

LIBBY PROJECT INFLOW FORECAST, KAF

2001

FORECAST DATE	1 Jan	1 Feb	1 Mar	1 Apr	1 May
FORECAST'S KAF					
Apr-Aug runoff, Fort Steele	1841	1048	1902	1907	2019
Apr-Aug runoff, Libby Local	2415	2435	1464	1415	1493
Apr-Aug runoff, Libby inflow	4764	3936	3366	3322	3512
Apr-Aug norm, 6376.8, 1961-1990	74.7%	61.7%	52.8%	52.1%	55.1%
Apr-Jul runoff	4317	3567	3050	3011	3182
May-Jul runoff	3960	3272	2798	2762	2954
Jan-Jul runoff	4936	4138	3576	3484	3657
Date-Jul runoff	4936	3984	3275	3017	2966
Date-Jul standard error	1069	731	666	643	572
Date-Jul confidence limit, 1.64	1759	1202	1096	1058	941
Date-Jul 95% confidence	3178	2781	2180	1960	2025
Date-Jul 5% confidence	6695	5186	4371	4075	3907

FLOOD CONTROL, DRAFT BY:	31 Jan	28 Feb	15 Mar	31 Mar	30 Apr	lookback
required draft, KAF	1840.5	1048.3	500.0	500.0	508.2	
required elevation, FT	2415.3	2435.3	2448.0	2448.0	2447.8	

FORECAST COMPONENT SUMMARY	FRO	WP	SWE	SP	SP+NS	INT	TOTAL
FORT STEELE, B.C., (FS)	0.995	38.04	66.5	9.53	32.06		
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114							
inches	1.302	2.587	4.456		5.354	-5.114	8.585
inches*235.2=kaf							2019
LIBBY LOCAL, (LL)	0.898	37.88	43.6	7.92	27.70		
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183							
inches	0.827	3.258	2.006		4.210	-4.183	6.117
inches*244.0=kaf							1493

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	0.30	0.37	0.45	0.17	0.77	0.52
Brisco	FS	0.50	0.60	1.29	0.26	0.41	0.42
Fernie	LL	2.79	3.32	4.43	1.29	2.25	2.69
Kaslo	FS	1.69	0.70	2.66	0.50	0.15	0.98
Rogers Pass	FS	3.00	3.10	5.60	4.40	4.40	4.80
Fortine	LL	0.72	0.65	0.84	0.31	0.33	0.47
Libby RS	LL	0.33	1.28	1.33	0.88	0.89	0.83
Bonnars Ferry	LL	1.65	1.04	1.59	0.67	0.26	0.34
Polebridge	LL	1.10	0.80	2.40	0.80	0.70	0.90
SNOW WATER EQUIVALENT(SWE), inches				31 DEC	31 JAN	28 FEB	31 MAR
Glacier	FS			7.5	12.2	14.9	19.1
Kicking Horse	FS			3.0	4.0	5.5	7.0
Kimberly	LL			1.6	0.1	0.0	3.0
Marble Canyon	FS			2.9	4.2	6.0	7.6
Mirror Lake	FS			2.5	3.1	4.8	6.2
Morrissey Ridge	FS & LL*.5			4.8	6.8	9.1	14.2
New Fernie	FS & LL			3.1	3.5	4.6	6.1
Sullivan Mine	FS & LL			2.8	4.0	4.8	6.3
Red Mtn.	LL			3.5	2.5	5.6	8.8
Weisel Divide	LL			6.4	9.2	11.4	12.3

FALL RUNOFF(FRO), kaf		Oct	Nov	SUM
Fort Steele	f=235.2	148	86	234
Libby local	f=244.0	118	101	219

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
		266	187	166	154	147	166	224

SPRING PRECIP(SP), inches		Apr
Brisco	FS	0.80
Creston	FS	2.80
Kaslo	FS & LL	1.10
Wasa	FS	1.50
Fortine	LL	0.95
Porthill	FS & LL	3.33
Whitefish	LL	2.54

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