

# Libby : February Runoff Forecast & Flood Control Calculation

WY 2007

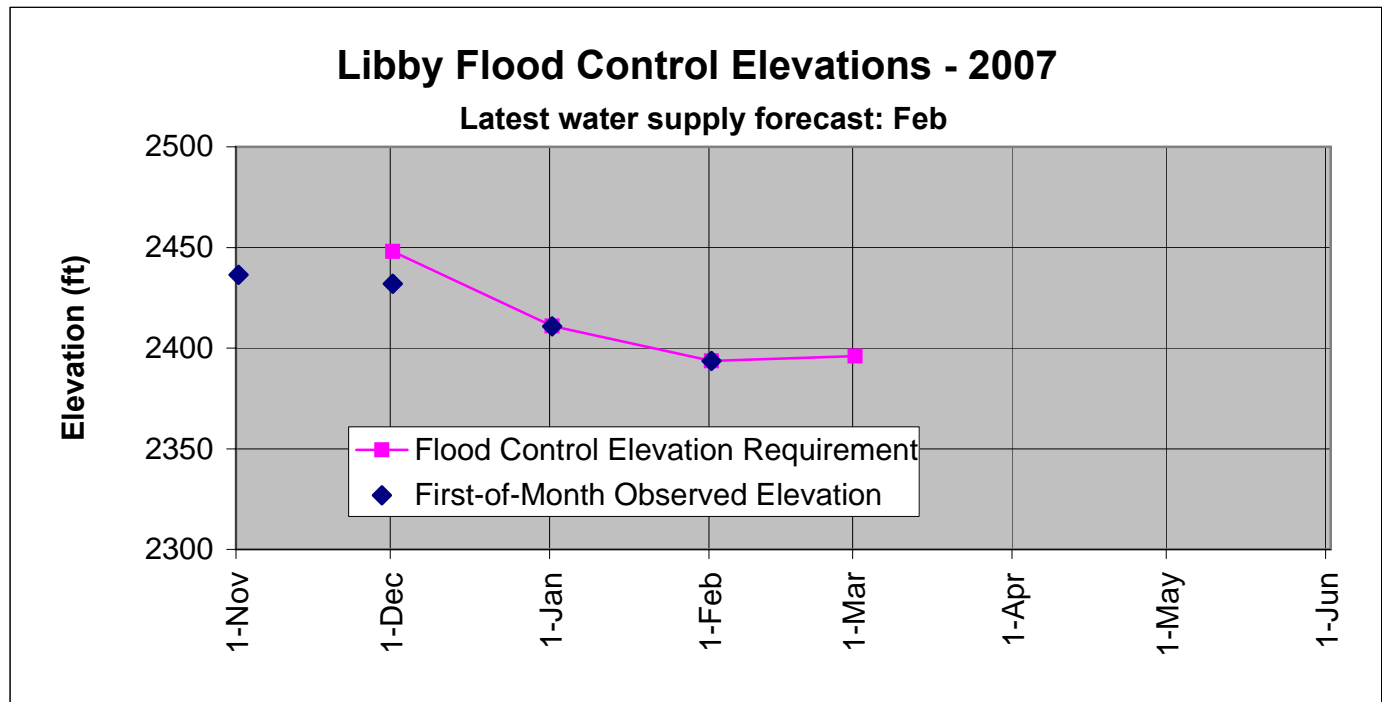
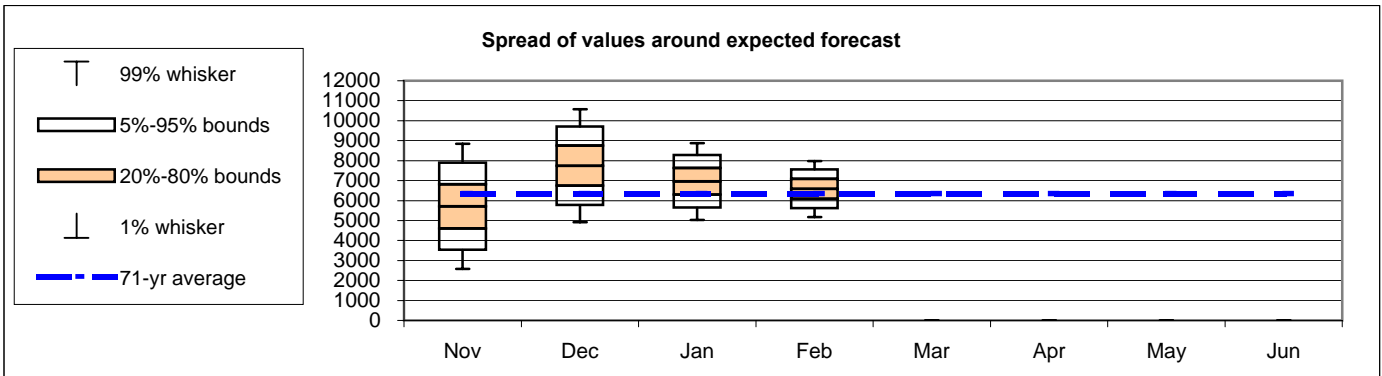
Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	6582	KAF
	Apr-Jul	5994	KAF
	May-Jul	5449	KAF
28/29 Feb Flood Control Space		2511	KAF
28/29 Feb Flood Control Elevation		2396.0	ft

1929-1999 Average	Percent of Average
6337	104%
5771	104%
5247	104%

Seasonal Flood Control		VARQ Flood Control Implemented						
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast	5710	7745	6955	6582				
First-of-Month Elev	2436.4	2432.0	2410.8	2393.7				

Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	2000	2582	2511				
Flood Control Elevation	2448.0	2411.0	2393.7	2396.0				



- Notes:
- The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact Ken Soderlind (503 808-3950), Arun Mylvahanan (503 808-3961), Patti Etzel (503 808-3958) or John McCoskery (503 808-3951).
  - Subsequent forecasts may differ from the originally published forecast due to updated values for precipitation, snow or streamflow.
  - Vermillion River snow measurements, with adjustments, are serving as a surrogate for Marble Canyon.

# Libby : February Runoff Forecast & Flood Control Calculation

Apr-Aug Runoff Forecast Calculation:						
Variable	Month(s)	Units	Observed Value	Percent of Average	Regression Coefficient	Marginal Runoff (KAF)
			A		B	=A*B
Glacier NP RP, BC	ΣOct,Nov,Dec Prcp	inches	23.72	109%	19.9	471.2
Kaslo, BC	ΣOct,Nov,Dec Prcp	inches	13.72	121%	42.7	586.3
Fortine 1N, MT	ΣOct,Nov,Dec Prcp	inches	4.75	121%	107.3	509.5
West Glacier, MT	ΣOct,Nov,Dec Prcp	inches	10.29	119%	45.9	472.7
Banff, AB	ΣDec,Jan Prcp	inches	1.49	59%	92.1	137.5
Fernie, BC	ΣDec,Jan Prcp	inches	8.58	74%	38.6	331.1
Cranbrook, BC	ΣDec,Jan Prcp	inches	2.54	74%	59.8	152.0
Libby 1 NE RS, MT	ΣDec,Jan Prcp	inches	4.26	95%	70.7	301.0
Vermillion R #3, BC	1-Feb SWE3	inches	9.37	106%	----	
Marble Canyon, BC	1-JFebSWE3	inches	11.50		57.6	662.6
East Creek, BC	1-Feb SWE	inches	29.37	114%	23.1	677.9
Hawkins Lake, MT	1-Feb SWE	inches	20.00	112%	26.9	537.4
Stahl Peak, MT	1-Feb SWE	inches	21.90	92%	23.5	515.2
Intercept			1		1227.2	1227.2
1-Feb Forecast (KAF)					Σ	6581.7

## Data used in Libby Water Supply Forecast

WY 2007

Climate Data	June	July	Aug	Sep						
SOI	-0.70	-0.80	-1.60	-0.70						
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units	
Cranbrook A, BC			36.00	28.60					mm	
Fernie, BC	48.30	438.40	104.60	113.40					mm	
Glacier NP Rogrs Pass, BC	94.50	315.00	193.00						mm	
Kaslo, BC	33.40	221.00	94.00						mm	
Banff, AB			20.50	17.40					mm	
Fortine 1N, MT	1.05	2.62	1.08						inch	
West Glacier, MT	1.89	6.21	2.19						inch	
Libby 1 NE RS, MT	1.36	5.85	2.25	2.01					inch	
Snow Water Equiv				1-Jan	1-Feb	1-Mar	1-Apr	1-May	15-May	Units
Vermillion Rvr No. 3, BC				184	238					mm
East Creek, BC				555	746					mm
Morrissey Ridge, BC										mm
Moyie Mountain, BC										mm
Sullivan Mine, BC										mm
Hawkins Lake, MT				20.0						inch
Stahl Peak, MT				21.9						inch
Streamflow				Jan	Feb	Mar	Apr	May	Jun	Units
Libby Inflow Volume				210.8						KAF
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units	
Libby FOM Elev	2436.4	2432.0	2410.8	2393.7					feet	