

LIBBY PROJECT INFLOW FORECAST, KAF

2003

FORECAST DATE	1 Jan	1 Feb	1 Mar	1 Apr	1 May
FORECAST'S KAF					
Apr-Aug runoff, Fort Steele	2669	1000	2347	2820	2983
Apr-Aug runoff, Libby Local	2212	2436	1821	2176	2239
Apr-Aug runoff, Libby inflow					
Apr-Aug norm, 6248, 1971-2000	4881	4736	4169	4995	5222
Apr-Jul runoff	78.1%	75.8%	66.7%	80.0%	83.6%
May-Jul runoff	4408	4277	3764	4511	4716
Jan-Jul runoff	4001	3882	3417	4094	4228
Date-Jul runoff	4926	4765	4203	4988	5193
Date-Jul runoff	4926	4614	3927	4511	4222
Date-Jul standard error	1069	731	666	643	572
Date-Jul confidence limit, 1.645	1759	1202	1096	1058	941
Date-Jul 95% confidence	3168	3411	2832	3453	3281
Date-Jul 5% confidence	6685	5816	5023	5569	5163

Drafts reflect VARQ flood control operations at Libby.

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	10.82	33.35		
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114							
inches	1.386	4.154	6.687		5.569	-5.114	12.682
inches*235.2=kaf							2983
LIBBY LOCAL, (LL)	0.648	55.81	82.8	7.56	27.34		
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183							
inches	0.596	4.800	3.809		4.156	-4.183	9.178
inches*244.0=kaf							2239

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
Bonnars 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
		231	176	186	151	125	201
							494
SPRING PRECIP(SP), inches		Apr					
Brisco	FS	1.74					
Creston	FS	2.44					
Kaslo	FS & LL	2.97					
Wasa	FS	1.30					
Fortine	LL	1.00					
Porthill	FS & LL	2.37					
Whitefish	LL	1.22					

'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.