

LIBBY PROJECT INFLOW FORECAST, KAF

2005

FORECAST DATE	1 Nov	1 Dec	1 Jan	1 Feb	1 Mar	1 Apr	1 May	
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FORECAST'S KAF	Draft requirements based on Libby VARQ storage reservation diagram.							
Apr-Aug runoff, Libby inflow	6174	6181	5786	5630	5371	5401	5111	
Apr-Aug normal, 6248 KAF, 1971-2000	98.8%	98.9%	92.6%	90.1%	86.0%	86.4%	81.8%	
Apr-Jul runoff	5575	5581	5225	5084	4850	4877	4615	
May-Jul runoff	5060	5066	4743	4614	4402	4427	4165	
Jan-Jul runoff	6231	6238	5840	5805	5638	5724	5461	
Date-Jul runoff	6231	6238	5840	5484	5060	4877	4162	
Forecast standard error, KAF	1352	1175	776	579	553	542	481	
95% Confidence Error - Single Tailed Probability @ 1.67	2258	1962	1296	967	924	905	803	
95% Non-exceedance Limit, KAF	8432	8143	7082	6597	6295	6306	5914	
5% Non-exceedance Limit, KAF	3916	4218	4490	4663	4448	4496	4308	
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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	1629	1182	800	770	528	
required elevation, ft	2448.0	2411.0	2420.9	2432.1	2441.1	2441.8	2447.4	
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Variable	OBSERVED		REGRESSION		MARGINAL	
	Value	Percent Average	Coefficient	RO (KAF)	Percent Average	
Oct-Dec Precip at Glacier NP RP, BC	19.15	89%	22.3	427		
Oct-Dec Precip at Kaslo, BC	10.01	84%	50.4	504		
Oct-Dec Precip at West Glacier, MT	10.49	120%	51.8	544		
Dec-Apr Precip at Banff, AB	4.90	91%	67.9	333		
Dec-Apr Precip at Cranbrook, BC	3.51	66%	63.5	223		
Dec-Apr Precip at Fernie, BC	16.40	74%	32.5	534		
1-May East Creek Snow Course, BC	34.29	90%	16.0	548		
1-May Hawkins Lake Snow Course, MT	13.70	47%	20.6	283		
1-May Morrissey Ridge Snow Course, BC	21.26	71%	19.8	421		
1-May Stahl Peak, MT	29.60	79%	21.2	627		
Intercept	1.00		214.8	215		

LIBBY MAY-AUG RUNOFF FORECAST, KAF	4657	81.3%
LIBBY OBSERVED INFLOW FOR APRIL, KAF	453	87.0%
LIBBY APR-AUG RUNOFF FORECAST, KAF	5111	81.8%
95% Non-exceedance Limit, KAF	5914	94.7%
5% Non-exceedance Limit, KAF	4308	68.9%

REGRESSION MODEL FORECAST STATISTICS		
1971-2000 Normal Runoff, MAY-AUG, KAF	5727	100.0%
1971-2000 Normal Inflow, Apr, KAF	521	100.0%
1971-2000 Normal Runoff, APR-AUG, KAF	6248	100.0%
Forecast Standard Error, APR-AUG, KAF	481	
95% Confidence Factor - 1.67-constant Single Tailed Probability	803	

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; John McCoskery, 503-808-3951

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.