

LIBBY PROJECT INFLOW FORECAST, KAF

1999

FORECAST DATE	1 Jan	1 Feb	1 Mar	1 Apr	1 May		
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FORECAST'S KAF							
Apr-Aug runoff, Fort Steele	3109	4134	4050	4013	4013		
Apr-Aug runoff, Libby Local	2375	2333	3043	2943	2943		

Apr-Aug runoff, Libby inflow	6633	6924	7093	6956	6734		
Apr-Aug norm, 6376.8, 1961-1990	104.0%	108.6%	111.2%	109.1%	105.6%		
Apr-Jul runoff	6011	6275	6428	6304	6103		
May-Jul runoff	5514	5756	5896	5782	5550		
Jan-Jul runoff	6634	6949	7119	7000	6799		
Date-Jul runoff	6634	6698	6660	6318	5559		
Date-Jul standard error	1069	731	666	643	572		
Date-Jul confidence limit, 1.645	1759	1202	1096	1058	941		
Date-Jul 95% confidence	4875	5496	5565	5260	4618		
Date-Jul 5% confidence	8392	7901	7756	7376	6500		
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FLOOD CONTROL, DRAFT BY:	31 Jan	28 Feb	15 Mar	31 Mar	30 Apr	lookback	
required draft, KAF	3109.3	4133.5	4581.2	4447.0	3879.4		
required elevation, FT	2375.5	2333.4	2310.9	2318.1	2344.8		
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FORECAST COMPONENT SUMMARY	FRO	WP	SWE	SP	SP+NS	INT	TOTAL
FORT STEELE, B.C., (FS)	1.076	88.56	147.3	3.66	26.19		
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114							
inches	1.408	6.022	9.869		4.374	-5.114	16.559
inches*235.2=kaf							4013
LIBBY LOCAL, (LL)	0.934	69.37	120.1	3.05	22.83		
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183							
inches	0.861	5.966	5.525		3.470	-4.183	11.638
inches*244.0=kaf							2943
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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							
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OBSERVED DATA, usage, FS=Fort Steele, LL=Libby Local							
WINTER PRECIP(WP), inches							
		Oct	Nov	Dec	Jan	Feb	Mar
Banff	FS	1.79	1.19	1.30	0.85	2.17	1.02
Brisco	FS	1.69	1.61	2.24	0.94	1.17	0.68
Fernie	LL	1.77	9.09	4.25	5.79	3.84	1.85
Kaslo	FS	2.56	5.83	6.77	5.29	2.60	2.92
Rogers Pass	FS	2.54	9.17	9.17	13.19	7.87	4.00
Fortine	LL	0.59	2.92	1.12	1.21	0.73	0.86
Libby RS	LL	0.90	3.62	2.94	2.12	1.60	0.92
Bonnars Ferry	LL	0.77	2.70	2.59	0.75	2.80	0.42
Polebridge	LL	0.91	3.70	3.85	1.61	2.11	1.04
SNOW WATER EQUIVALENT(SWE), inches							
				31 DEC	31 JAN	28 FEB	31 MAR
Glacier	FS			15.4	24.4	30.7	36.5
Kicking Horse	FS			9.0	14.0	15.0	15.5
Kimberly	LL			3.9	3.9	8.1	6.0
Marble Canyon	FS			7.5	13.0	15.3	16.1
Mirror Lake	FS			7.4	10.7	12.3	15.9
Morrissey Ridge	FS & LL*.5			17.7	24.1	29.1	33.2
New Fernie	FS & LL			5.7	10.8	17.0	14.2
Sullivan Mine	FS & LL			6.8	11.1	15.7	15.9
Red Mtn.	LL			10.2	14.1	20.4	25.6
Weisel Divide	LL			18.6	29.5	35.6	41.8

FALL RUNOFF(FRO), kaf		Oct	Nov	SUM
Fort Steele	f=235.2	138	115	253
Libby local	f=244.0	112	116	228

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
		250	231	216	251	208	223	558

SPRING PRECIP(SP), inches		Apr
Brisco	FS	0.78
Creston	FS	0.82
Kaslo	FS & LL	0.70
Wasa	FS	0.83
Fortine	LL	0.54
Porthill	FS & LL	0.53
Whitefish	LL	1.28

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