

## LIBBY PROJECT INFLOW FORECAST, KAF

07 MAR 2005

FORECAST DATE	1 Nov	1 Dec	1 Jan	1 Feb	1 Mar			
Draft requirements based on Libby VARQ storage reservation diagram.								
Apr-Aug runoff, Libby inflow	6174	6181	5786	5630	5371			
Apr-Aug normal, 6248 KAF, 1971-2000	98.8%	98.9%	92.6%	90.1%	86.0%			
Apr-Jul runoff	5575	5581	5225	5084	4850			
May-Jul runoff	5060	5066	4743	4614	4402			
Jan-Jul runoff	6231	6238	5840	5805	5638			
Date-Jul runoff	6231	6238	5840	5484	5060			
Forecast standard error, KAF	1352	1175	776	579	553			
95% Confidence Error - Single Tailed Probability @ 1.67	2258	1962	1296	967	924			
95% Non-exceedance Limit, KAF	8432	8143	7070	6593	6273			
5% Non-exceedance Limit, KAF	3916	4218	4502	4666	4470			
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VARQ FLOOD CONTROL, DRAFT BY:	30 Nov	31 Dec	31 Jan	28 Feb	15 Mar	31 Mar	15 Apr	30 Apr
required draft, KAF	500	2000	1629	1182	800	761	736	710
required elevation, ft	2448.0	2411.0	2420.9	2432.1	2441.1	2442.0	2442.6	2443.2
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FORECAST	Observed Value	Percent Average	Regression Coefficient	Marginal RO (KAF)	Percent Average
Variable					
Oct-Dec Precip at Fortine, MT	4.24	117%	103.4	438.5	
Oct-Dec Precip at Glacier NP RP, BC	19.15	89%	19.6	376.0	
Oct-Dec Precip at Kaslo, BC	10.01	84%	41.4	414.4	
Oct-Dec Precip at West Glacier, MT	10.49	120%	45.1	473.0	
Dec-Feb Precip at Banff, AB	3.80	121%	74.3	282.3	
Dec-Feb Precip at Cranbrook, BC	2.32	69%	56.9	132.2	
Dec-Feb Precip at Fernie, BC	10.41	67%	31.4	326.6	
Dec-Feb Precip at Libby 1NE RS, MT	2.76	49%	72.3	199.5	
1-Mar East Creek Snow Course, BC	29.84	96%	18.3	545.3	
1-Mar Hawkins Lake Snow Course, MT	12.00	52%	22.0	264.6	
1-Mar Vermillion R #3 Snow Course, BC	9.37	72%	44.3	415.5	
1-Mar Stahl Peak, MT	22.00	73%	20.6	452.7	
Intercept	1.00		1050.8	1050.8	

LIBBY APR-AUG RUNOFF FORECAST, KAF	5371	86.0%
95% Non-exceedance Limit, KAF	6295	100.7%
5% Non-exceedance Limit, KAF	4448	71.2%

## REGRESSION MODEL APR-AUG FORECAST STATISTICS

1971-2000 Normal Runoff, KAF	6248	100.0%
Forecast Standard Error, KAF	553	
95% Confidence Factor - 1.67-constant Single Tailed Probability	924	

## 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	8805	139.5%
Historic 74-year 5% non-exceedance limit	3821	60.5%

The given forecast values are to be considered the Corps of Engineers Official Forecast for Libby. Questions? Ken Soderlind, 503-808-3950; Chan Modini, 503-808-3958; Arun Mylvahanan, 503-808-3961  
Footnote:

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.