

LIBBY PROJECT INFLOW FORECAST, KAF

2002

FORECAST DATE	1 Jan	1 Feb	1 Mar	1 Apr	1 May
FORECAST'S KAF					
Apr-Aug runoff, Fort Steele	3108	3000	3146	3312	3278
Apr-Aug runoff, Libby Local	2831	2379	2770	2988	2943
Apr-Aug runoff, Libby inflow	5939	5924	5916	6300	6221
Apr-Aug norm, 6376.8, 1961-1990	93.1%	92.9%	92.8%	98.8%	97.6%
Apr-Jul runoff	5382	5369	5361	5709	5637
May-Jul runoff	4937	4925	4918	5237	5171
Jan-Jul runoff	6004	5991	5970	6278	6206
Date-Jul runoff	6004	5790	5591	5722	5184
Date-Jul standard error	1069	731	666	643	572
Date-Jul confidence limit, 1.645	1759	1202	1096	1058	941
Date-Jul 95% confidence	4245	4587	4495	4664	4243
Date-Jul 5% confidence	7762	6992	6687	6780	6125

FLOOD CONTROL, DRAFT BY:	31 Jan	28 Feb	15 Mar	31 Mar	30 Apr	lookback
required draft, KAF	2602.7	2999.8	3123.6	3700.0	3500.4	
required elevation, FT	2393.0	2379.4	2375.0	2352.5	2360.6	

FORECAST COMPONENT SUMMARY	FRO	WP	SWE	SP	SP+NS	INT	TOTAL
FORT STEELE, B.C., (FS)	0.978	66.54	127.1	5.78	28.31		
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114							
inches	1.280	4.525	8.516		4.728	-5.114	13.935
inches*235.2=kaf							3278
LIBBY LOCAL, (LL)	0.504	80.34	112.2	4.64	24.42		
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183							
inches	0.464	6.909	5.160		3.711	-4.183	12.062
inches*244.0=kaf							2943

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	0.53	0.96	0.22	1.18	0.64	1.20
Brisco	FS	0.87	1.06	0.63	1.89	0.91	0.94
Fernie	LL	8.06	2.59	4.77	5.89	5.45	1.79
Kaslo	FS	2.17	4.29	2.64	2.76	2.56	1.97
Rogers Pass	FS	6.30	5.59	7.36	7.91	6.42	5.55
Fortine	LL	2.27	0.75	1.41	0.73	0.77	1.72
Libby RS	LL	8.44	1.04	3.81	2.41	1.11	1.93
Bonners Ferry	LL	2.40	1.77	2.78	1.99	1.41	1.35
Polebridge	LL	2.20	1.30	2.50	2.50	2.20	3.00
SNOW WATER EQUIVALENT(SWE), inches				31 DEC	31 JAN	28 FEB	31 MAR
Glacier	FS			11.1	17.3	22.4	26.3
Kicking Horse	FS			4.2	6.6	8.5	10.6
Kimberly	LL			2.8	4.7	3.4	6.0
Marble Canyon	FS			5.4	9.3	11.9	13.9
Mirror Lake	FS			3.4	9.2	11.9	14.5
Morrissey Ridge	FS & LL*.5			12.6	18.5	27.0	34.1
New Fernie	FS & LL			5.7	9.9	12.5	16.0
Sullivan Mine	FS & LL			5.0	5.6	8.9	11.7
Red Mtn.	LL			9.0	10.7	14.0	21.4
Weisel Divide	LL			16.3	24.0	31.6	40.0

FALL RUNOFF(FRO), kaf		Oct	Nov	SUM
Fort Steele	f=235.2	116	114	230

Libby local	f=244.0	49	74	123				
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
		165	188	154	201	178	177	466
	SPRING PRECIP(SP), inches	Apr						
Brisco	FS	0.79						
Creston	FS	1.60						
Kaslo	FS & LL	1.46						
Wasa	FS	0.74						
Fortine	LL	1.25						
Porthill	FS & LL	1.20						
Whitefish	LL	0.73						

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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.