

LIBBY PROJECT INFLOW FORECAST, KAF

1999

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

Apr-Aug runoff, Libby inflow	6633	6924	7093	6956				
Apr-Aug norm, 6376.8, 1961-1990	104.0%	108.6%	111.2%	109.1%				
Apr-Jul runoff	6011	6275	6428	6304				
May-Jul runoff	5514	5756	5896	5782				
Jan-Jul runoff	6634	6949	7119	7000				
Date-Jul runoff	6634	6698	6660	6318				
Date-Jul standard error	1069	731	666	643				
Date-Jul confidence limit, 1.645	1759	1202	1096	1058				
Date-Jul 95% confidence	4875	5496	5565	5260				
Date-Jul 5% confidence	8392	7901	7756	7376				
=====								
FLOOD CONTROL, DRAFT BY:	31 Jan	28 Feb	15 Mar	31 Mar				
required draft, KAF	3109.3	4133.5	4581.2	4447.0				
required elevation, FT	2375.5	2333.4	2310.9	2318.1				
=====								
FORECAST COMPONENT SUMMARY	FRO	WP	WP+NS	SWE	SWE+NS	NSSPW	INT	TOTAL
FORT STEELE, B.C., (FS)	1.076	88.56	88.56	147.3	147.3	29.20		
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114								
inches	1.408		6.022		9.869	4.876	-5.114	17.062
inches*235.2=kaf								4013
LIBBY LOCAL, (LL)	0.934	69.37	69.37	120.1	120.1	25.62		
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183								
inches	0.861		5.966		5.525	3.894	-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								
normal subsequent spring precip(weighted) is NSSPW								
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	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		
Bonnors 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
	250	231	216	251	208	223

=====

Questions? Russ Morrow, 503-808-3951 or Bruce Glabau, 503-808-3950