

Libby : June Runoff Forecast & Flood Control Calculation

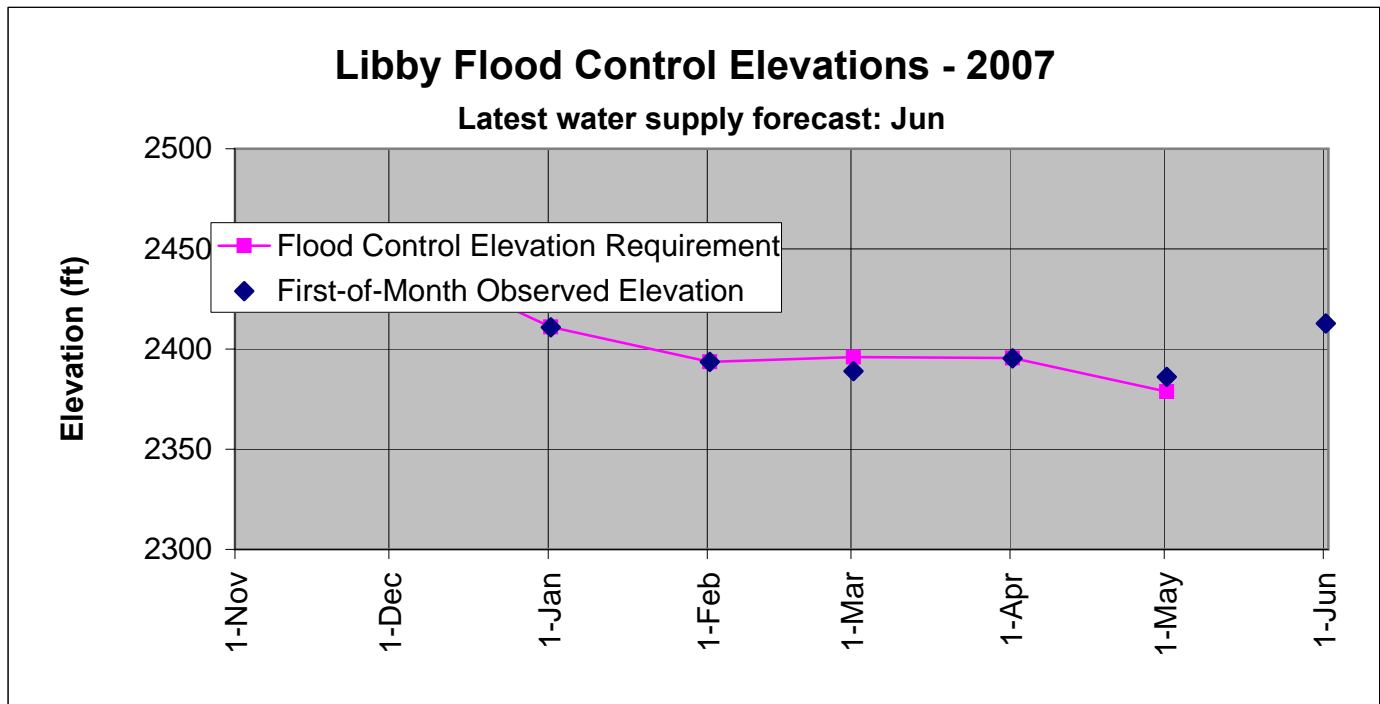
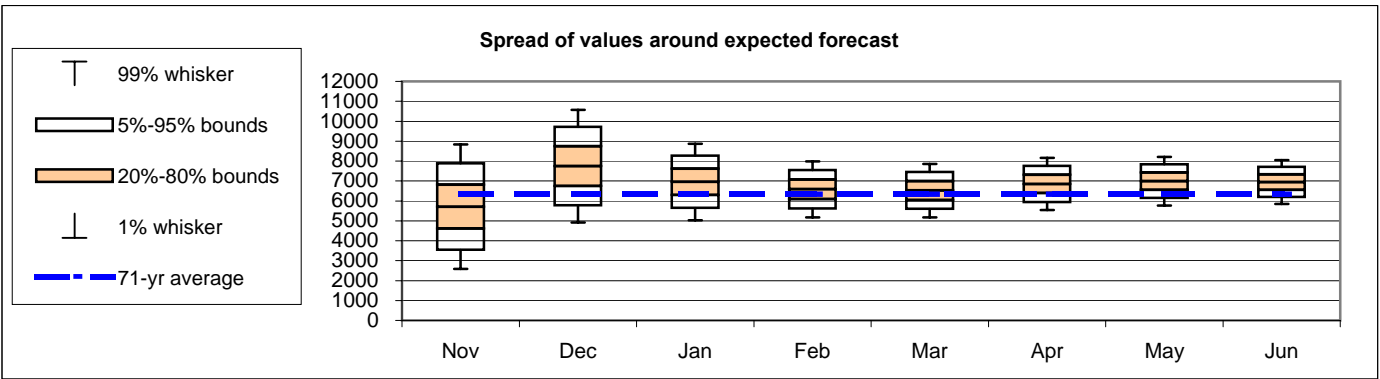
WY 2007

Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	6945	KAF
	Apr-Jul	6360	KAF
	May-Jul	5678	KAF

1929-1999 Average	Percent of Average
6337	110%
5771	110%
5247	108%

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	6516	6847	6990	6945
First-of-Month Elev	2436.4	2432.0	2410.8	2393.7	2389.0	2395.4	2386.1	2412.8

Date >>	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr
Flood Control Space	500	2000	2582	2511	2524	3020
Flood Control Elevation	2448.0	2411.0	2393.7	2396.0	2395.5	2378.7



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

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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%	9.2	218.6	
Kaslo, BC	ΣOct,Nov,Dec Prcp	inches	13.72	121%	23.9	327.7	
West Glacier, MT	ΣOct,Nov,Dec Prcp	inches	10.29	119%	30.5	313.6	
Banff, AB	May Prcp	inches	2.46	115%	54.4	133.9	
Fernie, BC	May Prcp	inches	4.43	140%	42.7	189.0	
Cranbrook, BC	May Prcp	inches	2.64	161%	167.2	440.9	
Morrissey Ridge, BC	1-May SWE	inches	31.73	115%	18.7	593.5	
Hawkins Lake, MT	1-May SWE	inches	29.20	105%	19.4	566.7	
Stahl Peak, MT	1-May SWE	inches	37.20	102%	20.5	760.9	
East Creek, BC	15-May SWE	inches	47.83	131%	12.5	596.0	
Sullivan Mine, BC	15-May SWE	inches	0.00	0%	37.7	0.0	
Moyie Mtn, BC	15-May SWE	inches	3.70	37%	28.811	106.6	
Intercept			1		-34.7	-34.7	
1-June Jun-Aug Forecast (KAF)						Σ	4212.6
Libby Inflow (KAF)	April	682	130%	May	2050	118%	
1-June Apr-Aug Forecast (KAF)							6944.6

Data used in Libby Water Supply Forecast

WY 2007

Climate Data	June	July	Aug	Sep					Units	
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	31.70	20.80	23.80	67.00	mm	
Fernie, BC	48.30	438.40	104.60	113.40	80.00	194.80	70.50	112.40	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	20.20	40.30	57.20	62.50	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	1.11	2.00			inch	
Snow Water Equiv				1-Jan	1-Feb	1-Mar	1-Apr	1-May	15-May	Units
Vermillion Rvr No. 3, BC				184	238	286	300			mm
East Creek, BC				555	746	875	1174	1324	1215	mm
Morrissey Ridge, BC								806		mm
Moyie Mountain, BC									94	mm
Sullivan Mine, BC									0	mm
Hawkins Lake, MT				20.0	25.0	28.7	29.2			inch
Stahl Peak, MT				21.9	27.5	31.2	37.2			inch
Streamflow				Jan	Feb	Mar	Apr	May	Jun	Units
Libby Inflow Volume				210.8	160.3	499.6	682.0	2050.0		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	2389.0	2395.4	2386.1	2412.8	feet	