

STATE OF WASHINGTON  
DEPARTMENT OF FISHERIES  
SALMON CULTURE DIVISION

FINAL

1991 HATCHERY RACK ESCAPEMENT

NANCY MIKKELSEN

JUNE 1992

1991 ESCAPEMENT TOTALS

SPECIES	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPSTR	
				ADULTS	JACKS	ADULTS	JACKS
SPRING CHINOOK	11,002	7,882	11,423,218	551	1,009	10,451	6,873
SUMMER CHINOOK	2,172	100	5,183,737	130	11	2,042	89
SPRINGS+SUMMER	13,174	7,982	16,606,955	681	1,020	12,493	6,962
FALL CHINOOK	68,837	8,626	121,511,899	2,085	1,179	66,752	7,447
COHO	403,529	23,830	162,040,705	105,947	4,969	297,582	18,861
CHUM	121,314	0	52,735,600	12,520	0	108,794	0
PINKS	16,437	0	2,650,500	12,370	0	4,067	0
SOCKEYE	4,883	6	2,565,700	3,831	3	1,052	3
GRAND TOTAL	628,174	40,444	358,111,359	137,434	7,171	490,740	33,273

1991 SPRING & SUMMER CHINOOK ESCAPEMENT

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPSTRM	
					ADULTS	JACKS	ADULTS	JACKS
NOOKSACK SKAGIT	SPRINGS	151	179	243,500	0	0	151	179
	SPRING-CLARK	386	101	815,461	0	0	386	101
	SUMMERS-CLRK	402	24	1,113,737	0	0	402	24
SKYKOMISH	SUMMERS	218	9	462,900	0	0	218	9
✓ SUNSET FALLS	SUMMERS	130	11	0	130	11	0	0
HUPP SPS	SPRINGS-MINT	232	22	348,500	0	0	232	22
	SPRINGS-SSNP	987	0	1,232,900	0	0	987	0
SUBTOTAL	SPRINGS	1,756	302	2,640,361	0	0	1,756	302
	SUMMERS	750	44	1,576,637	130	11	620	33
SOLEDUCK	SPRINGS	1,042	57	940,100	233	33	809	24
	SPRINGS-DUNG	5	0	8,600	0	0	5	0
SUBTOTAL	SPRINGS	1,042	57	940,100	233	33	809	24
	SUMMERS	5	0	8,600	0	0	5	0
COWLITZ	SPRINGS	5,384	5,483	3,767,000	0	762	5,384	4,721
TOUTLE	SPRINGS	7	0	0	7	0	0	0
KALAMA FLS	(1) SPRINGS	1,181	107	1,352,600	176	100	1,005	7
LEWIS RIVER	(2) SPRINGS	596	133	0	0	72	596	61
SPEELYAI	SPRINGS-LEWIS	0	0	1,196,000	0	0	0	0
	SPRINGS-KALAM	0	0	201,000	0	0	0	0
KLICKITAT	SPRINGS	552	1,700	911,000	0	0	552	1,700
LYON'S FERRY	SPRINGS-TUCAN	223	88	91,275	135	42	88	46
EASTBANK	(3) SPRINGS-CHIWA	33	0	62,600	0	0	33	0
	SPRINGS-RNGLD	0	0	261,282	0	0	0	0
WELLS DAM	(4) SUMS-WENATCH	128	1	234,700	0	0	128	1
	SUMMERS	1,289	55	3,363,800	0	0	1,289	55
RINGOLD	(5) SPRINGS	228	12	0	0	0	228	12
SUBTOTAL	SPRINGS	8,204	7,523	7,842,757	318	976	7,886	6,547
	SUMMERS	1,417	56	3,598,500	0	0	1,417	56
GRAND TOTAL	SPRINGS	11,002	7,882	11,423,218	551	1,009	10,451	6,873
GRAND TOTAL	SUMMERS	2,172	100	5,183,737	130	11	2,042	89

\* Additional escapement upstream observed but not enumerated by hatchery personnel

(1) Includes 147A and 2J shipped to and spawned at Speelyai

(2) All fish shipped to and spawned at Speelyai

(3) All trapped in Chiwawa River

(4) Some trapped at Dryden and Tumwater dams, some seined on the Wenatchee River and Dryden canal; all hauled to Eastbank hatchery

(5) All fish shipped to and spawned at Eastbank

1991 FALL CHINOOK ESCAPEMENT

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPSTR	
					ADULTS	JACKS	ADULTS	JACKS
GLENWOOD SPRINGS		43	246	90,000	0	0	43	246
NOOKSACK		708	204	1,298,420	0	0	708	204
SAMISH		8,708	549	18,440,700	9	7	8,699	542
SKAGIT	CLARK CR	513	68	1,043,500	0	0	513	68
BAKER R TRAP		169	0	0	169	0	0	0
SKYKOMISH		332	24	482,700	0	0	332	24
✓ SUNSET FALLS		285	26	0	285	26	0	0
ISSAQUAH		1,489	51	1,562,900	20	0	1,469	51
GREEN RIVER		4,813	136	8,084,800	0	0	4,813	136
PUYALLUP		1,273	55	2,280,100	0	0	1,273	55
GARRISON		630	2,150	1,374,000	0	830	630	1,320
MCALLISTER		772	191	1,030,100	178	85	594	106
DESCHUTES		7,076	177	11,274,800	325	103	6,751	74
	PERCIVAL	500	0	0	500	0	0	0
MINTER CREEK		3,121	20	4,163,900	8	0	3,113	20
COULTER CREEK		1,698	6	3,422,200	0	0	1,698	6
GEORGE ADAMS		3,068	255	7,342,200	0	0	3,068	255
HOOD CANAL		2,567	987	5,220,300	0	0	2,567	987
ELWHA CHAN		1,886	42	4,781,000	75	0	1,811	42
SUBTOTAL		39,651	5,187	71,891,620	1,569	1,051	38,082	4,136
SOLEDUCK		13	3	19,400	0	0	13	3
✓ SHALE CREEK	QUEETS-CL	169	8	392,200	7	0	162	8
HUMPTULIPS		95	21	81,000	0 *	0	95	21
SIMPSON	(1)	41	0	0	0	0	41	0
	CHEHALIS	108	0	169,500	0	0	108	0
SATSOP SPR	(2)	171	0	292,500	0	0	171	0
WILLAPA		4,303	332	5,623,100	50	0	4,253	332
NEMAH		996	98	2,160,000	1	1	995	97
NASELLE		6,250	809	9,372,000	14 *	0	6,236	809
SUBTOTAL		12,146	1,271	18,109,700	72	1	12,074	1,270
GRAYS RIVER		243	7	183,500	118	0	125	7
ELOKOMIN	(3)	1,560	21	2,240,700	0	0	1,560	21
COWLITZ		3,549	184	6,911,000	0	0	3,549	184
TOUTLE		360	7	856,300	10	1	350	6
LOWER KALAMA		887	50	826,800	0	0	887	50
KALAMA FALLS		2,400	141	5,607,400	309	126	2,091	15
LEWIS RIVER		9	0	0	7	0	2	0
WASHOUGAL		3,877	58	5,182,100	0	0	3,877	58
KLICKITAT	URB'S	36	1	34,500	0	0	36	1
LYONS FERRY		1,366	593	3,003,879	0	0	1,366	593
PRIEST RAPIDS		2,636	1,088	6,338,000	0	0	2,636	1,088
WELLS		117	18	326,400	0	0	117	18
SUBTOTAL		17,040	2,168	31,510,579	444	127	16,596	2,041
GRAND TOTAL		68,837	8,626	121,511,899	2,085	1,179	66,752	7,447

\* Additional escapement upstream observed but not enumerated by hatchery personnel

(1) These are mortalities; 76M, 20F shipped to Satsop Springs

(2) Includes the 76M, 20F received from Simpson

(3) Includes 4M, 26F Rogue River stock shipped to Oregon, 20M, 9F killed, and 25M, 11F mortalities

1991 COHO ESCAPEMENT

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPSTRM	
					ADULTS	JACKS	ADULTS	JACKS
NOOKSACK		6,744	5,696	7,107,800	0	0	6,744	5,696
SAMISH		10,124	654	48,000	10,098	654	26	0
SKAGIT	BAKER	34	5	52,600	0	0	34	5
	CLARK	2,848	148	2,628,900	0	0	2,848	148
BAKER R TRAP		1,796	0	0	1,796	0	0	0
SKYKOMISH		16,183	15	13,414,900	800 *	0	15,383	15
SUNSET FALLS		9,115	157	0	9,115	157	0	0
ISSAQUAH		4,853	593	3,655,450	501	65	4,352	528
GREEN RIVER		11,010	76	9,133,760	3,048	0	7,962	76
PUYALLUP		14,955	2,277	8,132,980	700	10	14,255	2,267
GARRISON SPS		1,914	418	29,000	1,828	374	86	44
MINTER CREEK		13,056	1,702	7,441,200	1,278	50	11,778	1,652
DESCHUTES	WILD	1,978	94	0	1,866	73	112	21
GEORGE ADAMS		3,381	18	2,073,700	0	0	3,381	18
	CAPILANO	53	9	0	0	0	53	9
HOOD CANAL	CAPILANO	608	66	220,000	0	0	608	66
DUNGENESS		2,016	33	2,032,900	0	0	2,016	33
							0	0
SUBTOTAL		100,668	11,961	55,971,190	31,030	1,383	69,638	10,578
							0	0
SOLEDUCK	SUMMER	9,877	585	401,400	0 *	0	9,877	585
	FALL	7,342	118	3,246,300	0 *	0	7,342	118
SHALE CREEK		66	43	0	66	43	0	0
	CLEARWT	307	1	212,500	0	0	307	1
	QUEETS	194	0	140,000	0	0	194	0
HUMPTULIPS		28,498	417	18,333,640	0 *	0	28,498	417
SIMPSON		36,197	112	17,315,900	2,800 *	0	33,397	112
	LATES	1,767	3	1,222,700	933 *	3	834	0
	(1) BINGHAM	5,276	135	0	4,815	104	461	31
SATSOP SPR		12,736	118	3,041,575	75	0	12,661	118
	LATES	218	0	302,000	40	0	178	0
WILLAPA		20,624	145	7,339,300	1,970	0	18,654	145
NEMAH		10,029	134	1,151,000	5,169	90	4,860	44
NASELLE		31,685	892	9,185,000	2,783	98	28,902	794
							0	0
SUBTOTAL		164,816	2,703	61,891,315	18,651	338	146,165	2,365

\* Additional escapement upstream observed but not enumerated by hatchery personnel

Continued...

1991 COHO ESCAPEMENT

1991 COHO continued

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPSTRM	
					ADULTS	JACKS	ADULTS	JACKS
GRAYS RIVER	TYPE-S	3,403	60	1,573,700	1,521	5	1,882	55
ELOKOMIN	TYPE-S	7,313	56	3,340,200	2,000 *	0	5,313	56
	TYPE-N	9,700	10	1,849,900	3,941 *	0	5,759	10
COWLITZ	TYPE-N	46,303	4,991	9,809,000	25,674	2,986	20,629	2,005
TOUTLE	TYPE-S	13,374	248	3,155,800	9,283 *	12	4,091	236
LOWER KALAMA	TYPE-S	4,108	154	3,833,800	155	10	3,953	144
KALAMA FALLS	TYPE-S	342	27	32,000	160	22	182	5
	TYPE-N	2,868	52	327,500	114	3	2,754	49
LEWIS RIVER(2)	TYPE-S	16,433	199	3,738,400	7,178	0	9,255	199
(3)	TYPE-N	24,885	3,011	10,567,900	3,790	0	14,449	3,011
SPEELYAI	TYPE-S	0	0	1,683,000	0	0	0	0
WASHOUGAL	TYPE-N	9,316	358	4,267,000	2,450	210	6,866	148
SUBTOTAL		138,045	9,166	44,178,200	56,266	3,248	81,779	5,918
GRAND TOTAL		403,529	23,830	162,040,705	105,947	4,969	297,582	18,861

\* Additional escapement upstream observed but not enumerated by hatchery personnel

- (1) A total of 13 females were taken to Simpson hatchery and spawned there
- (2) In addition, an estimated 13,128 adults went upstream during closure of trap
- (3) In addition, an estimated 21,335 adults went upstream during closure of trap

1991 CHUM ESCAPEMENT

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPSTR	
					ADULTS	JACKS	ADULTS	JACKS
NOOKSACK	(1)	642	0	726,500	0	0	642	0
SKAGIT		4	0	2,000	0	0	4	0
SUNSET FALLS		16	0	0	16	0	0	0
DESCHUTES	PERCIVAL(2)	21	0	0	21	0	0	0
GARRISON SPS	CHAMBERS	2,328	0	651,400	1,861	0	467	0
MINTER CREEK	(3)	9,569	0	0	0	0	9,569	0
COULTER CREEK		1,479	0	1,217,000	200 *	0	1,279	0
GEORGE ADAMS		12,327	0	5,578,200	0	0	12,327	0
SHELTON	JOHN'S CR	3,741	0	2,043,000	400	0	3,341	0
MCKERNAN		7,141	0	3,176,400	0	0	7,141	0
HOOD CANAL		72,987	0	38,235,000	500	0	72,487	0
SUBTOTAL		110,255	0	51,629,500	2,998	0	107,257	0
NEMAH		9,565	0	1,106,100	8,075	0	1,490	0
NASELLE		1,494	0	0	1,447 *	0	47	0
SUBTOTAL		11,059	0	1,106,100	9,522	0	1,537	0
GRAND TOTAL		121,314	0	52,735,600	12,520	0	108,794	0

\* Additional escapement upstream observed but not enumerated by hatchery personnel

(1) Includes fish returning to hatchery and taken from river

(2) Fish counted and passed up Percival Creek

(3) Fish sacrificed; introduction of new stock

1991 PINK ESCAPEMENT

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPST	
					ADULTS	JACKS	ADULTS	JACKS
BAKER R TRAP		80	0	0	80	0	0	0
SKYKOMISH		447	0	318,600	0	0	447	0
SUNSET FALLS		12,290	0	0	12,290	0	0	0
PUYALLUP	VOIGHTS	21	0	12,000	0	0	21	0
GARRISON		26	0	22,400	0	0	26	0
MINTER CREEK		286	0	140,500	0	0	286	0
HOOD CANAL		3,287	0	2,157,000	0	0	3,287	0
TOTAL		16,437	0	2,650,500	12,370	0	4,067	0

1991 SOCKEYE ESCAPEMENT

HATCHERY	STOCK	ADULTS	JACKS	EGGS TAKEN	UPSTREAM		ESC MINUS UPST	
					ADULTS	JACKS	ADULTS	JACKS
CEDAR RIVER	CEDAR R (1)	787	0	2,326,900	0	0	787	0
BAKER R TRAP		481	0	0	481	0	0	0
SUNSET FALLS		41	0	0	41	0	0	0
GARRISON	CHAMBERS	45	6	0	13	3	32	3
SUBTOTAL		1,354	6	2,326,900	535	3	819	3
LK WENATCH N P	(2)	3,529	0	238,800	3,296	0	233	0
SUBTOTAL		3,529	0	238,800	3,296	0	233	0
GRAND TOTAL		4,883	6	2,565,700	3,831	3	1,052	3

(1) Fish taken from river and spawned; eggs incubated at Cedar River incubation facility and released there

(2) Fish trapped at Tumwater Dam and taken to Lake Wenatchee Net Pens; eggs incubated at Eastbank, fry returned to net pens