

# Libby : May Runoff Forecast & Flood Control Calculation

WY 2008

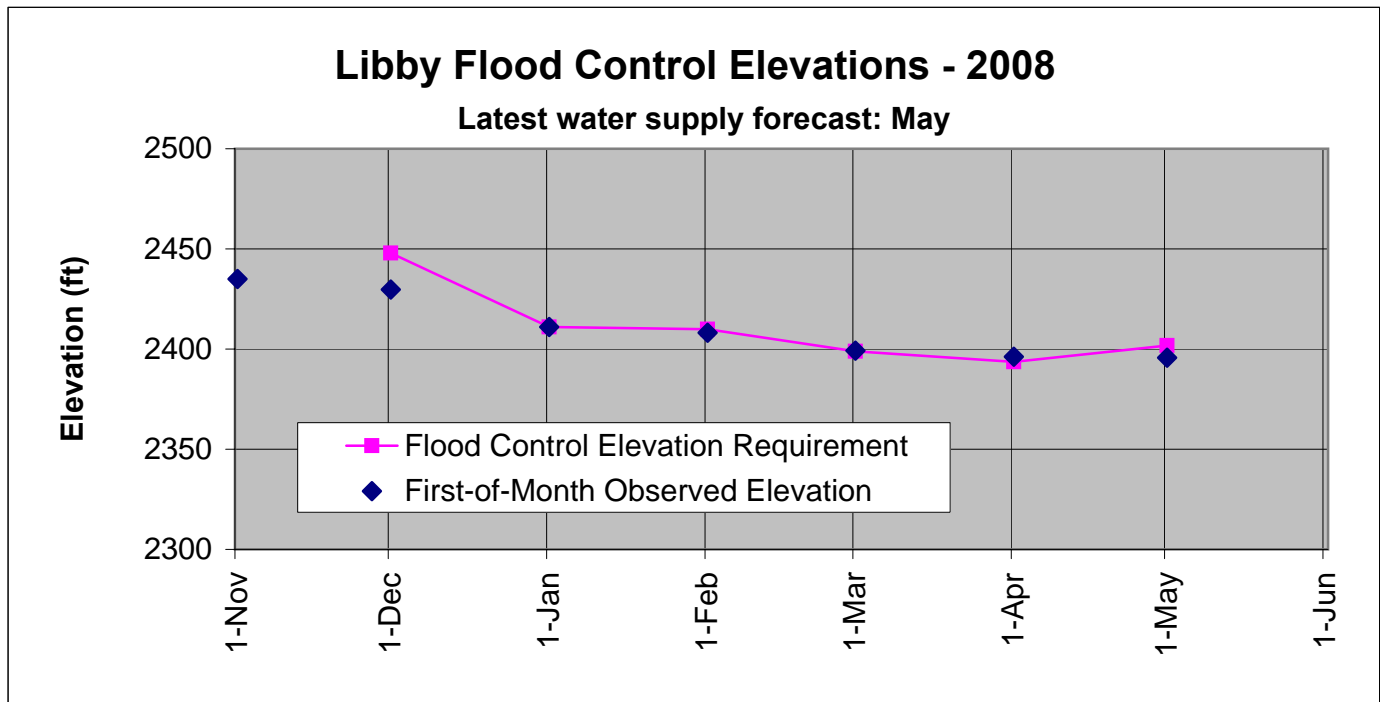
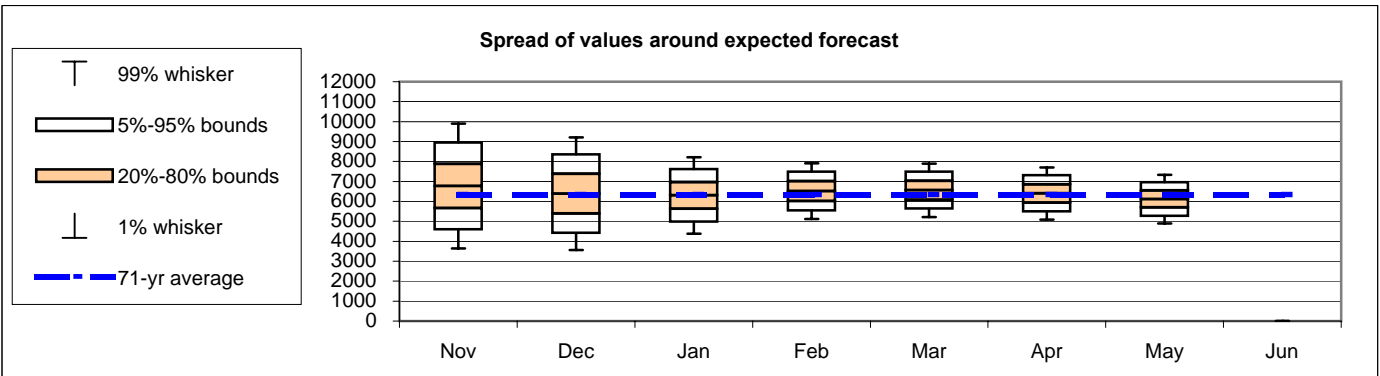
Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	6116	KAF
	Apr-Jul	5542	KAF
	May-Jul	5324	KAF

1929-1999 Average	Percent of Average
6337	97%
5771	96%
5247	101%

Seasonal Flood Control VARQ Flood Control Implemented								
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast	6764	6385	6298	6513	6558	6396	6116	
First-of-Month Elev	2435.0	2429.7	2411.0	2408.2	2399.2	2396.2	2395.7	

Date >>	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr
Flood Control Space	500	2000	2039	2418	2587	2323
Flood Control Elevation	2448.0	2411.0	2410.0	2398.9	2393.5	2401.8



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 Low (503 808-3958), or John McCoskery (503 808-3951).  
 2. Subsequent forecasts may differ from the originally published forecast due to updated values for precipitation, snow or streamflow.

# Libby : May 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	∑Oct,Nov,Dec Prcp	inches	25.04	115%	22.3	558.6
Kaslo, BC	∑Oct,Nov,Dec Prcp	inches	11.98	106%	50.4	603.1
West Glacier, MT	∑Oct,Nov,Dec Prcp	inches	8.88	103%	51.8	460.3
Banff, AB	∑Dec-to-Apr Prcp	inches	4.47	78%	67.9	303.6
Fernie, BC	∑Dec-to-Apr Prcp	inches	19.35	86%	32.5	628.0
Cranbrook, BC	∑Dec-to-Apr Prcp	inches	4.94	76%	63.5	313.7
East Creek, BC	1-May SWE	inches	38.66	102%	16.0	618.0
Morrissey Ridge, BC	1-May SWE	inches	30.55	111%	19.8	604.4
Hawkins Lake, MT	1-May SWE	inches	32.80	118%	20.6	677.3
Stahl Peak, MT	1-May SWE	inches	43.30	118%	21.2	916.7
Intercept			1		214.8	214.8
1-May May-Aug Forecast (KAF)						∑ 5898.6
Libby Inflow	April	KAF	218	42%		
1-May Apr-Aug Forecast (KAF)						6116.4

## Data used in Libby Water Supply Forecast

WY 2008

Climate Data	June	July	Aug	Sep					Units
SOI	0.20	-0.50	0.10	0.20					
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Cranbrook A, BC			59.40	26.40	14.60	13.80	11.20		mm
Fernie, BC	137.20	85.40	172.00	129.60	86.90	59.50	43.50		mm
Glacier NP Rogrs Pass, BC	168.60	211.00	256.50						mm
Kaslo, BC	81.80	87.80	134.60						mm
Banff, AB			39.30	20.00	13.10	8.90	32.30		mm
Fortine 1N, MT	0.62	1.02	0.86						inch
West Glacier, MT	2.96	2.00	3.92						inch
Libby 1 NE RS, MT	2.05	1.91	3.03	2.68	0.92	1.69			inch
Snow Water Equiv			1-Jan	1-Feb	1-Mar	1-Apr	1-May	15-May	Units
Vermillion Rvr No. 3, BC			136	187	280	286			mm
East Creek, BC			562	705	919	915	982		mm
Morrissey Ridge, BC							776		mm
Moyie Mountain, BC									mm
Sullivan Mine, BC									mm
Hawkins Lake, MT				18.7	24.1	29.1	32.8		inch
Stahl Peak, MT				27.1	33.8	39.2	43.3		inch
Streamflow			Jan	Feb	Mar	Apr	May	Jun	Units
Libby Inflow Volume			159.7	148.0	158.9	217.8			KAF
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Libby FOM Elev	2435.0	2429.7	2411.0	2408.2	2399.2	2396.2	2395.7		feet