

Assumptions:

- * Streamflows were adjusted to the March Mid-Month Water Supply Forecast for the period of April thru August of 57.9 MAF at The Dalles (62% of average) and shaped 69 different ways based on observed historical runoff.
- * Starting elevations are forecasted March 31, 2005 elevations from the March 28th short-term run.
- * 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 BiOp drafts are 1282.5 ft in July and 1278 ft in August.
- * Hungry Horse operates to VARQ flood control or minimum flow from Jan - May and meets minimum flow of 3250 cfs at Columbia Falls, targets full in June, and drafts to 3540 ft by 31 Aug.
- * Brownlee operates to flood control elevations, which is elevation 2077 ft (or full pool).
- * Dworshak targets elevation 1595.7 ft from Apr 15 - 30, but increases to 5000 cfs if needed to help Bonneville chum flows. The project targets full in June and drafts to 1534 ft by 31 Aug.
- * Libby operates on minimum flow or VARQ flood control Jan - May, targets full in June with a minimum flow of 18,000 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	73	65
Apr 30	31	98	110
May	26	120	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	0	39	85
May	0	53	85
Jun	1	48	73
Jul	0	29	50
Aug 15	0	23	50
Aug 31	0	21	50

Bonneville Meets Flow Objectives of 125 kcfs in Feb - Apr:

Month	Occurrences out of 69 Years	Average Flow for 69 Years (kcfs)
Apr 15	53	135
Apr 30	58	151

McNary Meets the Following Flow Objectives:

Month	Occurrences out of 69 Years	Average Flow for 69 Years (kcfs)	Flow Objective* (kcfs)
Apr 30	0	143	220
May	0	174	220
Jun	0	159	220
Jul	0	156	200
Aug 15	0	114	200
Aug 31	0	112	200

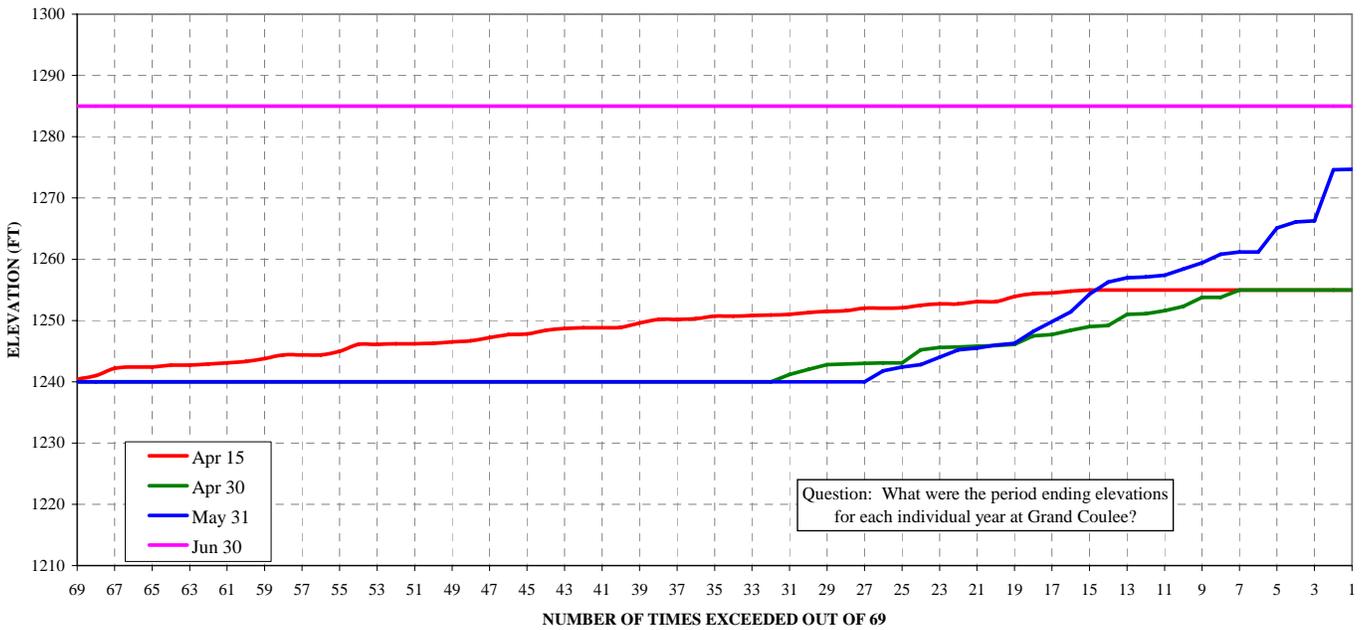
Projects Refill by 30 June:

Month	Occurrences out of 69 Years	Average Elevation on 30 Jun for 69 Years
Libby	31	2456
Hungry Horse	69	3560
Grand Coulee	0	1285
Dworshak	69	1600

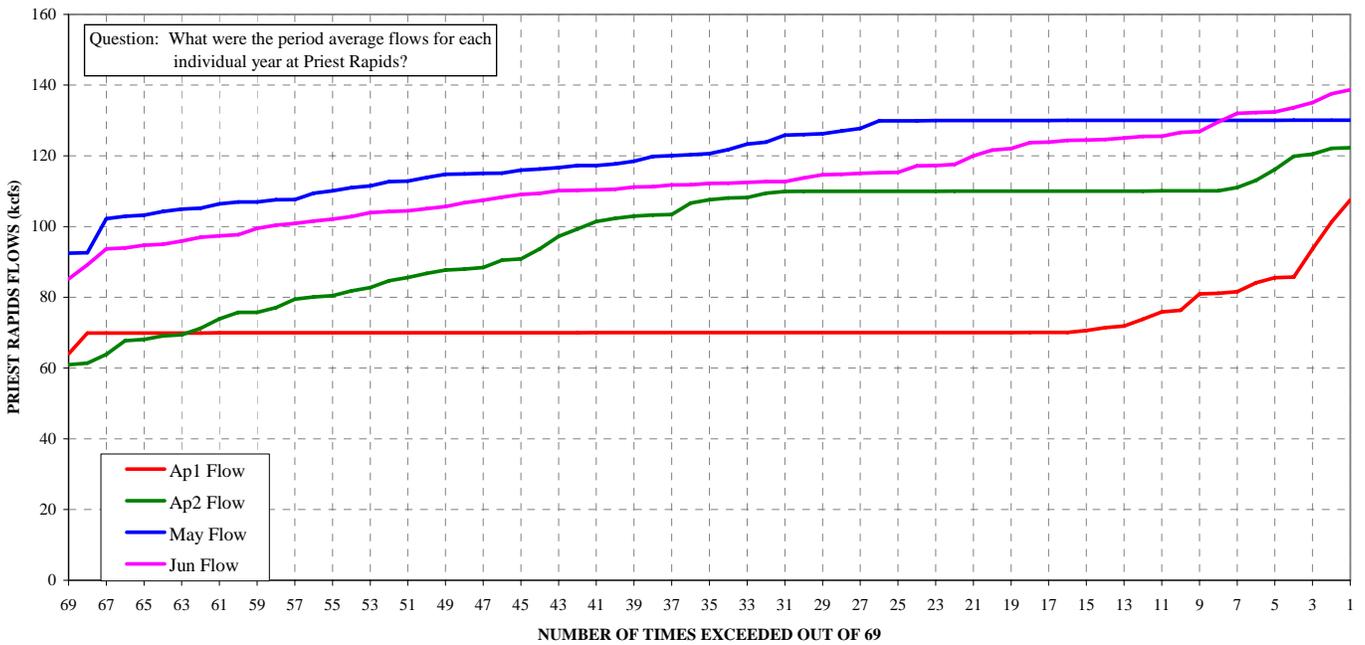
Period Average Outflows (kcfs):

	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	5.0	18.7	17.6	18.4	15.7
HGH	1.0	0.9	0.5	1.0	6.5	6.8	5.8	5.4	4.2
GCL	101	91	71	96	116	109	132	93	93
PRD	111	100	73	98	120	113	132	93	92
DWR	1.6	1.6	3.9	4.0	6.5	5.1	10.0	10.0	9.4
BRN	10	11	14	14	13	12	9	9	9
LWG	21	22	33	39	53	48	29	23	21
MCN	134	123	116	143	174	159	156	114	112
TDA	140	125	131	148	176	158	156	115	113
BON	138	130	135	151	178	160	158	117	115

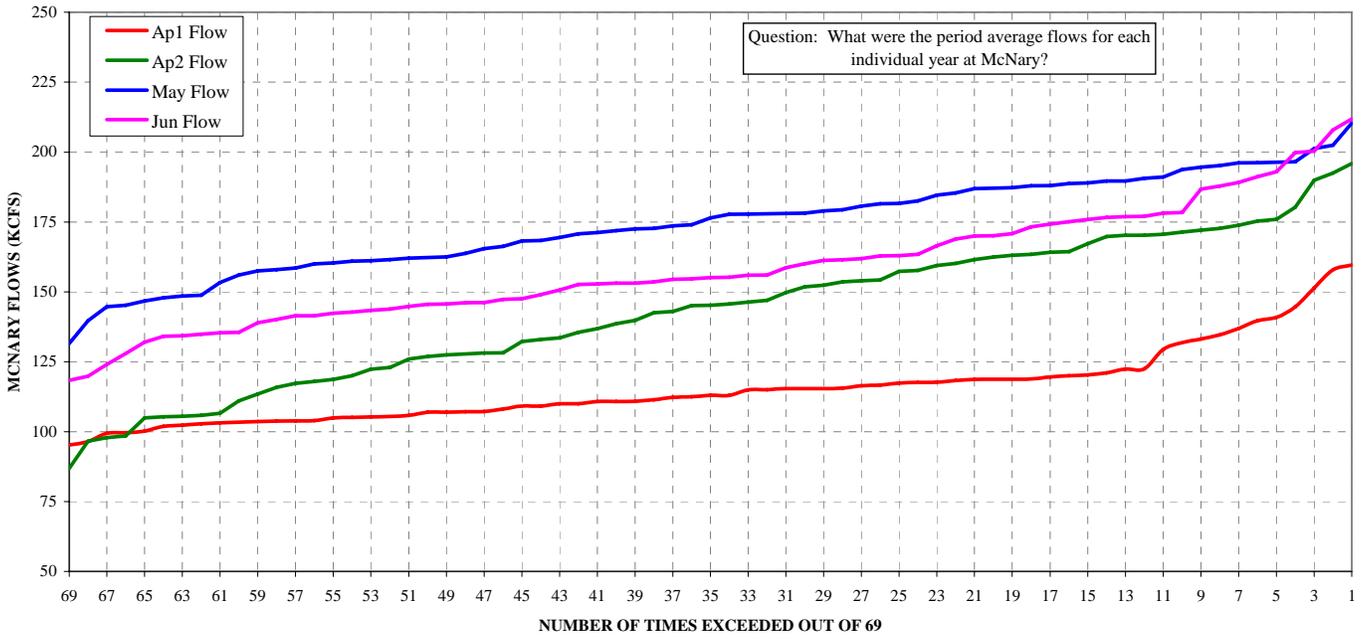
**GRAND COULEE
LAKE ROOSEVELT ELEVATIONS**



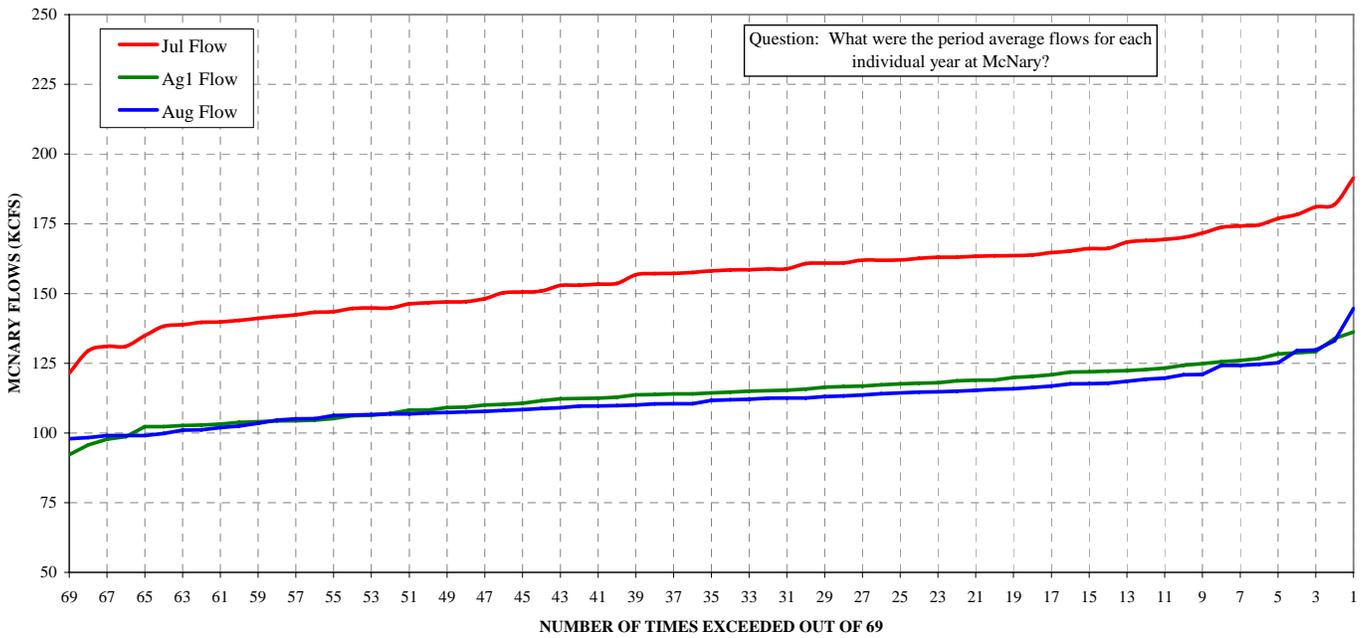
**PRIEST RAPIDS
APRIL - JUNE FLOWS**



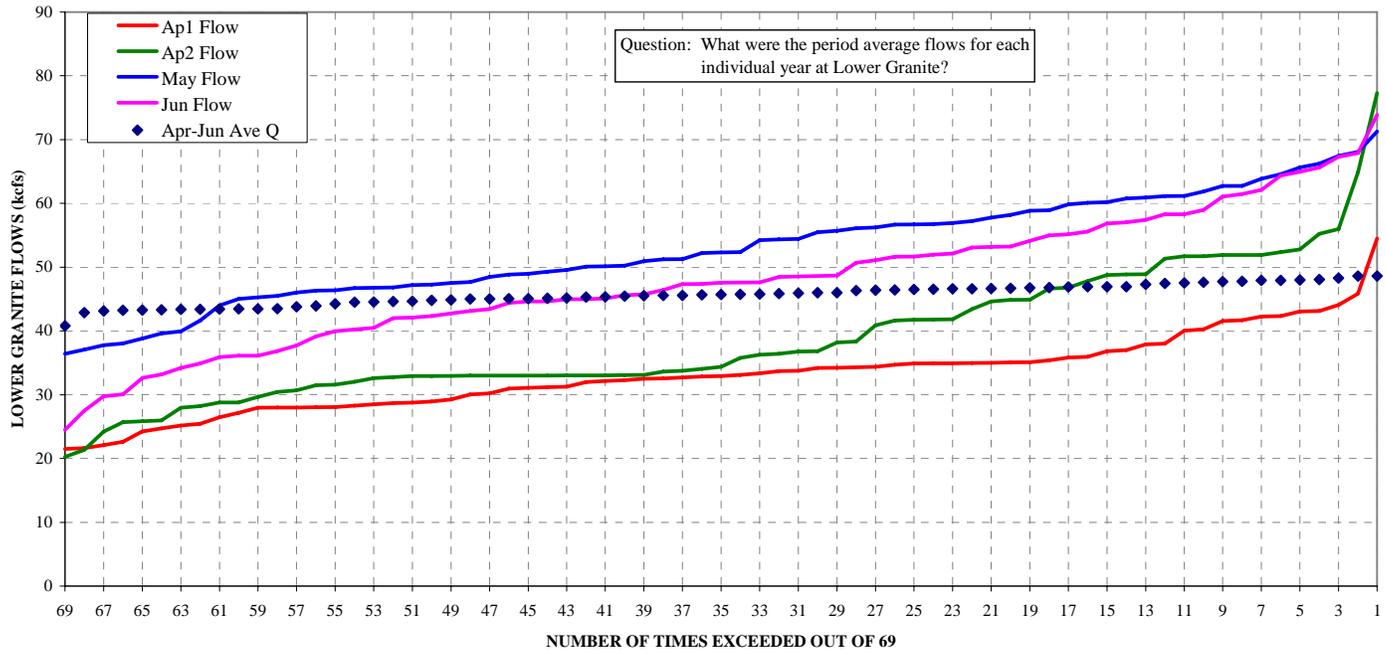
**MCNARY OUTFLOW
APRIL - JUNE AVERAGES**



**MCNARY OUTFLOW
JUL-AUG AVERAGES**



**LOWER GRANITE
APRIL - JUNE FLOWS**



**BONNEVILLE OUTFLOW
April Flows**

