



# FISH PASSAGE CENTER

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## MEMORANDUM

TO: Michele DeHart

FROM: David Benner

DATE: July 9, 2004

RE: 1995 to 2003 Weekly, Monthly, and Seasonal Summer Flows at LGR and MCN

In response to your request, I have reviewed summer flows at both Lower Granite and McNary Dams on a weekly, monthly, and seasonal basis over the years 1995-2003.

Table 1. Weekly, monthly, and seasonal summer flows at Lower Granite Dam over the years 1995-2003, with respect to the Biological Opinion flow objective for each year.

Week Average	Week Average Summer Total Outflows at Lower Granite Dam (Kcfs)								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
6-21 to 6-27	93.8	96.6	126.8	89.4	127.8	47.3	27.0	86.0	54.9
6-28 to 7-4	88.6	84.6	102.0	84.5	80.7	37.5	25.3	68.5	38.1
7-5 to 7-11	71.8	64.8	74.6	68.5	56.6	40.0	26.5	41.4	34.3
7-12 to 7-18	59.9	52.0	60.5	60.5	53.2	42.4	26.4	38.7	33.6
7-19 to 7-25	48.8	43.8	63.3	54.1	51.2	37.2	28.1	31.6	31.6
7-26 to 8-1	48.1	38.6	58.5	51.7	46.5	32.0	26.2	28.3	28.9
8-2 to 8-8	43.6	36.6	54.6	39.0	44.5	27.8	26.4	26.9	28.5
8-9 to 8-15	36.1	34.4	50.9	37.4	38.4	27.2	25.4	30.3	27.5
8-16 to 8-22	35.1	40.2	42.6	32.8	36.9	27.3	23.5	30.6	24.1
8-23 to 8-31	33.8	39.2	37.5	22.7	31.3	21.9	20.6	30.2	23.9
July Average	60.8	54.4	68.9	61.7	54.8	37.8	26.6	38.3	32.8
August Average	37.2	37.7	46.1	32.9	37.7	25.9	23.8	29.4	26.0
Season Average	55.3	52.7	66.3	53.2	56.0	33.7	25.4	41.0	32.3
BIOP Objective	52.0	53.5	55.0	50.6	54.0	51.3	50.0	51.0	50.7

