

Memo

To: Hal Anderson

From: Liz Robbins

CC: Bill Ondrechen

Date: June 21, 2004

Re: Analysis of Water left in the Snake River due to Curtailed Irrigation Pumping.

Historic data published by the USGS of water withdrawn from the Snake River between Upper Salmon Falls and Swan Falls by high lift pumps was used to estimate the flow (cfs) resulting from curtailing irrigation pumping. An average monthly percentage of total pumped was calculated using the 1985-1998 data from 30 different pumps in the reach.

4/10-30 ✓ ✓ ✓ Aug 31
21 days

Percent of Total Pumped

	April	May	June	July	August	September	October
Average	7.5%	14.3%	19.0%	22.1%	20.0%	12.1%	4.9%
Min	0.4%	9.2%	14.7%	19.0%	16.4%	5.2%	0.0%
Max	13.7%	21.4%	23.7%	26.5%	24.6%	23.9%	11.2%

5.25% 14.3% 19.0% 22.1% 20%
26253 AC * 3.0 ACFT/AC = 78759 ACFT

80.65%

By multiplying the average percentages above by the total area (26,253 acres) of non-pumping land in 2004 by the 3.0 acre-feet per acre of water that would have been pumped from the river for each of those acres should result with the following additional amounts of water in the Snake River in the Murphy reach:

Acre-Feet Per Month

	April	May	June	July	August	September	October
Acre-Feet	5913	11286	14988	17435	15777	9531	3830

5907 11263 14964 17406 15752 9530 3859

78760
78681

Converting the Acre-Feet per Month to an Average Cubic-Feet per Second for the Month yields the following:

TOTAL VOLUME 78,760
APRIL - AUGUST 65,399 OR 83% SEASONAL TOTAL

Average CFS per Month

	April	May	June	July	August	September	October
CFS	99	184	252	284	257	160	62
Snake River nr Murphy instream flow plus cutailed pumping increment	3999	4084	4152	4184	4157	4060	3962