

LIBBY PROJECT INFLOW FORECAST, KAF

2003

FORECAST DATE	1 Jan	1 Feb	1 Mar	1 Apr	1 May	1 Jun								
FORECAST'S KAF							Drafts reflect VARQ flood control operations at Libby.							
Apr-Aug runoff, Fort Steele	2669	1000	2347	2820	2983	2943								
Apr-Aug runoff, Libby Local	2212	2436	1821	2176	2239	2184								
Apr-Aug runoff, Libby inflow	4881	4736	4169	4995	5222	5128								
Apr-Aug norm, 6248, 1971-2000	78.1%	75.8%	66.7%	80.0%	83.6%	82.1%								
Apr-Jul runoff	4408	4277	3764	4511	4716	4630								
May-Jul runoff	4001	3882	3417	4094	4228	4136								
Jan-Jul runoff	4926	4765	4203	4988	5193	5107								
Date-Jul runoff	4926	4614	3927	4511	4222	2897								
Jun-Aug residual forecast						3395								
Date-Jul standard error	1069	731	666	643	572	443								
Date-Jul confidence limit, 1.645	1759	1202	1096	1058	941	729								
Date-Jul 95% confidence	3168	3411	2832	3453	3281	2169								
Date-Jul 5% confidence	6685	5816	5023	5569	5163	3626								
FLOOD CONTROL, DRAFT BY:							31 Jan	28 Feb	15 Mar	31 Mar	30 Apr	lookback		
required draft, KAF	1400.0	1000.0	800.0	648.6	605.6									
required elevation, FT	2426.7	2436.4	2441.1	2444.6	2445.6									
FORECAST COMPONENT SUMMARY							FRO	WP	SWE	SP	SP+NS	INT	TOTAL	
FORT STEELE, B.C., (FS)	1.059	61.09	99.8		18.58	32.34								
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114	1.386	4.154	6.687			5.401	-5.114	12.514						
inches*235.2=kaf								2943						
LIBBY LOCAL, (LL)	0.648	55.81	82.8		13.93	25.86								
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183	0.596	4.800	3.809			3.931	-4.183	8.953						
inches*244.0=kaf								2184						
TERM DEFINITION														
fall runoff is FRO														
winter precip is WP														
normal subsequent is NS														
snow water equivalent is SWE														
spring precip(weighted) is SP														
equation constant, or, y-INTERCEPT is INT														
OBSERVED DATA, usage, FS=Fort Steele, LL=Libby Local														
WINTER PRECIP(WP), inches														
		Oct	Nov	Dec	Jan	Feb	Mar							
Banff	FS	0.70	0.38	0.45	0.36	0.63	1.43							
Brisco	FS	0.08	0.98	0.59	1.65	0.28	1.65							
Fernie	LL	0.73	2.52	1.93	2.41	1.11	3.35							
Kaslo	FS	0.55	2.24	5.75	4.09	0.87	6.10							
Rogers Pass	FS	1.57	5.04	5.43	6.73	2.44	11.08							
Fortine	LL	0.04	0.90	1.66	0.62	0.47	1.88							
Libby RS	LL	1.50	1.78	3.67	2.28	0.53	2.65							
Bonners Ferry	LL	0.39	1.34	6.16	3.43	0.58	3.28							
Polebridge	LL	0.40	1.00	3.30	1.90	0.90	3.10							
SNOW WATER EQUIVALENT(SWE), inches														
				31 DEC	31 JAN	28 FEB	31 MAR							
Glacier	FS			7.5	14.3	16.1	24.1							
Kicking Horse	FS			2.6	5.7	6.9	10.7							
Kimberly	LL			2.1	0.6	1.3	8.7							
Marble Canyon	FS			2.5	6.6	7.3	11.3							
Mirror Lake	FS			2.1	3.8	5.5	9.2							
Morrissey Ridge	FS & LL*.5			6.9	13.0	16.9	26.6							
New Fernie	FS & LL			1.6	4.5	6.6	8.5							
Sullivan Mine	FS & LL			3.7	6.5	7.8	9.4							
Red Mtn.	LL			4.0	7.1	9.3	16.2							
Weisel Divide	LL			7.3	13.5	17.4	26.7							
FALL RUNOFF(FRO), kaf														
		Oct	Nov	SUM										
Fort Steele	f=235.2	151	98	249										
Libby local	f=244.0	80	78	158										
f=, is to convert from basin inches to acre feet(x), or acre feet to basin inches(/).														
LIBBY INFLOW, kaf														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					
		231	176	186	151	125	201	494	1239					
SPRING PRECIP(SP), inches														
		Apr	May											
Brisco	FS	1.74	1.87											
Creston	FS	2.44	1.48											
Kaslo	FS & LL	2.97	1.71											
Wasa	FS	1.30	1.52											
Fortine	LL	1.00	1.35											
Porthill	FS & LL	2.37	1.18											
Whitefish	LL	1.22	2.13											

'Questions? Ken Soderlind, 503-808-3950; Chan Modini, 503-808-3958

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.