

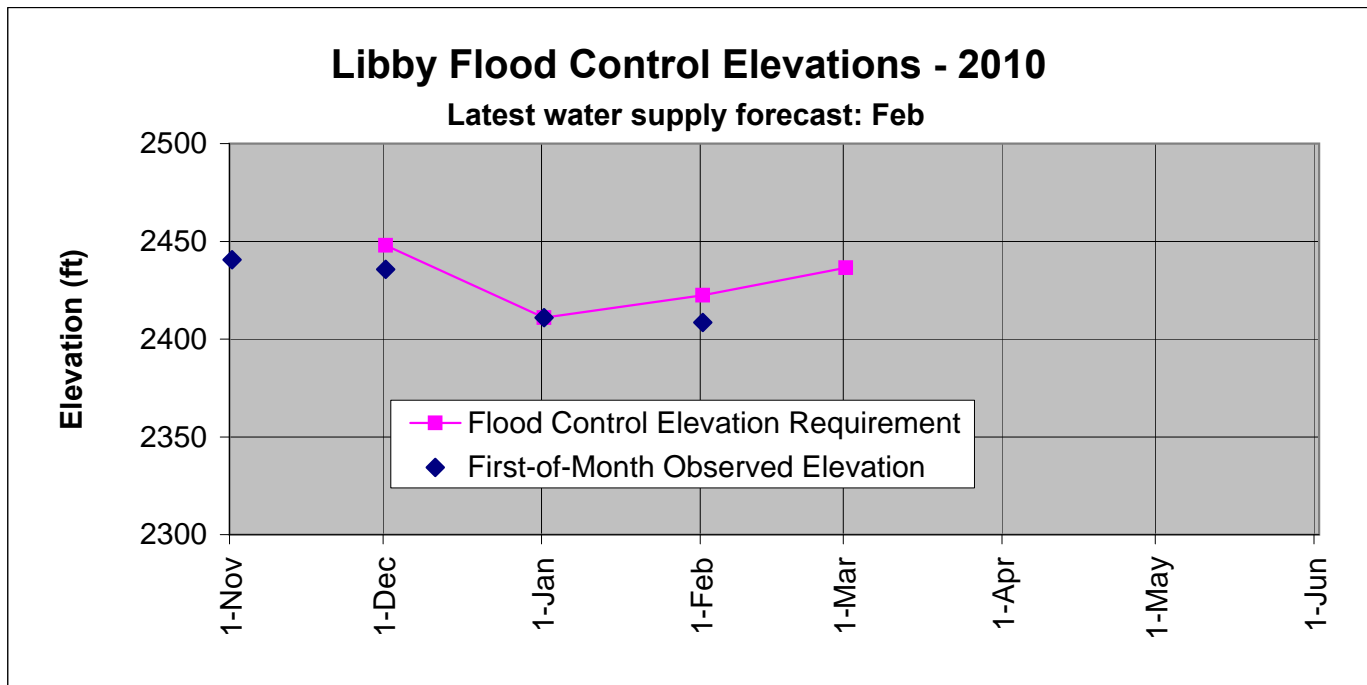
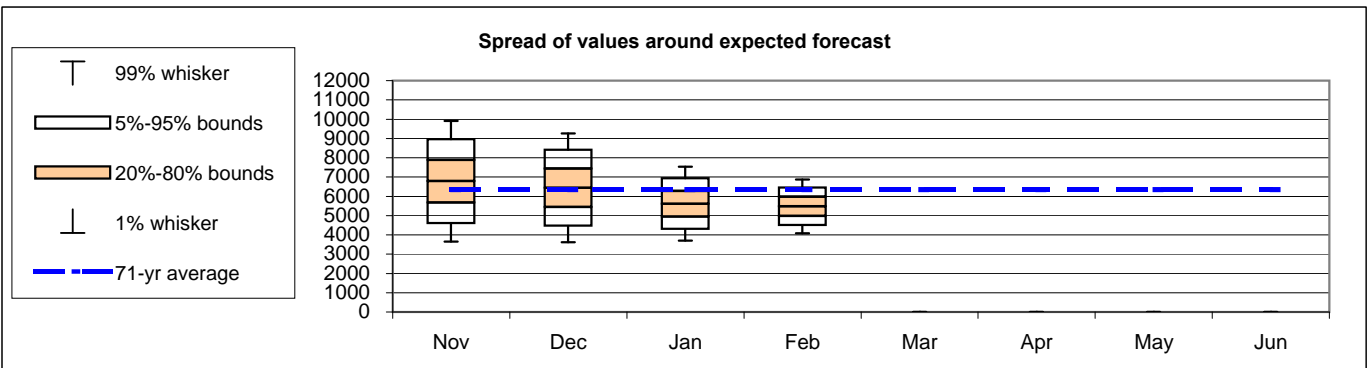
Libby : February Runoff Forecast & Flood Control Calculation

WY 2010

Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	5478	KAF
	Apr-Jul	4988	KAF
	May-Jul	4535	KAF
28/29 Feb Flood Control Space		1000	KAF
28/29 Feb Flood Control Elevation		2436.4	ft

1929-1999 Average	Percent of Average
6337	86%
5771	86%
5247	86%

Seasonal Flood Control VARQ Flood Control Implemented								
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast	6782	6439	5614	5478				
First-of-Month Elev	2440.5	2435.6	2410.9	2408.5				
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	2000	1570	1000				
Flood Control Elevation	2448.0	2411.0	2422.4	2436.4				



Notes:

- The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact Joel Fenolio (206 764-6683), Amy Reese (206 764-3660) or Kenneth Brettman (206 764-6567).
- 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	22.87	105%	19.9	454.3
Kaslo, BC	∑Oct,Nov,Dec Prcp	inches	11.95	105%	42.7	510.9
Fortine 1N, MT	∑Oct,Nov,Dec Prcp	inches	4.08	104%	107.3	437.7
West Glacier, MT	∑Oct,Nov,Dec Prcp	inches	8.06	94%	45.9	370.2
Banff, AB	∑Dec,Jan Prcp	inches	0.83	33%	92.1	76.2
Fernie, BC	∑Dec,Jan Prcp	inches	5.07	44%	38.6	195.5
Cranbrook, BC	∑Dec,Jan Prcp	inches	2.07	60%	59.8	123.8
Libby 1 NE RS, MT	∑Dec,Jan Prcp	inches	2.51	56%	70.7	177.3
Vermillion R #3, BC	1-Feb SWE ³	inches	6.89	78%	----	
Marble Canyon, BC	1-Feb SWE ³	inches	8.91		57.6	513.0
East Creek, BC	1-Feb SWE	inches	23.03	89%	23.1	531.6
Hawkins Lake, MT	1-Feb SWE	inches	13.80	77%	26.9	370.8
Stahl Peak, MT	1-Feb SWE	inches	20.80	87%	23.5	489.3
Intercept			1		1227.2	1227.2
1-Feb Forecast (KAF)						∑ 5477.9

Data used in Libby Water Supply Forecast

WY 2010

Climate Data	June	July	Aug	Sep					
SOI	-0.30	0.10	-0.70	0.30					
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Cranbrook A, BC			23.20	29.40					mm
Fernie, BC	21.78	82.30	85.70	43.00					mm
Glacier NP Rogrs Pass, BC	179.40	258.50	143.00						mm
Kaslo, BC	126.60	95.20	81.80						mm
Banff, AB			9.90	11.10					mm
Fortine 1N, MT	1.82	0.73	1.53						inch
West Glacier, MT	3.18	1.38	3.50						inch
Libby 1 NE RS, MT	1.98	1.16	1.23	1.28					inch
Snow Water Equiv	1-Jan			1-Feb	1-Mar	1-Apr	1-May	15-May	Units
Vermillion Rvr No. 3, BC	123			175					mm
East Creek, BC	450			585					mm
Morrissey Ridge, BC									mm
Moyie Mountain, BC									mm
Sullivan Mine, BC									mm
Hawkins Lake, MT				13.8					inch
Stahl Peak, MT				20.8					inch
Streamflow	Jan		Feb	Mar	Apr	May	Jun	Units	
Libby Inflow Volume								KAF	
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Libby FOM Elev	2440.5	2435.6	2410.9	2408.5					feet