	5.2	69.0
Sep 7			867	351	12	0		3,182	822	0	0	21.7	0.0	5.2	69.0
Sep 8			983	574	11	0		3,701	941	0	0	20.6	0.0	5.2	69.0
Sep 9			1194	534	37	0		5,134	1,263	0	0	24.4	0.0	5.2	69.0
Sep 10			691	509	50	6		5,705	1,418	0	6	29.3	0.0	5.2	69.0
Sep 11			588	346	42	0		5,865	1,263	0	0	26.9	0.0	5.2	69.0
Sep 12			960	667	29	0		6,573	1,482	0	0	21.8	0.0	5.2	69.0
Sep 13			1047	604	49	0		5,174	1,122	0	0	19.9	0.0	5.2	69.0
Sep 14			678	212	55	0		2,807	717	0	0	35.7	0.0	5.2	69.0
Sep 15			1247	605	79	0		5,431	1,438	0	0	39.9	0.0	5.2	69.0
Sep 16			666	269	54	1		3,990	1,074	0	1	30.4	0.0	5.2	69.0
Sep 17			665	317	46	0		3,825	973	0	0	33.7	0.0	5.2	69.0
Sep 18			524	378	36	0		4,636	1,270	0	0	28.9	0.0	5.2	64.0
Sep 19			527	330	35	0		2,328	608	0	0	25.7	0.0	5.2	64.0
Sep 20			530	337	125	1		3,600	899	0	1	23.9	0.0	5.2	64.0
Sep 21			484	308	222	0		4,455	987	0	0	23.2	0.0	5.2	64.0
Sep 22			432	232	101	0		3,437	707	0	0	20.2	0.0	6.0	64.0
Sep 23			353	177	144	1		3,706	800	0	1	24.1	0.0	6.0	64.0
Sep 24			227	185	134	2		3,764	878	0	2	24.0	0.0	6.0	64.0
Sep 25			207	135	99	0		3,357	780	0	0	24.5	0.0	6.0	64.0
Sep 26			288	224	115	0		4,229	1,013	0	0	20.6	0.0	6.0	64.0
Sep 27			243	178	105	2		3,921	922	0	2	20.2	0.0	6.0	64.0
Sep 28			430	253	253	0		5,247	1,169	0	0	19.2	0.0	6.0	64.0
Sep 29			368	246	145	2		4,395	982	0	2	22.8	0.0	5.2	64.0
Sep 30			253	243	113	6		4,590	1,151	0	6	19.8	0.0	5.2	64.0
TOTAL			17,686	9,312	2,093	21		111,826	26,755	0	21				
AVG.			590	310	70	1		3,728	892	0	1	24.2	0.0	5.4	66.8
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY						
SPRING	77,106	4,646	2,093	21	91	131,569	32,089	365,493	788						
SUMMER	13,173	3,012													
FALL	18,266	9,479													
TOTAL	108,545	17,137													

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 86

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND
FISH COUNTS

ICE HARBOR PROJECT
OCTOBER 2004
RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD				DISCH KCFS	SPILL KCFS	TURBIDITY			
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	PINK			LAMPREY	SECCHI	DEG F	
Oct 1			296	164	72	7			3,052	513	0	0	19.4	0.0	5.2	64.0
Oct 2			318	235	50	0			3,292	679	0	0	17.9	0.0	5.2	64.0
Oct 3			437	221	42	0			3,983	696	0	0	16.3	0.0	5.2	64.0
Oct 4			359	187	44	0			2,585	501	0	0	16.3	0.0	5.2	63.0
Oct 5			163	86	26	1			1,545	336	0	0	19.6	0.0	5.2	63.0
Oct 6			150	88	48	0			1,805	425	0	0	23.2	0.0	7.5	63.0
Oct 7			107	71	27	0			1,871	425	0	0	14.7	0.0	7.5	63.0
Oct 8			95	44	23	0			1,433	320	0	1	18.5	0.0	7.5	63.0
Oct 9			174	103	32	2			1,860	426	0	1	13.6	0.0	7.5	63.0
Oct 10			86	42	47	0			896	168	0	1	16.8	0.0	7.5	63.0
Oct 11			36	42	10	0			454	131	0	0	18.1	0.0	7.5	62.0
Oct 12			62	39	22	0			868	186	0	6	12.6	0.0	7.5	62.0
Oct 13			45	37	15	0			1,115	252	0	6	22.3	0.0	7.5	62.0
Oct 14			39	31	25	1			1,029	205	0	1	13.4	0.0	8.5	62.0
Oct 15			45	45	29	0			953	209	0	0	17.8	0.0	8.5	62.0
Oct 16			50	41	41	0			1,141	297	0	1	15.3	0.0	8.5	61.0
Oct 17			54	29	50	2			1,074	263	0	0	21.3	0.0	8.5	61.0
Oct 18			41	33	73	2			1,223	286	0	0	14.8	0.0	8.5	61.0
Oct 19			12	15	51	0			755	172	0	0	19.0	0.0	8.5	60.0
Oct 20			33	14	23	0			766	209	0	0	17.2	0.0	8.5	60.0
Oct 21			34	24	36	0			508	121	0	0	18.0	0.0	8.5	60.0
Oct 22			27	12	22	5			473	112	0	0	17.5	0.0	8.5	60.0
Oct 23			31	6	55	0			602	114	0	0	20.2	0.0	8.5	60.0
Oct 24			42	17	102	0			574	129	0	0	17.7	0.0	8.5	59.0
Oct 25			31	14	127	5			532	114	0	0	27.0	0.0	8.5	59.0
Oct 26			29	4	87	0			494	127	0	0	15.3	0.0	8.5	59.0
Oct 27			10	8	42	0			380	111	0	0	16.9	0.0	8.5	58.0
Oct 28			15	5	36	0			373	98	0	0	16.0	0.0	8.5	57.0
Oct 29			7	11	45	0			576	128	0	0	17.5	0.0	8.5	57.0
Oct 30			5	6	43	0			579	133	0	0	18.3	0.0	8.5	57.0
Oct 31			10	14	35	0			537	153	0	0	20.6	0.0	8.5	57.0
TOTAL			2,843	1,688	1,380	25			37,328	8,039	0	17				

AVG.	92	54	45		1,204	259	0	1	17.8	0.0	7.7	60.9
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RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
	ADULT	JACK							
TOTALS TO DATE									
SPRING	77,106	4,646	3,473	46	91	168,897	40,128	365,493	805
SUMMER	13,173	3,012							
FALL	21,109	11,167							
TOTAL	111,388	18,825							

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 87

DISCHARGE AND WATER QUALITY DATA

ICE HARBOR PROJECT - 2004

NOVEMBER					DECEMBER				
DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F*	DATE	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F*
Nov 1	20.2	0.0	8.5	57.0	Dec 1	19.1	0	8.4	50
Nov 2	16.1	0.0	8.5	56.0	Dec 2	19.7	0	8.4	49
Nov 3	20.2	0.0	8.5	56.0	Dec 3	20.6	0	8.4	49
Nov 4	19.3	0.0	8.5	56.0	Dec 4	16.3	0	8.4	48
Nov 5	21.7	0.0	8.5	55.0	Dec 5	15	0	8.4	48
Nov 6	16.3	0.0	8.5	55.0	Dec 6	28.9	0	8.4	48
Nov 7	18.2	0.0	8.5	55.0	Dec 7	20.7	0	8.4	47
Nov 8	19.7	0.0	8.5	55.0	Dec 8	18	0	8.4	47
Nov 9	18.9	0.0	8.5	55.0	Dec 9	25.6	0	8.4	47
Nov 10	20.9	0.0	8.5	55.0	Dec 10	17	0	8.4	47
Nov 11	13.8	0.0	8.5	54.0	Dec 11	23.3	0	8.4	46
Nov 12	19.7	0.0	8.5	54.0	Dec 12	25.9	0	8.4	46
Nov 13	17.1	0.0	8.5	54.0	Dec 13	27.1	0	8.4	46
Nov 14	21.7	0.0	8.5	54.0	Dec 14	25.1	0	10	46
Nov 15	18.1	0.0	8.5	53.0	Dec 15	27.9	0	10	46
Nov 16	16.9	0.0	8.5	53.0	Dec 16	35.1	0	10	46
Nov 17	20.7	0.0	8.5	53.0	Dec 17	23.4	0	10	46
Nov 18	19.6	0.0	8.5	53.0	Dec 18	18.1	0	10.1	45
Nov 19	16.2	0.0	8.5	52.0	Dec 19	17.5	0	10.1	45
Nov 20	16.4	0.0	8.5	52.0	Dec 20	28.8	0	10.1	45
Nov 21	19.6	0.0	8.5	52.0	Dec 21	25.5	0	10.1	44
Nov 22	20.3	0.0	8.5	51.0	Dec 22	25.4	0	10.1	44
Nov 23	19.6	0.0	8.5	51.0	Dec 23	23.3	0	10.1	44
Nov 24	16.8	0.0	9.0	51.0	Dec 24	20.6	0	8.4	44
Nov 25	15.2	0.0	8.4	51.0	Dec 25	28	0	8.4	43
Nov 26	32.4	0.0	8.4	51.0	Dec 26	23.7	0	8.4	43
Nov 27	20.6	0.0	8.4	50.0	Dec 27	28.9	0	8.4	43
Nov 28	24.9	0.0	8.4	50.0	Dec 28	19.2	0	8.4	42
Nov 29	22.1	0.0	8.4	50.0	Dec 29	15.6	0	8.4	42
Nov 30	17.5	0.0	8.4	50.0	Dec 30	14.3	0	8.4	42
					Dec 31	16.6	0	*	*
AVG.	19.4	0.0	8.5	53.1	AVG.	22.4	0.0	9.0	45.6

*Data unavailable.

TABLE 88

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
ICE HARBOR DAM
1962 - 2004**

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	137,404	202,173	61	231	339,869
2003	143,197	186,474	37	1,431	331,139
2004	130,218	171,380	91	3,519	305,208
Totals	2,442,096	3,794,392	10,785	52,066	6,299,339
10-Year Average	82,794	143,609	47	829	227,280

*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, 1996-2000.

TABLE 89

MONTHLY COUNT OF CHINOOK SALMON
ICE HARBOR DAM; 1962 - 2004

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL*	SPRING	SUMMER	FALL
														1 APR- 11 JUN	12 JUN- 11 AUG	12 AUG- 31 OCT
1962				2,579	28,951	23,250	8,315	3,547	20,578	7,081			94,301	33,613	30,639	30,049
1963				3,434	21,790	14,001	7,591	1,415	9,342	2,918	677	22	61,190	26,778	20,875	13,537
1964		1	2	4,048	19,611	5,409	18,832	2,161	8,159	1,701	156	17	60,097	24,304	24,696	11,097
1965			4	1,677	9,649	5,072	10,209	803	9,318	2,152	349		39,233	12,178	14,701	12,354
1966				23,382	19,294	10,611	7,166	1,933	10,756	2,740			75,882	43,881	16,983	15,018
1967				15,973	18,137	9,020	22,218	820	11,947	6,815			84,930	35,593	30,315	19,022
1968				1,595	41,398	12,119	17,751	3,433	16,588	5,275	493	29	98,681	44,773	29,531	24,377
1969			195	697	43,181	24,918	12,861	2,369	12,027	3,555	708	3	100,514	52,090	30,917	17,507
1970				12,167	33,881	12,338	8,185	1,747	7,702	1,456	219	3	77,698	47,931	19,382	10,385
1971				1,104	25,089	19,265	13,364	873	8,960	1,593			70,248	32,638	26,606	11,004
1972				14,535	34,734	7,544	15,177	1,869	6,089	2,684			82,632	50,350	22,846	9,436
1973				34,277	23,627	10,925	4,254	840	6,657	1,241			81,821	60,639	12,829	8,353
1974				842	16,670	5,315	6,494	483	2,066	574			32,444	19,361	10,269	2,814
1975				1,314	17,796	5,817	3,972	506	1,875	406			31,686	21,401	7,727	2,558
1976				3,146	19,269	8,544	3,921	349	1,123	204			36,556	25,056	10,026	1,474
1977				24,003	17,626	9,328	3,606	297	1,370	284			56,514	44,421	10,337	1,756
1978				14,891	29,333	9,999	4,888	892	1,064	269	16		61,352	49,303	10,440	1,609
1979				1,731	6,528	2,234	1,216	379	1,489	333	19		13,929	9,247	2,608	2,074
1980				1,678	7,321	2,285	1,569	301	1,034	504	25		14,717	9,668	3,305	1,744
1981			1	6,744	8,542	2,884	1,751	161	1,530	470	9		22,092	16,167	3,814	2,111
1982			3	656	11,543	4,522	2,347	283	2,601	691			22,646	14,600	4,527	3,519
1983				1,925	9,418	4,132	1,921	316	1,945	602			20,259	12,602	4,922	2,735
1984				823	7,292	5,353	1,943	223	1,762	361			17,757	9,183	6,307	2,267
1985				12,245	18,334	6,885	1,294	546	5,414	3,263			47,981	33,527	5,290	9,164
1986			1	14,764	22,025	8,299	1,672	169	3,664	2,021			52,615	39,087	7,745	5,783
1987				11,141	18,821	6,550	2,437	329	6,089	2,110			47,477	32,083	6,982	8,412
1988				14,274	17,196	8,609	1,904	702	3,621	1,760			48,066	34,394	7,790	5,882
1989				3,307	11,724	4,946	1,143	776	3,917	1,421			27,234	17,029	4,215	5,990
1990				7,578	12,166	5,353	1,337	320	3,315	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			137,404	87,033	29,044	21,327
2003				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
TOTAL		1	343	466,188	889,618	426,150	222,774	40,862	296,958	95,995	3,256	84	2,442,229	1,487,477	531,545	423,069
10-Year Avg.				21,006	28,057	14,958	2,845	1,113	11,341	3,414			82,807	54,904	12,097	15,793

*Jacks included

The 1996 through 2000 count seasons were extended to include video counts made between 0600 and 1600 hours daily from November 1 through December 15.

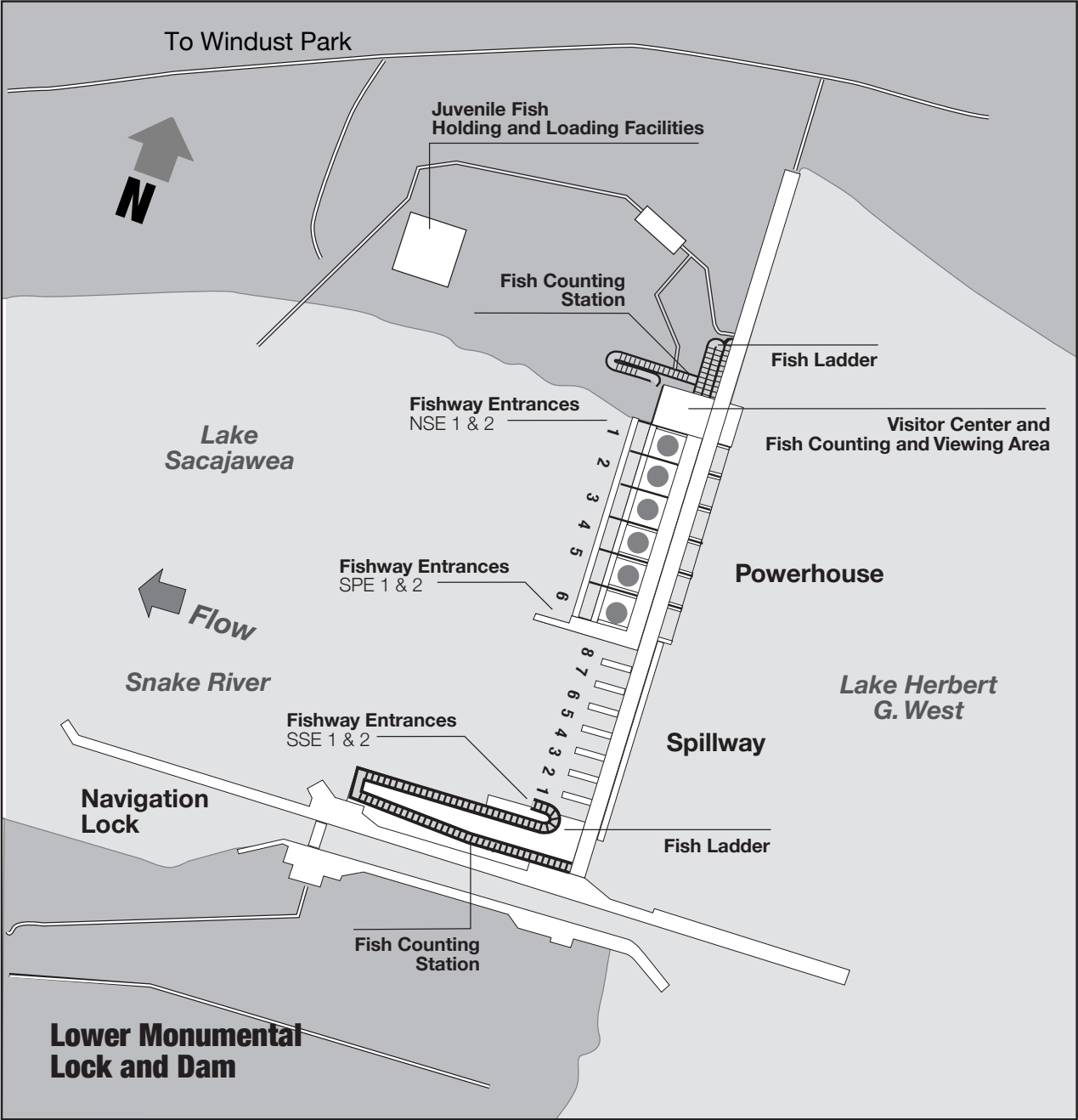
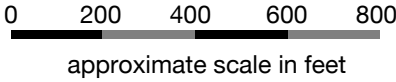
TABLE 90

MONTHLY COUNT OF STEELHEAD
ICE HARBOR DAM
1962 -2004

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			202,173
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
Totals	268	287	19,013	97,478	21,096	18,020	173,825	328,140	1,883,126	1,172,357	72,759	13,224	3,799,593
10-Year Average				1,506	110	930	7,846	14,946	70,449	41,764			144,129

The 1996 through 2000 count seasons were extended to include video counts made between 0600 and 1600 hours dai November 1 to December 15.

Plate 7 Lower Monumental Lock and Dam



LOWER MONUMENTAL DAM

FISH COUNTING SCHEDULE

1 Jan – 31 Mar	Video counting daily 0800-1600 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400-2000 hours PST.
1 Nov – 31 Dec	Video counting daily 0600-1600 hours PST.

FISH LADDER OPERATING SCHEDULE

North Ladder

1 Jan – 11 Jan	Ladder in service.
12 Jan – 22 Jan	Ladder out of service for annual maintenance.
23 Jan – 31 Dec	Ladder in service.

South Ladder

1 Jan – 21 Jan	Ladder in service.
22 Jan – 17 Feb	Ladder out of service for annual maintenance.
18 Feb – 31 Dec	Ladder in service.

FISHWAY ACTIVITIES

Adult chinook and steelhead were radio-tracked past the dam in 2004 as part of a broader, ongoing study by the University of Idaho.

Water temperatures were recorded hourly in six locations within the adult fishways from June to September. The purpose of this effort, ongoing since 1999, is to determine if thermal barriers exist and take corrective action if needed.

The Walla Walla District continued a hydraulic evaluation of the adult fishways in 2004. The purpose was to analyze existing operating conditions and investigate alternatives to improve fish passage.

AWS pump 1 was rehabbed (turbine, gearbox, and the pump itself) during the winter outage. Pump 3 was rehabbed in 2002 and pump 2 in 2003.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 10 March to 16 December.

TABLE 91
 MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER LOWER MONUMENTAL DAM
 2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			1	29,462	36,732	18,114	3,721	566	21,620	3,670	145	-1	114,030
STEELHEAD	115	1,036	2,619	1,473	127	1,052	6,477	4,020	90,900	45,380	4101	1,492	158,792
SOCKEYE						27	44	9					80
COHO*					2				1,906	1,698	57	2	3,665
PINK													0
TOTAL	115	1,036	2,620	30,935	36,861	19,193	10,242	4,595	114,426	50,748	4,303	1,493	276,567
SHAD													0
LAMPREY													194

*Jacks included
 Shad are not counted after September 1st.

TABLE 92

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

LOWER MONUMENTAL PROJECT
JANUARY 2004

DATE	FISH COUNTS			RIVER CONDITIONS										
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Jan 1	0			0	0	0	23	7			17.4	0.0		
Jan 2	0			0	0	0	22	6			17.4	0.0		
Jan 3	0			0	0	0	7	3			20.8	0.0		
Jan 4	0			0	0	0	11	4			19.9	0.0		
Jan 5	0			0	0	0	1	0			25.8	0.0		
Jan 6	0			0	0	0	1	0			32.9	0.0		
Jan 7	0			0	0	0	3	1			26.8	0.0		
Jan 8	0			0	0	0	3	0			22.4	0.0		
Jan 9	0			0	0	0	2	0			23.3	0.0		
Jan 10	0			0	0	0	1	0			17.9	0.0		
Jan 11	0			0	0	0	1	0			18.7	0.0		
Jan 12	0			0	0	0	0	0			32.0	0.0		
Jan 13	0			0	0	0	0	0			22.4	0.0		
Jan 14	0			0	0	0	0	0			24.4	0.0		
Jan 15	0			0	0	0	1	0			19.7	0.0		
Jan 16	0			0	0	0	1	0			26.5	0.0		
Jan 17	0			0	0	0	1	0			24.4	0.0		
Jan 18	0			0	0	0	0	0			20.1	0.0		
Jan 19	0			0	0	0	0	0			28.0	0.0		
Jan 20	0			0	0	0	1	0			40.3	0.0		
Jan 21	0			0	0	0	0	0			19.3	0.0		
*Jan 22	0			0	0	0	0	0			13.9	0.0		
*Jan 23	0			0	0	0	0	0			17.9	0.0		
*Jan 24	0			0	0	0	0	0			20.1	0.0		
*Jan 25	0			0	0	0	0	0			17.5	0.0		
*Jan 26	0			0	0	0	0	0			21.5	0.0		
*Jan 27	0			0	0	0	0	0			23.2	0.0		
*Jan 28	0			0	0	0	0	0			31.3	0.0		
*Jan 29	0			0	0	0	3	0			27.3	0.0		
Jan 30	0			0	0	0	11	5			43.2	0.0		
Jan 31	0			0	0	0	22	13			41.7	0.0		
TOTAL	0			0	0	0	115	39						
AVG	0			0	0	0	4	1			24.5	0.0		

*All water temperature and turbidity data unavailable.

Note: January 1 to March 31 counts were from video tape. The counts are 8-hour counts and occurred between 0800-1600 PST. Visual counting started April 1. Official Spring Chinook run started April 1. January, February, and March Chinook counts were not added to spring totals.
*Jan 22 - 29 North fishway picketed lead was not lowered into place; therefore, fish were not directed through count slot.

TABLE 93

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

LOWER MONUMENTAL PROJECT
FEBRUARY 2004

DATE	FISH COUNTS					RIVER CONDITIONS									
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Feb 1	0			0				2	1			30.5	0.0		
Feb 2	0			0				1	0			24.2	0.0		
Feb 3	0			0				5	1			26.9	0.0		
Feb 4	0			0				10	3			31.5	0.0		
Feb 5	0			0				3	2			25.0	0.0		
Feb 6	0			0				10	3			30.9	0.0		
Feb 7	0			0				10	6			23.6	0.0		
Feb 8	0			0				26	7			23.1	0.0		
Feb 9	0			0				7	4			23.2	0.0		
Feb 10	0			0				8	4			27.0	0.0		
Feb 11	0			0				7	0			25.4	0.0		
Feb 12	0			0				37	15			23.9	0.0		
Feb 13	0			0				24	12			28.6	0.0		
Feb 14	0			0				33	13			30.7	0.0		
Feb 15	0			0				66	26			20.2	0.0		
Feb 16	0			0				94	30			26.9	0.0		
Feb 17	0			0				26	12			31.5	0.0		
Feb 18	0			0				45	20			27.2	0.0		
Feb 19	0			0				27	11			45.1	0.0		
Feb 20	0			0				91	24			37.7	0.0		
Feb 21	0			0				123	46			35.3	0.0		
Feb 22	0			0				69	30			34.7	0.0		
Feb 23	0			0				78	26			41.5	0.0		
Feb 24	0			0				44	10			37.1	0.0		
Feb 25	0			0				50	22			34.8	0.0		
Feb 26	0			0				34	14			34.3	0.0		
Feb 27	0			0				28	10			42.2	0.0		
Feb 28	0			0				48	20			39.9	0.0		
Feb 29	0			0				30	16			27.9	0.0		
TOTAL	0			0				1,036	388						
AVG	0			0				36	13			30.8	0.0		

*All water temperature and turbidity data unavailable.

Note: January 1 to March 31 counts were from video tape. The counts are 8-hour counts and occurred between 0800-1600 PST. Visual counting started April 1. Official Spring Chinook run started April 1. January, February, and March Chinook counts were not added to spring totals.

TABLE 94

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

LOWER MONUMENTAL PROJECT
MARCH 2004

DATE	FISH COUNTS				RIVER CONDITIONS								
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD	KCFS	KCFS	SECCH	DEG F
Mar 1	0			0				57	21			35.7	0.0
Mar 2	0			0				39	11			36.4	0.0
Mar 3	0			0				40	16			35.0	0.0
Mar 4	0			0				35	10			34.9	0.0
Mar 5	0			0				45	13			37.6	0.0
Mar 6	0			0				92	22			32.5	0.0
Mar 7	0			0				56	21			27.8	0.0
Mar 8	0			0				77	26			33.9	0.0
Mar 9	0			0				102	39			32.9	0.0
Mar 10	0			0				71	28			31.8	0.0
Mar 11	0			0				91	35			41.7	0.0
Mar 12	0			0				93	28			42.4	0.0
Mar 13	0			0				97	30			38.9	0.0
Mar 14	0			0				61	21			31.5	0.0
Mar 15	0			0				61	29			50.4	0.0
Mar 16	0			0				79	29			46.1	0.0
Mar 17	0			0				104	30			36.4	0.0
Mar 18	0			0				98	39			48.6	0.0
Mar 19	0			0				149	68			52.4	0.0
Mar 20	0			0				184	74			47.1	0.0
Mar 21	0			0				88	34			48.9	0.0
Mar 22	0			0				76	43			56.9	0.0
Mar 23	0			0				83	33			71.0	0.0
Mar 24	0			0				69	37			44.6	0.0
Mar 25	0			0				113	17			61.0	0.0
Mar 26	0			0				135	60			69.4	0.0
Mar 27	1			0				126	49			53.9	0.0
Mar 28	0			0				79	35			53.7	0.0
Mar 29	0			0				85	30			51.0	0.0
Mar 30	0			0				72	31			52.5	0.0
Mar 31	0			0				62	26			57.1	0.0
TOTAL	1			0				2,619	985				
AVG	0			0				84	32			45.0	0.0

*All water temperature and turbidity data unavailable.

Note: January 1 to March 31 counts were from video tape. The counts are 8-hour counts and occurred between 0800-1600 PST. Visual counting started April 1. Official Spring Chinook run started April 1. January, February, and March Chinook counts were not added to spring totals.

TABLE 95

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

LOWER MONUMENTAL PROJECT
APRIL 2004

DATE	FISH COUNTS			RIVER CONDITIONS											
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Apr 1	1			0				128	52			60.7	0.0	3.0	47.0
Apr 2	10			0				157	72			50.6	0.0	3.0	47.0
Apr 3	8			0				122	56			41.0	0.0	3.0	48.0
Apr 4	7			0				86	43			48.9	0.0	3.0	49.0
Apr 5	6			0				89	54			45.0	0.0	3.0	49.0
Apr 6	11			0				73	36			60.9	0.0	3.0	49.0
Apr 7	13			0				96	58			51.6	0.0	3.0	49.0
Apr 8	14			0				98	43			53.4	0.0	3.5	49.0
Apr 9	19			0				57	28			58.7	0.0	3.5	49.0
Apr 10	18			0				69	30			54.9	0.0	3.5	50.0
Apr 11	29			0				61	44			50.1	0.0	4.0	51.0
Apr 12	27			0				43	24			46.4	0.0	4.0	51.0
Apr 13	50			0				39	18			58.9	0.0	4.0	51.0
Apr 14	74			0				30	12			59.8	0.0	4.0	52.0
Apr 15	108			0				34	24			69.8	0.0	4.0	52.0
Apr 16	125			0				35	19			59.4	0.0	4.0	52.0
Apr 17	385			0				32	23			50.6	0.0	4.0	52.0
Apr 18	456			1				24	14			53.4	0.0	4.0	52.0
Apr 19	373			2				35	29			49.4	0.0	4.0	52.0
Apr 20	743			0				28	16			46.2	0.0	4.0	53.0
Apr 21	1,317			0				20	11			46.2	0.0	4.0	53.0
Apr 22	1,079			0				6	1			46.3	0.0	4.0	53.0
Apr 23	1,289			2				38	29			42.0	0.0	4.0	53.0
Apr 24	2,497			2				9	8			42.3	4.5	4.0	53.0
Apr 25	3,857			24				25	17			45.3	11.6	4.0	53.0
Apr 26	2,969			9				10	9			42.9	10.2	4.0	53.0
Apr 27	3,432			20				6	6			46.5	8.0	4.0	53.0
Apr 28	4,266			26				8	2			55.1	10.9	4.0	52.0
Apr 29	3,574			33				8	8			56.9	13.8	4.0	52.0
Apr 30	2,575			11				7	7			53.4	25.4	4.0	52.0
TOTAL	29,332			130				1,473	793						
AVG.	978			4				49	26			51.6	2.8	3.7	51.0

TABLE 96

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

LOWER MONUMENTAL PROJECT
MAY 2004

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL									DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
May 1	1,192			11	0			0	7		0	51.9	24.8	4.0	52.0
May 2	2,671			21	0			5	5		0	53.3	25.5	4.0	52.0
May 3	2,196			27	0			1	5		0	65.4	30.9	4.5	52.0
May 4	2,277			66	1			12	7		0	76.6	27.4	4.5	52.0
May 5	2,120			51	1			7	3		1	82.3	25.7	4.5	54.0
May 6	1,274			36	0			10	8		0	94.2	30.4	4.5	55.0
May 7	1,113			58	0			3	3		0	88.3	30.7	4.5	55.0
May 8	1,884			103	0			11	6		0	85.9	29.3	4.5	55.0
May 9	1,807			81	0			7	4		0	74.1	28.7	4.5	55.0
May 10	1,853			75	0			2	2		0	75.9	29.0	4.5	55.0
May 11	1,320			97	0			1	0		1	72.4	26.7	4.5	55.0
May 12	1,337			132	0			2	1		1	73.7	26.7	4.5	55.0
May 13	1,190			103	0			4	2		1	69.1	27.7	3.8	55.0
May 14	1,117			124	0			7	1		0	60.0	5.9	3.8	55.0
May 15	981			129	0			0	0		1	62.3	0.0	3.8	55.0
May 16	552			78	0			2	0		1	58.2	0.0	4.0	55.0
May 17	654			125	0			7	4		0	72.8	0.0	4.0	55.0
May 18	686			98	0			6	1		0	65.1	0.0	4.0	55.0
May 19	675			135	0			2	2		0	71.7	0.0	4.0	55.0
May 20	549			116	0			2	2		0	78.6	0.0	4.0	55.0
May 21	796			139	0			0	0		0	83.1	0.0	4.0	54.0
May 22	892			126	0			6	2		0	88.7	0.0	4.0	54.0
May 23	750			113	0			6	0		0	86.4	0.0	4.0	54.0
May 24	621			138	0			3	0		1	97.0	0.0	4.0	55.0
May 25	435			82	0			6	0		1	94.0	0.0	4.0	56.0
May 26	531			66	0			8	1		1	90.5	0.0	4.0	56.0
May 27	445			88	0			5	1		1	99.9	0.0	4.0	56.0
May 28	725			99	0			1	0		1	124.2	3.9	4.0	56.0
May 29	650			66	0			0	0		0	138.8	17.8	1.5	55.0
May 30	476			28	0			1	0		0	130.1	14.6	1.5	55.0
May 31	318			34	0			0	0		0	124.5	24.3	1.1	55.0
TOTAL	34,087			2,645	2			127	67		11				
AVG.	1,100			85	0			4	2		0	83.5	13.9	3.9	54.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	63,419	2,775
SPRING		

COHO ADULT
2

WILD STEELHEAD	STEELHEAD	SHAD	LAMPREY
1,600	860	0	11

TABLE 97

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

LOWER MONUMENTAL PROJECT
 JUNE 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCHI	DEG F
Jun 1	481			59			0	1	0	0	0	123.2	22.7	1.1	55.0
Jun 2	410			58			0	4	0	0	0	108.8	8.6	1.5	54.0
Jun 3	343			66			0	4	1	0	0	105.8	6.1	1.5	54.0
Jun 4	756			61			0	5	0	0	0	108.4	0.0	1.5	54.0
Jun 5	604			104			0	6	1	0	0	118.1	0.0	1.5	55.0
Jun 6	538			68			0	4	1	0	1	113.3	0.8	1.5	55.0
Jun 7	282			29			0	10	1	0	4	118.4	6.0	1.5	55.0
Jun 8	384			50			0	11	0	0	2	106.9	0.0	1.5	56.0
Jun 9	1,231			183			0	15	4	0	1	107.4	0.0	1.5	57.0
Jun 10	889			114			0	20	3	0	0	95.9	0.0	1.5	57.0
Jun 11	701			72			0	21	0	0	1	91.3	0.0	2.5	58.0
Jun 12	605			59			0	20	0	0	0	89.8	0.0	3.0	58.0
Jun 13	935			87			0	24	1	0	1	79.0	0.0	3.0	58.0
Jun 14		749		92			0	13	0	0	0	80.4	0.0	3.0	58.0
Jun 15		579		32			0	25	4	0	0	78.3	0.0	3.5	58.0
Jun 16		614		54			1	31	6	0	0	63.0	0.0	3.5	58.0
Jun 17		381		67			0	26	6	0	0	55.2	0.0	3.0	59.0
Jun 18		491		104			0	25	1	0	1	56.7	0.0	3.0	59.0
Jun 19		325		83			1	14	4	0	0	52.2	0.0	3.0	59.0
Jun 20		377		57			0	20	2	0	-1	51.1	0.0	3.4	59.0
Jun 21		360		73			2	29	2	0	0	50.6	0.0	3.4	61.0
Jun 22		292		72			1	42	7	0	0	55.1	0.0	3.4	61.0
Jun 23		559		91			2	37	9	0	0	46.4	0.0	3.4	64.0
Jun 24		675		93			1	52	10	0	0	60.2	0.0	3.4	64.0
Jun 25		505		84			5	77	19	0	3	53.9	0.0	3.4	64.0
Jun 26		408		82			1	91	21	0	2	46.5	0.0	3.4	65.0
Jun 27		417		112			5	75	23	0	3	44.2	0.0	3.4	65.0
Jun 28		282		79			3	69	12	0	1	45.9	0.0	3.4	65.0
Jun 29		247		69			3	84	21	0	0	38.6	0.0	4.0	66.0
Jun 30		310		130			2	197	30	0	1	39.8	0.0	4.0	66.0
TOTAL	8,159	7,571		2,384			27	1,052	189	0	20				
AVG.	628	445		79			1	35	6	0	1	76.1	1.5	2.7	59.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	71,578	3,785
SUMMER	7,571	1,374
TOTAL	79,149	5,159

COHO ADULT
2

SOCKEYE	WILD STEELHEAD	SHAD	LAMPREY
27	1,049	0	31

TABLE 98

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

LOWER MONUMENTAL PROJECT
JULY 2004

DATE	FISH COUNTS						RIVER CONDITIONS								
	CHINOOK ADULT		FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY
SPRING	SUMMER	STEELHEAD							STEELHEAD	SECCHI					DEG F
Jul 1		384		117			5	144	38	0	1	42.9	0.0	4.0	67.0
Jul 2		267		51			5	174	49	0	0	42.4	0.0	4.0	67.0
Jul 3		330		48			4	218	50	0	5	46.1	0.0	4.0	68.0
Jul 4		187		48			1	157	37	0	0	37.7	0.0	4.0	68.0
Jul 5		212		32			3	189	57	0	0	37.7	0.0	4.0	69.0
Jul 6		141		30			0	191	61	0	1	37.3	0.0	4.3	69.0
Jul 7		142		31			1	171	47	0	1	39.2	0.0	4.3	69.0
Jul 8		169		73			5	277	53	0	2	36.7	0.0	4.3	69.0
Jul 9		208		72			0	226	65	0	4	38.7	0.0	4.3	70.0
Jul 10		113		66			0	229	73	0	5	34.9	0.0	4.3	69.0
Jul 11		76		28			0	191	54	0	1	38.1	0.0	4.3	70.0
Jul 12		68		26			2	129	43	0	4	40.2	0.0	4.3	70.0
Jul 13		42		25			1	193	59	0	0	39.1	0.0	4.1	70.0
Jul 14		47		27			5	172	67	0	0	43.1	0.0	4.5	70.0
Jul 15		77		37			1	210	61	0	6	38.5	0.0	4.1	71.0
Jul 16		37		14			1	152	51	0	1	40.8	0.0	4.5	71.0
Jul 17		41		13			0	172	43	0	2	34.5	0.0	4.5	70.0
Jul 18		32		12			2	105	26	0	2	33.6	0.0	4.5	70.0
Jul 19		48		11			1	144	33	0	6	34.9	0.0	4.5	70.0
Jul 20		24		6			1	176	53	0	9	38.0	0.0	4.5	69.0
Jul 21		31		7			0	161	34	0	7	32.7	0.0	4.5	69.0
Jul 22		22		5			0	174	44	0	7	39.5	0.0	4.5	70.0
Jul 23		14		0			0	172	33	0	4	35.4	0.0	4.8	70.0
Jul 24		12		2			0	103	24	0	3	32.9	0.0	4.8	70.0
Jul 25		45		6			2	437	112	0	4	31.4	0.0	4.8	70.0
Jul 26		48		4			2	387	114	0	6	33.4	0.0	4.8	70.0
Jul 27		28		6			1	388	107	0	5	31.0	0.0	4.8	71.0
Jul 28		20		4			0	335	111	0	1	29.9	0.0	4.8	71.0
Jul 29		12		1			1	234	67	0	4	28.2	0.0	4.8	71.0
Jul 30		25		4			0	286	82	0	3	31.1	0.0	4.8	71.0
Jul 31		13		0			0	180	59	0	4	26.1	0.0	4.8	71.0
TOTAL		2,915		806			44	6,477	1,807	0	98				
AVG.		94		26			1	209	58	0	3	36.3	0.0	4.4	69.7

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	71,578	3,785
SUMMER	10,486	2,180
TOTAL	82,064	5,965

COHO ADULT
2

WILD		SHAD	LAMPREY
SOCKEYE	STEELHEAD		
71	9,129	0	129

TABLE 99

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

LOWER MONUMENTAL PROJECT
AUGUST 2004

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD			DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1		10		0	0		0	204	58	0	5	27.0	0.0	4.8	71.0
Aug 2		16		2	0		2	168	50	0	1	27.1	0.0	4.8	71.0
Aug 3		6		1	0		0	153	30	0	0	28.8	0.0	4.8	71.0
Aug 4		16		0	0		0	161	47	0	6	26.8	0.0	4.8	71.0
Aug 5		3		0	0		1	139	33	0	2	29.5	0.0	4.5	71.0
Aug 6		4		1	0		1	128	44	0	4	27.2	0.0	4.5	70.0
Aug 7		9		1	0		0	134	43	0	0	26.5	0.0	4.5	70.0
Aug 8		5		0	0		1	115	25	0	1	25.8	0.0	4.5	72.0
Aug 9		19		1	0		2	95	26	0	4	26.8	0.0	4.5	72.0
Aug 10		5		4	0		0	65	12	0	1	28.9	0.0	4.5	72.0
Aug 11		6		4	0		0	66	23	0	0	25.0	0.0	4.2	72.0
Aug 12		4		2	0		0	49	14	0	2	29.7	0.0	4.2	70.0
Aug 13		4		0	0		0	63	10	0	0	21.8	0.0	4.2	70.0
Aug 14			7	0	0		0	164	28	0	0	24.1	0.0	4.2	69.0
Aug 15			13	1	0		0	180	46	0	1	25.3	0.0	4.2	69.0
Aug 16			11	1	0		1	114	26	0	2	24.8	0.0	4.2	69.0
Aug 17			10	6	0		0	121	30	0	2	24.0	0.0	4.2	69.0
Aug 18			11	1	0		0	76	19	0	4	22.2	0.0	4.2	69.0
Aug 19			6	1	0		0	50	8	0	0	26.4	0.0	4.2	70.0
Aug 20			7	0	0		1	71	21	0	1	25.9	0.0	4.2	70.0
Aug 21			17	0	0		0	96	23	0	1	26.8	0.0	4.2	70.0
Aug 22			14	3	0		0	120	30	0	1	25.2	0.0	4.2	69.0
Aug 23			18	4	0		0	166	37	0	1	25.1	0.0	4.2	69.0
Aug 24			38	6	0		0	248	35	0	0	27.5	0.0	4.2	69.0
Aug 25			16	4	0		0	180	43	0	1	29.6	0.0	4.2	69.0
Aug 26			36	4	0		0	172	50	0	4	30.8	0.0	4.0	69.0
Aug 27			26	5	0		0	183	40	0	1	32.9	0.0	4.0	69.0
Aug 28			24	4	0		0	169	46	0	0	32.0	0.0	4.0	69.0
Aug 29			51	12	0		0	152	20	0	1	30.1	0.0	4.0	68.0
Aug 30			30	10	0		0	66	9	0	2	27.0	15.5	4.0	68.0
Aug 31			37	9	0		0	152	22	0	2	31.3	25.4	4.0	68.0
TOTAL		107	372	87	0		9	4,020	948	0	50				
AVG.		8	21	3	0		0	130	31	0	2	27.2	1.3	4.3	69.8

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	71,578	3,785
SUMMER	10,593	2,196
FALL	372	71
TOTAL	82,543	6,052

COHO ADULT
2

WILD	
SOCKEYE	STEELHEAD
80	13,149
3,804	0
0	179

TABLE 100

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

LOWER MONUMENTAL PROJECT
SEPTEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD			DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Sep 1			101	18	0	0		317	74		0	21.0	15.1	4.0	68.0
Sep 2			330	90	0	0		755	168		0	23.9	18.0	4.0	68.0
Sep 3			456	63	0	0		1,116	254		0	23.7	9.5	4.0	67.0
Sep 4			420	89	0	0		1,594	339		-1	22.8	0.0	4.0	67.0
Sep 5			571	85	0	0		1,445	341		0	17.6	0.0	4.0	65.0
Sep 6			386	75	0	0		954	260		1	22.1	0.0	4.0	65.0
Sep 7			700	102	0	0		1,276	326		0	23.0	0.0	4.5	65.0
Sep 8			665	105	4	0		1,730	428		0	22.2	0.0	4.5	65.0
Sep 9			997	115	5	2		3,375	805		1	26.6	0.0	4.5	65.0
Sep 10			1155	246	17	1		3,827	943		0	28.4	0.0	4.5	65.0
Sep 11			580	217	13	1		3,761	882		0	28.2	0.0	4.5	65.0
Sep 12			512	192	19	0		4,497	1,010		2	22.1	0.0	4.5	65.0
Sep 13			810	222	16	0		4,901	1,179		0	22.5	0.0	4.8	65.0
Sep 14			1031	264	54	4		5,597	1,323		0	37.4	0.0	5.0	65.0
Sep 15			896	213	48	1		4,557	1,104		0	37.4	0.0	5.0	65.0
Sep 16			1299	251	53	2		4,580	1,172		0	36.4	0.0	5.0	65.0
Sep 17			694	265	66	3		4,625	1,111		1	36.5	0.0	5.0	65.0
Sep 18			600	200	65	4		2,941	693		0	27.8	0.0	5.0	64.0
Sep 19			603	229	98	5		4,260	962		0	27.0	0.0	5.0	64.0
Sep 20			680	260	75	7		2,422	542		1	24.8	0.0	5.0	64.0
Sep 21			534	247	72	8		3,029	753		2	24.7	0.0	5.0	63.0
Sep 22			402	186	110	6		3,329	780		1	21.4	0.0	5.0	63.0
Sep 23			519	156	123	12		3,265	834		0	23.8	0.0	5.0	63.0
Sep 24			366	90	194	8		3,787	920		0	25.0	0.0	5.0	63.0
Sep 25			256	82	141	15		3,261	749		0	24.4	0.0	5.0	63.0
Sep 26			249	62	92	2		2,962	695		0	21.3	0.0	4.5	63.0
Sep 27			207	76	55	1		2,213	494		0	21.6	0.0	4.5	63.0
Sep 28			275	99	131	1		3,399	769		2	19.8	0.0	4.5	63.0
Sep 29			335	141	160	11		3,047	702		0	22.0	0.0	4.5	63.0
Sep 30			401	150	193	8		4,078	990		0	20.7	0.0	4.5	63.0
TOTAL			17,030	4,590	1,804	102		90,900	21,602		10				
AVG.			550	153	60	3		3,030	720		0	25.2	1.4	4.6	64.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	71,578	3,785
SUMMER	10,593	2,196
FALL	17,402	4,661
TOTAL	99,573	10,642

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
1,806	102	80	104,049	25,406	0	189

TABLE 101

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER MONUMENTAL PROJECT

OCTOBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		PINK	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCHI	DEG F
Oct 1			293	175	123	4		5,204	1,209		0	20.0	0.0	4.5	63.0
Oct 2			148	95	50	1		2,729	664		1	18.3	0.0	4.5	63.0
Oct 3			162	112	91	4		2,974	687		1	17.4	0.0	4.5	63.0
Oct 4			180	96	75	2		2,702	630		0	17.2	0.0	4.5	63.0
Oct 5			263	93	37	0		2,659	632		0	20.9	0.0	4.5	63.0
Oct 6			224	90	71	4		2,650	558		0	20.2	0.0	4.5	63.0
Oct 7			192	90	71	1		2,529	600		0	15.8	0.0	4.5	62.0
Oct 8			127	62	63	1		2,069	499		1	20.1	0.0	4.5	62.0
Oct 9			140	65	64	2		2,294	541		0	13.6	0.0	4.0	62.0
Oct 10			78	54	36	2		1,408	334		0	14.9	0.0	4.0	62.0
Oct 11			58	28	43	0		1,196	272		0	19.3	0.0	4.1	61.0
Oct 12			66	43	32	1		1,344	314		0	12.7	0.0	4.0	61.0
Oct 13			28	26	12	0		354	73		0	21.4	0.0	4.0	61.0
Oct 14			47	23	23	1		1,164	300		1	14.4	0.0	4.0	61.0
Oct 15			42	34	21	2		854	217		0	18.2	0.0	4.0	61.0
Oct 16			44	24	36	1		1,214	296		0	16.2	0.0	4.0	61.0
Oct 17			16	12	16	1		727	167		0	20.9	0.0	4.0	61.0
Oct 18			48	18	66	6		1,378	336		0	14.5	0.0	4.0	61.0
Oct 19			37	15	46	0		954	229		0	17.6	0.0	4.0	61.0
Oct 20			27	9	32	1		802	170		0	19.2	0.0	4.0	60.0
Oct 21			33	17	54	2		1,137	261		0	17.6	0.0	4.0	60.0
Oct 22			21	5	18	8		828	149		1	18.2	0.0	4.0	60.0
Oct 23			23	12	2	6		737	139		0	19.7	0.0	4.0	60.0
Oct 24			22	9	33	0		707	203		0	19.5	0.0	4.0	59.0
Oct 25			24	8	47	0		722	188		0	25.0	0.0	4.0	58.0
Oct 26			14	13	183	9		979	238		0	15.7	0.0	4.0	58.0
Oct 27			4	7	45	0		499	139		0	17.3	0.0	4.0	58.0
Oct 28			13	2	96	2		714	179		0	17.9	0.0	4.0	58.0
Oct 29			8	6	70	1		706	189		0	17.8	0.0	4.0	57.0
Oct 30			18	8	40	1		564	143		0	18.2	0.0	4.0	57.0
Oct 31			10	9	39	0		582	132		0	19.6	0.0	4.0	56.0
TOTAL			2,410	1,260	1,635	63		45,380	10,688		5				
AVG.			78	41	53	2		1,464	345		0	18.0	0.0	4.1	60.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	71,578	3,785
SUMMER	10,593	2,196
FALL	19,812	5,921
TOTAL	101,983	11,902

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
3,441	165	80	149,429	36,094	0	194

TABLE 102

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

LOWER MONUMENTAL PROJECT
NOVEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCH	DEG F
*Nov 1			3	5	6	0		280	249			20.8	0.0	4.0	56.0
Nov 2			8	2	0	0		329	282			17.8	0.0	4.0	55.0
Nov 3			4	5	10	0		228	196			20.4	0.0	4.0	55.0
*Nov 4			13	4	8	0		412	348			19.4	0.0	4.0	55.0
Nov 5			9	2	8	1		279	251			20.2	0.0	*	*
Nov 6			6	1	2	0		229	192			17.2	0.0	*	*
Nov 7			6	3	5	1		231	198			19.2	0.0	*	*
Nov 8			8	4	6	0		148	136			20.5	0.0	*	*
Nov 9			4	0	5	0		195	178			17.8	0.0	*	*
Nov 10			16	0	0	0		177	163			20.2	0.0	*	*
Nov 11			11	0	0	0		118	100			16.4	0.0	*	*
Nov 12			2	0	0	0		94	28			19.8	0.0	*	*
Nov 13			5	0	0	0		87	15			17.5	0.0	*	*
Nov 14			2	0	0	0		116	37			19.8	0.0	*	*
Nov 15			3	0	0	0		125	37			18.6	0.0	*	*
Nov 16			0	0	0	0		113	32			18.0	0.0	*	*
Nov 17			0	0	2	0		64	21			20.6	0.0	*	*
Nov 18			0	0	0	0		119	41			19.2	0.0	*	*
Nov 19			3	2	0	0		132	34			17.8	0.0	*	*
Nov 20			1	0	0	0		79	20			15.9	0.0	*	*
Nov 21			-2	1	0	0		59	16			19.4	0.0	*	*
Nov 22			5	0	0	0		45	18			21.5	0.0	*	*
Nov 23			6	0	0	0		71	12			19.4	0.0	*	*
Nov 24			1	0	0	0		70	13			16.3	0.0	*	*
Nov 25			0	0	2	0		63	18			16.2	0.0	*	*
Nov 26			-1	1	1	0		59	16			30.0	0.0	*	*
Nov 27			1	0	0	0		60	14			23.1	0.0	*	*
Nov 28			0	0	0	0		42	5			23.9	0.0	*	*
*Nov 29			0	0	0	0		23	7			23.3	0.0	*	*
Nov 30			1	0	0	0		54	15			17.0	0.0	*	*
TOTAL			115	30	55	2		4,101	2,692			19.6	0.0	4.0	55.3
AVG			7	2	3	0		203	161			19.6	0.0	4.0	55.3

*Data unavailable.

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE	71,578	3,785	3,441	165	80	149,429	36,094	0	194
SPRING	71,578	3,785	3,441	165	80	149,429	36,094	0	194
SUMMER	10,593	2,196							
FALL	19,812	5,921							

TOTAL 101,983 111,902

Note: November 1 - Dec 31 counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST. Visual counting ended October Official Fall Chinook run ended October 31. November and December counts were not added to fall totals.

- *Nov 1 no count on South Shore from 0600 to 0900, the video coaxial came loose.
- *Nov 4 no count on North Shore from 0600 to 0720, the circuit breaker for the visitor center blew.
- *Nov 29 no count on North Shore from 0744 to 1045, the power plug to camera became unplugged.

TABLE 103

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

LOWER MONUMENTAL PROJECT
DECEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO		SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL		ADULT	JACK		STEELHEAD	STEELHEAD					SECCH	DEG F
Dec 1			0	0	0	0		44	14			18.9	0.0	*	*
Dec 2			-1	0	0	0		50	18			19.2	0.0	*	*
Dec 3			0	0	0	0		35	3			21.9	0.0	*	*
Dec 4			0	0	0	0		19	4			16.6	0.0	*	*
*Dec 5			0	0	0	0		6	2			16.3	0.0	*	*
*Dec 6			0	0	1	0		37	6			26.8	0.0	*	*
Dec 7			0	0	0	0		45	16			20.8	0.0	*	*
Dec 8			-1	0	0	0		49	13			19.4	0.0	*	*
Dec 9			1	0	0	0		50	11			23.0	0.0	*	*
Dec 10			0	0	0	0		40	16			19.3	0.0	*	*
Dec 11			0	0	0	0		20	7			21.1	0.0	*	*
Dec 12			0	0	0	0		20	3			26.8	0.0	*	*
Dec 13			0	0	0	0		38	11			27.6	0.0	*	*
Dec 14			0	0	0	0		24	4			26.4	0.0	*	*
Dec 15			0	0	0	0		33	8			28.8	0.0	*	*
Dec 16			0	0	0	0		15	3			33.3	0.0	*	*
Dec 17			0	0	0	0		31	6			24.4	0.0	*	*
Dec 18			0	0	0	0		21	4			17.8	0.0	*	*
Dec 19			0	0	1	0		26	5			19.7	0.0	*	*
Dec 20			0	0	0	0		44	8			27.3	0.0	*	*
Dec 21			0	0	0	0		79	20			25.2	0.0	*	*
Dec 22			0	0	0	0		122	34			28.0	0.0	*	*
Dec 23			0	0	0	0		237	68			24.5	0.0	*	*
Dec 24			0	0	0	0		93	31			22.2	0.0	*	*
Dec 25			0	0	0	0		89	28			26.2	0.0	*	*
Dec 26			0	0	0	0		49	10			24.0	0.0	*	*
Dec 27			0	0	0	0		39	8			27.0	0.0	*	*
Dec 28			0	0	0	0		66	15			19.4	0.0	*	*
Dec 29			0	0	0	0		22	8			17.7	0.0	*	*
Dec 30			0	0	0	0		33	10			15.9	0.0	*	*
Dec 31			0	0	0	0		16	8			18.5	0.0	*	*

TOTAL

-1	0	2	0
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1,492	402
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AVG

0	0	0	0
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48	13
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22.9	0.0		
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*Data unavailable.

RUN YEAR

TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK
SPRING	71,578	3,785
SUMMER	10,593	2,196
FALL	19,812	15,921

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
3,441	165	80	149,429	36,094	0	194

TOTAL	101,983	11,902
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Note: November 1 - Dec 31 counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST. Visual counting ended October Official Fall Chinook run ended October 31. November and December counts were not added to fall totals.

*Dec 5 no counts on the North shore from 0600 to 1600 due to a blown circuit breaker.

*Dec 6 no counts on the North shore from 0600 to 0708 due to a blown circuit breaker.

TABLE 104

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER MONUMENTAL DAM
1969 - 2004**

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
Total	1,786,537	3,007,669	5,062	23,290	4,822,558
10-Year Average	77,323	137,389	50	691	215,452

*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 PS
November and December 0600-1600 PST.

TABLE 105
MONTHLY COUNT OF CHINOOK SALMON
LOWER MONUMENTAL DAM; 1969 - 2004

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
Total	2		60	333,018	722,594	356,003	139,808	22,091	153,790	57,002	1,487	23	1,785,878

10-Year
Average

18,513	26,520	15,419	3,241	860	9,374	3,324
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77,357

*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 106

**MONTHLY COUNT OF STEELHEAD
LOWER MONUMENTAL DAM
1969 - 2004**

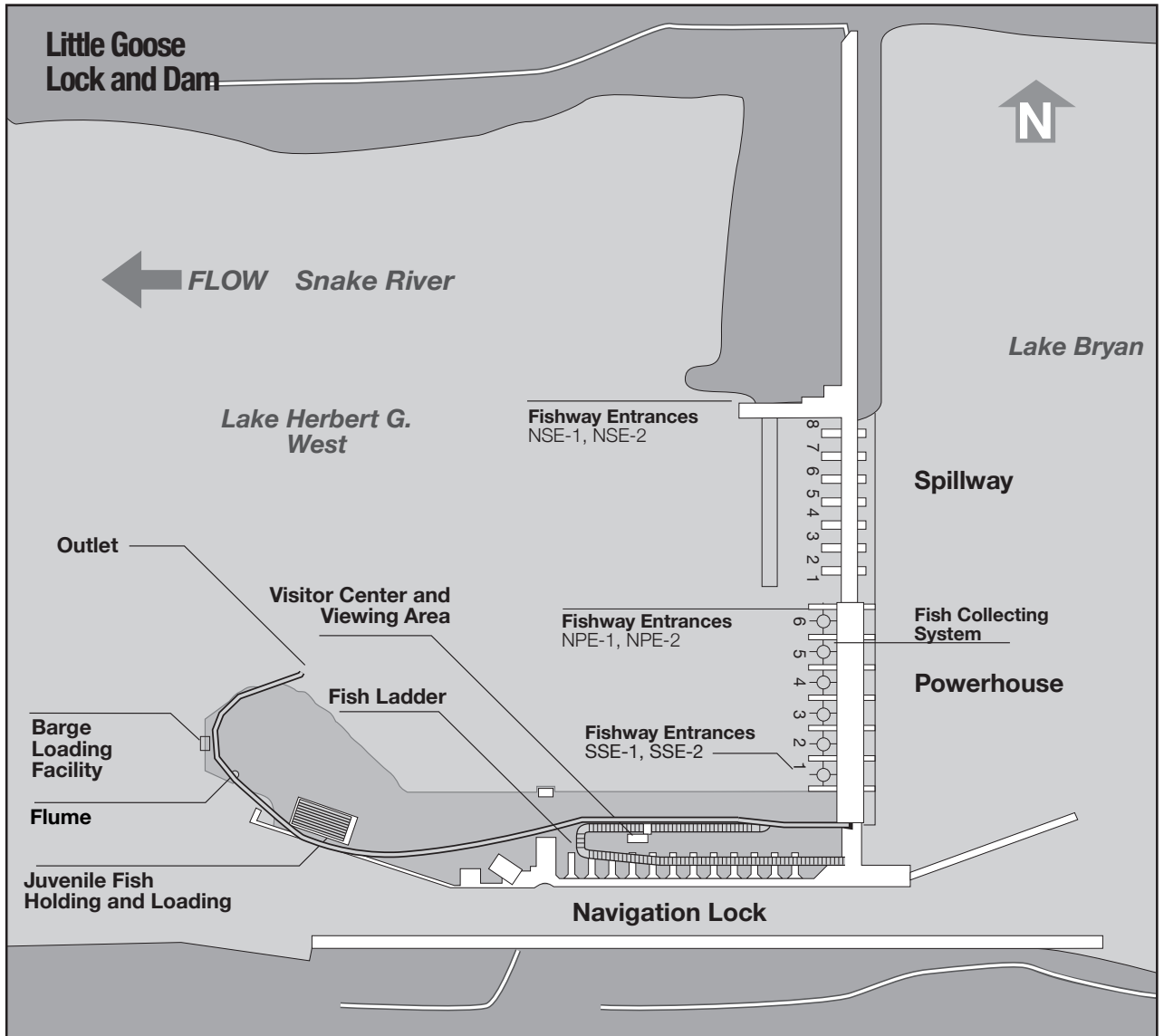
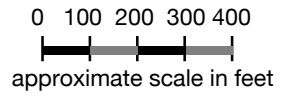
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
1969		5	1,525	9,235	5,475	248	2,141	6,410	26,647	15,195	4,189	366	71,436
1970	252	1,025	1,519	3,143	2,134	232	1,989	7,947	30,701	11,194	1,615	416	62,167
1971			422	2,404	1,510	131	2,199	2,992	42,438	18,018			70,114
1972				2,182	744	86	2,336	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
Total	4,829	7,610	14,839	83,271	18,571	10,570	127,826	251,258	1,375,592	1,085,100	49,239	14,375	3,043,080
10-Yr. Average				1,590	100	676	6,558	11,862	64,443	45,926			138,863

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 8 Little Goose Lock and Dam



LITTLE GOOSE DAM

FISH COUNTING SCHEDULE

1 Jan – 31 Mar	Video counting daily 0800-1600 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400-2000 hours PST.
1 Nov – 31 Dec	Video counting daily 0600-1600 hours PST.

FISH LADDER OPERATING SCHEDULE

Project Ladder

1 Jan – 4 Jan	Ladder in service.
5 Jan – 29 Jan	Ladder out of service for annual maintenance.
30 Jan – 31 Dec	Ladder in service.

FISHWAY ACTIVITIES

Adult chinook and steelhead were radio-tracked past the dam in 2004 as part of a broader, ongoing study by the University of Idaho.

Water temperatures were recorded hourly in four locations within the adult fishway from June to September. The purpose of this effort, ongoing since 1999, is to determine if thermal barriers exist and take corrective action if needed.

The Walla Walla District continued a hydraulic evaluation of the adult fishway in 2004. The purpose was to analyze existing operating conditions and investigate alternatives to improve fish passage.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 22 March to 20 December.

TABLE 107

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER LITTLE GOOSE DAM
2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				21,955	34,443	16,941	3,946	473	19,087	3,888	264	1	100,998
STEELHEAD	106	911	2,702	1,814	87	524	3,133	4,118	83,925	48,491	4326	1269	151,406
SOCKEYE						17	63			1			81
COHO									1,380	1,649	13		3,042
PINK													0
TOTAL	106	911	2,702	23,769	34,530	17,482	7,142	4,591	104,392	54,029	4,603	1,270	255,527
SHAD													0
LAMPREY						29	112	71	21	10			243

*Jacks included

TABLE 108

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

LITTLE GOOSE PROJECT
JANUARY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCH	DEG F
Jan 1								26	7			15.2	0.0		
Jan 2								11	4			15.8	0.0		
Jan 3								6	2			19.1	0.0		
Jan 4								13	7			19.6	0.0		
Jan 5								3	1			23.9	0.0		
Jan 6												30.9	0.0		
Jan 7												27.6	0.0		
Jan 8												21.4	0.0		
Jan 9												21.4	0.0		
Jan 10												18.3	0.0		
Jan 11												17.6	0.0		
Jan 12												29.0	0.0		
Jan 13												21.4	0.0		
Jan 14												24.4	0.0		
Jan 15												18.8	0.0		
Jan 16												25.4	0.0		
Jan 17												23.0	0.0		
Jan 18												19.9	0.0		
Jan 19												24.7	0.0		
Jan 20												38.5	0.0		
Jan 21												18.2	0.0		
Jan 22												11.0	0.0		
Jan 23												19.3	0.0		
Jan 24												18.1	0.0		
Jan 25												16.5	0.0		
Jan 26												21.3	0.0		
Jan 27												22.6	0.0		
Jan 28												29.3	0.0		
Jan 29								6	3			25.5	0.0		
Jan 30								21	5			40.0	0.0		
Jan 31								20	9			35.1	0.0		
TOTAL	0			0				106	38						

*All water temperature and turbidity data unavailable.

AVG. 13 5 22.6 0.0

Note: January 1 to March 31 counts were from video tape. The counts are 8-hour counts and occurred between 0800-1600 PST. Visual counting started April 1. Official Spring Chinook run started April 1. January, February, and March Chinook counts were not added to spring totals.

TABLE 109

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

LITTLE GOOSE PROJECT
FEBRUARY 2004

DATE	FISH COUNTS										RIVER CONDITIONS					
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL										SECCH	DEG F		
Feb 1								19		4			26.8	0.0		
Feb 2								17		3			23.7	0.0		
Feb 3								2		0			25.2	0.0		
Feb 4								5		3			28.5	0.0		
Feb 5								1		0			23.4	0.0		
Feb 6								8		5			29.7	0.0		
Feb 7								5		3			22.7	0.0		
Feb 8								9		4			22.1	0.0		
Feb 9								3		0			21.5	0.0		
Feb 10								9		4			24.9	0.0		
Feb 11								26		10			24.7	0.0		
Feb 12								12		2			24.2	0.0		
Feb 13								23		4			26.5	0.0		
Feb 14								4		1			28.5	0.0		
Feb 15								40		17			21.4	0.0		
Feb 16								35		11			24.1	0.0		
Feb 17								46		16			29.2	0.0		
Feb 18								49		21			25.9	0.0		
Feb 19								89		26			39.5	0.0		
Feb 20								79		17			36.0	0.0		
Feb 21								40		13			35.5	0.0		
Feb 22								50		16			31.4	0.0		
Feb 23								60		21			38.3	0.0		
Feb 24								3		2			33.5	0.0		
Feb 25								26		11			32.1	0.0		
Feb 26								34		6			32.1	0.0		
Feb 27								67		17			38.3	0.0		
Feb 28								78		17			36.3	0.0		
Feb 29								72		18			26.5	0.0		
TOTAL	0							911		272						

*All water temperature and turbidity data unavailable.

AVG. 31 9 28.8 0.0

Note: January 1 to March 31 counts were from video tape. The counts are 8-hour counts and occurred between 0800-1600 PST. Visual counting started April 1. Official Spring Chinook run started April 1. January, February, and March Chinook counts were not added to spring totals.

TABLE 110

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

LITTLE GOOSE PROJECT
MARCH 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCH	DEG F
Mar 1								75	12			32.9	0.0		
Mar 2								36	5			35.7	0.0		
Mar 3								120	29			31.0	0.0		
Mar 4								108	26			33.8	0.0		
Mar 5								99	25			34.8	0.0		
Mar 6								64	17			31.0	0.0		
Mar 7								82	16			26.8	0.0		
Mar 8								92	17			32.4	0.0		
Mar 9								57	9			31.1	0.0		
Mar 10								115	25			29.2	0.0		
Mar 11								53	14			38.9	0.0		
Mar 12								148	35			38.5	0.0		
Mar 13								64	11			36.4	0.0		
Mar 14								76	13			31.4	0.0		
Mar 15								54	12			46.6	0.0		
Mar 16								83	14			42.1	0.0		
Mar 17								80	16			34.3	0.0		
Mar 18								83	18			43.7	0.0		
Mar 19								117	33			47.7	0.0		
Mar 20								133	29			46.1	0.0		
Mar 21								118	29			47.1	0.0		
Mar 22								23	-8			52.9	0.0		
Mar 23								91	21			67.9	0.0		
Mar 24								90	18			42.6	0.0		
Mar 25								108	26			54.7	0.0		
Mar 26								98	27			63.6	0.0		
Mar 27								109	21			51.8	0.0		
Mar 28								117	26			51.0	0.0		
Mar 29								76	22			48.3	0.0		
Mar 30								66	15			50.1	0.0		
Mar 31								67	17			51.1	0.0		
TOTAL	0							2,702	590						

AVG.

88

19

41.8

0.0

*All water temperature and turbidity data unavailable.

Note: January 1 to March 31 counts were from video tape. The counts are 8-hour counts and occurred between 0800-1600 PST. Visual counting started April 1. Official Spring Chinook run started April 1. January, February, and March Chinook counts were not added to spring totals.

TABLE 111

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

LITTLE GOOSE PROJECT
APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCH	DEG F
Apr 1	0			0				128	50			53.7	0.0	4.2	48.0
Apr 2	0			0				134	49			48.5	0.0	4.2	48.0
Apr 3	6			0				170	73			39.3	0.0	4.2	48.0
Apr 4	11			0				127	78			43.8	0.0	4.2	48.0
Apr 5	10			0				90	42			44.4	0.0	4.2	48.0
Apr 6	5			0				78	42			55.1	0.0	4.0	50.0
Apr 7	11			0				67	35			49.3	9.4	3.4	50.0
Apr 8	19			0				119	66			53.3	19.0	3.4	50.0
Apr 9	23			0				126	83			56.2	20.8	3.4	51.0
Apr 10	19			0				109	56			52.1	21.7	3.4	51.0
Apr 11	12			0				94	41			49.8	21.0	3.4	51.0
Apr 12	26			0				79	47			46.6	21.7	3.6	52.0
Apr 13	28			0				76	48			57.0	20.6	4.0	52.0
Apr 14	50			0				49	31			58.7	20.0	4.0	52.0
Apr 15	49			0				50	23			67.5	19.9	4.0	52.0
Apr 16	80			0				40	25			57.2	20.6	4.0	52.0
Apr 17	94			0				32	22			51.1	19.0	4.0	52.0
Apr 18	148			0				31	26			51.4	20.1	4.0	52.0
Apr 19	442			1				32	29			48.4	18.3	3.6	52.0
Apr 20	318			0				44	34			45.8	16.9	3.6	53.0
Apr 21	666			1				25	16			45.3	15.0	4.0	53.0
Apr 22	1,192			0				29	19			44.7	15.6	4.0	53.0
Apr 23	1,114			1				24	17			42.6	7.4	4.6	53.0
Apr 24	1,177			1				24	23			40.0	0.0	4.7	53.0
Apr 25	1,974			2				7	6			41.7	0.0	5.0	53.0
Apr 26	3,152			7				10	6			41.9	0.0	4.5	53.0
Apr 27	2,174			2				12	12			44.6	0.0	4.5	52.0
Apr 28	2,552			4				0	0			53.4	0.0	3.8	52.0
Apr 29	3,563			7				7	7			54.4	0.0	4.0	52.0
Apr 30	2,996			18				1	2			54.0	0.0	5.0	53.0
TOTAL	21,911			44				1,814	1,008						
AVG.	730			1				60	34			49.7	10.2	4.0	51.3

TABLE 112

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

LITTLE GOOSE PROJECT
MAY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCHI	DEG F	
May 1	2,694			16				6	6			48.9	0.0	5.4	53.0	
May 2	1,358			13				7	6			50.5	0.0	5.5	53.0	
May 3	1,472			19				1	0			61.7	0.0	5.5	53.0	
May 4	2,101			30				4	4			70.7	0.0	5.2	53.0	
May 5	2,068			28				8	7			77.8	0.0	5.2	53.0	
May 6	1,475			32				8	5			85.4	0.0	5.2	53.0	
May 7	1,362			26				4	4			81.1	0.0	5.2	53.0	
May 8	1,162			48				2	1			78.3	0.0	4.8	53.0	
May 9	1,403			61				2	1			73.5	0.0	4.8	53.0	
May 10	1,538			72				0	0			73.8	0.0	4.8	53.0	
May 11	1,060			60				1	1			71.4	0.0	4.0	55.0	
May 12	1,717			108				4	0			72.0	0.0	4.2	55.0	
May 13	1,164			95				2	0			65.2	0.0	4.6	55.0	
May 14	1,241			128				2	0			58.5	0.0	5.0	55.0	
May 15	792			84				0	0			58.4	0.0	5.0	55.0	
May 16	856			80				2	1			56.3	0.0	4.6	55.0	
May 17	738			103				5	2			68.7	0.0	4.6	55.0	
May 18	503			106				4	1			64.4	0.0	5.1	55.0	
May 19	620			88				0	0			67.2	0.0	5.1	55.0	
May 20	798			122				6	1			75.2	0.0	5.2	54.0	
May 21	500			82				2	0			78.2	0.0	5.2	54.0	
May 22	619			89				0	0			83.5	0.0	5.2	54.0	
May 23	697			98				1	0			83.0	0.0	5.0	55.0	
May 24	913			126				1	0			89.9	0.0	5.0	55.0	
May 25	622			120				6	2			87.4	0.0	4.8	55.0	
May 26	403			82				1	0			84.8	0.0	4.8	56.0	
May 27	262			44				2	1			93.7	0.0	4.8	56.0	
May 28	439			55				0	0			117.3	4.4	4.8	56.0	
May 29	643			76				2	0			133.5	17.6	2.5	56.0	
May 30	484			65				4	0			124.3	12.7	2.5	56.0	
May 31	515			68				0	0			119.2	5.5	2.5	56.0	
TOTAL	32,219			2,224				87	43							

AVG.	1,039			72				3	1			79.2	1.3	4.7	54.5
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	54,130	2,268
SPRING		

	WILD			
STEELHEAD	STEELHEAD	SHAD	LAMPREY	
1,901	1,051	0	0	

TABLE 113

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

LITTLE GOOSE PROJECT
JUNE 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFs	SPILL KCFs	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCH	DEG F
Jun 1	260			32			0	0	0		0	115.0	4.5	2.5	56.0
Jun 2	338			58			0	1	0		0	105.1	3.5	2.2	56.0
Jun 3	392			71			0	2	0		0	100.3	0.0	2.2	56.0
Jun 4	486			58			0	7	0		0	104.1	0.0	2.3	56.0
Jun 5	562			73			0	2	1		0	109.5	0.9	2.4	56.0
Jun 6	737			107			0	8	0		1	108.2	0.0	3.0	57.0
Jun 7	524			77			0	4	1		1	111.2	0.0	3.1	57.0
Jun 8	204			42			0	5	0		0	101.6	0.0	3.1	57.0
Jun 9	382			38			0	4	0		0	102.0	0.0	4.1	59.0
Jun 10	1,228			115			0	5	0		0	92.1	0.0	4.1	59.0
Jun 11	842			89			1	6	0		0	88.4	0.0	4.1	59.0
Jun 12	584			95			0	6	0		1	84.3	0.0	4.2	58.0
Jun 13	454			62			0	14	1		0	76.3	0.0	4.6	58.0
Jun 14	755			109			0	12	1		0	75.7	0.0	4.2	58.0
Jun 15	580			110			0	5	1		1	74.5	0.0	5.0	58.0
Jun 16		532		54			0	13	1		4	60.3	0.0	5.0	58.0
Jun 17		481		56			0	11	5		0	53.8	0.0	5.0	58.0
Jun 18		401		77			0	19	7		6	54.2	0.0	4.8	58.0
Jun 19		407		115			0	8	1		0	49.5	0.0	5.2	58.0
Jun 20		328		71			1	7	1		0	49.5	0.0	5.8	61.0
Jun 21		324		55			0	14	2		1	46.7	0.0	6.0	62.0
Jun 22		400		96			0	7	4		1	52.3	0.0	6.0	63.0
Jun 23		330		66			0	14	1		1	46.8	0.0	6.0	63.0
Jun 24		652		166			1	29	6		1	56.2	0.0	6.0	64.0
Jun 25		488		137			1	26	2		1	53.1	0.0	6.0	64.0
Jun 26		634		137			2	68	16		2	45.0	0.0	6.0	64.0
Jun 27		353		96			1	54	19		5	43.6	0.0	6.0	64.0
Jun 28		337		112			4	53	11		1	43.8	0.0	6.0	65.0
Jun 29		220		66			4	46	20		2	38.7	0.0	6.0	65.0
Jun 30		226		60			2	74	19		0	39.1	0.0	6.0	65.0
TOTAL	8,328	6,113		2,500			17	524	120		29				
AVG.	555	408		83			1	17	4		1	72.7	0.3	4.6	59.7
RUN YEAR															
TOTALS TO DATE															
SPRING															
SUMMER															
TOTALS															

TABLE 114

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

LITTLE GOOSE PROJECT
 JULY 2004

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	RIVER CONDITIONS				
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD			DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F	
Jul 1		287		103			8	68	18		1	41.9	0.0	6.0	67.0	
Jul 2		322		101			6	80	26		0	41.4	0.0	6.0	67.0	
Jul 3		329		64			8	100	37		2	44.8	0.0	6.0	67.0	
Jul 4		271		53			5	118	38		1	37.2	0.0	6.0	68.0	
Jul 5		222		47			5	77	28		1	36.4	0.0	6.0	70.0	
Jul 6		158		43			4	76	37		0	36.9	0.0	5.1	70.0	
Jul 7		145		52			1	98	35		4	37.6	0.0	4.2	70.0	
Jul 8		144		43			1	167	52		4	36.2	0.0	5.6	70.0	
Jul 9		143		44			8	85	29		0	38.7	0.0	6.0	70.0	
Jul 10		175		38			2	100	18		7	33.5	0.0	5.2	69.0	
Jul 11		101		25			0	116	31		5	36.4	0.0	4.6	69.0	
Jul 12		163		32			6	131	25		6	39.4	0.0	5.5	69.0	
Jul 13		59		20			2	96	25		4	38.2	0.0	5.2	70.0	
Jul 14		52		14			2	91	42		5	41.3	0.0	5.0	70.0	
Jul 15		40		24			0	94	31		2	37.3	0.0	4.8	70.0	
Jul 16		60		26			1	88	34		2	39.4	0.0	5.0	70.0	
Jul 17		30		12			2	77	41		4	35.5	0.0	5.0	70.0	
Jul 18		28		12			0	65	23		4	33.1	0.0	5.0	69.0	
Jul 19		14		13			1	31	6		6	33.3	0.0	5.0	69.0	
Jul 20		60		34			0	109	29		6	36.4	0.0	6.0	69.0	
Jul 21		50		14			1	107	30		2	31.7	0.0	6.0	69.0	
Jul 22		28		10			0	70	17		6	38.4	0.0	6.0	69.0	
Jul 23		13		5			0	62	20		6	34.7	0.0	6.0	70.0	
Jul 24		8		7			0	60	16		1	32.1	0.0	6.0	70.0	
Jul 25		14		0			0	126	25		10	31.2	0.0	6.0	70.0	
Jul 26		31		6			0	130	30		2	32.7	0.0	6.0	69.0	
Jul 27		30		6			0	186	54		6	29.6	0.0	6.0	70.0	
Jul 28		38		8			0	198	78		1	28.4	0.0	6.0	70.0	
Jul 29		31		7			0	152	43		8	28.2	0.0	6.0	70.0	
Jul 30		19		4			0	113	32		2	29.1	0.0	6.0	70.0	
Jul 31		13		1			0	62	18		4	26.9	0.0	6.0	70.0	
TOTAL		3,078		868			63	3,133	968		112					
AVG.		99		28			2	101	31		4	35.4	0.0	5.6	69.4	
RUN YEAR																
TOTALS TO DATE		CHINOOK ADULT		CHINOOK JACK			SOCKEYE	STEELHEAD	STEELHEAD		SHAD					
SPRING		62,458		3,404			80	5,558	2,139		0					
SUMMER		9,191		2,232							141					
TOTAL		71,649		5,636												

TABLE 115

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

LITTLE GOOSE PROJECT
AUGUST 2004

DATE	FISH COUNTS						RIVER CONDITIONS								
	CHINOOK ADULT		CHINOOK	COHO	COHO	WILD	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY				
SPRING	SUMMER	FALL	JACK	ADULT	JACK						SOCKEYE	STEELHEAD	STEELHEAD	KCFS	KCFS
Aug 1		5		4				101	40		1	26.4	0.0	6.0	70.0
Aug 2		23		4				102	25		0	27.5	0.0	6.0	70.0
Aug 3		8		1				73	29		4	28.2	0.0	6.0	70.0
Aug 4		8		1				124	37		1	26.7	0.0	6.0	69.0
Aug 5		7		5				191	52		0	29.1	0.0	6.0	69.0
Aug 6		8		5				76	28		8	27.6	0.0	6.0	69.0
Aug 7		7		2				151	36		7	25.9	0.0	6.0	69.0
Aug 8		11		1				88	26		11	25.7	0.0	6.0	69.0
Aug 9		7		1				115	22		1	26.1	0.0	6.0	70.0
Aug 10		12		2				112	36		6	27.4	0.0	6.0	70.0
Aug 11		7		1				46	17		2	25.9	0.0	6.0	68.0
Aug 12		4		1				52	19		0	29.1	0.0	6.0	69.0
Aug 13		2		2				134	32		0	22.4	0.0	6.0	69.0
Aug 14		4		1				133	26		0	24.3	0.0	6.0	68.0
Aug 15		0		0				67	67		1	24.7	0.0	5.7	68.0
Aug 16			1	0				46	12		0	23.7	0.0	5.8	69.0
Aug 17			10	0				206	50		2	24.9	0.0	5.8	69.0
Aug 18			20	6				296	85		1	22.5	0.0	6.0	69.0
Aug 19			7	5				158	37		0	25.4	0.0	6.0	70.0
Aug 20			7	0				78	23		2	26.0	0.0	6.0	70.0
Aug 21			8	1				148	0		0	26.2	0.0	6.0	70.0
Aug 22			10	4				88	19		4	26.1	0.0	*	70.0
Aug 23			23	4				270	55		5	24.3	0.0	6.0	70.0
Aug 24			7	2				114	23		2	26.8	0.0	5.5	70.0
Aug 25			18	1				155	25		5	28.9	0.0	5.2	69.0
Aug 26			17	2				156	18		2	30.9	0.0	5.3	69.0
Aug 27			28	7				190	44		1	32.3	0.0	5.6	70.0
Aug 28			28	8				134	58		0	32.1	0.0	6.0	69.0
Aug 29			18	6				148	40		-1	29.8	0.0	6.0	69.0
Aug 30			37	8				173	42		4	27.6	0.0	6.0	69.0
Aug 31			30	6				193	38		2	33.1	0.0	6.0	68.0
TOTAL		113	269	91				4,118	1,061		71				
AVG.		8	17	3				133	34		2	27.0	0.0	5.9	69.3
RUN YEAR		CHINOOK	CHINOOK		COHO		WILD								
TOTALS TO DATE		ADULT	JACK		ADULT		SOCKEYE	STEELHEAD	STEELHEAD	SHAD	LAMPREY				
SPRING		62,458	3,404		0		80	9,676	3,200	0	212				
SUMMER		9,304	2,263												
FALL		269	60												
TOTALS		72,031	5,727												

*Data unavailable.

TABLE 116

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

LITTLE GOOSE PROJECT
 SEPTEMBER 2004

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	WILD			SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL				SOCKEYE	STEELHEAD	STEELHEAD					SECCH	DEG F
Sep 1		24	4	0	0			94	18		1	22.3	0.0	6.0	67.0
Sep 2		88	16	0	0			287	56		1	28.1	0.0	5.9	67.0
Sep 3		325	50	0	0			758	173		1	22.3	0.0	5.9	67.0
Sep 4		344	88	0	0			1,052	240		1	24.8	0.0	5.8	66.0
Sep 5		416	133	0	0			1,440	340		5	21.5	0.0	5.8	66.0
Sep 6		420	107	0	0			1,152	259		0	19.8	0.0	5.8	66.0
Sep 7		290	85	1	0			739	191		0	23.0	0.0	5.8	66.0
Sep 8		484	113	0	0			1,262	320		0	23.5	0.0	5.8	65.0
Sep 9		581	174	1	0			1,823	478		1	27.2	0.0	5.8	65.0
Sep 10		876	239	8	4			3,044	683		2	29.5	0.0	6.0	65.0
Sep 11		625	131	10	4			2,353	553		2	25.1	0.0	6.0	65.0
Sep 12		648	146	16	1			3,538	754		0	22.8	0.0	6.0	65.0
Sep 13		619	202	11	0			4,226	932		0	23.5	0.0	6.0	65.0
Sep 14		686	230	19	4			5,860	1308		0	37.2	0.0	5.6	65.0
Sep 15		848	293	19	1			4,513	1072		4	37.0	0.0	5.0	65.0
Sep 16		899	238	65	5			5,658	1302		0	37.6	0.0	5.3	65.0
Sep 17		1115	326	40	1			3,726	796		-2	36.3	0.0	5.2	64.0
Sep 18		643	260	66	2			4,040	936		0	26.2	0.0	4.8	64.0
Sep 19		616	270	74	2			4,021	916		0	27.0	0.0	4.6	63.0
Sep 20		578	258	86	5			4,247	917		1	24.9	0.0	4.6	63.0
Sep 21		708	181	49	1			3,265	674		0	25.6	0.0	5.0	63.0
Sep 22		522	109	51	0			2,458	540		0	20.8	0.0	5.0	63.0
Sep 23		427	126	78	2			3,036	692		-1	23.5	0.0	5.0	63.0
Sep 24		408	117	102	6			3,283	766		0	24.7	0.0	5.0	63.0
Sep 25		374	116	138	10			3,481	802		2	23.7	0.0	5.0	63.0
Sep 26		240	52	116	1			3,240	684		1	22.0	0.0	5.0	63.0
Sep 27		238	60	84	2			2,991	712		1	20.6	0.0	5.0	63.0
Sep 28		160	63	78	4			2,246	516		-1	19.6	0.0	5.0	63.0
Sep 29		214	76	85	1			2,878	631		1	21.6	0.0	5.0	64.0
Sep 30		308	100	110	17			3,214	809		1	20.6	0.0	6.0	64.0
TOTAL			14,724	4,363	1,307	73		83,925	19,070		21				
AVG.			491	145	44	2		2,798	636		1	25.4	0.0	5.4	64.5
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULT	COHO JACK		SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY			
SPRING		62,458	3,404		1,307	73		80	93,601	22,270	0	233			
SUMMER		9,304	2,263												
FALL		14,993	4,423												
TOTALS		86,755	10,090												

TABLE 117

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

LITTLE GOOSE PROJECT
 OCTOBER 2004

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL									DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Oct 1			370	88	124	7	1	3,484	857		1	19.0	0.0	6.0	64.0
Oct 2			353	71	104	14	0	3,869	926		1	19.3	0.0	6.0	63.0
Oct 3			299	72	98	2	0	3,728	858		0	17.3	0.0	6.0	63.0
Oct 4			271	94	74	0	0	2,746	580		1	17.5	0.0	5.8	63.0
Oct 5			170	66	56	4	0	3,232	748		1	19.3	0.0	6.0	63.0
Oct 6			140	37	86	4	0	2,026	407		0	19.7	0.0	6.0	63.0
Oct 7			232	74	73	0	0	3,811	818		2	15.5	0.0	6.0	63.0
Oct 8			118	62	74	4	0	2,723	577		0	20.1	0.0	6.0	63.0
Oct 9			95	67	50	2	0	2,086	445		-1	13.6	0.0	6.0	63.0
Oct 10			90	38	64	0	0	1,913	431		-1	14.7	0.0	6.0	63.0
Oct 11			79	37	56	1	0	1,820	372		0	18.3	0.0	6.0	63.0
Oct 12			48	28	28	1	0	1,230	264		0	12.9	0.0	6.0	63.0
Oct 13			55	13	16	0	0	1,129	262		1	19.0	0.0	6.0	62.0
Oct 14			58	17	23	0	0	911	210		0	15.2	0.0	6.0	62.0
Oct 15			53	18	16	0	0	1,070	248		1	17.4	0.0	6.0	63.0
Oct 16			41	2	11	0	0	644	124		0	16.0	0.0	6.0	63.0
Oct 17			31	11	23	0	0	671	166		1	19.4	0.0	5.2	63.0
Oct 18			40	14	23	1	0	1,416	336		0	14.7	0.0	5.0	63.0
Oct 19			59	12	31	2	0	1,076	253		1	16.9	0.0	5.0	62.0
Oct 20			31	8	20	0	0	872	209		0	18.5	0.0	5.3	63.0
Oct 21			32	11	13	1	0	900	190		0	17.2	0.0	5.0	62.0
Oct 22			30	0	23	0	0	821	192		0	16.9	0.0	4.8	62.0
Oct 23			50	4	22	0	0	786	166		0	19.0	0.0	5.2	62.0
Oct 24			38	16	28	4	0	720	154		0	18.9	0.0	4.8	62.0
Oct 25			41	1	42	4	0	617	118		0	23.4	0.0	4.8	60.0
Oct 26			31	10	54	1	0	670	133		1	14.7	0.0	4.8	60.0
Oct 27			47	10	114	1	0	830	188		0	16.8	0.0	5.0	59.0
Oct 28			29	10	70	1	0	611	104		1	17.6	0.0	5.0	59.0
Oct 29			20	2	79	1	0	800	163		0	17.1	0.0	5.0	59.0
Oct 30			16	8	67	1	0	690	134		0	17.4	0.0	4.8	59.0
Oct 31			12	8	29	2	0	589	116		0	18.6	0.0	4.8	59.0
TOTAL			2,979	909	1,591	58	1	48,491	10,749		10				
AVG.			96	29	51	2	0	1,564	347		0	17.5	0.0	5.5	62.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	62,458	3,404
SUMMER	9,304	2,263
FALL	17,972	5,332
TOTALS	89,734	10,999

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
2,898	131	81	142,092	33,019	0	243

TABLE 118

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

LITTLE GOOSE PROJECT
NOVEMBER 2004

DATE	FISH COUNTS										RIVER CONDITIONS			
	CHINOOK ADULT			CHINOOK	COHO	COHO	SOCKEYE	STEELHEAD	WILD	SHAD	LAMPREY	DISCH	SPILL	TURBIDITY
	SPRING	SUMMER	FALL	JACK	ADULT	JACK		STEELHEAD	STEELHEAD			KCFS	KCFS	SECCH
Nov 1			30	1	4	0		426	103			19.6	0.0	
Nov 2			13	3	2	0		222	39			17.7	0.0	
Nov 3			22	5	4	0		243	48			18.7	0.0	
Nov 4			17	2	2	0		247	50			18.8	0.0	
Nov 5			19	4	0	0		392	90			19.8	0.0	
Nov 6			14	0	0	0		338	83			16.6	0.0	
Nov 7			14	0	1	0		238	66			18.4	0.0	
Nov 8			9	0	0	0		172	44			19.1	0.0	
Nov 9			5	0	0	0		114	82			17.3	0.0	
Nov 10			8	0	0	0		96	22			19.6	0.0	
Nov 11			14	0	0	0		149	42			16.0	0.0	
Nov 12			6	0	0	0		134	31			18.8	0.0	
Nov 13			10	0	0	0		82	20			17.3	0.0	
Nov 14			6	0	0	0		108	29			18.0	0.0	
Nov 15			0	0	0	0		163	39			18.4	0.0	
Nov 16			7	0	0	0		123	26			17.3	0.0	
Nov 17			6	0	0	0		114	28			19.1	0.0	
Nov 18			1	0	0	0		115	26			17.1	0.0	
Nov 19			0	0	0	0		170	41			17.9	0.0	
Nov 20			16	0	0	0		115	32			15.2	0.0	
Nov 21			5	0	0	0		113	27			18.0	0.0	
Nov 22			6	0	0	0		65	15			20.1	0.0	
Nov 23			11	0	0	0		48	11			18.0	0.0	
Nov 24			2	0	0	0		48	16			16.8	0.0	
Nov 25			4	0	0	0		58	11			16.1	0.0	
Nov 26			1	0	0	0		42	13			28.8	0.0	
Nov 27			2	0	0	0		45	16			23.0	0.0	
Nov 28			1	0	0	0		45	10			21.6	0.0	
Nov 29			0	0	0	0		51	15			23.3	0.0	
Nov 30			0	0	0	0		50	7			17.0	0.0	
TOTAL			249	15	13	0		4,326	1,082					

AVG. 8 1 0 0 144 36 18.8 0.0
Water temperature and turbidity not available.

RUN YEAR	CHINOOK		COHO		SOCKEYE	STEELHEAD	WILD		SHAD	LAMPREY
	ADULT	JACK	ADULT	JACK			STEELHEAD	STEELHEAD		
TOTALS TO DATE										
SPRING	62,458	3,404			81	142,092	33,019	0	243	
SUMMER	9,304	2,263								
FALL	17,972	5,332								
TOTALS	89,734	10,999								

Note: November 1 - Dec 31 counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST. Visual counting ended Octc Official Fall Chinook run ended October 31. November and December Chinook counts were not added to fall totals.

TABLE 119

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

LITTLE GOOSE PROJECT
DECEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCH	DEG F
Dec 1			1	0				15	4			18.8	0.0		
Dec 2			0	0				43	8			18.0	0.0		
Dec 3			0	0				35	10			16.7	0.0		
Dec 4			0	0				32	9			18.2	0.0		
Dec 5			0	0				34	6			16.9	0.0		
Dec 6			0	0				37	9			24.6	0.0		
Dec 7			0	0				33	10			18.0	0.0		
Dec 8			0	0				34	8			18.2	0.0		
Dec 9			0	0				38	8			20.9	0.0		
Dec 10			0	0				25	5			18.8	0.0		
Dec 11			0	0				32	5			20.0	0.0		
Dec 12			0	0				41	10			24.2	0.0		
Dec 13			0	0				27	7			26.6	0.0		
Dec 14			0	0				33	8			25.7	0.0		
Dec 15			0	0				23	4			27.7	0.0		
Dec 16			0	0				29	8			29.2	0.0		
Dec 17			0	0				27	8			24.7	0.0		
Dec 18			0	0				18	4			16.8	0.0		
Dec 19			0	0				15	4			19.3	0.0		
Dec 20			0	0				20	6			24.9	0.0		
Dec 21			0	0				31	7			25.8	0.0		
Dec 22			0	0				38	10			25.5	0.0		
Dec 23			0	0				70	19			24.4	0.0		
Dec 24			0	0				54	15			22.3	0.0		
Dec 25			0	0				71	19			24.1	0.0		
Dec 26			0	0				80	18			22.9	0.0		
Dec 27			0	0				93	23			25.7	0.0		
Dec 28			0	0				62	18			17.9	0.0		
Dec 29			0	0				73	17			17.6	0.0		
Dec 30			0	0				70	18			15.5	0.0		
Dec 31			0	0				36	10			18.5	0.0		

TOTAL		1	0					1,269	315						
AVG.		0	0					41	10			21.6	0.0		

Water temperature and turbidity not available.

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	62,458	3,404
SUMMER	9,304	2,263
FALL	17,972	5,332

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
2,898	131	81	142,092	33,019	0	243

TOTALS	89,734	10,999
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Note: November 1 - Dec 31 counts were from video tape. The counts are 10-hour counts and occurred between 0600-1600 PST. Visual counting ended Oct Official Fall Chinook run ended October 31. November and December Chinook counts were not added to fall totals.

TABLE 120

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
LITTLE GOOSE DAM
1970 - 1981, 1991 - 2004**

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
Total	1,298,863	2,027,003	4,338	15,700	3,345,904
1972-1981					
10-Yr Avg	36,837	32,403	264	530	70,035
1995-2004					
10-yr Avg	71,779	125,324	56	522	197,681

* 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 121

**MONTHLY COUNT OF CHINOOK SALMON
LITTLE GOOSE DAM; 1970-1981, 1991-2004**

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
Total			3	229,523	530,360	276,471	114,455	13,725	95,834	37,176	1,732	28	1,299,307

**1972-1981

10-Year Average	5,003	18,657	6,421	4,851	498	981	421	36,837
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**1995-2004

10-Year Average	16,180	26,048	15,167	3,440	599	7,300	2,974	71,824
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**1981 was the last year visual counts were made at Little Goose Project until 1991.

*Jacks included

Includes 2001 extended season counts for November and December 0600-1600 PST.

Includes 2002 extended season counts for February and March 0800-1600 PST and November and December 0600-1600 PST.

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

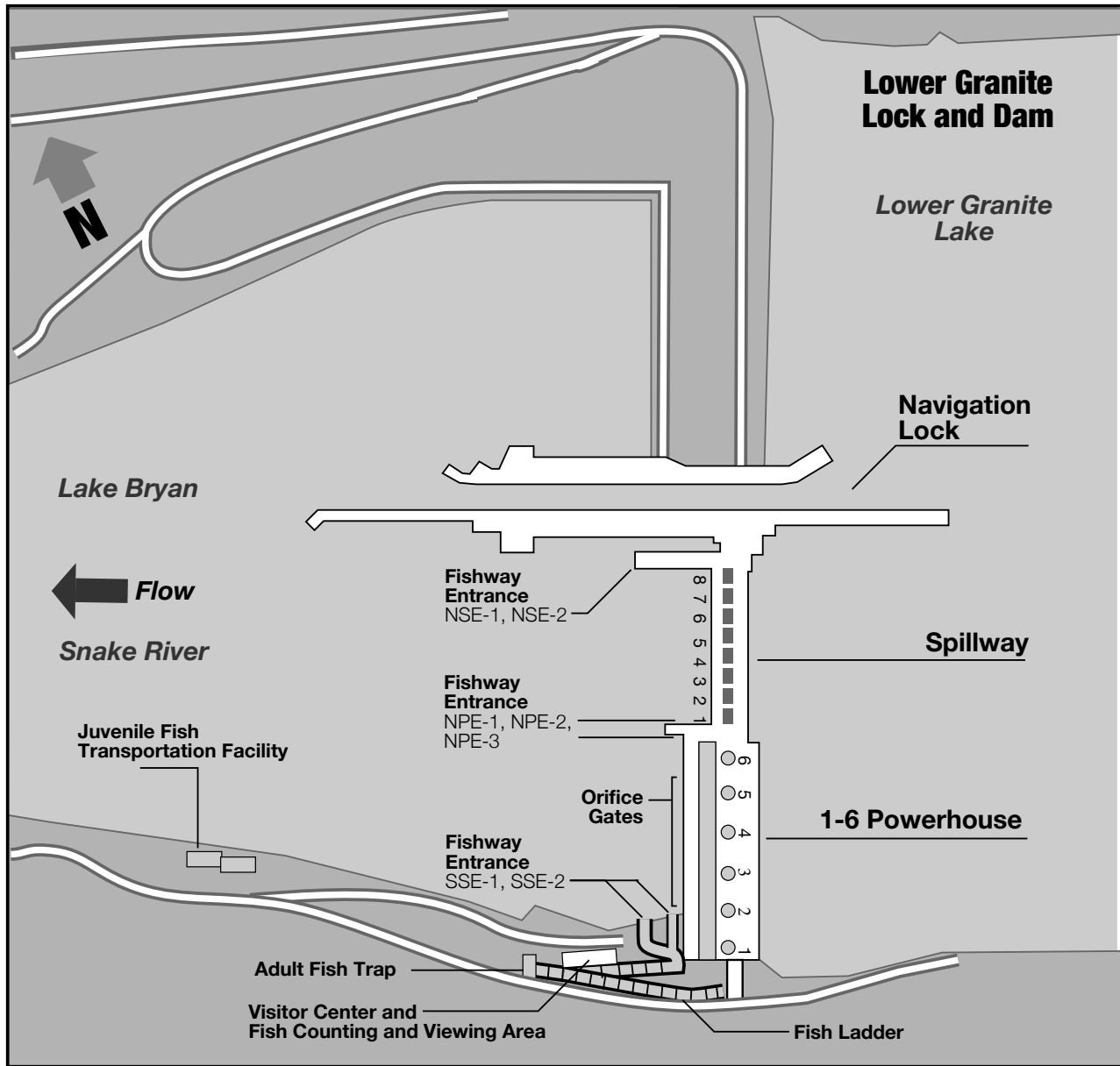
TABLE 122
**MONTHLY COUNT OF STEELHEAD
 LITTLE GOOSE DAM**
 1970 - 1981, 1991 - 2004

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
Total	1,084	5,065	19,305	43,753	9,967	5,560	56,333	137,537	860,247	821,289	68,316	13,704	2,042,160
1972-1981													
10-Yr Avg				1,564	445	63	1,097	3,225	12,337	12,898			32,402
1995-2004													
Average				1,839	149	396	3,483	8,312	56,199	49,991			126,840
10-Yr Avg													

** 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

200 0 200 400
scale in feet



LOWER GRANITE DAM

FISH COUNTING SCHEDULE

1 Jan – 28 Feb	No counting.
1 Mar – 31 Mar	Video counting daily 0600-1600 hours PST.
1 Apr – 31 Oct	Visual counting daily 0400-2000 hours PST.
15 Jun – 31 Aug	Video counting 24 hours per day.
1 Nov – 15 Dec	Video counting daily 0600-1600 hours PST.
16 Dec – 31 Dec	No counting.

FISH LADDER OPERATING SCHEDULE

Project Ladder

1 Jan – 12 Jan	Ladder in service.
13 Jan – 9 Feb	Ladder out of service for annual maintenance.
10 Feb – 31 Dec	Ladder in service.

FISHWAY ACTIVITIES

Adult chinook and steelhead were radio-tracked past the dam in 2004 as part of a broader, ongoing study by the University of Idaho.

Water temperatures were recorded hourly in four locations within the adult fishway from June to September. The purpose of this effort, ongoing since 1999, is to determine if thermal barriers exist and take corrective action if needed.

The Walla Walla District continued a hydraulic evaluation of the adult fishway in 2004. The purpose was to analyze existing operating conditions and investigate alternatives to improve fish passage.

The adult fish trap was operated from March through November. The trap was shut down during the part of the summer due to high water temperatures. The trap was used for the following studies: 1) USFWS radiotagged hatchery steelhead and obtained scale samples for analysis of run composition, 2) WDFW collected fall Chinook broodstock for the Lyons Ferry Hatchery and obtained data for run reconstruction, 3) NPT obtained fall Chinook broodstock for the Nez Perce Tribal Hatchery, 4) IDFG obtained data from steelhead involving scale samples, sex and length, wild-hatchery composition, and portion of the run consisting of non-adipose clipped hatchery fish, 5) University of Idaho recaptured salmon and steelhead outfitted with DST tags at the Ice Harbor trap and outfitted other fish with transmitters, and 6) NOAA Fisheries captured fish to evaluate the Juvenile Fish Transportation Program. Nearly all hands-on work for these studies was done by NOAA Fisheries.

The juvenile fish facility was operated for juvenile fish transport/bypass and adult fallbacks from 15 March to 16 December.

TABLE 123

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER LOWER GRANITE DAM
MARCH 1 THROUGH DECEMBER 15, 2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*			1	20,189	42,777	19,382	3,991	410	17,277	4,512	522	0	109,061
STEELHEAD			4,802	2,662	154	421	2,492	3,227	78,020	55,626	6,480	505	154,389
SOCKEYE						27	86						113
COHO*									1,197	2,541	167	-1	3,904
PINK													0
TOTAL			4,803	22,851	42,931	19,830	6,569	3,637	96,494	62,679	7,169	504	267,467
SHAD					1	7,086	26,816	84					33,987
LAMPREY				1	9	9	63	27	7	1			117

*Jacks included

These counts include the extended season videotaped counts that were made between 0600 and 1600 hours in November and December. Shad are not counted after September 1st.

TABLE 124

DISCHARGE AND WATER QUALITY DATA
LOWER GRANITE PROJECT 2004

JANUARY					FEBRUARY				
DATE	DISCH	SPILL	TURBIDITY		DATE	DISCH	SPILL	TURBIDITY	
	KCFS	KCFS	SECCHI*	DEG F*		KCFS	KCFS	SECCHI*	DEG F*
Jan 1	15.7	0.0			Feb 1	27.4	0.0		
Jan 2	17.3	0.0			Feb 2	25.6	0.0		
Jan 3	18.1	0.0			Feb 3	24.8	0.0		
Jan 4	18.9	0.0			Feb 4	27.8	0.0		
Jan 5	23.3	0.0			Feb 5	23.3	0.0		
Jan 6	31.5	0.0			Feb 6	28.3	0.0		
Jan 7	29.7	0.3			Feb 7	25.1	0.0		
Jan 8	21.7	0.0			Feb 8	21.3	0.0		
Jan 9	21.1	0.0			Feb 9	21.7	0.0		
Jan 10	20.7	0.0			Feb 10	24.7	0.0		
Jan 11	17.4	0.0			Feb 11	24.7	0.0		
Jan 12	24.8	0.0			Feb 12	26.6	0.0		
Jan 13	25.7	0.0			Feb 13	25.9	0.0		
Jan 14	23.9	0.0			Feb 14	28.4	0.0		
Jan 15	20.4	0.0			Feb 15	23.1	0.0		
Jan 16	24.3	0.0			Feb 16	22.4	0.0		
Jan 17	22.0	0.0			Feb 17	29.6	0.0		
Jan 18	22.6	0.0			Feb 18	25.1	0.0		
Jan 19	24.1	0.0			Feb 19	41.0	0.0		
Jan 20	28.0	0.0			Feb 20	36.2	0.0		
Jan 21	19.5	0.0			Feb 21	37.1	0.0		
Jan 22	17.1	0.0			Feb 22	32.8	0.0		
Jan 23	21.6	0.0			Feb 23	37.1	0.0		
Jan 24	17.4	0.0			Feb 24	32.1	0.0		
Jan 25	17.4	0.0			Feb 25	31.6	0.0		
Jan 26	20.3	0.0			Feb 26	34.3	0.0		
Jan 27	24.2	0.0			Feb 27	37.6	0.0		
Jan 28	29.4	0.9			Feb 28	37.0	0.0	2.8	47.0
Jan 29	26.3	0.0			Feb 29	27.5	0.0		
Jan 30	39.5	0.0							
Jan 31	33.9	0.0							
AVG.	23.2	0.0			AVG.	29.0	0.0		

*All water temperature and turbidity data unavailable.

TABLE 125

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

LOWER GRANITE PROJECT
MARCH 2004

FISH COUNTS

RIVER CONDITIONS

DATE	FISH COUNTS					RIVER CONDITIONS									
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Mar 1	0							71	15			33.4	0.0	*	41.0
Mar 2	0							0	0			35.8	0.0	*	
Mar 3	0							69	20			30.0	0.0	*	41.0
Mar 4	0							101	18			34.4	0.0	*	41.0
Mar 5	0							129	28			34.6	0.0	*	41.0
Mar 6	0							162	37			31.1	0.0	6.0	42.0
Mar 7	0							115	22			29.2	0.0	6.0	42.0
Mar 8	0							62	22			30.0	0.0	6.0	43.0
Mar 9	0							88	20			32.3	0.0	*	40.0
Mar 10	0							45	13			29.9	0.0	*	43.0
Mar 11	0							77	15			40.1	0.0	*	40.0
Mar 12	0							267	58			37.1	0.0	*	40.0
Mar 13	0							303	53			37.6	0.0	*	41.0
Mar 14	0							282	69			31.4	0.0	*	41.0
Mar 15	0							144	29			44.2	0.0	*	41.0
Mar 16	0							241	28			37.3	0.0	*	43.0
Mar 17	0							161	30			40.9	0.0	*	43.0
Mar 18	0							149	31			42.2	0.0	*	46.0
Mar 19	0							225	56			47.7	0.0	*	46.0
Mar 20	0							206	51			46.7	0.0	*	47.0
Mar 21	0							238	51			47.3	0.0	*	47.0
Mar 22	0							127	40			45.4	0.0	6.0	47.0
Mar 23	0							120	59			58.8	0.0	6.0	47.0
Mar 24	0							218	62			50.2	0.0	6.0	47.0
Mar 25	0							186	55			56.0	0.0	6.0	47.0
Mar 26	1							190	40			61.2	0.0	3.6	47.0
Mar 27	0							224	43			55.0	0.0	3.9	48.0
Mar 28	0							198	46			52.9	0.0	*	*
Mar 29	0							170	37			43.6	0.0	3.0	47.0
Mar 30	0							108	26			51.9	0.0	2.8	47.0
Mar 31	0							126	19			45.7	0.0	*	*
TOTAL	1							4,802	1,093						
AVG.	0							155	35			41.7	0.0	5.0	43.8

*Data unavailable

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

TABLE 126

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

LOWER GRANITE PROJECT
APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	WILD		SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL					STEELHEAD	STEELHEAD					SECCHI	DEG F
Apr 1	1			0				154	65		0	50.4	0.0	3.2	48.0
Apr 2	0			0				166	73		0	48.2	0.0	3.2	48.0
Apr 3	1			0				191	76		0	39.3	4.6	3.3	48.0
Apr 4	1			0				235	98		0	44.9	18.2	3.0	50.0
Apr 5	1			0				184	89		0	44.8	19.3	3.5	50.0
Apr 6	4			0				151	77		0	54.4	24.1	3.5	50.0
Apr 7	6			0				188	94		0	48.8	18.8	3.5	50.0
Apr 8	7			0				137	71		0	52.8	15.3	3.0	50.0
Apr 9	5			0				132	83		0	54.7	24.3	3.6	52.0
Apr 10	13			0				149	86		0	49.5	18.7	3.8	53.0
Apr 11	12			0				120	62		0	49.2	18.7	3.8	54.0
Apr 12	12			0				126	64		0	46.8	18.5	3.5	54.0
Apr 13	17			0				85	56		0	54.6	18.3	3.7	53.0
Apr 14	18			0				88	58		0	58.0	18.2	3.9	53.0
Apr 15	31			0				72	43		0	64.2	18.4	3.1	53.0
Apr 16	62			0				62	41		0	56.6	18.3	3.0	53.0
Apr 17	83			0				58	44		0	50.9	18.3	3.8	53.0
Apr 18	125			0				54	26		0	49.6	18.3	3.6	52.0
Apr 19	107			0				40	34		0	46.8	18.3	3.5	51.0
Apr 20	282			5				31	24		0	45.2	18.4	4.0	51.0
Apr 21	383			0				42	34		0	43.8	18.5	4.5	51.0
Apr 22	680			0				32	24		0	42.4	18.6	4.5	51.0
Apr 23	1,024			0				36	24		0	42.1	4.6	4.5	52.0
Apr 24	1,153			0				28	18		0	40.1	0.0	4.2	51.0
Apr 25	1,072			5				22	12		0	41.5	0.0	4.0	54.0
Apr 26	1,453			6				14	12		0	41.8	0.0	4.5	54.0
Apr 27	2,606			6				26	23		0	45.6	0.0	4.2	54.0
Apr 28	3,394			12				17	13		0	54.6	0.0	4.5	53.0
Apr 29	2,878			8				8	7		0	54.1	0.0	4.5	53.0
Apr 30	4,691			25				14	12		1	54.7	0.0	4.6	55.0
TOTAL	20,122			67				2,662	1,443		1				
AVG.	671			2				89	48		0	49.0	12.3	3.8	51.8
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD		LAMPREY				
TOTALS TO DATE		20,123	67					7,464	2,536		1				

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

TABLE 127

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

LOWER GRANITE PROJECT
MAY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
May 1	3,468			19				12	10	0	0	50.1	0.0	4.7	56.0
May 2	2,810			36				4	2	0	1	50.3	0.0	5.0	54.0
May 3	1,596			17				7	6	0	0	60.9	0.0	5.0	54.0
May 4	1,554			19				7	7	0	0	70.4	0.0	5.2	54.0
May 5	1,765			42				10	8	0	0	79.1	3.7	5.2	55.0
May 6	2,926			56				12	11	0	0	85.3	2.6	3.5	55.0
May 7	2,962			56				16	13	0	0	80.5	0.0	3.5	55.0
May 8	1,460			37				7	6	0	0	78.7	0.0	3.3	55.0
May 9	1,135			54				7	4	0	0	75.2	0.0	3.5	55.0
May 10	1,295			60				6	5	0	0	73.1	0.0	3.4	55.0
May 11	1,883			98				2	1	0	0	72.2	0.0	3.3	55.0
May 12	1,528			71				4	4	0	0	72.1	0.0	2.0	54.0
May 13	859			100				2	1	0	0	64.1	0.0	4.2	54.0
May 14	2,923			220				6	2	0	0	59.5	0.0	4.4	54.0
May 15	1,136			98				5	4	0	0	57.9	0.0	4.2	53.0
May 16	932			90				1	1	0	0	55.9	0.0	3.7	53.0
May 17	522			109				10	4	0	0	68.2	0.0	4.5	55.0
May 18	802			102				4	2	0	0	64.9	0.0	5.0	55.0
May 19	1,234			156				6	0	1	0	67.7	0.0	5.0	56.0
May 20	694			101				2	0	0	0	75.5	0.0	5.0	56.0
May 21	833			163				0	-1	0	2	77.6	0.0	4.2	56.0
May 22	622			132				1	0	0	4	83.6	0.0	2.5	56.0
May 23	542			101				4	0	0	2	84.6	0.0	2.1	56.0
May 24	520			179				0	0	0	0	89.7	0.0	1.6	57.0
May 25	720			154				4	1	0	0	86.7	0.0	2.0	55.0
May 26	746			132				2	0	0	0	84.2	0.0	2.5	55.0
May 27	404			89				2	1	0	0	92.8	4.4	2.5	55.0
May 28	619			103				5	0	0	0	122.4	29.9	2.7	55.0
May 29	432			70				4	0	0	0	132.4	39.4	2.7	54.0
May 30	414			62				0	0	0	0	125.8	34.2	1.7	53.0
May 31	632			83				2	0	0	0	120.8	28.4	2.1	52.0
TOTAL	39,968			2,809				154	92	1	9				
AVG.	1289			91				5	3	0	0	79.4	4.6	3.6	54.7
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK					WILD STEELHEAD		SHAD	LAMPREY				
SPRING		60,091	2,876					7,618	2,628	1	10				

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

TABLE 128

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

LOWER GRANITE PROJECT
JUNE 2004

DATE	FISH COUNTS						RIVER CONDITIONS								
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	676			71			0	0	0	0	0	114.8	22.2	2.2	53.0
Jun 2	252			46			0	6	0	0	0	103.1	11.4	2.2	53.0
Jun 3	485			48			0	1	2	0	0	100.4	18.9	3.2	53.0
Jun 4	623			96			0	5	0	0	2	105.1	22.5	4.0	53.0
Jun 5	575			72			0	2	0	5	0	108.9	19.0	4.0	58.0
Jun 6	725			108			0	5	0	6	0	108.3	20.5	4.5	58.0
Jun 7	709			120			0	5	1	7	0	110.6	21.7	4.0	58.0
Jun 8	584			101			0	4	0	5	-1	102.0	9.5	2.9	57.0
Jun 9	371			74			0	2	1	6	0	97.6	5.6	2.9	57.0
Jun 10	540			61			0	4	1	2	0	90.5	0.0	3.1	57.0
Jun 11	1,190			184			0	4	1	7	0	88.1	0.0	3.2	57.0
Jun 12	894			124			0	7	0	5	0	83.8	0.0	3.7	56.0
Jun 13	665			91			0	5	0	11	0	77.2	0.0	4.2	56.0
Jun 14	454			96			0	5	0	11	0	76.5	0.0	5.0	57.0
Jun 15	515			98			0	5	1	5	0	72.6	0.0	5.0	58.0
Jun 16	720			138			0	22	4	22	0	60.7	0.0	5.0	58.0
Jun 17	673			78			0	12	2	14	0	55.2	0.0	5.2	61.0
Jun 18		839		95			0	23	1	10	0	53.5	0.0	4.7	61.0
Jun 19		358		85			0	18	6	10	0	49.3	0.0	5.0	63.0
Jun 20		497		106			0	22	1	49	0	48.7	0.0	5.0	63.0
Jun 21		282		86			0	17	6	84	0	46.2	0.0	5.5	64.0
Jun 22		372		78			0	14	4	49	0	52.1	0.0	5.2	64.0
Jun 23		374		77			0	10	7	126	0	48.4	0.0	*	64.0
Jun 24		311		65			0	17	4	316	0	54.4	0.0	6.0	64.0
Jun 25		380		155			5	4	1	493	1	52.9	0.0	6.0	64.0
Jun 26		648		198			0	34	16	476	1	43.6	0.0	6.0	66.0
Jun 27		551		155			6	35	14	923	2	44.3	0.0	6.0	68.0
Jun 28		431		113			7	46	12	994	4	43.4	0.0	6.0	68.0
Jun 29		324		122			7	41	11	1,058	0	38.4	0.0	6.0	68.0
Jun 30		352		71			2	46	13	2,392	0	38.2	0.0	6.0	68.0
TOTAL	10,651	5,719		3,012			27	421	109	7,086	9				
AVG.	627	440		100			1	14	4	236	0	72.3	5.0	4.5	60.2
RUN YEAR															
TOTALS TO DATE															
SPRING				70,742	4,482										
SUMMER				5,719	1,406										
TOTAL				76,461	5,888										
							SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY				
							27	8,039	2,737	7,087	19				

*Data unavailable.

Note: Visual counts occurred April 1 through October 31 from 0400-2000 PST (16 hour counts).

Video counts were taken June 15 to August 31 from 2000 to 0400 PST (8 hour counts).

Video counts were taken for the hourly 10 minute breaks during visual counting 0400-2000 PST. Therefore, 24 hour counts were made June 15 to August 31.

TABLE 129

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

LOWER GRANITE PROJECT
JULY 2004

DATE	FISH COUNTS						RIVER CONDITIONS								
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jul 1		122		47			2	30	8	1,356	0	42.1	0.0	6.0	70.0
Jul 2		233		124			6	61	20	1,925	0	41.3	0.0	6.0	68.0
Jul 3		360		124			7	71	22	2,485	1	43.9	0.0	6.0	69.0
Jul 4		280		62			5	113	35	1,162	3	37.3	0.0	5.0	68.0
Jul 5		214		66			8	78	32	2,998	4	36.2	0.0	4.5	68.0
Jul 6		88		60			4	71	24	3,132	0	36.5	0.0	4.3	68.0
Jul 7		186		74			4	113	49	1,442	7	36.7	0.0	1.8	66.0
Jul 8		169		44			5	94	38	1,510	5	36.7	0.0	3.2	67.0
Jul 9		108		40			1	98	41	2,600	2	39.0	0.0	3.8	67.0
Jul 10		212		42			10	150	49	1,111	1	33.7	0.0	3.8	67.0
Jul 11		172		19			4	115	31	1,429	2	35.2	0.0	4.7	68.0
Jul 12		100		24			4	59	17	472	2	37.8	0.0	5.0	68.0
Jul 13		106		42			4	112	36	1,373	1	39.3	0.0	4.7	68.0
Jul 14		98		19			2	79	29	770	5	40.6	0.0	5.0	68.0
Jul 15		52		24			5	89	22	745	0	37.6	0.0	5.0	68.0
Jul 16		67		35			6	102	40	551	4	37.6	0.0	5.0	68.0
Jul 17		32		24			4	48	25	158	2	35.7	0.0	5.3	66.0
Jul 18		25		34			0	43	16	20	0	34.3	0.0	6.0	67.0
Jul 19		24		17			1	43	26	79	1	32.4	0.0	6.0	67.0
Jul 20		40		20			0	72	30	143	1	35.8	0.0	6.0	67.0
Jul 21		79		40			1	110	36	232	1	32.5	0.0	6.0	67.0
Jul 22		34		12			0	95	32	323	0	35.8	0.0	5.2	67.0
Jul 23		36		8			1	70	24	187	0	34.4	0.0	5.3	67.0
Jul 24		-1		0			0	5	2	70	2	32.9	0.0	5.2	68.0
Jul 25		4		4			0	53	20	90	2	31.6	0.0	5.5	68.0
Jul 26		35		26			2	115	54	125	6	32.1	0.0	5.5	68.0
Jul 27		22		11			0	108	43	73	7	28.8	0.0	6.0	68.0
Jul 28		16		8			0	92	30	131	1	27.3	0.0	6.0	68.0
Jul 29		10		4			0	60	23	58	2	28.7	0.0	5.9	68.0
Jul 30		7		1			0	96	40	43	1	29.4	0.0	5.5	67.0
Jul 31		4		2			0	47	23	23	0	26.6	0.0	6.0	66.0
TOTAL		2,934		1,057			86	2,492	917	26,816	63				
AVG.		95		34			3	80	30	865	2	35.2	0.0	5.1	67.6

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE							
SPRING	70,742	4,482	113	10,531	3,654	33,903	82
SUMMER	8,653	2,463					
TOTAL	79,395	6,945					

Note: Visual counts occurred April 1 through October 31 from 0400-2000 PST (16 hour counts).
Video counts were taken June 15 to August 31 from 2000 to 0400 PST (8 hour counts).
Video counts were taken for the hourly 10 minute breaks during visual counting 0400-2000 PST. Therefore, 24 hour counts were made June 15 to August 31.

TABLE 130

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

LOWER GRANITE PROJECT
AUGUST 2004

DATE	FISH COUNTS							RIVER CONDITIONS							
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Aug 1		8		4				91	30	35	4	26.6	0.0	6.0	66.0
Aug 2		12		4				78	23	11	0	27.6	0.0	6.0	67.0
Aug 3		18		10				86	40	1	1	28.9	0.0	6.0	67.0
Aug 4		11		1				53	18	4	2	26.2	0.0	6.0	67.0
Aug 5		16		7				97	32	1	0	29.5	0.2	6.0	67.0
Aug 6		18		5				126	48	7	4	28.0	0.0	6.0	67.0
Aug 7		17		5				96	36	1	1	25.3	0.0	6.0	67.0
Aug 8		5		4				76	28	0	1	25.7	0.0	6.0	68.0
Aug 9		-1		1				47	19	8	0	25.5	0.0	6.0	67.0
Aug 10		6		2				19	11	2	0	25.8	0.0	6.0	67.0
Aug 11		4		0				24	12	1	2	26.8	0.0	6.0	67.0
Aug 12		0		1				5	6	1	1	28.8	0.0	6.2	67.0
Aug 13		0		1				11	5	0	1	23.6	0.0	6.0	68.0
Aug 14		0		0				5	4	-2	0	23.9	0.0	6.0	67.0
Aug 15		0		0				29	10	1	0	23.8	0.0	6.0	67.0
Aug 16		0		0				8	4	0	0	23.8	0.0	6.0	68.0
Aug 17		0		2				40	7	0	0	24.9	0.0	6.0	68.0
Aug 18			1	2				40	17	0	0	22.8	0.0	6.0	68.0
Aug 19			2	0				0	0	0	1	24.7	0.0	6.0	66.0
Aug 20			1	0				5	1	0	0	25.8	0.0	6.0	66.0
Aug 21			0	5				67	25	11	0	27.1	0.0	6.0	66.0
Aug 22			8	6				96	40	1	4	26.0	0.0	6.0	66.0
Aug 23			14	12				288	78	0	1	24.4	0.0	6.0	67.0
Aug 24			18	8				362	110	0	1	27.5	0.0	6.0	67.0
Aug 25			18	5				301	100	0	0	28.0	0.0	6.0	66.0
Aug 26			18	7				419	103	0	-1	30.4	0.0	6.0	66.0
Aug 27			30	6				349	96	0	0	32.4	0.0	6.0	66.0
Aug 28			37	10				191	50	0	0	33.2	0.0	6.0	66.0
Aug 29			7	7				78	20	0	2	29.7	0.0	6.0	66.0
Aug 30			8	1				50	6	0	2	27.4	0.0	6.0	66.0
Aug 31			13	5				90	38	1	0	31.6	0.0	6.0	66.0
TOTAL		114	175	121			0	3,227	1,017	84	27				
AVG		7	13	4				104	33	3	1	27.0	0.0	6.0	66.8
RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK					SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY				
SPRING	70,742	4,482					113	13,758	4,671	33,987	109				
SUMMER	8,767	2,510													
FALL	175	74													
TOTAL	79,684	7,066													

Note: Visual counts occurred April 1 through October 31 from 0400-2000 PST (16 hour counts).

Video counts were taken June 15 to August 31 from 2000 to 0400 PST (8 hour counts).

Video counts were taken for the hourly 10 minute breaks during visual counting 0400-2000 PST. Therefore, 24 hour counts were made June 15 to August 31.

TABLE 131

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

LOWER GRANITE PROJECT
SEPTEMBER 2004

FISH COUNTS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	PINK	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Sep 1			44	28	0	0		324	79		2	31.0	0.0	5.5	65.0
Sep 2			36	23	0	0		398	91		1	26.5	0.0	5.7	65.0
Sep 3			71	24	0	0		361	70		4	25.7	0.0	5.8	65.0
Sep 4			204	50	0	0		421	106		0	26.1	0.0	5.5	65.0
Sep 5			356	112	0	0		955	228		0	24.8	0.0	5.5	65.0
Sep 6			271	94	0	0		956	254		-1	22.4	0.0	6.0	65.0
Sep 7			260	109	0	0		775	181		1	23.0	0.0	6.0	65.0
Sep 8			148	52	0	0		779	208		0	23.3	0.8	5.5	65.0
Sep 9			486	289	1	0		1,472	368		0	29.5	0.0	5.8	65.0
Sep 10			497	156	0	0		1,507	394		0	29.0	0.0	5.8	65.0
Sep 11			605	160	0	0		1,459	398		0	24.1	0.0	5.0	65.0
Sep 12			976	283	2	1		3,860	936		0	23.4	0.0	5.0	65.0
Sep 13			469	167	7	1		2,698	612		0	26.4	0.1	5.0	65.0
Sep 14			460	236	7	2		3,120	761		0	38.1	0.0	5.3	65.0
Sep 15			502	349	25	5		4,847	1,150		0	35.2	0.0	5.2	64.0
Sep 16			734	416	37	0		5,182	1,096		0	39.0	0.0	5.5	64.0
Sep 17			656	227	36	0		4,972	1,045		0	34.8	0.0	6.0	63.0
Sep 18			680	356	56	4		3,516	858		0	26.1	0.0	6.0	63.0
Sep 19			523	319	50	6		4,588	1,145		0	28.4	0.0	6.0	62.0
Sep 20			299	166	29	4		2,214	516		0	22.6	4.0	5.0	64.0
Sep 21			415	236	82	5		3,701	788		0	20.0	4.8	5.5	64.0
Sep 22			539	262	86	7		5,513	1,231		0	25.4	12.2	5.5	64.0
Sep 23			463	186	52	5		2,944	664		0	23.3	3.9	5.5	64.0
Sep 24			604	308	95	4		4,072	900		0	28.1	0.0	6.0	64.0
Sep 25			306	192	88	0		2,426	484		0	23.3	0.0	6.0	64.0
Sep 26			318	163	74	0		2,886	637		0	21.4	0.0	6.0	64.0
Sep 27			204	167	50	1		2,812	661		0	20.0	0.0	5.5	64.0
Sep 28			209	185	44	0		2,776	594		0	21.4	0.0	5.8	64.0
Sep 29			173	109	84	0		3,142	733		0	21.6	0.0	5.8	64.0
Sep 30			206	139	246	1		3,344	724		0	20.9	0.0	5.5	63.0
TOTAL			11,714	5,563	1,151	46		78,020	17,912	0	7				
AVG.			390	185	38	2		2,601	597		0	26.2	0.9	5.6	64.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE									
SPRING	70,742	4,482	1,151	46	113	91,778	22,583	33,987	116
SUMMER	8,767	2,510							
FALL	11,889	5,637							
TOTAL	91,398	12,629							

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

TABLE 132

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

LOWER GRANITE PROJECT
 OCTOBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Oct 1			280	110	204	6		3,178	773		0	19.1	0.0	6.0	63.0
Oct 2			192	120	139	5		3,037	732		0	19.7	0.0	6.0	63.0
Oct 3			200	104	115	2		2,759	630		0	18.9	0.0	5.5	63.0
Oct 4			250	158	180	4		3,456	782		0	17.6	0.0	5.5	63.0
Oct 5			143	181	182	5		2,898	616		0	19.2	0.0	5.5	63.0
Oct 6			166	131	142	7		3,995	937		0	18.4	0.0	6.0	63.0
Oct 7			155	124	131	6		3,547	799		0	18.4	0.0	5.5	63.0
Oct 8			144	78	96	1		3,355	686		0	20.6	0.0	4.8	62.0
Oct 9			179	104	134	2		3,739	815		0	13.5	0.0	4.8	62.0
Oct 10			95	61	98	0		2,849	578		0	15.2	0.0	4.8	62.0
Oct 11			83	43	66	1		2,272	460		0	19.0	0.0	5.2	62.0
Oct 12			52	43	43	0		1,781	386		0	13.5	0.0	5.2	62.0
Oct 13			58	34	48	2		1,559	328		0	17.9	0.0	5.2	62.0
Oct 14			40	23	55	5		1,436	318		0	16.6	0.0	5.2	62.0
Oct 15			58	29	38	1		1,390	300		0	17.9	0.0	5.5	62.0
Oct 16			38	24	48	0		1,140	266		0	16.6	0.0	5.5	62.0
Oct 17			29	24	31	0		1,049	251		0	19.2	0.0	5.5	62.0
Oct 18			24	18	19	0		685	136		0	15.9	0.0	5.0	62.0
Oct 19			36	22	32	0		1,056	227		1	17.9	0.0	5.5	62.0
Oct 20			26	25	16	0		755	186		0	19.7	0.0	5.0	63.0
Oct 21			34	38	54	1		1,040	233		0	18.1	0.0	5.5	63.0
Oct 22			48	49	61	1		1,352	283		0	17.5	0.0	5.5	63.0
Oct 23			26	40	34	0		1,166	251		0	19.6	0.0	5.5	58.0
Oct 24			25	25	61	0		1,332	298		0	19.4	0.0	5.5	58.0
Oct 25			29	28	38	1		946	197		0	22.6	0.0	5.8	57.0
Oct 26			38	31	50	0		665	127		0	16.1	0.0	5.8	57.0
Oct 27			42	47	25	1		374	89		0	18.1	0.0	5.8	57.0
Oct 28			89	58	83	0		577	125		0	18.8	0.0	5.8	57.0
Oct 29			48	43	119	0		787	199		0	18.1	0.0	5.8	56.0
Oct 30			24	8	72	0		600	160		0	18.1	0.0	5.8	56.0
Oct 31			20	18	76	0		851	179		0	19.3	0.0	5.8	57.0
TOTAL			2,671	1,841	2,490	51		55,626	12,347		1				
AVG.			86	59	80	2		1,794	398		0	18.1	0.0	5.5	60.9

RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
	ADULT	JACK							
TOTALS TO DATE	70,742	4,482	3,641	97	113	147,404	34,930	33,987	117
SPRING	70,742	4,482							
SUMMER	8,767	2,510							
FALL	14,560	7,478							
TOTAL	94,069	14,470							

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

TABLE 133

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

LOWER GRANITE PROJECT
NOVEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL											SECCHI	DEG F
Nov 1			16	2	45	2		610	157			20.5	0.0	5.8	57.0
Nov 2			14	9	37	2		443	106			18.4	0.0	5.8	57.0
Nov 3			56	9	13	0		291	75			18.7	0.0	5.8	57.0
Nov 4			78	38	8	0		257	72			19.1	0.0	5.8	57.0
Nov 5			40	21	10	0		342	84			20.7	0.0	5.8	56.0
Nov 6			13	7	7	0		378	72			17.5	0.0	5.8	56.0
Nov 7			11	5	6	0		334	53			19.2	0.0	*	*
Nov 8			9	3	6	1		173	32			18.8	0.0	*	*
Nov 9			5	4	2	0		160	30			18.6	0.0	6.0	50.0
Nov 10			29	6	1	0		113	17			19.2	0.0	6.0	50.0
Nov 11			22	1	4	0		101	21			17.3	0.0	6.0	50.0
Nov 12			31	4	3	0		92	24			19.6	0.0	6.0	50.0
Nov 13			14	1	4	0		137	19			18.3	0.0	6.0	50.0
Nov 14			14	5	3	0		165	33			18.8	0.0	6.0	50.0
Nov 15			10	5	8	0		178	28			19.0	0.0	6.0	50.0
Nov 16			12	1	1	0		193	36			18.5	0.0	6.0	50.0
Nov 17			6	0	0	0		185	29			18.9	0.0	*	*
Nov 18			3	0	1	0		213	43			17.5	0.0	6.0	50.0
Nov 19			3	0	0	0		294	59			19.4	0.0	6.0	50.0
Nov 20			3	1	1	0		254	48			16.9	0.0	6.0	50.0
Nov 21			2	0	0	0		246	31			18.6	0.0	6.0	50.0
Nov 22			1	0	0	0		205	38			19.8	0.0	*	*
Nov 23			2	0	0	0		234	29			18.2	0.0	*	*
Nov 24			1	0	0	0		140	17			17.7	0.0	6.0	50.0
Nov 25			2	0	0	0		251	24			18.4	0.0	6.0	50.0
Nov 26			1	0	0	0		186	11			28.4	0.0	6.0	46.0
Nov 27			0	0	0	0		139	6			23.9	0.0	6.0	46.0
Nov 28			2	0	0	0		87	8			21.2	0.0	6.0	46.0
Nov 29			0	0	0	0		51	10			23.3	0.0	6.0	46.0
Nov 30			0	0	2	0		28	5			19.0	0.0	*	*
TOTAL			400	122	162	5		6,480	1,217						
AVG.			13	4	5	0		216	41			19.4	0.0	6.0	51.0

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	70,742	4,482
SUMMER	8,767	2,510
FALL	14,960	7,600
TOTAL	94,469	14,592

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
3,803	102	113	153,884	36,147	33,987	117

*Data unavailable.

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

TABLE 134

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

LOWER GRANITE PROJECT
DECEMBER 2004

DATE	FISH COUNTS						RIVER CONDITIONS										
	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY			
	SPRING	SUMMER	FALL											SECCHI	DEG F		
Dec 1			0	0	-1	0		41	8			18.2	0.0	*	*		
Dec 2			0	0	0	0		26	1			18.0	0.0	*	*		
Dec 3			0	0	0	0		51	10			18.6	0.0	6.0	42.0		
Dec 4			0	0	0	0		59	7			20.9	0.0	6.0	42.0		
Dec 5			0	0	0	0		70	5			15.4	0.0	6.0	42.0		
Dec 6			0	0	0	0		40	5			23.9	0.0	6.0	44.0		
Dec 7			0	0	0	0		32	5			18.4	0.0	6.0	44.0		
Dec 8			0	0	0	0		32	5			18.9	0.0	6.0	41.0		
Dec 9			0	0	0	0		39	1			19.2	0.0	6.0	41.0		
Dec 10			0	0	0	0		11	5			20.8	0.0	*	*		
Dec 11			0	0	0	0		36	5			22.2	0.0	*	*		
Dec 12			0	0	0	0		7	0			24.5	0.0	*	*		
Dec 13			0	0	0	0		17	1			27.5	0.0	5.1	42.0		
Dec 14			0	0	0	0		17	3			25.4	0.0	5.1	42.0		
Dec 15			0	0	0	0		27	1			30.0	0.0	6.0	42.0		
Dec 16												29.2	0.0	6.0	42.0		
Dec 17												24.3	0.0	*	*		
Dec 18												19.0	0.0	*	*		
Dec 19												21.9	0.0	*	*		
Dec 20												24.4	0.0	*	*		
Dec 21												26.5	0.0	*	*		
Dec 22												23.7	0.0	*	*		
Dec 23												26.0	0.0	*	*		
Dec 24												23.3	0.0	*	*		
Dec 25												22.7	0.0	*	*		
Dec 26												24.2	0.0	*	*		
Dec 27												23.2	0.0	*	*		
Dec 28												19.8	0.0	*	*		
Dec 29												17.6	0.0	*	*		
Dec 30												15.6	0.0	*	*		
Dec 31												20.6	0.0	*	*		
TOTAL			0	0	-1	0		505	62								
AVG.								34	4					21.9	0.0	5.8	42.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	SHAD	LAMPREY
TOTALS TO DATE									
SPRING	70,742	4,482	3,802	102	113	154,389	36,209	33,987	117
SUMMER	8,767	2,510							
FALL	14,960	7,600							
TOTAL	94,469	14,592							

*Data unavailable.

Note: December counts were from video tape. The counts are 10-hour counts and occurred between the hours of 0600-1600 PST. Official Fall Chinook run ended December 15.

TABLE 135

**YEARLY TOTALS OF SALMONIDS COUNTED OVER
LOWER GRANITE DAM
1975 - 2004**

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	180,072	11	1,265	301,024
2004	109,061	154,389	113	3,904	267,467
Total	1,248,886	2,751,051	2,733	10,514	4,013,184
10-Year Average	71,708	132,819	55	794	205,376

*Jacks included

TABLE 136

**MONTHLY COUNT OF CHINOOK SALMON
LOWER GRANITE DAM
1975 -2004**

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
Total			14	191,748	528,509	288,669	100,820	10,995	83,183	41,521	3,382	45	1,248,886
10-Year Average				14,803	25,950	16,397	3,988	482	6,754	3,127	204		71,708

*Jacks included

TABLE 137

MONTHLY COUNT OF STEELHEAD
LOWER GRANITE DAM
1975 - 2004

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
Total	539	790	81,186	87,531	11,921	4,252	49,408	126,111	975,927	1,200,847	189,124	24,015	2,751,651
10-Yr Average			3,798	2,282	168	273	2,625	5,901	52,566	55,523	8,270	1,473	132,879

PRIEST RAPIDS AND WANAPUM DAMS

FISH COUNTING SCHEDULE – PRIEST RAPIDS DAM

Jan 1 – Apr 14	No adult fish counting.
Apr 14	Fish Counter orientation and training
Apr 15 – Nov 15	Counting daily 0000-2400 hours PST.
Nov 16 – Dec 31	No adult fish counting.

FISH COUNTING SCHEDULE – WANAPUM DAM

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

Left Bank Ladder

01 Jan – 09 Feb	Out of criteria for annual inspection, maintenance and repairs.
10 Feb – 23 Nov	In service.
24 Nov – 31 Dec	Out of criteria for annual inspection, maintenance and repairs.

Right Bank Ladder

01 Jan – 11 Feb	In service.
12 Feb – 01 Mar	Out of service for annual inspection, maintenance and repairs.
02 Mar – 31 Dec	In service.

FISH LADDER OPERATING AND MAINTENANCE SCHEDULE – WANAPUM DAM

Left Bank Ladder

01 Jan – 03 Feb	Out of criteria for annual inspection, maintenance and repairs.
04 Feb – 31 Dec	In service.

Right Bank Ladder

01 Jan – 14 Feb	In service.
15 Feb – 29 Feb	Out of criteria for annual inspection, maintenance and repairs.
01 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 passage is possible for one to several days before and after the indicated dates.

FISHWAY ACTIVITIES

The Public Utility District No. 2 of Grant County conducted 24-hour fish counts at Priest Rapids Dam, using three 8-hour shifts from 15 April through 15 November 2004. Counts were made at both ladders using visual observations at the count boards each day of the week. No adult counts were taken at Wanapum Dam, although the PUD is testing a video counting system at the hydro project.

The Mid-Columbia Coordination Committee approved to permanently close all collection channel orifice gates at Wanapum and Priest Rapids Dams in 2001. Main slotted entrances at the end of the channels remain open.

The adult PIT-tag detection array at Priest Rapids dam operated continuously when the ladder was operational. No adult video fish counts were taken.

Washington Department of Fish And Wildlife trapped and examined steelhead at the Priest Rapids Dam coded wire tag trapping facility from 27 July through 28 October. The trap was operated approximately 8 hours per day, usually every Tuesday and Thursday. The Yakama Indian Nation trapped and radio-tagged adult coho at the trapping facility simultaneously, beginning in October, and continued through 9 November.

The Priest Rapids Hatchery did not trap broodstock at Priest Rapids Dam.

TABLE 138

MONTHLY TOTALS OF SALMONIDS, SHAD, AND LAMPREY COUNTED OVER PRIEST RAPIDS DAM
2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				3,781	8,114	30,025	40,609	7,738	33,134	8,974	2,245		134,620
STEELHEAD				7	79	516	3,438	2,687	10,905	1,042	53		18,727
SOCKEYE						67,031	57,567	343	2				124,943
COHO*								6	3,764	1,743	111		5,624
PINK													
TOTAL				3,788	8,193	97,572	101,614	10,774	47,805	11,759	2,409		283,914
SHAD				2	0	5,839	4,667	77	4				10,589
LAMPREY				3	88	225	564	1,200	501	65	1		2,647

*Jacks included

TABLE 139

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

PRIEST RAPIDS PROJECT
APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL										SECCHI	DEG F	
Apr 1	BEGIN COUNTING APRIL 15											74.5	0.0	*	*
Apr 2											94.6	0.0	*	*	
Apr 3											82.7	0.0	*	*	
Apr 4											71.7	0.0	*	*	
Apr 5											71.4	0.0	*	*	
Apr 6											71.7	0.0	*	*	
Apr 7											71.9	0.0	*	*	
Apr 8											71.2	0.0	*	*	
Apr 9											71.6	0.0	*	*	
Apr 10											72.9	0.0	*	*	
Apr 11											71.9	0.0	*	*	
Apr 12											73.6	0.0	*	*	
Apr 13											78.0	0.0	*	*	
Apr 14											106.0	0.0	*	*	
Apr 15	13			0				0	0	0	101.8	0.0	10.7	47.0	
Apr 16	7			0				1	0	0	103.7	0.0	10.7	47.0	
Apr 17	17			0				0	0	0	93.1	0.0	11.0	46.9	
Apr 18	11			0				0	0	0	97.3	0.0	11.0	47.0	
Apr 19	2			0				0	0	0	124.9	16.1	11.0	47.2	
Apr 20	14			0				0	0	1	149.1	92.2	11.0	47.1	
Apr 21	47			0				0	1	0	128.3	78.9	9.2	47.1	
Apr 22	92			0				1	0	0	104.7	64.9	9.2	47.1	
Apr 23	138			0				3	0	0	106.0	65.9	9.2	47.2	
Apr 24	179			1				0	0	0	106.6	66.1	10.6	47.1	
Apr 25	335			0				0	0	0	105.8	65.5	10.6	47.2	
Apr 26	507			0				0	0	0	102.7	63.7	10.6	47.7	
Apr 27	118			0				1	0	0	114.8	70.9	8.5	48.4	
Apr 28	1,021			1				0	1	0	126.6	78.7	8.5	48.4	
Apr 29	754			0				1	0	0	117.7	73.0	10.2	48.6	
Apr 30	524			0				0	0	2	95.3	58.8	10.2	48.9	
TOTAL	3,779			2				7	2	3					
AVG.	236			0				0	0	0	95.4	26.5	10.1	47.5	

*Data unavailable.

TABLE 140

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

PRIEST RAPIDS PROJECT
MAY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
May 1	1,125			1				1	0	0	106.4	66.2	7.7	49.4
May 2	366			0				0	0	0	108.6	67.4	7.7	49.9
May 3	826			0				2	0	1	127.9	79.7	7.9	50.5
May 4	415			2				1	-2	-1	137.2	85.0	11.6	50.8
May 5	210			0				2	0	0	125.3	77.4	10.4	50.6
May 6	193			0				1	0	0	108.5	66.9	11.4	50.4
May 7	660			2				2	0	1	123.9	76.4	11.4	51.1
May 8	186			7				3	0	5	117.9	73.1	11.4	51.5
May 9	300			6				1	0	4	107.0	66.4	11.6	51.1
May 10	393			11				1	0	1	145.9	90.5	11.6	51.1
May 11	218			3				0	0	1	157.1	98.2	9.0	50.8
May 12	101			13				1	0	5	126.2	77.5	9.0	50.9
May 13	228			10				0	0	2	128.3	80.1	9.0	51.0
May 14	261			29				1	0	1	149.5	92.3	10.2	51.3
May 15	281			27				1	0	2	130.0	80.8	10.2	51.5
May 16	176			26				0	0	4	138.1	85.8	10.2	51.1
May 17	129			36				3	0	1	134.8	83.7	9.4	51.3
May 18	150			42				4	1	1	139.0	86.2	9.4	51.5
May 19	63			26				3	0	1	145.1	90.1	9.4	51.9
May 20	58			32				1	0	0	136.2	84.4	12.4	52.4
May 21	58			35				4	0	11	122.0	75.6	11.6	52.8
May 22	101			61				6	0	11	125.5	77.7	9.0	53.3
May 23	45			45				3	0	5	123.5	76.6	12.5	53.7
May 24	110			73				3	0	5	95.5	59.3	12.9	53.8
May 25	100			66				3	0	5	138.2	85.3	13.2	54.3
May 26	90			76				8	0	5	133.2	82.8	13.2	54.8
May 27	76			43				5	0	4	144.6	89.6	10.7	54.3
May 28	102			40				4	1	6	139.1	84.7	11.4	54.0
May 29	128			51				7	0	6	111.4	66.6	11.4	54.1
May 30	67			37				5	0	0	125.3	74.9	11.4	54.4
May 31	79			19				3	0	1	117.9	70.8	11.4	54.3

TOTAL 7,295

819

79 0 88

AVG. 235

26

3 0 3

128.0 79.1 10.6 52.1

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	11,074	821
SPRING		

SOCKEYE	STEELHEAD	SHAD	LAMPREY
0	86	2	91

Some water data corrected by PUD correspondence.

TABLE 141

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

PRIEST RAPIDS PROJECT
JUNE 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Jun 1	100			33			0	4	1	7	137.9	82.5	12.0	54.2
Jun 2	49			9			0	7	0	4	110.5	66.9	11.2	54.4
Jun 3	112			13			0	6	0	3	146.3	87.8	10.4	55.1
Jun 4	44			18			0	5	0	-1	158.5	93.5	10.4	55.6
Jun 5	65			18			0	5	0	9	129.8	75.5	9.5	56.4
Jun 6	90			18			0	3	0	3	118.8	69.1	11.3	56.7
Jun 7	279			23			0	2	2	8	120.9	70.3	11.5	56.4
Jun 8	65			14			1	2	4	2	115.3	66.7	11.5	57.3
Jun 9	111			6			55	1	0	-1	122.9	71.4	11.3	56.3
Jun 10	685			14			51	11	0	2	150.7	87.3	10.2	56.5
Jun 11	66			0			70	6	0	2	171.4	100.0	9.4	56.3
Jun 12	150			3			104	2	1	9	148.3	89.2	10.0	56.7
Jun 13	631			30			146	3	0	14	146.2	88.4	10.2	57.6
Jun 14				12			171	6	8	11	170.4	102.5	10.2	57.4
Jun 15		387		14			291	16	5	0	171.4	103.5	13.8	56.6
Jun 16		424		19			258	21	0	-2	140.1	83.5	13.8	56.8
Jun 17		501		25			459	12	21	8	141.3	83.9	11.2	57.7
Jun 18		772		17			718	16	11	6	150.3	90.3	11.3	57.8
Jun 19		869		32			462	12	8	14	140.2	84.3	12.7	58.2
Jun 20		462		44			833	24	11	12	139.1	83.6	12.7	58.9
Jun 21		833		31			1,242	20	37	4	166.1	96.6	12.7	59.3
Jun 22		1,040		36			1,040	16	68	6	157.1	88.0	11.2	59.3
Jun 23		1,836		64			1,836	24	104	8	123.6	69.2	11.2	59.7
Jun 24		2,562		50			2,562	29	86	17	114.8	64.3	11.2	60.3
Jun 25		2,809		78			2,809	29	205	9	122.2	68.4	12.9	61.1
Jun 26		3,133		64			3,133	38	617	12	129.8	72.6	8.1	61.5
Jun 27		2,313		87			2,313	38	733	13	113.4	63.4	13.0	61.8
Jun 28		2,823		80			2,823	58	886	24	147.9	83.3	13.2	62.6
Jun 29		2,251		80			2,251	50	1093	16	176.4	98.1	13.2	63.2
Jun 30		2,301		88			2,301	50	1938	6	159.7	90.1	13.0	63.4
TOTAL	2,447	26,558		1020			67,031	516	5,839	225				
AVG.	188	1562		34			2,234	17	195	8	141.4	82.5	11.5	58.2

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	13,521	1020
SPRING	13,521	1020
SUMMER	26,558	821
TOTAL	40,079	1,841

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
0	0	67,031	602	5,841	316

Some water data corrected by PUD correspondence.

TABLE 142

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

PRIEST RAPIDS PROJECT
 JULY 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Jul 1		1,653		151			5,937	64	802	15	132.4	73.7	14.1	63.1
Jul 2		2,023		246			5,457	75	460	9	105.8	58.6	14.1	63.0
Jul 3		1,907		512			6,692	102	622	16	102.7	55.4	14.1	63.2
Jul 4		1,903		365			4,741	112	548	18	96.0	51.9	14.1	62.9
Jul 5		1,316		221			3,298	86	293	8	136.8	73.9	14.1	62.9
Jul 6		1,564		395			4,154	115	277	13	115.6	62.2	8.4	62.9
Jul 7		1,867		208			3,771	90	339	5	129.0	69.8	8.4	63.1
Jul 8		974		125			2,153	51	203	9	137.8	74.4	8.1	62.3
Jul 9		1,235		138			2,623	95	208	7	128.6	69.6	10.6	62.8
Jul 10		2,800		144			3,067	97	132	10	100.0	53.7	10.6	63.3
Jul 11		1,449		156			2,266	84	60	19	112.2	60.7	8.7	63.0
Jul 12		1,477		108			1,784	79	84	17	135.0	73.0	10.5	63.1
Jul 13		1,276		168			1,673	86	142	12	124.9	67.4	10.5	63.3
Jul 14		1,806		111			1,410	82	41	11	119.9	64.1	10.2	63.2
Jul 15		851		228			1,283	86	35	12	117.0	64.0	9.8	63.8
Jul 16		1,326		138			1,159	82	21	10	82.1	44.0	10.4	64.2
Jul 17		1,105		167			1,073	110	43	16	90.2	48.8	10.4	64.4
Jul 18		606		88			956	70	86	20	87.5	47.3	10.4	64.3
Jul 19		573		118			828	112	45	22	97.5	52.8	6.5	64.7
Jul 20		575		54			466	77	28	18	77.4	42.0	10.0	64.7
Jul 21		648		51			574	116	20	20	95.3	51.5	10.0	64.9
Jul 22		1,251		59			485	122	23	14	81.6	44.3	11.3	65.4
Jul 23		1,000		49			276	106	32	19	85.9	46.3	10.2	65.9
Jul 24		1,307		102			449	146	20	16	81.2	43.8	10.2	66.4
Jul 25		1,153		64			352	199	31	55	69.8	38.0	10.2	66.8
Jul 26		488		51			204	163	29	35	91.5	49.6	10.2	66.6
Jul 27		645		48			109	201	16	23	109.1	58.9	10.2	66.3
Jul 28		366		36			83	192	14	33	113.2	61.0	10.2	66.9
Jul 29		380		45			64	169	2	27	120.3	64.9	10.2	67.1
Jul 30		335		11			102	139	7	18	111.3	60.0	10.2	67.1
Jul 31		365		28			78	130	4	37	103.4	56.4	10.2	67.3
TOTAL		36,224		4,385			57,567	3,438	4,667	564				
AVG.		1,169		141			1,857	111	151	18	106.2	57.5	10.6	64.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	13,521	1,020
SUMMER	62,782	5,206
TOTAL	76,303	6,226

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
0	0	124,598	4,040	10,508	880

Some water data corrected by PUD correspondence.

TABLE 143

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

PRIEST RAPIDS PROJECT
 AUGUST 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Aug 1		492		40	0	0	85	142	14	27	77.6	41.8	10.3	67.4
Aug 2		382		32	0	0	20	114	7	24	97.6	52.9	10.3	61.5
Aug 3		335		33	0	0	15	126	15	24	93.5	50.6	10.6	66.9
Aug 4		142		23	0	0	11	102	2	18	90.3	49.0	10.6	67.0
Aug 5		239		28	0	0	15	87	10	27	87.7	47.4	10.6	66.9
Aug 6		245		21	0	0	17	97	2	25	83.7	44.9	10.6	67.0
Aug 7		365		21	0	0	8	126	4	45	61.6	1.1	10.6	67.5
Aug 8		238		32	1	0	10	63	6	43	61.6	1.1	10.6	67.5
Aug 9		610		41	0	1	29	116	1	33	85.6	1.1	11.6	65.1
Aug 10		369		54	0	0	18	102	1	49	109.9	3.3	11.6	65.4
Aug 11		315		25	0	0	25	109	1	23	121.5	0.9	11.6	68.0
Aug 12		323		36	0	0	8	112	2	59	103.4	1.0	12.6	68.2
Aug 13		223		21	0	0	1	101	3	57	101.0	0.9	14.1	68.5
Aug 14			143	30	1	0	14	113	-1	54	92.2	1.1	14.1	68.3
Aug 15			144	18	0	0	15	81	3	27	90.0	1.0	14.1	68.2
Aug 16			111	29	0	0	4	87	0	54	96.9	1.0	11.7	68.8
Aug 17			118	9	0	0	5	48	1	46	109.0	1.0	10.6	68.5
Aug 18			101	10	0	0	1	57	0	61	114.4	0.8	10.6	68.2
Aug 19			107	8	0	0	5	35	0	49	115.4	0.9	10.6	68.3
Aug 20			133	22	0	0	5	54	1	72	111.7	1.1	10.6	68.5
Aug 21			149	22	0	0	6	43	2	49	95.0	0.9	10.6	68.5
Aug 22			223	24	0	0	15	64	3	66	58.9	0.9	10.6	68.5
Aug 23			162	25	0	0	4	56	0	41	74.0	0.9	10.6	68.1
Aug 24			165	40	0	0	0	78	0	46	67.1	0.9	10.6	67.7
Aug 25			226	36	0	1	0	78	1	47	97.2	1.1	10.6	67.3
Aug 26			169	28	1	0	5	75	-1	32	114.3	1.2	10.6	64.3
Aug 27			31	17	0	0	0	42	0	12	125.6	1.0	11.6	67.0
Aug 28			131	23	0	0	2	107	0	26	91.9	1.1	16.7	67.1
Aug 29			169	40	0	0	0	66	0	14	111.5	1.0	11.0	67.2
Aug 30			128	24	0	1	0	107	0	32	118.3	0.8	15.6	67.5
Aug 31			208	30	0	0	0	99	0	18	139.9	11.6	15.9	67.8
TOTAL		4,278	2,618	842	3	3	343	2,687	77	1,200				
AVG.		329	145	27	0	0	11	87	2	39	96.7	10.5	11.7	67.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	13,521	1,020
SUMMER	67,060	5,613
FALL	2,618	435
TOTAL	83,199	7,068

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
3	3	124,941	6,727	10,585	2,080

Some water data corrected by PUD correspondence.

TABLE 144

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

PRIEST RAPIDS PROJECT
 SEPTEMBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Sep 1			562	59	0	0	1	189	0	30	145.4	12.0	12.9	67.3
Sep 2			775	74	0	0	0	245	0	29	71.2	1.0	12.9	66.7
Sep 3			1,151	74	5	0	0	328	0	19	70.2	1.1	14.0	66.2
Sep 4			1,782	80	4	0	1	440	0	7	52.9	1.0	12.7	65.8
Sep 5			1,333	97	6	1	0	515	0	23	53.4	1.1	12.7	65.8
Sep 6			1,465	118	16	0	0	405	0	20	71.1	1.2	12.7	65.9
Sep 7			1,124	105	7	0	0	504	0	29	93.5	1.0	12.7	66.3
Sep 8			955	124	6	0	0	529	0	60	93.3	1.0	17.8	66.7
Sep 9			1,325	186	18	9	0	590	0	50	89.2	0.9	15.9	66.6
Sep 10			1,696	179	14	13	0	526	0	21	91.6	1.1	15.9	66.3
Sep 11			1,056	91	56	50	0	615	0	14	75.9	1.0	15.9	66.3
Sep 12			1,778	95	74	79	0	609	0	27	54.9	1.1	15.9	66.1
Sep 13			599	57	163	53	0	588	-1	14	64.9	0.9	11.3	65.9
Sep 14			1,097	73	224	83	0	528	0	14	58.1	0.9	11.3	65.6
Sep 15			815	66	176	51	0	414	1	7	56.8	0.9	14.6	65.5
Sep 16			2,112	97	321	68	0	522	0	8	66.7	1.0	14.6	65.2
Sep 17			1,061	72	183	26	0	392	0	12	70.7	1.1	14.6	65.0
Sep 18			507	36	150	25	0	313	0	3	62.0	1.1	13.5	64.5
Sep 19			952	55	93	19	0	339	0	14	49.5	1.1	14.1	64.2
Sep 20			1,000	111	145	45	0	322	1	5	61.6	1.0	13.6	63.7
Sep 21			508	41	93	9	0	219	0	4	86.7	1.0	14.8	63.5
Sep 22			606	63	102	20	0	255	1	6	97.4	1.0	14.8	63.6
Sep 23			298	56	115	16	0	137	1	11	107.5	1.1	14.8	63.9
Sep 24			515	88	150	6	0	124	1	6	97.6	1.1	14.8	64.0
Sep 25			530	109	144	3	0	198	0	15	79.5	1.2	14.8	64.4
Sep 26			678	90	154	13	0	169	0	8	68.1	0.9	13.1	64.6
Sep 27			1,240	102	212	22	0	309	0	13	85.9	0.8	13.1	64.9
Sep 28			1,216	83	170	20	0	186	0	13	90.1	1.0	13.1	65.1
Sep 29			964	151	158	11	0	205	0	12	82.1	0.7	13.1	65.0
Sep 30			753	49	152	11	0	190	0	7	89.3	0.8	12.6	64.8
TOTAL			30,453	2,681	3,111	653	2	10,905	4	501				
AVG.			1015	89	104	22	0	364	0	17	77.9	1.4	14.0	65.3

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	13,521	1,020
SUMMER	67,060	5,613
FALL	33,071	3,116
TOTAL	113,652	9,749

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
3,114	656	124,943	17,632	10,589	2,581

Some water data corrected by PUD correspondence.

TABLE 145

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

PRIEST RAPIDS PROJECT
 OCTOBER 2004

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Oct 1			575	60	91	2		103	0	5	90.6	0.8	12.6	65.0
Oct 2			588	39	93	6		129	0	5	81.8	1.1	12.4	65.0
Oct 3			296	36	114	2		74	0	6	60.4	1.1	12.4	65.1
Oct 4			287	49	121	15		62	1	9	84.6	0.8	12.4	65.0
Oct 5			415	47	130	8		66	0	4	79.8	0.8	14.5	65.0
Oct 6			346	54	55	14		45	0	5	99.1	1.0	15.7	64.9
Oct 7			513	54	127	13		42	0	1	115.3	0.8	16.9	64.5
Oct 8			276	30	80	6		48	0	3	91.4	0.7	16.9	64.4
Oct 9			215	36	60	6		53	0	5	72.1	0.7	15.7	64.1
Oct 10			131	45	52	7		42	0	3	59.3	0.8	17.5	63.8
Oct 11			319	35	95	9		44	0	1	72.5	0.6	17.5	63.5
Oct 12			358	23	57	4		24	0	2	79.8	0.7	15.8	63.3
Oct 13			220	13	38	2		34	0	0	75.0	0.7	17.9	63.2
Oct 14			165	11	10	5		12	0	5	99.8	1.2	17.9	63.1
Oct 15			131	7	23	1		14	0	3	82.4	0.9	19.7	63.0
Oct 16			183	9	27	1		28	0	2	56.4	0.8	19.7	62.6
Oct 17			194	6	17	0		30	-1	1	65.5	0.8	17.8	62.1
Oct 18			239	14	25	7		20	0	1	80.8	1.0	14.8	61.1
Oct 19			211	9	52	3		24	0	2	93.9	0.9	16.4	61.1
Oct 20			161	22	25	6		19	0	0	106.6	0.5	16.4	61.1
Oct 21			351	56	63	0		19	0	0	110.9	0.6	14.8	60.7
Oct 22			132	9	40	8		23	0	1	97.3	0.2	14.8	60.0
Oct 23			127	5	24	0		16	0	0	81.9	0.1	11.6	59.3
Oct 24			88	3	22	1		8	0	0	58.8	0.3	12.7	58.7
Oct 25			137	2	11	0		10	0	0	89.2	0.9	17.6	58.1
Oct 26			293	8	55	0		16	0	1	102.5	0.8	15.3	57.6
Oct 27			317	7	49	0		14	0	0	95.4	0.7	15.3	57.4
Oct 28			303	6	24	1		11	0	0	86.5	0.5	15.3	57.1
Oct 29			222	7	15	0		7	0	0	76.7	0.4	14.7	56.5
Oct 30			138	1	4	0		2	0	0	78.2	0.8	14.2	56.2
Oct 31			326	14	13	4		3	0	0	77.5	0.5	14.4	55.5

TOTALS			8,257	717	1,612	131		1,042	0	65				
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AVG.			266	23	52	4		34	0	2	83.9	0.7	15.5	61.5
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	13,521	1,020
SUMMER	67,060	5,613
FALL	41,328	3,833
TOTAL	121,909	10,466

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
4,726	787	124,943	18,674	10,589	2,646

Some water data corrected by PUD correspondence.

TABLE 146

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

PRIEST RAPIDS PROJECT
 NOVEMBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Nov 1			275	11	8	1		3		0	87.4	0.6	16.2	55.2
Nov 2			474	7	6	0		1		0	89.8	0.5	10.1	55.2
Nov 3			313	3	6	1		5		0	85.5	0.5	12.4	55.1
Nov 4			212	3	26	0		5		0	97.0	0.5	17.6	54.9
Nov 5			132	6	6	1		7		0	98.3	0.9	15.5	54.7
Nov 6			164	6	13	1		6		0	93.8	0.7	13.7	54.4
Nov 7			87	3	7	0		1		0	66.4	0.6	13.7	54.1
Nov 8			94	1	3	0		1		0	84.9	0.6	15.6	54.0
Nov 9			114	3	9	1		5		0	94.0	0.7	17.5	54.1
Nov 10			128	3	15	0		6		1	81.2	0.9	14.8	54.4
Nov 11			60	1	1	0		0		0	88.6	0.7	16.1	54.3
Nov 12			25	5	1	0		5		0	102.6	0.8	16.1	54.1
Nov 13			27	1	0	0		1		0	105.9	0.8	16.1	54.2
Nov 14			45	3	1	1		4		0	98.7	0.3	16.0	54.3
Nov 15			35	4	2	1		3		0	92.5	0.3	17.1	54.2
Nov 16											99.2	0.0	*	*
Nov 17											91.8	0.0	*	*
Nov 18											90.7	0.0	*	*
Nov 19											104.2	0.0	*	*
Nov 20											119.5	0.0	*	*
Nov 21											87.5	0.0	*	*
Nov 22											108.3	0.0	*	*
Nov 23											101.4	0.0	*	*
Nov 24											94.2	0.0	*	*
Nov 25											74.3	0.0	*	*
Nov 26											72.3	0.0	*	*
Nov 27											68.7	0.0	*	*
Nov 28											86.2	0.0	*	*
Nov 29											128.3	0.0	*	*
Nov 30											125.8	0.0	*	*

TOTALS		2,185	60	104	7		53		1					
AVG.		146	4	7	0		4		0		94.0	0.3	15.2	54.5

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE		
SPRING	13,521	1,020
SUMMER	67,060	5,613
FALL	43,513	3,893
TOTAL	124,094	10,526

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	SHAD	LAMPREY
4,830	794	124,943	18,727	10,589	2,647

Some water data corrected by PUD correspondence.
 *Data unavailable.

TABLE 147
**YEARLY TOTALS OF SALMONIDS COUNTED OVER PRIEST RAPIDS DAM
 1982 - 2004**

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
Totals	1,469,802	338,228	1,395,122	27,118	3,230,270
10-Year Average	86,509	12,944	52,147	2,407	154,007

*Jacks included

TABLE 148

MONTHLY COUNT OF STEELHEAD
PRIEST RAPIDS DAM: 1960 - 2004

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
TOTAL	40	56	288	3,956	8,743	6,258	52,979	150,606	224,561	59,627	3,780	63	510,957
10-Year Average				8	20	144	1,896	4,115	5,654	1,034	73		12,944

ROCK ISLAND DAM

FISH COUNTING SCHEDULE

Jan 1 – April 14	No counting
April 14 – Nov 14	Video recording 24 hours per day, 7 days/week.
April 15 – Nov 15	Video recording daily 0700 – 1530 hours PST.
Nov 15 – Dec 31	Video recording 24 hours per day, 7 days/week (except during annual maintenance).

FISH LADDER OPERATING SCHEDULE

Left Bank Ladder

Jan 1 – Jan 12	Fishway in service
Jan 13 – Jan 28	Fishway out of service for annual maintenance
Jan 29 – Dec 12	Fishway in service
Dec 13 – Dec 31	Fishway out of service for annual maintenance

Middle Ladder

Jan 1 – Jan 15	Fishway in service
Jan 16 – Mar 3	Fishway out of service for annual maintenance
Mar 4 – Dec 12	Fishway in service
Dec 13 – Dec 14	Fishway out of service for annual maintenance
Dec 15 – Dec 31	Fishway in service

Right Bank Ladder

Jan 1 – Jan 27	Fishway in service
Jan 28 – March 11	Fishway out of service for annual maintenance
March 12 – Dec 31	Fishway in service

FISHWAY ACTIVITIES

The Rock Island Bypass Trap was operated by the Washington Department of Fish and Wildlife from April 1 through August 31. Juvenile fish were sampled daily during this time period.

The installation of the entire PIT tag system in the three ladders was completed in March 2004. PIT tag detections were uploaded to PTAGIS throughout the 2004 season. Electrical interference from cooling fans in Powerhouse #2 affected the detection efficiency of PIT tag coils in the right ladder. The fans will be repaired before the 2005 adult fish migration.

Chelan County PUD continued to monitor radio-tagged adult bull trout to evaluate behavior and migratory patterns. The PUD also assisted the Yakama Nation with monitoring the passage of radio-tagged adult coho at Rock Island and Rocky Reach dams.

TABLE 149

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCK ISLAND DAM
2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				648	8,567	20,637	43,205	8,103	10,975	4,824	806		97,765
STEELHEAD				50	108	363	2,518	2,983	11,794	1,658	73		19,547
SOCKEYE						27,833	78,337	466	29	1			106,666
COHO							0	20	1,965	3,736	261		5,982
PINK													
TOTAL				698	8,675	48,833	124,060	11,572	24,763	10,219	1,140		229,960
LAMPREY						43	339	1,384	540	56			2,362

*Jacks included

TABLE 150

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

ROCK ISLAND PROJECT
 APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL										SECCHI	DEG F	
Apr 1	BEGIN COUNTING 14 APR											79.5	0.0		
Apr 2											87.1	0.0			
Apr 3											58.0	0.0			
Apr 4											41.0	0.0			
Apr 5											82.4	0.0			
Apr 6											77.3	0.0			
Apr 7											70.6	0.0			
Apr 8											68.7	0.0			
Apr 9											79.3	0.0			
Apr 10											68.5	0.0			
Apr 11											45.5	0.0			
Apr 12											87.7	0.0			
Apr 13											100.6	0.0			
Apr 14	1			0				3		2	92.7	0.0			
Apr 15	0			0				7		6	99.6	0.0			
Apr 16	0			0				6		4	105.9	0.0			
Apr 17	2			0				3		3	95.8	17.0			
Apr 18	0			0				0		0	85.7	13.6			
Apr 19	2			0				2		2	129.9	24.6			
Apr 20	2			0				5		4	136.3	23.3			
Apr 21	4			0				6		4	126.6	24.8			
Apr 22	2			0				4		4	101.4	23.5			
Apr 23	2			0				3		3	107.7	26.1			
Apr 24	1			0				1		1	103.7	21.6			
Apr 25	10			0				2		2	105.6	18.7			
Apr 26	37			0				1		0	118.1	25.7			
Apr 27	109			0				0		0	119.5	27.5			
Apr 28	53			0				3		3	113.3	26.0			
Apr 29	135			0				1		1	106.2	21.8			
Apr 30	288			0				3		2	103.9	20.9			

TOTAL	648			0				50	41					
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AVG.	38			0				3	2		93.3	10.5		
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Water temperature and turbidity for April not available.

TABLE 151

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

ROCK ISLAND PROJECT
 MAY 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
May 1	277			0			0	1	1		107.8	21.1		
May 2	357			0			0	1	1		91.5	20.1		
May 3	1,074			0			0	1	1		136.9	26.1		
May 4	722			1			0	2	2		126.4	25.1		
May 5	93			0			0	3	3		103.5	23.0		
May 6	126			0			0	3	3		112.7	25.3		
May 7	280			3			0	3	3		119.6	23.2		
May 8	91			2			0	3	3		110.6	20.9		
May 9	43			5			0	1	1		106.0	18.9		
May 10	105			0			0	1	1		149.1	26.6		
May 11	355			2			0	10	10		129.9	28.0		
May 12	292			5			0	2	2		128.2	28.3		
May 13	351			5			0	2	2		129.6	25.2		
May 14	204			5			0	4	3		145.1	24.9		
May 15	84			6			0	4	4		125.9	21.2		
May 16	60			6			0	4	4		117.9	19.1		
May 17	820			64			0	2	2		136.6	26.4		
May 18	793			32			0	5	5		138.0	28.3		
May 19	199			29			0	4	4		139.2	29.8		
May 20	261			35			0	1	1		120.5	27.4		
May 21	99			40			0	2	2		122.6	26.7		
May 22	68			19			0	3	3		115.3	21.0		
May 23	64			27			0	10	10		94.0	20.5		
May 24	258			117			0	3	3		125.6	27.7		
May 25	282			56			0	4	4		130.7	26.9		
May 26	135			44			0	7	7		127.5	25.5		
May 27	90			27			0	3	3		142.3	27.1		
May 28	94			22			0	3	3		125.1	24.4		
May 29	89			22			0	3	3		108.9	24.0		
May 30	77			45			0	6	6		122.3	22.0		
May 31	87			18			0	7	7		104.9	20.0		

TOTAL	7,930			637			0	108	107		122.4	24.3		
AVG.	256			21			0	3	3					

RUN YEAR	256			21			0	3	3					
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULT									
	SPRING	8,578	637		0									

SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
0	158	148	0

Water temperature and turbidity for May not available.

TABLE 152

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

ROCK ISLAND PROJECT
 JUNE 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL										SECCHI	DEG F	
Jun 1	56			9			0	4	4	0	115.6	27.2			
Jun 2	73			35			0	9	9	0	131.2	25.6			
Jun 3	52			3			0	6	4	0	147.7	23.2			
Jun 4	50			8			0	0	0	0	151.0	24.7			
Jun 5	59			6			3	5	5	0	118.5	22.4			
Jun 6	58			14			0	2	2	0	108.0	20.5			
Jun 7	63			8			4	7	7	0	111.2	26.6			
Jun 8	53			16			2	6	6	0	119.6	28.1			
Jun 9	35			13			2	9	9	0	120.5	27.7			
Jun 10	32			11			3	2	2	0	151.4	27.5			
Jun 11	83			18			5	3	3	1	154.2	26.8			
Jun 12	450			41			26	8	8	0	143.9	25.2			
Jun 13	246			26			28	7	7	0	139.8	23.0			
Jun 14	116			18			13	3	3	0	166.0	30.2			
Jun 15	308			17			48	8	8	0	162.1	31.7			
Jun 16	387			60			52	2	2	0	132.8	30.7			
Jun 17	219			18			94	3	3	0	143.8	30.0			
Jun 18		254		13			99	9	9	0	144.5	28.7			
Jun 19		485		34			167	13	13	0	133.5	24.0			
Jun 20		723		35			314	13	13	0	137.2	22.0			
Jun 21		567		28			372	16	16	2	157.7	30.1			
Jun 22		506		43			435	23	23	2	155.3	30.6			
Jun 23		1,232		197			946	15	15	0	112.3	29.2			
Jun 24		994		175			1,245	25	24	3	112.7	27.4			
Jun 25		1,088		142			1,141	16	16	4	122.7	27.2			
Jun 26		2,124		151			2,310	30	30	1	123.6	24.7			
Jun 27		2,561		309			3,702	26	25	4	108.1	20.4			
Jun 28		1,765		245			4,030	29	29	5	144.0	30.7			
Jun 29		1,962		225			6,008	29	29	10	169.2	32.3			
Jun 30		2,006		112			6,784	35	33	11	147.0	30.8			
TOTAL	2,340	16,267		2,030			27,833	363	357	43					
AVG.	138	1251		68			928	12	12	1	136.2	27.0			
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULT		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY					
SPRING		10,918	958		0		27,833	521	505	43					
SUMMER		16,267	1709												
TOTALS		27,185	2,667												

Water temperature and turbidity for June not available.

TABLE 153

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

ROCK ISLAND PROJECT
 JULY 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHII	DEG F
Jul 1		1,706		146			5,723	33	31	4	118.8	29.2		
Jul 2		1,762		105			6,286	32	32	3	115.6	19.5		
Jul 3		2,444		58			6,916	50	46	3	99.0	18.6		
Jul 4		1,997		67			8,696	54	52	1	90.1	12.1		
Jul 5		1,796		64			4,520	52	50	4	118.9	20.1		
Jul 6		1,934		63			5,157	86	81	6	118.7	29.1		
Jul 7		1,666		106			4,571	55	51	2	133.4	28.9		
Jul 8		2,182		118			3,907	103	97	2	130.0	26.7		
Jul 9		1,495		60			3,857	52	47	3	116.9	25.6		
Jul 10		1,536		117			2,996	67	63	3	98.1	18.9		
Jul 11		1,351		89			3,401	64	58	7	104.3	17.2		
Jul 12		1,782		100			3,112	68	64	5	132.1	27.1		
Jul 13		1,639		153			2,558	73	64	10	123.5	26.1		
Jul 14		1,300		98			1,920	53	46	12	115.6	25.4		
Jul 15		1,238		115			2,084	48	43	8	94.6	25.0		
Jul 16		1,556		91			2,221	71	59	15	96.7	21.6		
Jul 17		1,223		57			1,684	76	70	12	83.0	18.1		
Jul 18		1,304		91			1,303	71	65	9	86.0	14.9		
Jul 19		1,804		81			1,364	81	69	14	94.5	20.1		
Jul 20		593		27			1,198	57	53	15	69.9	19.4		
Jul 21		918		119			1,006	107	88	13	85.0	18.0		
Jul 22		546		62			824	84	67	12	86.3	14.3		
Jul 23		593		54			615	75	65	21	91.0	14.9		
Jul 24		922		117			576	107	81	12	83.4	16.0		
Jul 25		1,071		52			424	91	79	12	62.5	15.1		
Jul 26		1,049		58			382	91	67	29	93.5	17.7		
Jul 27		1,186		98			342	145	112	27	97.1	16.5		
Jul 28		685		66			254	138	118	26	110.3	17.1		
Jul 29		487		50			116	131	102	13	112.9	19.4		
Jul 30		470		50			129	143	113	27	106.6	20.8		
Jul 31		423		15			195	160	137	9	107.0	16.4		
TOTAL		40,658		2,547			78,337	2,518	2,170	339	102.4	20.3		

AVG.	1,312	82	2,527	81	70	11
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
TOTALS TO DATE	10,918	958	0	106,170	3,039	2,675	382
SPRING	56,925	4256					
SUMMER							
TOTALS	67,843	5,214					

Water temperature and turbidity for July not available.

TABLE 154

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

ROCK ISLAND PROJECT
 AUGUST 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS	
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS
Aug 1		453		36	0		75	147	129	27	77.8	14.8
Aug 2		297		37	0		57	121	91	32	90.4	23.6
Aug 3		380		52	0		56	126	105	56	87.3	25.9
Aug 4		451		45	0		53	131	108	18	96.2	17.3
Aug 5		292		32	0		27	106	74	58	79.8	0.0
Aug 6		204		31	0		26	86	73	49	69.0	0.0
Aug 7		259		19	1		26	74	57	49	53.5	0.0
Aug 8		316		39	1		10	93	61	42	62.4	0.0
Aug 9		275		43	1		18	98	62	42	95.2	0.0
Aug 10		186		22	0		11	101	91	59	105.8	0.0
Aug 11		468		50	0		13	117	87	45	107.3	0.0
Aug 12		396		26	0		22	105	80	53	108.8	0.0
Aug 13		308		44	0		8	93	76	57	103.6	0.0
Aug 14		328		21	0		5	106	85	47	87.2	0.0
Aug 15		216		13	0		8	90	61	64	86.2	0.0
Aug 16		320		48	0		3	116	105	44	99.5	0.0
Aug 17		237		20	1		6	112	80	57	107.3	0.0
Aug 18			125	35	2		2	120	77	44	111.0	0.0
Aug 19			103	20	0		8	99	76	97	105.7	0.0
Aug 20			144	12	4		4	88	65	88	112.3	0.0
Aug 21			62	10	2		4	54	32	41	74.0	0.0
Aug 22			74	20	1		3	53	32	30	47.5	0.0
Aug 23			176	24	3		3	80	61	22	80.9	0.0
Aug 24			172	36	0		1	110	65	13	82.6	0.0
Aug 25			127	39	1		1	69	50	34	101.8	0.0
Aug 26			169	29	0		8	79	55	31	110.6	0.0
Aug 27			146	28	1		1	59	33	34	113.7	0.0
Aug 28			188	28	0		2	97	55	36	98.6	0.0
Aug 29			82	45	1		0	60	38	16	103.7	0.0
Aug 30			76	17	1		1	86	57	55	119.9	0.0
Aug 31			137	15	0		4	107	75	44	146.1	1.9
TOTAL		5,386	1,781	936	20		466	2,983	2,196	1,384	94.4	2.7
AVG.		317	127	30	1		15	96	71	45		
RUN YEAR		CHINOOK ADULT	CHINOOK JACK		COHO ADULT		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY		
TOTALS TO DATE		10,918	958		20		106,636	6,022	4,871	1,766		
SPRING		62,311	4,834									
SUMMER		1,781	358									
FALL		75,010	6,150									
TOTALS		75,010	6,150									

Water temperature and turbidity for August not available.

TABLE 155

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

ROCK ISLAND PROJECT
 SEPTEMBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Sep 1			137	42	0		0	120	76	56	109.7	0.0		
Sep 2			139	18	0		2	97	57	48	89.0	0.0		
Sep 3			316	36	0		2	147	100	27	64.3	0.0		
Sep 4			326	18	1		2	232	161	22	53.8	0.0		
Sep 5			544	41	5		4	317	231	15	55.7	0.0		
Sep 6			556	36	1		1	317	211	33	74.5	0.0		
Sep 7			525	49	5		2	361	235	48	90.6	0.0		
Sep 8			581	64	3		0	489	380	13	88.7	0.0		
Sep 9			298	35	0		1	501	347	38	94.7	0.0		
Sep 10			332	41	1		0	512	337	37	84.7	0.0		
Sep 11			287	67	8		0	513	373	19	70.5	0.0		
Sep 12			436	39	31		2	646	436	16	51.8	0.0		
Sep 13			563	84	14		2	692	468	10	67.4	0.0		
Sep 14			474	54	16		0	728	518	11	57.5	0.0		
Sep 15			536	32	70		0	794	542	10	59.9	0.0		
Sep 16			310	54	56		2	753	478	7	69.8	0.0		
Sep 17			250	39	38		1	581	411	9	68.3	0.0		
Sep 18			300	45	91		2	508	302	3	60.6	0.0		
Sep 19			224	26	80		2	378	230	7	44.1	0.0		
Sep 20			202	48	61		0	359	237	2	69.0	0.0		
Sep 21			251	34	56		1	387	261	13	91.3	0.0		
Sep 22			277	71	81		1	471	300	19	96.5	0.0		
Sep 23			208	45	87		0	260	180	12	101.2	0.0		
Sep 24			161	40	97		0	298	213	3	99.1	0.0		
Sep 25			165	40	150		1	219	157	18	72.7	0.0		
Sep 26			155	34	134		1	215	153	4	58.3	0.0		
Sep 27			199	44	154		0	191	144	7	91.8	0.0		
Sep 28			378	41	237		0	269	192	6	91.2	0.0		
Sep 29			316	31	237		0	229	165	13	79.5	0.0		
Sep 30			243	38	251		0	210	174	14	94.4	0.0		
TOTAL			9,689	1,286	1,965		29	11,794	8,069	540	76.7	0.0		

AVG.			323	43	66		1	393	269	18				
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RUN YEAR TOTALS TO DATE	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	
	SPRING	10,918	958	1,985	106,665	17,816	12,940	2,306
	SUMMER	62,311	4,834					
	FALL	11,470	1,644					
TOTALS	84,699	7,436						

Water temperature and turbidity for September not available.

TABLE 156

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

ROCK ISLAND PROJECT
 OCTOBER 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS		
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI
Oct 1			325	24	146	0	0	176	126	12	88.4	0.0	
Oct 2			269	31	240	0	0	152	105	9	75.2	0.0	
Oct 3			212	28	232	0	0	103	75	2	57.9	0.0	
Oct 4			224	19	266	0	0	85	50	8	82.9	0.0	
Oct 5			241	34	167	0	0	135	91	0	87.0	0.0	
Oct 6			196	25	169	0	0	88	54	5	98.2	0.0	
Oct 7			193	28	195	0	1	125	98	3	91.3	0.0	
Oct 8			123	22	167	0	0	79	54	3	80.2	0.0	
Oct 9			123	11	151	0	0	57	40	1	62.9	0.0	
Oct 10			131	18	106	0	0	55	43	1	50.4	0.0	
Oct 11			136	7	103	0	0	54	39	1	63.9	0.0	
Oct 12			99	17	116	0	0	99	92	0	92.0	0.0	
Oct 13			77	15	111	0	0	42	38	0	88.3	0.0	
Oct 14			57	7	76	0	0	37	30	0	95.3	0.0	
Oct 15			91	4	118	0	0	30	19	1	63.3	0.0	
Oct 16			126	7	116	0	0	30	21	0	67.2	0.0	
Oct 17			132	10	93	0	0	36	22	1	60.0	0.0	
Oct 18			145	2	66	0	0	17	8	4	100.3	0.0	
Oct 19			109	10	70	0	0	39	25	4	105.2	0.0	
Oct 20			143	16	67	0	0	33	32	0	106.2	0.0	
Oct 21			70	7	69	0	0	26	14	0	91.3	0.0	
Oct 22			119	2	73	0	0	29	17	0	67.0	0.0	
Oct 23			88	9	85	0	0	16	12	1	61.0	0.0	
Oct 24			113	3	95	0	0	17	12	0	71.9	0.0	
Oct 25			102	2	47	0	0	16	12	0	107.4	0.0	
Oct 26			78	4	46	0	0	17	15	0	91.9	0.0	
Oct 27			124	8	66	0	0	15	7	0	84.6	0.0	
Oct 28			111	10	87	0	0	13	8	0	93.9	0.0	
Oct 29			181	8	98	0	0	13	11	0	85.8	0.0	
Oct 30			169	4	184	0	0	9	7	0	65.6	0.0	
Oct 31			123	2	111	0	0	15	13	0	59.8	0.0	
TOTAL			4,430	394	3,736	0	1	1,658	1,190	56			
AVG.			143	13	121	0	0	53	38	2			
RUN YEAR TOTALS TO DATE			CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	80.5	0.0	
			10,918	958	5,721	0	106,666	19,474	14,130	2,362			
			SUMMER	62,311	4,834								
			FALL	15,900	2,038								
			TOTALS	89,129	7,830								

Water temperature and turbidity for October not available.

TABLE 157

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

ROCK ISLAND PROJECT
NOVEMBER 2004

DATE	FISH COUNTS				RIVER CONDITIONS									
	CHINOOK ADULT SPRING	CHINOOK ADULT SUMMER	CHINOOK ADULT FALL	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Nov 1			111	2	38	0		9	8	0	87.4	0.0		
Nov 2			93	6	33	0		10	9	0	97.3	0.0		
Nov 3			95	2	33	0		8	8	0	99.3	0.0		
Nov 4			68	2	15	0		3	2	0	96.3	0.0		
Nov 5			91	1	30	0		5	4	0	91.3	0.0		
Nov 6			59	3	22	0		3	3	0	71.0	0.0		
Nov 7			72	1	15	0		5	4	0	61.3	0.0		
Nov 8			31	3	7	0		4	4	0	93.6	0.0		
Nov 9			42	1	21	0		4	3	0	100.0	0.0		
Nov 10			36	1	5	0		10	8	0	99.9	0.0		
Nov 11			26	1	6	0		2	0	0	95.9	0.0		
Nov 12			26	1	20	0		2	2	0	116.2	0.0		
Nov 13			18	0	13	0		3	2	0	90.1	0.0		
Nov 14			14	0	3	0		5	4	0	57.7	0.0		
Nov 15											96.2	0.0		
Nov 16											103.8	0.0		
Nov 17											103.4	0.0		
Nov 18											105.1	0.0		
Nov 19											114.1	0.0		
Nov 20											111.6	0.0		
Nov 21											83.9	0.0		
Nov 22											107.5	0.0		
Nov 23											101.1	0.0		
Nov 24											90.1	0.0		
Nov 25											47.9	0.0		
Nov 26											55.0	0.0		
Nov 27											87.3	0.0		
Nov 28											98.8	0.0		
Nov 29											128.4	0.0		
Nov 30											119.2	0.0		
TOTAL			782	24	261	0		73	61		90.2	0.0		

AVG. 56 2 19 0 5 4

RUN YEAR	CHINOOK ADULT	CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
TOTALS TO DATE								
SPRING	10,918	958	5,982	0	106,666	19,547	14,191	2,362
SUMMER	62,311	4,834						
FALL	16,682	2,062						
TOTALS	89,911	7,854						

Water temperature and turbidity for November not available.

TABLE 158

MONTHLY COUNT OF STEELHEAD

ROCK ISLAND DAM 1981 - 2004

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
Total				1,518	1,946	3,006	32,414	90,057	142,236	45,142	4,699		321,018
10-Year Average				28	30	90	1,281	3,494	5,808	1,368	100		12,200

ROCKY REACH DAM

FISH COUNTING SCHEDULE

Jan 1 - Apr 13	Video recording 24 hours per day/7 days a week (except during annual maintenance). Video counting daily 0700 - 1530 hours Pacific Standard Time, starting April 1.
Apr 14 - Nov 14	Video recording 24 hours per day/7 days a week. Video counting daily 0700 - 1530 hours Pacific Standard Time.
Nov 15 - Dec 31	Video recording 24 hours per day/7 days a week. No counting during this period.

FISH LADDER OPERATING SCHEDULE

Jan 2 to Feb 28 - fishway out of service for annual maintenance

Mar 1 to Jan 1 - fishway in service

FISHWAY ACTIVITIES

The juvenile fish bypass system was operated for fish passage from April 1 to August 31, 2004. Juvenile fish sampling occurred over the same time frame. The annual bypass (biological) evaluation included an acoustic tag study and collection of data on species composition and fish condition.

In 2004, Chelan County PUD conducted a radio telemetry study to determine passage times and fallback rates for adult lamprey at Rocky Reach Dam. The fish were monitored at the project only. The PUD also monitored passage of radio-tagged adult bull trout at Rocky Reach and Rock Island dams. The bull trout were tagged in 2003 (two year tag life) to assess migration patterns of the fish in the mid-Columbia River.

TABLE 159

MONTHLY TOTALS OF SALMONIDS AND LAMPREY COUNTED OVER ROCKY REACH DAM
2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*				203	3,772	8,614	35,858	7,857	6,185	2,650	399		65,538
STEELHEAD				177	142	244	1,847	2,571	7,748	1,650	201		14,580
SOCKEYE					1	14,818	65,803	681	32	3			81,338
COHO								3	288	446	49		786
PINK													
TOTAL				380	3,915	23,676	103,508	11,112	14,253	4,749	649		162,242
LAMPREY						5	177	565	270	26			1,043

*Jacks included

TABLE 160

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

ROCKY REACH PROJECT
APRIL 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL										SECCH	DEG F	
Apr 1	BEGIN COUNTING 14 APRIL											73.4	0.0		
Apr 2												81.8	0.0		
Apr 3												54.6	0.0		
Apr 4												37.7	0.0		
Apr 5												78.9	0.0		
Apr 6												73.4	0.0		
Apr 7												65.2	0.0		
Apr 8												62.3	0.0		
Apr 9												73.0	0.0		
Apr 10												63.2	0.0		
Apr 11												38.7	0.0		
Apr 12												80.4	0.0		
Apr 13												92.5	0.0		
Apr 14	0			0			0	12	11	0		84.7	0.0		
Apr 15	0			0			0	22	22	0		91.9	0.0		
Apr 16	0			0			0	16	14	0		99.4	0.0		
Apr 17	0			0			0	8	8	0		87.4	0.0		
Apr 18	0			0			0	9	8	0		79.6	0.0		
Apr 19	1			0			0	15	15	0		124.3	0.0		
Apr 20	1			0			0	15	15	0		129.2	0.0		
Apr 21	0			0			0	13	12	0		120.7	0.0		
Apr 22	1			0			0	13	13	0		94.5	0.0		
Apr 23	0			0			0	7	7	0		101.3	0.0		
Apr 24	2			0			0	9	9	0		97.1	0.0		
Apr 25	2			0			0	5	5	0		98.0	0.0		
Apr 26	3			0			0	4	4	0		111.9	0.0		
Apr 27	12			0			0	9	8	0		112.1	0.0		
Apr 28	14			0			0	10	10	0		104.5	0.0		
Apr 29	27			0			0	2	2	0		98.2	0.0		
Apr 30	140			0			0	8	8	0		96.3	0.0		
TOTAL	203			0			0	177	171	0					
AVG.	12			0			0	10	10	0		86.9	0.0		

Water temperature and turbidity for April not available.

TABLE 161

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

ROCKY REACH PROJECT
 MAY 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS		
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCH
May 1	53			0			0	5	5		97.5	0.0	
May 2	67			0			0	7	7		82.5	0.0	
May 3	153			1			0	6	6		125.9	0.0	
May 4	316			0			0	7	7		114.5	0.0	
May 5	96			0			0	2	1		92.7	0.0	
May 6	268			2			0	6	6		102.7	11.6	
May 7	165			2			0	9	9		114.2	28.3	
May 8	55			4			0	6	6		100.6	24.5	
May 9	32			1			0	6	5		99.1	23.3	
May 10	107			3			0	9	9		142.7	34.1	
May 11	19			1			0	4	4		123.2	32.9	
May 12	209			3			0	7	7		120.9	34.1	
May 13	115			3			0	4	4		125.2	31.6	
May 14	34			2			0	5	5		137.4	27.5	
May 15	41			4			1	5	3		117.8	23.5	
May 16	180			1			0	2	2		111.5	21.4	
May 17	11			5			0	4	4		130.5	30.8	
May 18	209			38			0	3	3		131.5	33.8	
May 19	362			40			0	3	3		132.7	34.9	
May 20	174			13			0	4	4		111.2	31.4	
May 21	84			28			0	3	3		114.0	30.6	
May 22	163			21			0	5	4		106.9	25.8	
May 23	26			10			0	1	1		86.1	22.8	
May 24	27			28			0	2	2		117.1	32.4	
May 25	23			50			0	9	9		123.9	29.7	
May 26	73			58			0	3	3		120.7	29.6	
May 27	74			59			0	3	3		134.9	30.9	
May 28	49			36			0	4	4		116.0	28.2	
May 29	19			32			0	1	0		101.3	25.0	
May 30	37			40			0	2	2		114.8	24.7	
May 31	24			22			0	5	5		96.1	21.6	
TOTAL	3,265			507			1	142	136		114.4	23.4	
AVG.	105			16			0	5	4				

RUN YEAR	CHINOOK ADULT	CHINOOK JACK
TOTALS TO DATE	3,468	507
SPRING		

COHO
0

SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
1	319	307	0

Water temperature and turbidity for May not available.

TABLE 162

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

ROCKY REACH PROJECT
JUNE 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCH	DEG F
Jun 1	44			37			0	5	5	0	111.1	26.8		
Jun 2	31			31			0	4	4	0	127.4	28.0		
Jun 3	15			20			0	8	8	0	142.1	26.1		
Jun 4	4			9			0	3	3	0	147.3	30.5		
Jun 5	9			15			0	5	5	0	110.5	28.5		
Jun 6	17			12			2	4	4	0	98.9	25.2		
Jun 7	8			8			1	2	2	0	102.1	11.8		
Jun 8	4			3			1	4	4	0	113.6	12.5		
Jun 9	4			3			4	3	3	0	112.9	11.3		
Jun 10	43			15			3	4	4	0	146.7	11.7		
Jun 11	33			5			4	4	4	0	145.5	11.7		
Jun 12	15			4			4	3	3	0	137.2	9.9		
Jun 13	75			17			7	5	5	0	132.4	9.3		
Jun 14	123			5			32	8	8	0	159.3	13.6		
Jun 15	72			6			30	3	3	0	155.4	14.6		
Jun 16	33			6			18	5	5	0	126.3	13.6		
Jun 17	139			19			45	2	2	0	138.4	13.4		
Jun 18	135			5			85	4	4	0	137.8	11.3		
Jun 19	93			7			88	3	3	0	127.6	9.6		
Jun 20		332		12			136	7	7	0	130.7	8.9		
Jun 21		245		7			197	16	15	0	152.1	13.3		
Jun 22		259		7			176	10	10	0	149.1	12.4		
Jun 23		255		20			283	15	15	0	105.0	13.3		
Jun 24		419		47			454	10	10	0	107.4	12.3		
Jun 25		609		65			1,069	14	13	0	117.4	11.8		
Jun 26		428		61			1,137	12	12	0	119.0	11.2		
Jun 27		990		52			1,043	13	12	0	102.0	10.3		
Jun 28		1366		106			3,153	23	23	2	141.4	12.9		
Jun 29		881		120			2,791	24	24	3	167.3	13.0		
Jun 30		1067		142			4,055	21	21	0	146.8	13.1		
TOTAL	897	6,851		866			14,818	244	241	5				
AVG.	47	623		29			494	8	8	0	130.3	15.1		
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULTS		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY				
SPRING		4,365	734		0		14,819	563	548	5				
SUMMER		6,851	639											
TOTALS		11,216	1,373											

Water temperature and turbidity for June not available.

TABLE 163

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

ROCKY REACH PROJECT
 JULY 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY		
	SPRING	SUMMER	FALL										SECCH	DEG F	
Jul 1		763		71			3,776	25	24	2	113.2	12.1			
Jul 2		1,306		147			4,773	31	29	0	112.6	9.5			
Jul 3		1,053		115			4,284	17	17	1	96.4	8.6			
Jul 4		1,221		226			4,405	39	36	1	84.9	5.9			
Jul 5		1,367		215			6,345	39	37	3	116.6	8.3			
Jul 6		2,644		554			8,930	94	84	7	118.7	12.7			
Jul 7		1,121		185			2,987	68	63	2	130.6	12.5			
Jul 8		890		163			2,385	29	27	0	127.9	11.5			
Jul 9		1,273		341			2,836	72	67	1	112.3	11.3			
Jul 10		841		175			2,550	47	38	4	95.7	8.0			
Jul 11		989		219			1,908	46	40	4	102.4	6.7			
Jul 12		988		167			1,841	38	37	4	129.2	11.8			
Jul 13		1,282		229			2,836	56	48	3	122.8	10.6			
Jul 14		671		191			1,600	37	35	3	112.3	11.0			
Jul 15		1,266		317			1,950	64	51	6	93.0	10.8			
Jul 16		972		141			1,872	49	41	1	94.9	10.9			
Jul 17		1,394		306			1,845	50	41	5	79.9	7.8			
Jul 18		786		227			1,496	60	48	8	85.8	6.6			
Jul 19		898		251			1,052	57	51	9	92.1	9.8			
Jul 20		1,215		318			1,175	74	58	6	67.1	8.7			
Jul 21		469		141			939	55	42	11	84.9	8.5			
Jul 22		600		115			828	69	56	12	82.5	6.6			
Jul 23		416		93			574	67	51	15	88.5	7.3			
Jul 24		612		97			570	54	47	6	80.2	6.6			
Jul 25		807		111			556	71	52	10	61.4	6.3			
Jul 26		768		323			391	72	59	12	92.6	8.8			
Jul 27		840		219			334	113	79	11	95.8	8.4			
Jul 28		975		206			282	88	73	7	109.8	8.4			
Jul 29		471		137			178	97	72	5	110.5	8.6			
Jul 30		269		70			182	72	57	5	105.4	8.5			
Jul 31		494		127			123	97	85	13	103.3	6.6			
TOTALS		29,661		6,197			65,803	1,847	1,545	177					
AVG.		957		200			2,123	60	50	6					
RUN YEAR															
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULTS		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	100.1	9.0			
SPRING		4,365	734		0		80,622	2,410	2,093	182					
SUMMER		36,512	6,836												
TOTAL		40,877	7,570												

Water temperature and turbidity for July not available.

TABLE 164

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

ROCKY REACH PROJECT
 AUGUST 2004

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Aug 1		402		104	0		128	93	71	8	76.7	5.7		
Aug 2		304		126	0		80	84	59	8	86.1	8.5		
Aug 3		323		90	0		65	83	65	13	88.1	8.3		
Aug 4		301		92	0		67	156	117	11	93.7	0.0		
Aug 5		338		28	0		28	105	84	16	78.1	0.0		
Aug 6		315		21	0		27	102	86	25	65.8	0.0		
Aug 7		296		18	0		32	76	51	18	53.0	0.0		
Aug 8		256		49	0		24	82	58	13	60.8	0.0		
Aug 9		202		117	0		16	79	54	22	95.0	0.0		
Aug 10		144		98	0		21	75	47	28	106.7	5.2		
Aug 11		212		55	0		20	67	50	34	107.2	9.0		
Aug 12		396		71	0		22	107	71	17	105.3	9.6		
Aug 13		334		47	0		19	75	55	22	104.0	10.0		
Aug 14		284		50	0		9	68	53	17	85.4	6.5		
Aug 15		157		64	0		12	65	47	13	86.7	5.3		
Aug 16		233		81	0		12	78	53	13	98.8	7.9		
Aug 17		253		54	0		13	98	67	14	106.8	9.7		
Aug 18		121		51	0		21	88	71	28	112.3	9.6		
Aug 19		149		41	0		14	114	70	44	105.6	10.0		
Aug 20			81	27	0		7	94	57	24	111.9	10.0		
Aug 21			75	23	0		4	82	49	20	74.0	8.3		
Aug 22			105	16	0		2	87	57	20	44.7	0.0		
Aug 23			93	15	0		5	79	52	44	82.8	0.0		
Aug 24			101	23	0		5	50	28	16	79.3	0.0		
Aug 25			130	43	0		8	65	28	9	101.1	0.0		
Aug 26			112	29	0		5	73	39	5	108.1	0.0		
Aug 27			90	18	1		6	71	44	7	114.4	0.0		
Aug 28			163	30	0		1	68	36	20	97.5	0.0		
Aug 29			108	20	1		1	45	23	8	101.4	0.0		
Aug 30			171	29	0		4	77	38	8	121.2	0.0		
Aug 31			56	22	1		3	85	50	20	148.5	0.3		
TOTAL		5,020	1,285	1,552	3		681	2,571	1,730	565				
AVG.		264	107	50	0		22	83	56	18	93.6	4.0		
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULTS		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY				
SPRING		4,365	734		3		81,303	4,981	3,823	747				
SUMMER		41,532	8,093											
FALL		1,285	295											
TOTALS		47,182	9,122											

Water temperature and turbidity for August not available.

TABLE 165

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

ROCKY REACH PROJECT
SEPTEMBER 2004
RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCH	DEG F
Sep 1		69	25	1	1	0	84	44	16	107.6	3.4			
Sep 2		81	16	1	1	0	78	44	26	88.4	0.0			
Sep 3		54	15	0	0	3	81	41	12	61.8	0.0			
Sep 4		175	30	2	2	1	106	51	30	53.7	0.0			
Sep 5		277	22	1	1	3	107	68	27	55.6	0.0			
Sep 6		437	27	1	1	4	199	116	13	73.4	0.0			
Sep 7		389	25	0	0	2	220	134	7	91.8	0.0			
Sep 8		240	34	1	1	1	265	159	21	87.9	0.0			
Sep 9		508	46	4	4	1	337	196	11	93.4	0.0			
Sep 10		153	25	0	0	2	356	192	11	83.6	0.0			
Sep 11		160	34	2	2	1	371	206	8	68.8	0.0			
Sep 12		174	44	1	1	1	371	198	15	49.9	0.0			
Sep 13		320	44	2	2	3	343	193	2	65.3	0.0			
Sep 14		50	14	3	3	0	291	158	4	57.3	0.0			
Sep 15		54	8	7	7	1	529	301	5	57.1	0.0			
Sep 16		546	61	5	5	2	552	318	6	67.9	0.0			
Sep 17		150	45	9	9	2	465	245	2	67.0	0.0			
Sep 18		118	24	17	17	1	438	228	1	56.8	0.0			
Sep 19		65	37	12	12	0	289	150	5	41.1	0.0			
Sep 20		286	36	17	17	1	267	127	3	68.2	0.0			
Sep 21		111	28	11	11	1	193	106	3	89.5	0.0			
Sep 22		86	18	18	18	1	282	145	4	94.7	0.0			
Sep 23		193	35	28	28	0	285	165	5	99.4	0.0			
Sep 24		36	18	27	27	0	219	121	6	96.4	0.0			
Sep 25		83	20	22	22	0	198	104	5	69.9	0.0			
Sep 26		52	28	16	16	0	159	83	5	58.3	0.0			
Sep 27		128	21	14	14	1	176	117	4	88.8	0.0			
Sep 28		106	16	23	23	0	148	86	3	89.3	0.0			
Sep 29		189	26	20	20	0	189	112	2	79.0	0.0			
Sep 30		53	20	23	23	0	150	84	8	93.5	0.0			
TOTAL		5,343	842	288	288	32	7,748	4,292	270					
AVG.		178	28	10	10	1	258	143	9	75.2	0.1			

RUN YEAR

TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	4,365	734
SUMMER	41,532	8,093
FALL	6,628	1,137
TOTALS	52,525	9,964

COHO ADULTS
291

SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
81,335	12,729	8,115	1,017

Water temperature and turbidity for September not available.

TABLE 166

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

ROCKY REACH PROJECT
OCTOBER 2004
RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Oct 1			46	34	20		0	121	71	7	87.7	0.0		
Oct 2			77	29	23		0	136	71	5	72.8	0.0		
Oct 3			120	29	27		0	89	52	1	56.9	0.0		
Oct 4			60	13	18		1	70	42	4	82.0	0.0		
Oct 5			50	17	20		0	66	32	1	86.2	0.0		
Oct 6			61	12	18		0	86	49	1	96.9	0.0		
Oct 7			94	15	34		0	78	37	1	92.3	0.0		
Oct 8			28	7	20		2	62	40	1	77.9	0.0		
Oct 9			61	16	30		0	81	54	2	60.4	0.0		
Oct 10			44	10	26		0	43	25	2	50.3	0.0		
Oct 11			57	6	23		0	29	19	0	65.3	0.0		
Oct 12			18	12	7		0	78	62	0	88.6	0.0		
Oct 13			44	15	20		0	43	32	0	87.7	0.0		
Oct 14			53	8	6		0	34	26	0	92.3	0.0		
Oct 15			57	7	9		0	44	30	0	63.9	0.0		
Oct 16			52	6	14		0	24	18	0	64.6	0.0		
Oct 17			37	15	15		0	52	30	1	59.0	0.0		
Oct 18			57	7	12		0	144	113	0	99.0	0.0		
Oct 19			123	13	23		0	101	89	0	103.5	0.0		
Oct 20			128	9	11		0	79	55	0	103.7	0.0		
Oct 21			51	7	2		0	29	21	0	89.2	0.0		
Oct 22			55	1	5		0	30	25	0	66.4	0.0		
Oct 23			92	8	6		0	22	12	0	60.5	0.0		
Oct 24			90	11	3		0	16	6	0	70.1	0.0		
Oct 25			92	7	3		0	10	4	0	104.4	0.0		
Oct 26			96	3	7		0	12	8	0	91.8	0.0		
Oct 27			67	5	10		0	18	14	0	83.5	0.0		
Oct 28			88	5	6		0	16	11	0	91.9	0.0		
Oct 29			133	3	9		0	13	8	0	85.2	0.0		
Oct 30			147	8	13		0	14	7	0	63.0	0.0		
Oct 31			126	8	6		0	10	8	0	60.8	0.0		
TOTAL			2,304	346	446		3	1,650	1,071	26				
AVG.			74	11	14		0	53	35	1				
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO ADULTS		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	79.3	0.0		
SPRING		4,365	734		737		81,338	14,379	9,186	1,043				
SUMMER		41,532	8,093											
FALL		8,932	1,483											
TOTALS		54,829	10,310											

Water temperature and turbidity for October not available.

TABLE 167

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

ROCKY REACH PROJECT
NOVEMBER 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCH	DEG F
Nov 1			60	1	9			5	3		85.6	0.0		
Nov 2			27	1	8			9	7		94.6	0.0		
Nov 3			50	3	8			38	36		95.4	0.0		
Nov 4			50	2	4			46	42		94.5	0.0		
Nov 5			32	0	1			32	31		86.6	0.0		
Nov 6			20	2	4			12	11		67.9	0.0		
Nov 7			16	1	4			15	14		58.8	0.0		
Nov 8			24	1	2			7	7		89.2	0.0		
Nov 9			23	1	2			9	7		97.5	0.0		
Nov 10			30	0	2			4	3		96.1	0.0		
Nov 11			23	1	1			12	9		94.5	0.0		
Nov 12			15	0	2			6	5		111.4	0.0		
Nov 13			3	1	2			2	1		86.8	0.0		
Nov 14			12	0	0			4	4		54.0	0.0		
Nov 15											95.1	0.0		
Nov 16											101.8	0.0		
Nov 17											102.2	0.0		
Nov 18											104.0	0.0		
Nov 19											113.9	0.0		
Nov 20											109.3	0.0		
Nov 21											80.3	0.0		
Nov 22											106.5	0.0		
Nov 23											98.8	0.0		
Nov 24											87.4	0.0		
Nov 25											43.2	0.0		
Nov 26											52.0	0.0		
Nov 27											84.4	0.0		
Nov 28											95.5	0.0		
Nov 29											125.5	0.0		
Nov 30											114.8	0.0		
TOTAL			385	14	49			201	180					
AVG.			28	1	4			14	13		90.9	0.0		

<table border="1"> <tr><td>CHINOOK ADULT</td><td>CHINOOK JACK</td></tr> <tr><td>4,365</td><td>734</td></tr> <tr><td>41,532</td><td>8,093</td></tr> <tr><td>9,317</td><td>1,497</td></tr> <tr><td>TOTALS</td><td>55,214 10,324</td></tr> </table>	CHINOOK ADULT	CHINOOK JACK	4,365	734	41,532	8,093	9,317	1,497	TOTALS	55,214 10,324	<table border="1"> <tr><td>COHO ADULTS</td></tr> <tr><td>786</td></tr> </table>	COHO ADULTS	786	<table border="1"> <tr><td>SOCKEYE</td><td>STEELHEAD</td><td>WILD STEELHEAD</td><td>LAMPREY</td></tr> <tr><td>81,338</td><td>14,580</td><td>9,366</td><td>1,043</td></tr> </table>	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	81,338	14,580	9,366	1,043
CHINOOK ADULT	CHINOOK JACK																					
4,365	734																					
41,532	8,093																					
9,317	1,497																					
TOTALS	55,214 10,324																					
COHO ADULTS																						
786																						
SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY																			
81,338	14,580	9,366	1,043																			

Water temperature and turbidity for November not available.

TABLE 168

**MONTHLY COUNT OF STEELHEAD
ROCKY REACH DAM: 1981 - 2004**

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
Total				1,422	1,562	1,943	19,450	60,466	99,763	36,104	4,282		224,992
10-Year Average				71	32	54	798	2,568	4,360	1,360	150		9,391

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.

DESCRIPTION OF THE ADULT PASSAGE FACILITIES

The two fish ladders at Wells Dam are conventional staircase type fish ladders with 73 pools. The ladders are located at the east and west end-wall of the dam. The lower 56 pools discharge a constant 48 cfs dropping one foot at each pool into the attraction chamber in the lower ladder. Discharge from pools 73 through pool 57 is through two 30 inch by 16 1/2 inch submerged orifices. Discharge from pools 56 to pool one is over a seven foot wide overflow section in the wall between pools with additional flow through two 18 inch by 15 inch submerged orifices. Pools 67 and 68 have adult PIT tag detection weirs that interrogate passage of all adults just prior to the ladder exit. Information on PIT tag detection of adults using both east and west ladders is found on the PTAGIS web page (<http://www.pittag.org/web/Adult/index.html>). Pool No. 64 of both fishways contain facilities for counting fish. The main features of this facility are a counting room with an observation window adjacent to the fish ladder and a telescoping gate and light panel that are used to guide the fish closer to the observation window. At Pool No. 40 of the ladders are provisions for sorting and trapping various species of fish. The fisheries agencies and tribes develop broodstock collection protocols at the beginning of each season for collection of spring and summer chinook, sockeye and coho salmon and summer steelhead. These plans are submitted for review by the fisheries agencies and tribes that serve on the Wells Habitat Conservation Plan Coordinating Committee.

At the bottom of the fish ladder, projecting downstream from the line of the hydrocombine is the portion of the end-wall structure, which incorporates the functions of fish attraction and collection. Two-turbine pumps deliver attraction flow to the water supply chamber located adjacent to the ladder. The total flow from the turbine pump(s) plus the 48 cfs coming down the ladder from the reservoir is discharged to the tailwater through a single fish attraction opening per ladder. These openings are eight-foot wide vertical slot openings with vertical miter gates. Originally an additional set of side gates were provided. Ladder entrances were designed to have the side gate be open at 2 – 4' and the end gate would automatically adjust its width to maintain a one foot differential

in the collection chamber. Since July 1970, the side gate has been set at a four foot opening with the end gate fixed at six feet. A 1.5 foot differential is maintained as the two turbine pumps adjust output. On June 29, 2000, the joint fisheries parties agreed to have the side entrances permanently closed. This decision was based upon several years of radio telemetry studies with various species of anadromous fish that showed improved passage times with the side gates closed.

FISH LADDER OPERATING SCHEDULE

Annual maintenance is performed on the ladders at Wells to clean the ladder of debris and service the attraction flow pumps. During this time the ladders are taken out of service and de-watered. The dates of this work in 2004 were as follows:

West Ladder

January 1 through February 5, 2004 Inspection & Maintenance

East Ladder

February 11 - 24, 2004 Inspection and Maintenance

December 9 through December 31, 2004 (Outage will extend into 2005)

JUVENILE PASSAGE FACILITIES

The juvenile Bypass at Wells Dam uses the hydrocombine design of the dam by modifying five of the eleven spill bays. The even number 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 2004 was coordinated with the Wells Habitat Conservation Plan Coordinating Committee and with the Wells 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 both committees were established from 21 years of hydroacoustic and 14 years of species composition information collected on juvenile run patterns at Wells Dam. The spring period ran from April 12 through June 13 for a total of 63 days and a total discharge of 1.1 MAF, or 8.1% of total project discharge. The summer bypass started on June 14 and ran through August 26 for a total of 74 days and a project discharge of 1.1 MAF or 6.9% of the total discharge.

MISCELLANEOUS

In 2004, radio telemetry receivers were located at Wells Dam to monitor bull trout radio-tagged by the USFWS, lamprey radio-tagged by Chelan PUD at Rocky Reach Dam and to monitor coho tagged by the Yakama Indian Nation at Priest Rapids and Wells dams.

Antenna and receiving units were installed at Wells Dam as well as in neighboring tributaries. Information from all three of these studies is still being analyzed.

2004 was the third highest total passage of salmonids since the completion of the dam in 1967, based upon the historical 16-hour count format. It was the fourth largest year for summer chinook, fall chinook and for sockeye salmon.

TABLE 169

MONTHLY TOTALS OF SALMONIDS COUNTED OVER WELLS DAM
2004

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK*					2,217	3,990	24,537	7,588	4,062	943	80		43,417
STEELHEAD					74	56	916	1,709	5,039	1,401	122		9,317
SOCKEYE						6,127	70,367	1,466	87	6			78,053
COHO									46	202	43		291
TOTAL					2,291	10,173	95,820	10,763	9,234	2,552	245		131,078
LAMPREY					6	5	68	152	139	33			403

*Jacks included

TABLE 170

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

WELLS PROJECT
MAY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
May 1	5			0				6	0	0	95.3	10.8	11.0	47.9
May 2	13			0				22	8	0	91.9	10.3	14.0	47.5
May 3	23			0				19	16	0	123.6	11.9	12.0	47.6
May 4	31			0				1	1	1	111.9	11.8	12.0	49.0
May 5	30			0				3	3	2	93.9	10.7	12.0	48.8
May 6	114			0				2	2	0	103.1	8.9	13.0	48.8
May 7	113			0				0	0	0	117.7	7.9	15.0	48.5
May 8	88			1				0	0	0	99.0	7.6	13.0	48.7
May 9	164			0				1	1	0	99.6	7.0	10.0	48.8
May 10	90			0				1	1	0	142.1	9.0	9.0	48.7
May 11	23			0				0	0	0	121.2	8.2	9.0	48.9
May 12	19			0				0	0	1	119.9	8.0	9.0	48.8
May 13	27			0				2	2	0	129.8	8.4	7.0	49.0
May 14	78			0				3	3	0	137.7	8.5	11.0	49.7
May 15	149			0				0	0	0	121.1	8.3	11.0	49.8
May 16	38			1				3	3	0	107.8	8.4	14.0	50.6
May 17	106			0				0	0	0	132.1	8.6	14.0	50.9
May 18	87			0				0	0	0	133.0	8.6	12.0	51.3
May 19	30			2				3	2	0	130.4	8.8	14.0	51.6
May 20	107			0				2	2	0	108.1	8.0	14.0	52.1
May 21	234			2				1	1	0	112.3	8.0	14.0	52.4
May 22	128			3				0	0	0	103.9	7.9	9.0	52.0
May 23	41			0				1	1	0	85.4	6.5	9.0	52.6
May 24	75			5				0	0	2	116.0	7.6	9.0	52.5
May 25	57			4				1	1	0	121.9	7.8	7.0	52.3
May 26	46			1				1	1	0	126.0	8.4	12.0	52.7
May 27	32			3				0	0	0	133.4	8.5	14.0	52.6
May 28	57			2				0	0	0	111.2	8.1	11.0	52.7
May 29	58			9				1	1	0	101.3	7.1	11.0	53.1
May 30	34			3				0	0	0	111.8	7.9	11.0	53.3
May 31	83			1				1	1	0	97.9	7.4	11.0	53.7
TOTAL	2,180			37				74	50	6				
AVG.	70			1				2	2	0	114.2	8.5	11.4	50.5
RUN YEAR		CHINOOK ADULT	CHINOOK JACK					STEELHEAD	WILD STEELHEAD	LAMPREY				
TOTALS TO DATE		2,180	37					74	50	6				
SPRING														

TABLE 171

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

WELLS PROJECT
 JUNE 2004
 RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Jun 1	45			4			0	1	1	0	112.7	8.3	10.0	53.8
Jun 2	35			2			0	1	0	0	129.4	8.2	12.0	53.8
Jun 3	109			4			0	1	1	1	142.9	8.9	11.0	53.6
Jun 4	34			0			0	0	0	0	147.2	8.9	12.0	54.7
Jun 5	17			1			0	1	1	0	107.8	7.6	7.0	55.3
Jun 6	32			9			0	2	2	0	95.4	7.0	11.0	55.1
Jun 7	22			6			0	0	0	0	105.9	7.5	11.0	55.6
Jun 8	10			1			0	0	0	0	112.3	7.7	11.0	55.5
Jun 9	18			3			0	3	3	0	113.8	7.8	11.0	55.5
Jun 10	7			5			0	2	2	0	153.3	8.7	10.0	54.7
Jun 11	1			3			0	0	0	0	144.8	9.4	12.0	55.5
Jun 12	6			2			0	0	0	1	142.5	9.3	12.0	55.6
Jun 13	6			0			0	1	1	0	134.8	9.1	9.0	55.7
Jun 14	13			5			1	3	3	0	165.1	10.0	14.0	55.8
Jun 15	5			10			2	0	0	0	153.8	10.0	9.0	56.0
Jun 16	6			6			10	2	2	0	128.1	8.1	9.0	56.1
Jun 17	42			3			13	3	3	0	141.9	8.6	7.0	56.2
Jun 18	23			0			11	3	2	0	141.2	8.4	7.0	56.5
Jun 19	23			0			17	3	3	0	130.0	8.5	12.0	56.9
Jun 20	182			4			50	0	0	0	135.1	9.0	12.0	57.7
Jun 21	31			2			82	3	2	0	156.6	9.4	13.0	58.4
Jun 22	39			4			111	4	4	0	149.5	9.1	16.0	58.4
Jun 23	405			3			160	6	6	0	104.5	7.8	16.0	59.1
Jun 24	257			4			198	2	2	0	108.8	7.6	16.0	59.7
Jun 25	50			1			202	1	1	0	121.5	7.9	13.0	59.5
Jun 26	447			15			356	2	2	0	121.7	7.8	15.0	59.9
Jun 27	277			25			798	2	2	1	101.3	7.6	9.0	60.2
Jun 28	293			19			933	4	4	1	149.9	8.6	9.0	59.9
Jun 29		258		7			1,098	0	0	1	168.6	10.0	13.0	60.0
Jun 30		1143		6			2,085	6	5	0	148.3	10.0	12.0	59.5
TOTAL	2,435	1,401		154			6,127	56	52	5				
AVG.	87	701		5			204	2	2		132.3	8.6	11.4	56.8
RUN YEAR														
TOTALS TO DATE														
SPRING														
SUMMER														
TOTAL														

	CHINOOK ADULT	CHINOOK JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
TOTALS TO DATE						
SPRING	4,615	178				
SUMMER	1,401	113				
TOTAL	6,016	1191				

TABLE 172

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

WELLS PROJECT
JULY 2004

FISH COUNTS

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY			
	SPRING	SUMMER	FALL										SECCHI	DEG F		
Jul 1		782		35			3,076	4	4	0	109.7	7.5	10.0	60.0		
Jul 2		1,536		28			5,095	9	9	6	112.7	8.1	11.0	60.3		
Jul 3		826		38			4,272	6	6	0	100.0	7.4	11.0	60.5		
Jul 4		1,289		36			4,323	9	9	0	84.2	6.2	14.0	61.2		
Jul 5		1,147		25			3,463	6	6	3	118.4	7.7	14.0	61.2		
Jul 6		1,090		42			4,361	21	15	1	125.7	7.8	14.0	61.0		
Jul 7		777		54			4,915	10	10	1	131.1	8.1	14.0	59.8		
Jul 8		197		12			3,839	4	3	0	129.8	7.9	14.0	60.3		
Jul 9		1,298		46			4,163	16	12	0	111.4	7.7	14.0	60.7		
Jul 10		1,498		42			3,287	26	20	2	95.2	7.8	14.0	60.3		
Jul 11		548		27			3,195	22	18	0	108.3	7.5	12.0	59.9		
Jul 12		649		22			2,450	24	20	2	129.6	8.2	14.0	60.5		
Jul 13		440		14			2,057	40	18	0	125.8	7.7	14.0	61.1		
Jul 14		381		24			1,979	40	33	2	113.8	7.3	14.0	61.5		
Jul 15		903		38			2,582	31	22	1	93.2	7.1	15.0	62.3		
Jul 16		162		10			1,345	16	14	1	94.2	6.7	13.0	62.7		
Jul 17		1,095		41			1,952	27	24	4	81.8	6.3	15.0	62.7		
Jul 18		1,540		34			2,283	43	35	5	90.9	6.9	15.0	62.6		
Jul 19		301		10			1,784	23	23	8	91.6	6.7	15.0	62.7		
Jul 20		155		3			1,614	23	14	4	72.8	5.9	15.0	63.0		
Jul 21		1,309		31			1,801	74	46	0	85.6	6.7	11.0	63.3		
Jul 22		1,135		31			1,544	32	26	7	82.9	6.7	13.0	63.5		
Jul 23		268		30			1,221	22	17	3	89.8	6.9	13.0	64.3		
Jul 24		373		29			945	47	36	3	79.4	6.1	13.0	64.3		
Jul 25		446		19			627	28	24	1	61.4	4.9	16.0	64.2		
Jul 26		513		12			704	60	44	6	98.9	6.9	15.0	64.2		
Jul 27		630		16			490	34	30	0	95.7	7.1	14.0	63.9		
Jul 28		855		11			358	58	35	0	113.0	7.3	14.0	64.2		
Jul 29		792		10			194	56	40	2	111.4	7.6	14.0	63.7		
Jul 30		396		21			257	52	39	3	105.8	7.3	7.0	64.3		
Jul 31		387		28			191	53	40	3	101.2	7.1	16.0	64.8		
TOTAL		23,718		819			70,367	916	692	68						
AVG.		765		26			2270	30	22		101.5	7.1	13.5	62.2		
RUN YEAR																
TOTALS TO DATE		CHINOOK ADULT		CHINOOK JACK			SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY						
SPRING		4,615		178			76,494	1,046	794	79						
SUMMER		25,119		1,832												
TOTAL		29,734		1,010												

TABLE 173

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

WELLS PROJECT
AUGUST 2004
RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Aug 1		100		13			144	24	16	3	81.8	6.3	15.0	64.8
Aug 2		544		19			229	66	49	2	85.3	6.3	13.0	65.2
Aug 3		180		15			114	58	49	1	90.6	6.6	11.0	65.5
Aug 4		342		16			108	45	32	2	95.7	7.0	11.0	65.4
Aug 5		161		21			103	30	25	3	76.0	6.0	15.0	65.4
Aug 6		323		26			118	75	57	4	62.3	5.8	15.0	65.2
Aug 7		713		63			109	66	49	6	56.0	5.4	15.0	65.1
Aug 8		638		40			118	63	42	6	65.1	5.3	13.0	65.6
Aug 9		282		23			44	45	29	6	101.3	7.3	13.0	66.2
Aug 10		118		17			40	29	20	4	109.7	7.7	12.0	65.2
Aug 11		196		17			20	35	26	3	108.7	7.5	13.0	65.1
Aug 12		218		14			15	83	51	9	104.1	7.5	13.0	65.4
Aug 13		117		22			15	51	35	13	105.1	7.3	13.0	66.2
Aug 14		273		10			9	50	25	3	86.4	6.6	12.0	66.7
Aug 15		487		38			28	56	33	6	86.9	6.4	15.0	67.1
Aug 16		129		8			29	46	40	6	105.5	7.2	15.0	67.2
Aug 17		221		19			25	49	38	4	107.4	7.4	15.0	67.0
Aug 18		94		17			14	40	32	3	112.5	7.5	15.0	67.0
Aug 19		223		18			20	45	26	0	110.1	7.8	13.0	67.3
Aug 20		252		21			19	59	46	2	113.9	7.9	11.0	67.4
Aug 21		128		13			13	53	35	11	74.2	5.7	11.0	67.2
Aug 22		154		26			24	119	67	11	42.9	3.7	15.0	67.2
Aug 23		56		18			11	58	40	5	86.4	6.6	15.0	67.4
Aug 24		34		7			16	26	16	1	83.6	6.5	15.0	67.3
Aug 25		28		5			14	18	12	7	104.9	7.8	14.0	67.1
Aug 26		108		12			20	67	46	8	111.1	7.9	7.0	65.9
Aug 27		129		13			9	79	44	5	115.3	0.0	7.0	66.6
Aug 28		107		10			14	94	41	3	104.0	0.0	7.0	66.9
Aug 29			267	22			16	90	57	6	97.5	0.0	11.0	67.2
Aug 30			244	20			5	48	29	5	128.4	0.0	15.0	67.7
Aug 31			130	9			3	42	31	4	155.6	8.7	14.0	67.9
TOTAL		6,355	641	592			1,466	1,709	1,138	152				
AVG.		227	214	19			47	55	37	5	95.8	5.9	12.9	66.4
RUN YEAR														
TOTALS TO DATE		CHINOOK ADULT	CHINOOK JACK		COHO		SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY				
SPRING		4,615	178		0		77,960	2,755	1,932	231				
SUMMER		31,474	1,373											
FALL		641	151											
TOTAL		36,730	1,602											

TABLE 174

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

WELLS PROJECT
 SEPTEMBER 2004

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Sep 1			29	9	0		2	39	26	4	100.1	6.7	13.0	67.2
Sep 2			171	23	0		8	77	47	9	88.6	0.0	14.0	67.3
Sep 3			115	10	0		4	73	41	8	61.3	0.0	14.0	67.4
Sep 4			147	19	0		11	68	45	9	53.9	0.0	14.0	67.3
Sep 5			151	16	0		1	55	37	7	58.7	0.0	16.0	67.5
Sep 6			242	13	0		11	114	70	10	70.9	0.0	16.0	67.3
Sep 7			294	16	0		11	76	50	20	94.8	0.0	6.0	67.3
Sep 8			179	14	0		10	104	62	9	88.6	0.0	14.0	67.3
Sep 9			263	6	0		6	214	90	6	94.2	0.0	14.0	66.6
Sep 10			337	19	0		0	207	113	4	83.2	0.0	14.0	66.7
Sep 11			204	12	0		4	221	108	3	71.4	0.0	14.0	67.0
Sep 12			53	2	0		2	175	89	5	50.4	0.0	14.0	67.0
Sep 13			92	14	0		3	54	20	5	66.0	0.0	14.0	66.8
Sep 14			146	17	0		2	148	90	1	58.8	0.0	14.0	66.4
Sep 15			142	12	0		0	177	103	1	58.9	0.0	14.0	66.5
Sep 16			36	11	0		4	231	120	5	68.3	0.0	14.0	66.2
Sep 17			66	14	0		1	303	177	9	71.0	0.0	14.0	66.2
Sep 18			296	25	0		0	283	154	4	56.5	0.0	14.0	66.0
Sep 19			70	39	3		0	412	197	1	42.1	0.0	14.0	65.7
Sep 20			64	14	1		3	201	112	3	69.5	0.0	14.0	65.3
Sep 21			74	6	3		0	313	145	2	93.5	0.0	14.0	65.2
Sep 22			78	16	0		1	159	83	3	95.8	0.0	13.0	65.3
Sep 23			45	10	3		0	182	98	1	103.0	0.0	15.0	65.5
Sep 24			43	13	4		0	286	161	0	93.0	0.0	14.0	65.7
Sep 25			60	9	6		0	150	81	3	67.6	0.0	15.0	66.0
Sep 26			62	14	7		0	129	77	1	58.5	0.0	15.0	66.1
Sep 27			45	9	3		1	111	53	0	91.6	0.0	15.0	66.2
Sep 28			82	7	5		2	158	92	1	89.8	0.0	15.0	66.4
Sep 29			21	5	6		0	86	55	1	78.5	0.0	14.0	66.4
Sep 30			53	8	5		0	233	145	4	94.1	0.0	14.0	66.0
TOTAL			3,660	402	46		87	5,039	2,741	139				
AVG.			122	13	2		3	168	91	5	75.8	0.2	14.0	66.5

RUN YEAR

TOTALS TO DATE

	CHINOOK ADULT	CHINOOK JACK
SPRING	4,615	178
SUMMER	31,474	1,373
FALL	4,301	453
TOTAL	40,390	2,004

COHO ADULTS
46

SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
78,047	7,794	4,673	370

TABLE 175

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

WELLS PROJECT
OCTOBER 2004
RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	RIVER CONDITIONS			
	SPRING	SUMMER	FALL								DISCH KCFS	SPILL KCFS	TURBIDITY SECCHI	DEG F
Oct 1			43	3	1		0	112	50	2	89.0	0.0	15.0	65.5
Oct 2			7	3	8		0	86	50	2	71.7	0.0	15.0	65.3
Oct 3			11	4	4		0	60	30	0	56.4	0.0	15.0	65.1
Oct 4			44	6	8		0	78	43	1	82.2	0.0	15.0	64.9
Oct 5			9	5	2		0	77	47	0	87.1	0.0	14.0	64.8
Oct 6			10	5	5		0	62	36	0	97.3	0.0	15.0	64.8
Oct 7			21	2	8		0	71	41	0	91.4	0.0	14.0	64.6
Oct 8			25	3	6		0	75	42	1	75.7	0.0	14.0	64.1
Oct 9			43	5	11		2	35	24	3	58.5	0.0	14.0	63.8
Oct 10			47	6	12		2	60	31	4	50.3	0.0	15.0	63.6
Oct 11			53	2	15		1	85	43	1	70.5	15.0	14.0	63.3
Oct 12			44	0	24		0	60	37	0	89.3	25.5	15.0	63.3
Oct 13			42	2	7		1	34	22	3	87.0	0.1	14.0	63.3
Oct 14			34	7	4		0	24	13	1	88.7	0.0	13.0	63.1
Oct 15			44	2	5		0	29	23	4	68.4	0.0	14.0	62.7
Oct 16			28	0	0		0	27	14	3	61.6	0.0	14.0	62.4
Oct 17			22	1	1		0	16	10	0	60.0	0.0	13.0	62.1
Oct 18			11	2	10		0	23	16	1	100.1	0.0	14.0	61.5
Oct 19			22	4	1		0	15	10	0	102.0	0.0	14.0	61.2
Oct 20			20	3	7		0	78	56	2	104.1	0.0	12.0	61.0
Oct 21			25	0	6		0	55	46	0	87.6	0.0	14.0	60.7
Oct 22			22	0	7		0	41	28	0	68.5	0.0	15.0	60.5
Oct 23			31	2	5		0	27	16	1	60.8	0.0	14.0	60.2
Oct 24			17	1	4		0	39	19	1	65.5	0.0	14.0	59.6
Oct 25			4	1	7		0	14	10	0	105.9	0.0	14.0	59.2
Oct 26			29	1	1		0	17	16	0	94.0	0.0	14.0	59.2
Oct 27			42	1	2		0	21	13	0	82.5	0.0	15.0	58.9
Oct 28			70	3	12		0	20	9	0	93.9	0.0	14.0	58.6
Oct 29			15	1	2		0	11	8	0	84.9	0.0	12.0	58.6
Oct 30			16	1	7		0	17	8	1	62.0	0.0	12.0	58.5
Oct 31			13	3	10		0	32	21	2	59.2	0.0	13.0	58.0
TOTAL			864	79	202		6	1401	832	33				

AVG.	28	3	7	0	45	27	1	79.2	1.3	14.0	62.0
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RUN YEAR	CHINOOK ADULT	CHINOOK JACK
	TOTALS TO DATE	
SPRING	4,615	178
SUMMER	31,474	1,373
FALL	5,165	532
TOTAL	41,254	2,083

COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
248	0	78,053	9,195	5,505	403

TABLE 176

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

WELLS PROJECT
 NOVEMBER 2004

RIVER CONDITIONS

DATE	CHINOOK ADULT			CHINOOK JACK	COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY	DISCH KCFS	SPILL KCFS	TURBIDITY	
	SPRING	SUMMER	FALL										SECCHI	DEG F
Nov 1			16	0	3			12	4		88.1	0.0	13.0	57.4
Nov 2			12	0	5			20	17		95.0	0.0	14.0	57.6
Nov 3			10	0	5			3	3		92.3	0.0	13.0	57.7
Nov 4			4	0	6			10	9		94.8	0.0	13.0	57.4
Nov 5			12	0	7			10	9		87.6	0.0	13.0	57.4
Nov 6			0	0	2			9	8		68.8	0.0	13.0	57.3
Nov 7			3	0	5			11	9		56.1	0.0	15.0	57.0
Nov 8			3	0	4			7	6		89.2	0.0	11.0	56.8
Nov 9			3	0	2			8	4		98.7	0.0	14.0	56.8
Nov 10			2	0	2			4	3		98.4	0.0	14.0	56.9
Nov 11			5	0	0			7	6		96.3	0.0	14.0	56.6
Nov 12			4	0	0			11	9		109.0	0.0	15.0	56.2
Nov 13			5	0	1			6	4		85.5	0.0	15.0	56.0
Nov 14			0	0	1			3	3		52.3	0.0	15.0	55.7
Nov 15			1	0	0			1	1		96.5	0.0	13.0	55.4
Nov 16											103.3	0.0	*	*
Nov 17											102.6	0.0	*	*
Nov 18											103.2	0.0	*	*
Nov 19											114.1	0.0	*	*
Nov 20											109.4	0.0	*	*
Nov 21											78.8	0.0	*	*
Nov 22											108.3	0.0	*	*
Nov 23											100.3	0.0	*	*
Nov 24											84.8	0.0	*	*
Nov 25											39.5	0.0	*	*
Nov 26											54.7	0.0	*	*
Nov 27											83.7	0.0	*	*
Nov 28											94.9	0.0	*	*
Nov 29											126.9	0.0	*	*
Nov 30											115.3	0.0	*	*

TOTALS		80	0	43				122	95					
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AVG.		5	0	3				8	6		90.9	0.0	13.7	56.8
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RUN YEAR	CHINOOK		COHO ADULT	COHO JACK	SOCKEYE	STEELHEAD	WILD STEELHEAD	LAMPREY
	TOTALS TO DATE	ADULT						
SPRING	4,615	178	291	0	78,053	9,317	5,600	403
SUMMER	31,474	1,373						
FALL	5,245	532						
TOTAL	41,334	2,083						

*Data unavailable.

TABLE 177

**MONTHLY COUNT OF STEELHEAD
WELLS DAM: 1976 - 2004**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1976					44	37	56	530	1964	1856	156		4643
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
TOTAL					1,886	1,231	12,645	47,445	87,507	47,460	8,255		206,429
10-Year Average					28	18	381	1,553	2,827	1,175	153		6,121

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

ADDENDUM
Corrections to previous reports

DATE	PROJECT	FISH SPECIES	COUNT	OTHER TABLES AFFECTED
January 1992- November 2002	Priest Rapids	All		See https://www.nwp.usace.army.mil/op/fishdata/ for data All Priest Rapids tables, Tables 2 and 4
Annual Fish Passage Report 2003	The Dalles, John Day, McNary, Ice Harbor, Lower Monumental, Little Goose, and Lower Granite	Steelhead		Table 3 "Total" and "10-year Average" numbers corrected. See following table.

TABLE 3

STEELHEAD OVER COLUMBIA AND SNAKE RIVER DAMS 1953 - 2003

BY RUN-YEAR (JUNE 1 - MAY 31)

RUN-YEAR	THE DALLES	JOHN DAY	MCNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE**	LOWER GRANITE
1953-54			8,252 *				
1954-55			72,913				
1955-56			84,434				
1956-57	3,531 *		40,660				
1957-58	128,124		105,136				
1958-59	120,170		87,413				
1959-60	155,892		111,288				
1960-61	110,955		95,556				
1961-62	134,740		104,679	9,474 *			
1962-63	163,125		163,333	108,186			
1963-64	118,899		113,676	76,788			
1964-65	110,509		99,872	58,025			
1965-66	142,376		120,469	62,566			
1966-67	144,267		144,461	64,987			
1967-68	122,231	6,598 *	83,948	47,536			
1968-69	147,844	122,649	107,806	85,273	16,240 *		
1969-70	111,617	81,623	74,933	58,172	63,269	9,256 *	
1970-71	99,319	81,238	68,598	54,445	58,430	54,257	
1971-72	151,329	117,402	110,450	66,196	68,704	70,867	
1972-73	135,730	149,704	95,837	63,584	66,650	63,033	
1973-74	100,924	93,951	62,158	37,245	38,288	37,099	
1974-75	71,336	40,868	26,191	12,170	14,851	13,818	2,789 *
1975-76	57,695	33,640	25,150	15,895	17,236	15,177	16,592
1976-77	83,194	59,368	54,409	24,140	21,801	21,109	22,562
1977-78	133,096	102,193	86,962	54,911	48,160	47,617	57,029
1978-79	58,995	43,554	34,580	27,252	19,849	24,050	26,473
1979-80	86,317	59,825	54,213	26,790	20,073	23,816	28,758
1980-81	93,309	77,113	63,957	47,778	32,599	36,680	37,996
1981-82	112,265	96,663	62,955	43,274	37,755	36,896	42,420
1982-83	116,178	105,438	72,246	70,236	60,775	**	72,384
1983-84	172,033	157,602	126,706	90,030	82,555		88,760
1984-85	221,299	204,595	142,246	101,008	92,947		104,417
1985-86	274,826	245,087	181,635	123,187	104,400		116,147
1986-87	280,671	234,651	193,096	142,273	121,107		129,983
1987-88	219,822	172,290	151,587	77,565	64,717		71,280
1988-89	197,669	163,283	150,361	98,950	81,324		87,137
1989-90	236,584	193,951	170,014	149,361	131,050	**	131,420
1990-91	128,123	107,117	94,522	54,370	44,518	1,070	56,865
1991-92	199,244	158,790	168,156	122,874	97,454	96,421	99,052
1992-93	233,430	197,715	197,739	166,654	136,820	118,949	128,265
1993-94	123,449	94,080	90,359	68,568	65,883	58,747	59,768
1994-95	111,378	92,362	92,568	49,450	48,231	46,258	47,302
1995-96	146,152	123,319	114,813	91,938	89,953	77,417	79,126
1996-97	162,447	156,924	124,820	101,384	96,785	82,573	86,898
1997-98	164,657	159,442	129,772	104,220	85,959	74,845	86,617
1998-99	116,262	156,628	98,606	84,135	65,173	62,641	70,721
1999-00	157,062	165,239	84,413	84,253	73,135	65,505	73,811
2000-01	205,801	219,433	131,330	126,989	113,454	102,074	116,490
2001-02	504,704	489,215	401,881	286,874	298,042	270,031	269,281
2002-03	389,119	393,339	292,034	222,199	230,466	214,586	234,815
Total	7,258,699	5,156,889	5,573,193	3,461,205	2,708,653	1,724,792	2,445,158
10-Year Average	217,509	217,322	163,360	127,938	122,355	110,659	118,340

Extended 1996-2001 count seasons, using video counts November 1-December 15, at Ice Harbor and Lower Granite dams are included.

Extended 2001 video counts November 1 - December 31 at Lower Monumental and Little Goose are included

Extended 2002 video counts November 1 - December 15 at Ice Harbor are included.

Extended 2002 video counts January, February, and March at Lower Monumental and Little Goose are included.

Extended 2002 video counts for November and December at Lower Monumental, Little Goose, and Lower Granite are included.

Extended 2003 video counts January 1 - March 31 at Lower Monumental and Little Goose are included