

## LIBBY PROJECT INFLOW FORECAST, KAF

2006

FORECAST DATE	1 Nov	1 Dec	1 Jan	1 Feb	1 Mar	1 Apr	1 May	1 Jun
FORECAST'S KAF Draft requirements based on Libby VARQ storage reservation diagram.								
Apr-Aug runoff, Libby inflow	6986	6596	5553	6301	6409	6131	6179	6766
Apr-Aug normal, 6248 KAF, 1971-2000	111.8%	105.6%	88.9%	100.9%	102.6%	98.1%	98.9%	108.3%
Apr-Jul runoff	6308	5956	5014	5690	5787	5536	5579	6110
May-Jul runoff	5726	5406	4551	5165	5253	5025	4949	5466
Jan-Jul runoff	7051	6657	5605	6459	6540	6251	6294	6824
Date-Jul runoff	7051	6657	5605	6138	6037	5536	4936	3086
Jun-Aug residual forecast								3742
Forecast standard error, KAF	1303	1177	776	579	553	542	503	455
95% Confidence Error -	2189	1977	1304	973	929	911	845	764
Single Tailed Probability @ 1.68								
95% Non-exceedance Limit, KAF	9175	8573	6857	7274	7338	7042	7024	7530
5% Non-exceedance Limit, KAF	4797	4619	4249	5329	5479	5221	5334	6001
VARQ FLOOD CONTROL, DRAFT BY:	30 Nov	31 Dec	31 Jan	28 Feb	15 Mar	31 Mar	30 Apr	lookback
required draft, KAF	500	2000	1442	2122	2344	1873	1954	
required elevation, ft	2448.0	2411.0	2425.6	2407.6	2401.1	2414.5	2412.3	

Variable	Observed Value	Percent Average	Regression Coefficient	Marginal RO (KAF)	Percent Average
Oct-Dec Precip at Glacier NP RP, BC	14.28	66%	9.217	132	
Oct-Dec Precip at Kaslo, BC	8.48	71%	23.890	203	
Oct-Dec Precip at West Glacier, MT	11.00	126%	30.481	335	
May Precip at Banff, AB	1.66	77%	54.401	90	
May Precip at Cranbrook, BC	0.91	52%	167.165	151	
May Precip at Fernie, BC	3.45	110%	42.711	147	
1-May Hawkins Lake Snow Course, MT	28.50	99%	19.406	553	
1-May Morrissey Ridge Snow Course, BC	30.98	104%	18.702	579	
1-May Stahl Peak, MT	40.30	107%	20.453	824	
15-May East Creek Snow Course, BC	39.88	106%	12.459	497	
15-May Moyie Mountain Snow Course, BC	9.17	92%	28.811	264	
15-May Sullivan Mine Snow Course, BC	0.00	0%	37.686	0	
Intercept	1.00		-34.748	-35	
LIBBY OBSERVED INFLOW FOR APRIL, KAF				644	123.5%
LIBBY OBSERVED INFLOW FOR MAY, KAF				2380	141.6%
LIBBY JUN-AUG RUNOFF FORECAST, KAF				3742	92.5%
LIBBY APR-AUG RUNOFF FORECAST, KAF				6766	108.3%
95% Non-exceedance Limit, KAF				7530	120.5%
5% Non-exceedance Limit, KAF				6001	96.1%

## REGRESSION MODEL FORECAST STATISTICS

1971-2000 Normal Runoff, JUN-AUG, KAF				4046	100.0%
1971-2000 Normal Inflow, Apr, KAF				521	100.0%
1971-2000 Normal Inflow, May, KAF				1681	100.0%
1971-2000 Normal Runoff, APR-AUG, KAF				6248	100.0%
Forecast Standard Error, APR-AUG, KAF			455		
95% Confidence Factor -			764		
1.68-constant Single Tailed Probability					

## LONG TERM HISTORIC STATISTICS

1929-2002 Normal Runoff, APR-AUG, KAF				6313	
1929-2002 Standard Deviation, APR-AUG, KAF			1492		
Historic 74-year 95% non-exceedance limit				8820	139.7%
Historic 74-year 5% non-exceedance limit				3806	60.3%

The given forecast values are to be considered the Corps of Engineers Official Forecast for Libby.

Questions? Ken Soderlind, 503-808-3950; Patti Etzel, 503-808-3958; John McCoskery, 503-808-3951

Note:

1/ Forecasts for months other than the current month may be different than the official forecast released earlier. Differences are due to updated streamflow, precip, or snow data.