

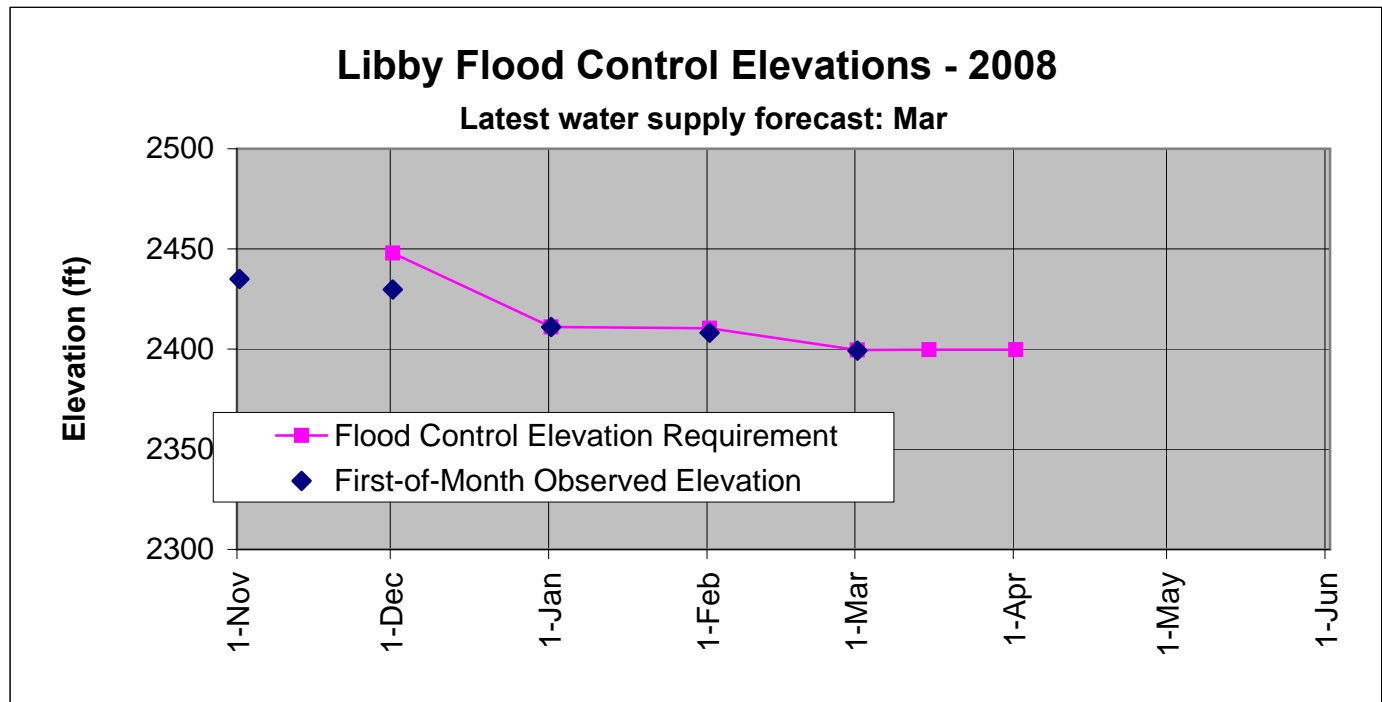
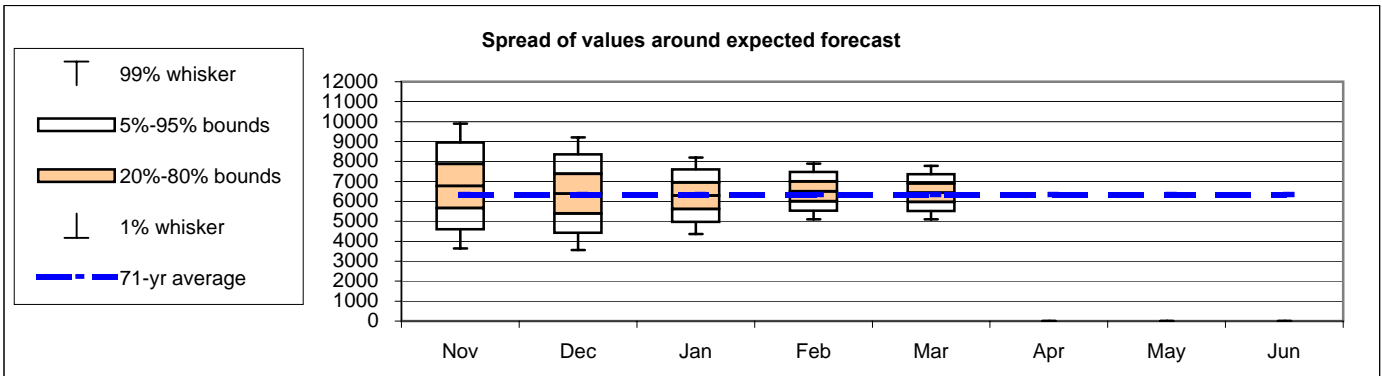
Libby : March Runoff Forecast & Flood Control Calculation

WY 2008

Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	6435	KAF
	Apr-Jul	5860	KAF
	May-Jul	5328	KAF
31-Mar Flood Control Space		2389	KAF
31-Mar Flood Control Elevation		2399.8	ft

1929-1999 Average	Percent of Average
6337	102%
5771	102%
5247	102%

Seasonal Flood Control		VARQ Flood Control Implemented						
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast	6764	6385	6282	6498	6435			
First-of-Month Elev	2435.0	2429.7	2411.0	2408.2	2399.2			
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	2000	2025	2397	2389	2389		
Flood Control Elevation	2448.0	2411.0	2410.3	2399.5	2399.8	2399.8		



- 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), Patti Low (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.

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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	∑Oct,Nov,Dec Prcp	inches	25.04	115%	19.6	491.6
Kaslo, BC	∑Oct,Nov,Dec Prcp	inches	11.98	106%	41.4	495.9
Fortine 1N, MT	∑Oct,Nov,Dec Prcp	inches	2.50	63%	103.4	258.6
West Glacier, MT	∑Oct,Nov,Dec Prcp	inches	8.88	103%	45.1	400.4
Banff, AB	∑Dec,Jan.Feb Prcp	inches	2.75	80%	74.3	204.5
Fernie, BC	∑Dec,Jan.Feb Prcp	inches	14.67	92%	31.4	460.3
Cranbrook, BC	∑Dec,Jan.Feb Prcp	inches	3.87	85%	56.9	220.2
Libby 1 NE RS, MT	∑Dec,Jan.Feb Prcp	inches	6.63	110%	72.3	479.3
Vermillion R #3, BC	1-Mar SWE ³	inches	10.24	90%	----	
Marble Canyon, BC	1-Mar SWE ³	inches	12.16		44.3	539.3
East Creek, BC	1-Mar SWE	inches	33.23	107%	18.3	607.1
Hawkins Lake, MT	1-Mar SWE	inches	24.10	109%	22.0	531.4
Stahl Peak, MT	1-Mar SWE	inches	33.80	113%	20.6	695.6
Intercept			1		1050.8	1050.8
1-Mar Forecast (KAF)					∑	6434.9

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			57.90	25.80	14.60				mm	
Fernie, BC	137.20	85.40	172.00	129.60	71.00				mm	
Glacier NP Rogrs Pass, BC	168.60	211.00	256.50						mm	
Kaslo, BC	81.80	87.80	134.60						mm	
Banff, AB			36.60	19.80	13.50				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				inch	
Snow Water Equiv				1-Jan	1-Feb	1-Mar	1-Apr	1-May	15-May	Units
Vermillion Rvr No. 3, BC				136	187	260				mm
East Creek, BC				562	705	844				mm
Morrissey Ridge, BC										mm
Moyie Mountain, BC										mm
Sullivan Mine, BC										mm
Hawkins Lake, MT					18.7	24.1				inch
Stahl Peak, MT					27.1	33.8				inch
Streamflow				Jan	Feb	Mar	Apr	May	Jun	Units
Libby Inflow Volume				159.7	148.0					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				feet	