

SYSTEM OPERATIONAL REQUEST: #2000-29

- *The following State and Federal Salmon Managers have participated in the preparation and support this SOR: Oregon Department of Fish & Wildlife, U.S. Fish & Wildlife Service, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and the Idaho Department of Fish & Game.*

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FROM: **Marv Yoshinaka, Chairperson, Salmon Managers**

DATE: **August 8, 2000**

SUBJECT: **McNary Flow Target and Grand Coulee Reservoir Elevation**

GOAL: **To provide flow augmentation to improve conditions for migrating juvenile fall chinook in the Lower Columbia River**

SPECIFICATIONS:

Draft Grande Coulee Reservoir to a minimum elevation of 1,281 feet as needed to try to meet a weekly flow objective of 160 Kcfs at McNary for the week ending August 20th.

JUSTIFICATION:

Flows at McNary Dam for the week ending August 20 are projected to be significantly below the Biological Opinion flow target of 200 Kcfs. Fish mitigation and water quality have been constrained by available water throughout the year 2000 subyearling fish migration. Significant numbers of subyearling fall chinook from the Mid Columbia and Snake Rivers continue to migrate through the Lower Columbia (see attached passage indices). Past years' data suggest that low flows protract the passage distribution by increasing fish travel time and extending the tails of the distribution.

This year conditions continue to deteriorate through August with regard to temperature and flow. The gradual release of water from Grand Coulee only exacerbates present conditions by forcing the fish that are presently in the Lower River to migrate later in August by increasing their travel time. In keeping with past week's recommendations the fishery managers recommend that flows be increased now when fish condition is relatively good and temperatures have not reached their maximum. The objective of this fishery recommendation is to augment flows as much as possible to help move fish out of the system before environmental conditions degrade even further.

Two-Week Summary of Passage Indices
COMBINED YEARLING CHINOOK

07/25/00	---	---	---	---	12	16	24	0	100	50	(
07/26/00	---	---	---	---	40	12	12	1	0	0	
07/27/00	---	---	---	---	70	18	4	3	0	0	
07/28/00	---	---	---	---	56	12	4	0	0	0	
07/29/00	---	---	---	---	32	12	12	0	100	167	
07/30/00	---	---	---	---	10	0	8	0	0	62	
07/31/00	---	---	---	---	5	0	0	1	0	19	
08/01/00	---	---	---	---	20	0	9	0	0	60	
08/02/00	---	---	---	---	25	10	3	0	0	0	
08/03/00	---	---	---	---	85	5	2	0	0	0	
08/04/00	---	---	---	---	54	12	7	0	0	0	
08/05/00	---	---	---	---	66	5	0	1	0	0	
08/06/00	---	---	---	---	30	5	1	0	0	0	
08/07/00	---	---	---	---	42	5	9	0	0	0	
Total:	0	0	0	0	547	112	95	6	200	358	
# Days:	0	0	0	0	14	14	14	14	14	14	
Average:	0	0	0	0	39	8	7	0	14	26	

COMBINED SUBYEARLING CHINOOK

07/25/00	---	---	---	---	1,920	1,576	384	275	49,800	11,220	
07/26/00	---	---	---	---	1,935	2,499	390	206	69,600	7,080	
07/27/00	---	---	---	---	1,420	2,246	568	163	108,900	5,623	
07/28/00	---	---	---	---	2,204	5,262	228	184	84,000	6,178	
07/29/00	---	---	---	---	3,292	1,717	296	199	75,200	5,276	
07/30/00	---	---	---	---	2,470	1,240	152	212	77,400	6,871	
07/31/00	---	---	---	---	2,055	892	368	192	42,600	5,998	
08/01/00	---	---	---	---	2,805	1,415	363	262	51,899	21,296	
08/02/00	---	---	---	---	2,495	1,526	387	339	72,225	27,613	
08/03/00	---	---	---	---	3,285	2,083	405	282	67,887	47,381	
08/04/00	---	---	---	---	4,328	3,570	341	223	57,600	29,829	
08/05/00	---	---	---	---	2,898	2,436	273	216	37,400	7,299	
08/06/00	---	---	---	---	3,120	1,928	272	167	28,950	3,268	
08/07/00	---	---	---	---	4,038	1,790	350	137	23,450	3,601	
Total:	0	0	0	0	38,265	30,180	4,777	3,057	846,911	188,533	
# Days:	0	0	0	0	14	14	14	14	14	14	
Average:	0	0	0	0	2,733	2,156	341	218	60,494	13,467	

COMBINED COHO

07/25/00	---	---	---	---	0	80	42	0	400	66
07/26/00	---	---	---	---	20	84	48	0	550	0
07/27/00	---	---	---	---	0	18	40	0	400	0
07/28/00	---	---	---	---	4	210	32	0	100	0
07/29/00	---	---	---	---	56	66	12	0	300	21
07/30/00	---	---	---	---	20	42	52	0	0	0
07/31/00	---	---	---	---	25	55	20	0	100	57
08/01/00	---	---	---	---	5	40	29	0	0	0
08/02/00	---	---	---	---	5	25	30	0	0	0
08/03/00	---	---	---	---	0	28	22	0	0	70
08/04/00	---	---	---	---	0	40	27	0	0	0
08/05/00	---	---	---	---	24	60	30	0	0	0
08/06/00	---	---	---	---	12	10	22	0	50	52
08/07/00	---	---	---	---	18	30	25	0	0	22
Total:	0	0	0	0	189	788	431	0	1,900	288
# Days:	0	0	0	0	14	14	14	14	14	14
Average:	0	0	0	0	14	56	31	0	136	21

COMBINED STEELHEAD

07/25/00	---	---	---	---	84	48	96	1	100	0
07/26/00	---	---	---	---	115	72	24	4	50	0
07/27/00	---	---	---	---	30	72	52	1	0	0
07/28/00	---	---	---	---	144	146	4	0	0	0
07/29/00	---	---	---	---	244	18	32	1	0	0
07/30/00	---	---	---	---	245	42	16	0	0	0
07/31/00	---	---	---	---	125	30	48	1	0	19
08/01/00	---	---	---	---	135	50	73	0	0	20
08/02/00	---	---	---	---	125	20	76	0	0	0
08/03/00	---	---	---	---	135	32	89	2	0	0
08/04/00	---	---	---	---	354	41	133	0	0	0
08/05/00	---	---	---	---	156	75	83	0	0	0
08/06/00	---	---	---	---	204	15	34	0	0	0
08/07/00	---	---	---	---	294	40	34	0	0	0
Total:	0	0	0	0	2,390	701	794	10	150	39
# Days:	0	0	0	0	14	14	14	14	14	14
Average:	0	0	0	0	171	50	57	1	11	3

COMBINED SOCKEYE

07/25/00	---	---	---	---	0	0	0	7	1,100	100	
07/26/00	---	---	---	---	0	12	0	9	1,400	0	
07/27/00	---	---	---	---	0	0	0	1	500	0	
07/28/00	---	---	---	---	4	0	0	10	900	0	
07/29/00	---	---	---	---	4	0	0	9	1,800	42	
07/30/00	---	---	---	---	0	0	0	9	1,400	103	
07/31/00	---	---	---	---	5	0	0	4	1,000	19	
08/01/00	---	---	---	---	0	0	0	5	1,060	100	
08/02/00	---	---	---	---	15	0	0	4	1,050	331	
08/03/00	---	---	---	---	5	12	0	8	492	704	
08/04/00	---	---	---	---	0	4	0	4	1,100	1041	
08/05/00	---	---	---	---	0	5	0	3	300	103	
08/06/00	---	---	---	---	0	0	0	4	400	0	
08/07/00	---	---	---	---	0	0	0	7	500	22	
Total:	0	0	0	0	33	33	0	84	13,002	2,565	
# Days:	0	0	0	0	14	14	14	14	14	14	
Average:	0	0	0	0	2	2	0	6	929	183	

* See sampling comments <http://www.fpc.org/2000Daily/smpcomments.htm>

These data are preliminary and have been derived from various sources. For verification and/or origin of these data, contact the operators of the Fish Passage Data System at (503) 230-4099.

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's,) subyearling chinook (chinook 0's), steelhead, coho, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, which are collection counts divided by the proportion of water passing through the sampled powerhouse. Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations. The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.

Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts

IMN (Collection) = Imnaha River Trap : Collection Counts

GRN (Collection) = Grande Ronde River Trap : Collection Counts

LEW (Collection) = Snake River Trap at Lewiston : Collection Counts

LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

LEW and WTB data collected for the FPC by Idaho Dept. of Fish and Game.

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.

RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.

LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.

LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.

IMN data collected for the FPC by the Nez Perce Tribe.