

LIBBY PROJECT INFLOW FORECAST, KAF

2004

FORECAST DATE	1 Nov	1 Dec	1 Jan	1 Feb	1 Mar	1 Apr	1 May	
FORECAST'S KAF Draft requirements based on Libby VARQ storage reservation diagram.								
Apr-Aug runoff, Libby inflow	6533	6445	5337	5644	5344	5311	4943	
Apr-Aug norm, 6248, 1971-2000	104.6%	103.2%	85.4%	90.3%	85.5%	85.0%	79.1%	
Apr-Jul runoff	5900	5820	4820	5097	4825	4796	4463	
May-Jul runoff	5355	5283	4374	4626	4380	4353	3858	
Jan-Jul runoff	7184	6765	5387	5656	5333	5301	4968	
Date-Jul runoff	7184	6765	5387	5498	5034	4796	3835	
Forecast standard error, KAF	1352	1175	776	579	553	542	481	
95% Confidence Error -	2258	1962	1296	967	924	905	803	
Single Tailed Probability @ 1.67								
95% Non-exceedance Limit, KAF	8791	8407	6621	6608	6246	6185	5732	
5% Non-exceedance Limit, KAF	4275	4483	4053	4681	4442	4438	4153	
=====								
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	1400	1202	800	743	410	
required elevation, ft	2448.0	2411.0	2426.7	2431.6	2441.1	2442.5	2450.0	

FORECAST						
Variable	Observed Value	Percent Average	Regression Coefficient	Marginal RO (KAF)	Percent Average	
Oct-Dec Precip at Glacier NP RP, BC	19.09	89%	22.3	426		
Oct-Dec Precip at Kaslo, BC	9.76	82%	50.4	492		
Oct-Dec Precip at West Glacier, MT	9.18	105%	51.8	476		
Dec-Apr Precip at Banff, AB	2.78	51%	67.9	188		
Dec-Apr Precip at Cranbrook, BC	3.65	69%	63.5	232		
Dec-Apr Precip at Fernie, BC	14.19	64%	32.5	462		
1-May East Creek Snow Course, BC	31.46	82%	16.0	503		
1-May Hawkins Lake Snow Course, MT	18.50	64%	20.6	382		
1-May Morrissey Ridge Snow Course, BC	15.35	51%	19.8	304		
1-May Stahl Peak, MT	30.00	80%	21.2	635		
Intercept	1.00		214.8	215		
LIBBY MAY-AUG RUNOFF FORECAST, KAF				4314	75.3%	
LIBBY OBSERVED INFLOW FOR APRIL, KAF				628	120.6%	
LIBBY APR-AUG RUNOFF FORECAST, KAF				4943	79.1%	
95% Non-exceedance Limit, KAF				5783	92.5%	
5% Non-exceedance Limit, KAF				4102	65.7%	

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	503	
95% Confidence Factor -	840	
1.67-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		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.