

Assumptions:

- * Streamflows were adjusted to the April Final Water Supply Forecast for the period of April thru August of 60.8 MAF at The Dalles (65% of average) and shaped 69 different ways based on observed historical runoff.
- * Starting elevations are actual March 31, 2005 elevations.
- * Grand Coulee maintains a maximum pool of 1255 ft through April for drum gate maintenance. Coulee tries to meet 70,000 cfs at Priest Rapids in Apr1, 110,000 cfs in Apr2, and 130,000 cfs in May while not drafting below 1240 ft. In June the project refills to at 1285 ft in all years. Summer lake targets are 1284.0 ft in July and 1278 ft in August (per the BiOp).
- * Hungry Horse operates April - May for a controlled refill by 30 June and meets minimum flow of 3250 cfs at Columbia Falls. The project drafts to 3540 ft by 31 Aug.
- * Brownlee operates to flood control elevations, which is elevation 2077 ft (or full pool) and drafts some in July - August.
- * Dworshak targets the snow covered area local flood control requirement (elevation 1587.5 ft on Apr 15 and 1591.6 ft on Apr 30). The project targets full in June and drafts to 1534 ft by 31 Aug.
- * Libby operates on minimum flow or VARQ flood control Apr - May, targets full in June with a minimum flow of 17,400 cfs out in June for sturgeon, based on a Tier 2 sturgeon pulse. Libby drafts to 2439 ft by 31 Aug, with a minimum bull trout flow of 7,000 cfs.

Results:

Priest Rapids Meets the Following Flow Objectives:

Month	Occurrences out of 69 Years	Average Flow for 69 Years (kcfs)	Flow Objective* (kcfs)
Apr 15	68	74	65
Apr 30	39	102	110
May	26	118	130
Jun	67	113	90

** Note: Flow objectives listed may be less than what is prescribed in the BiOp but were used for modeling.*

Lower Granite Meets the Following Flow Objectives:

Month	Occurrences out of 69 Years	Average Flow for 69 Years (kcfs)	Flow Objective* (kcfs)
Apr 30	1	44	85
May	0	61	85
Jun	6	55	73
Jul	0	31	50
Aug 15	0	25	50
Aug 31	0	22	50

Bonneville Meets Flow Objectives of 125 kcfs in Apr:

Month	Occurrences out of 69 Years	Average Flow for 69 Years (kcfs)
Apr 15	53	137
Apr 30	63	166

McNary Meets the Following Flow Objectives:

Month	Occurrences out of 69 Years	Average Flow for 69 Years (kcfs)	Flow Objective* (kcfs)
Apr 30	0	152	220
May	1	181	220
Jun	2	168	220
Jul	0	151	200
Aug 15	0	123	200
Aug 31	0	118	200

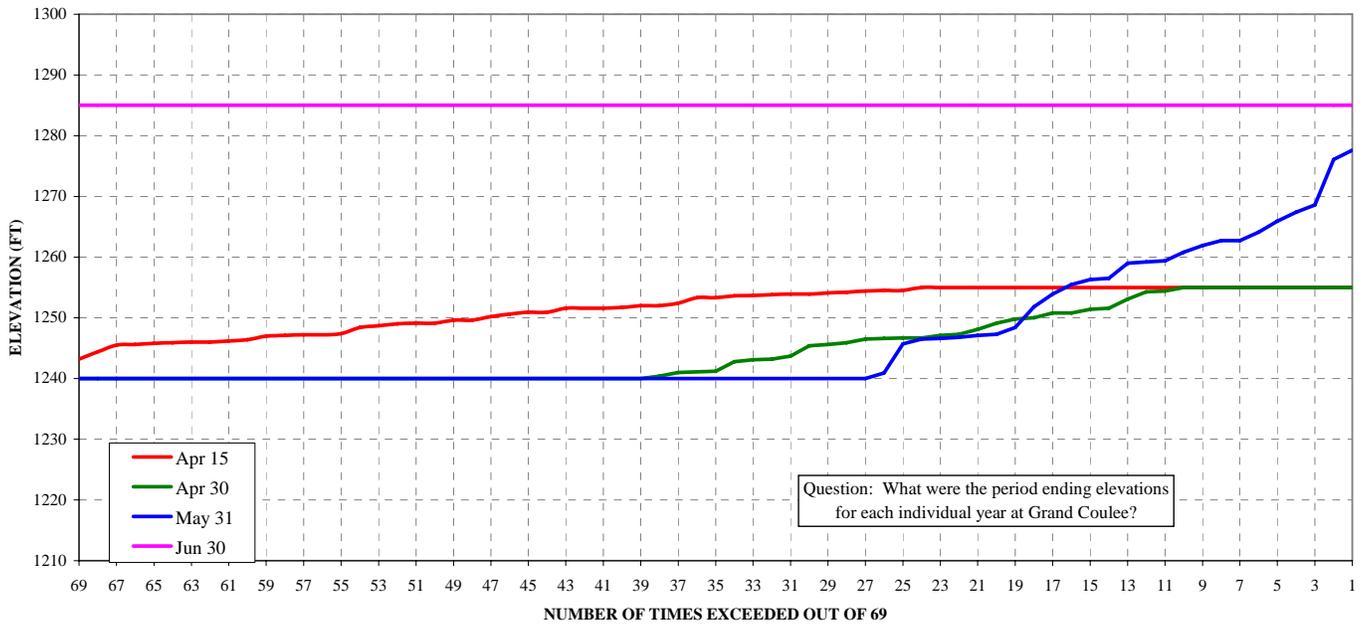
Projects Refill by 30 June:

Month	Occurrences out of 69 Years	Average Elevation on 30 Jun for 69 Years
Libby	65	2459
Hungry Horse	69	3560
Grand Coulee	0	1285
Dworshak	69	1600

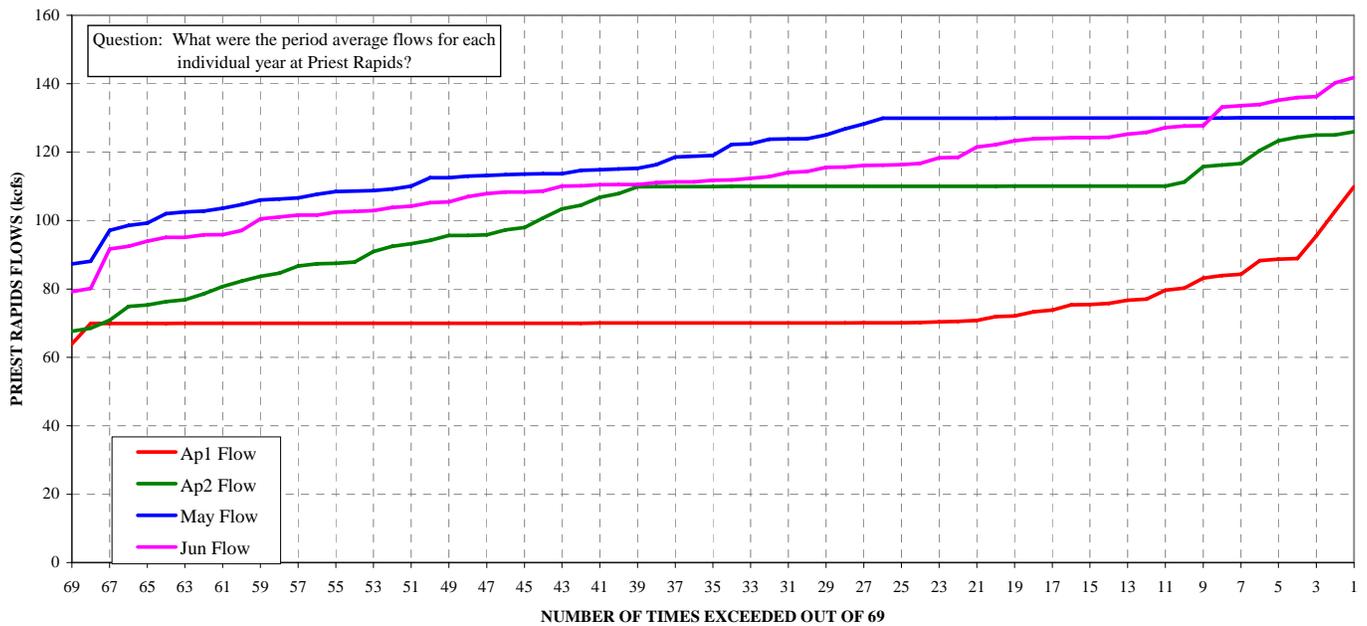
Period Average Outflows (kcfs):

	FEB 1-28	MAR 1-28	APR 1-15	APR 16-30	MAY 1-31	JUN 1-30	JUL 1-31	AUG 1-15	AUG 16-31
LIB	4.0	4.0	4.0	4.0	6.2	22.4	21.4	19.6	16.5
HGH	1.0	0.9	0.5	6.0	5.3	6.5	5.9	5.5	4.2
GCL	101	91	72	100	115	109	122	99	97
PRD	111	100	74	102	118	113	122	99	96
DWR	1.6	1.6	1.8	3.5	6.2	4.9	10	10	9
BRN	10	11	16	15	14	13	9	10	10
LWG	21	22	36	44	61	55	31	25	22
MCN	134	123	121	152	181	168	151	123	118
TDA	140	125	133	162	184	169	151	125	120
BON	138	130	137	166	186	170	153	126	121

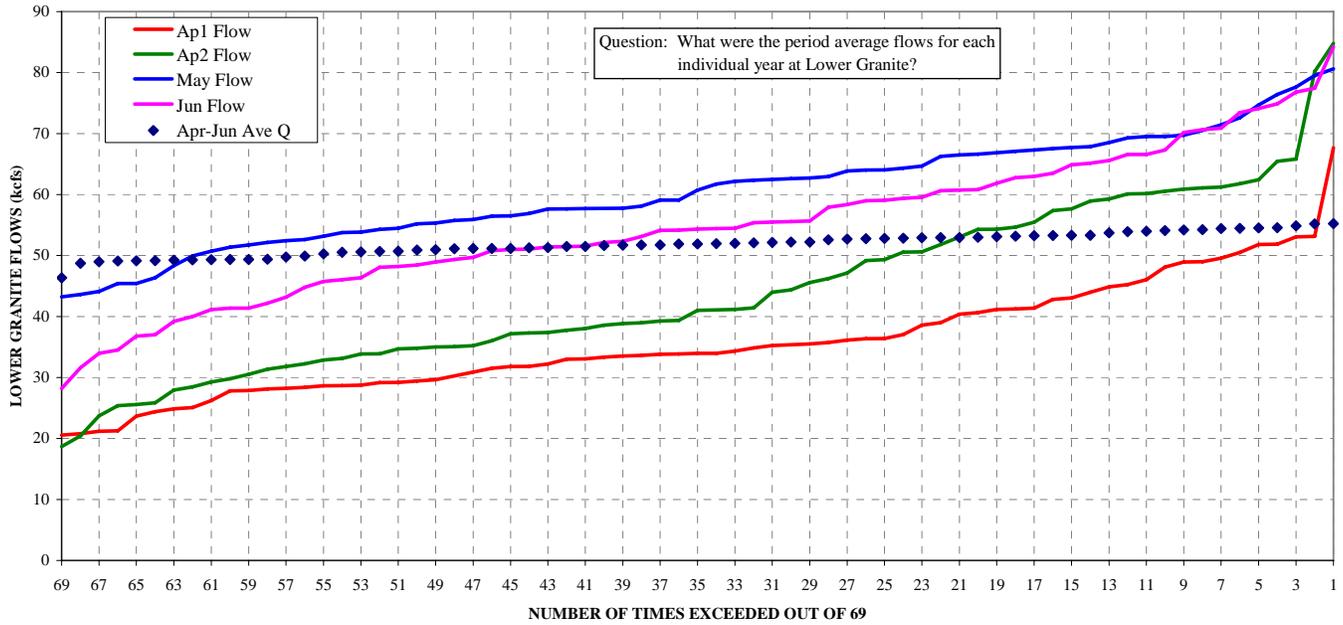
**GRAND COULEE
LAKE ROOSEVELT ELEVATIONS**



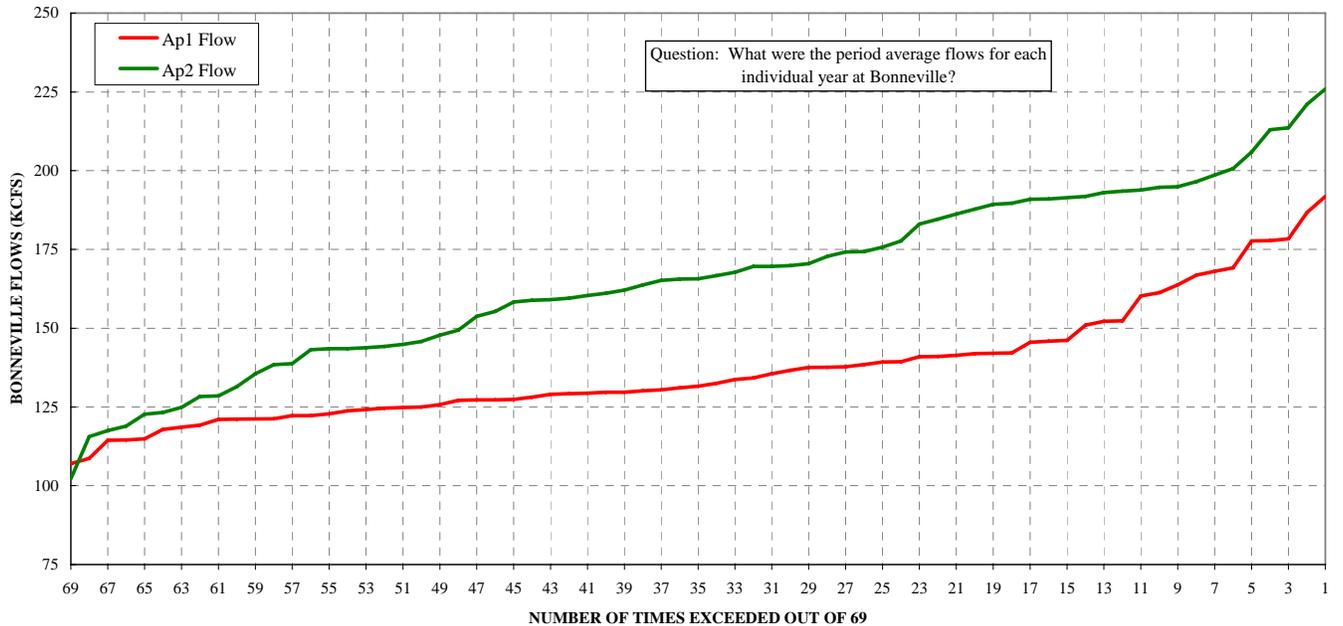
**PRIEST RAPIDS
APRIL - JUNE FLOWS**



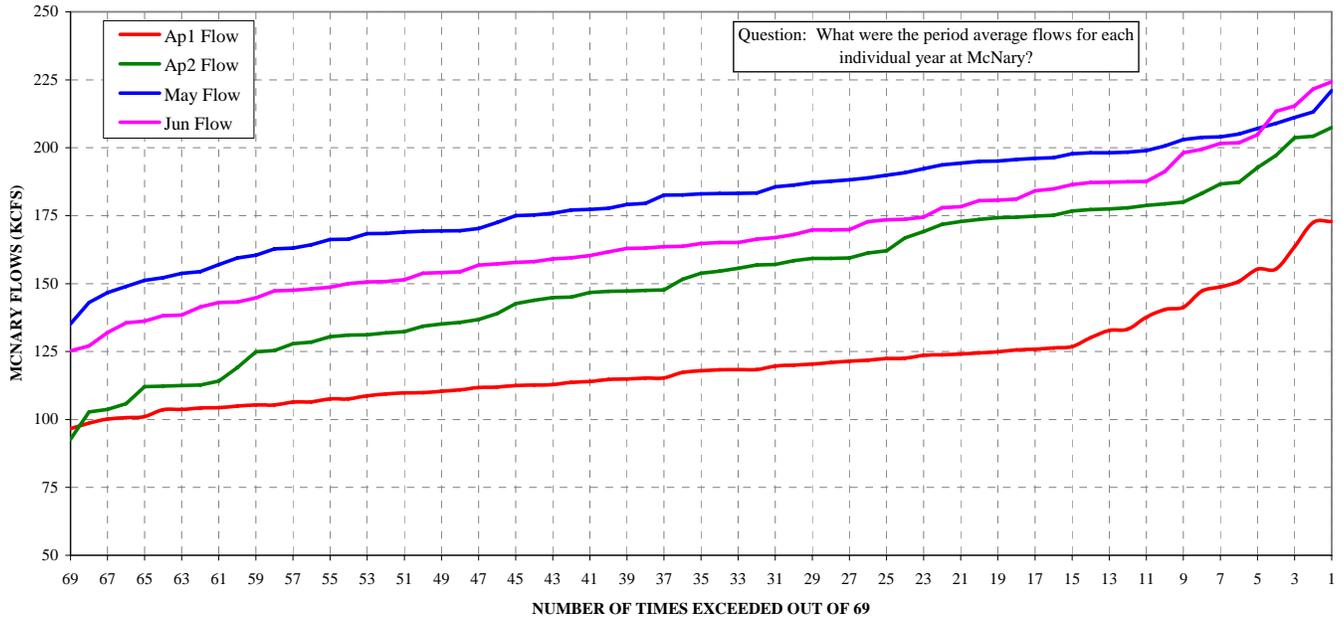
LOWER GRANITE APRIL - JUNE FLOWS



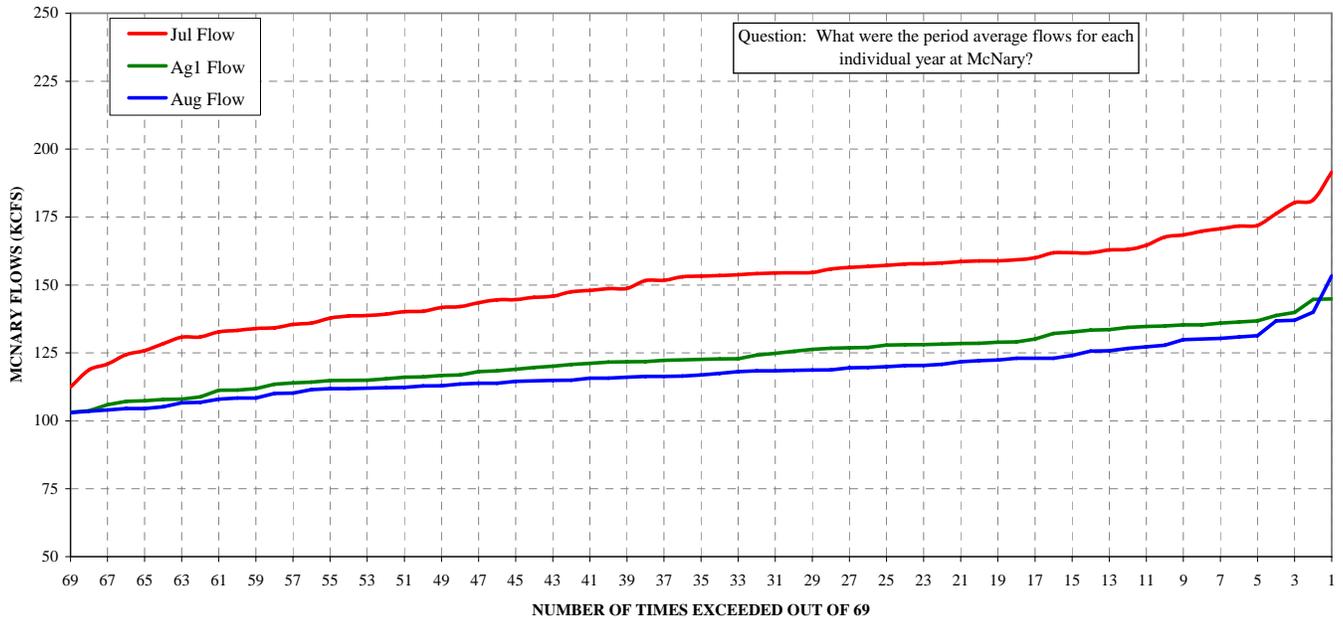
BONNEVILLE OUTFLOW April Flows



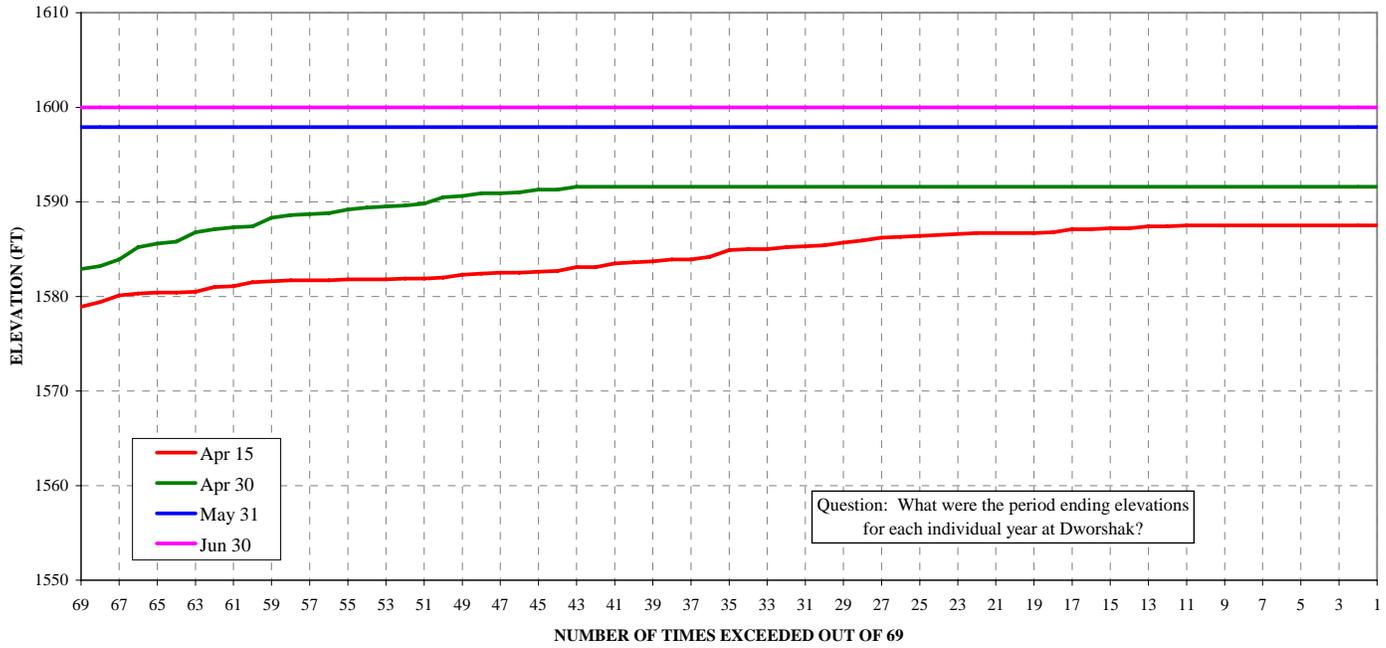
**MCNARY OUTFLOW
APRIL - JUNE AVERAGES**



**MCNARY OUTFLOW
JUL-AUG AVERAGES**



DWORSHAK LAKE ELEVATIONS



DWORSHAK OUTFLOWS

