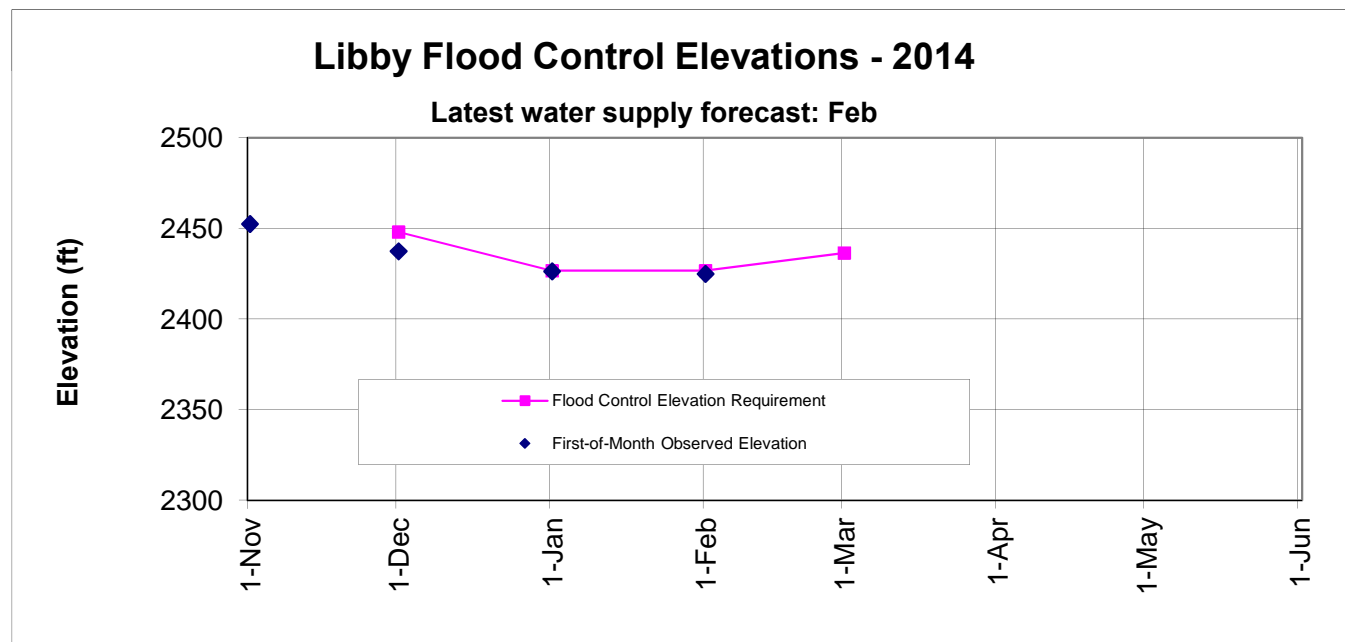
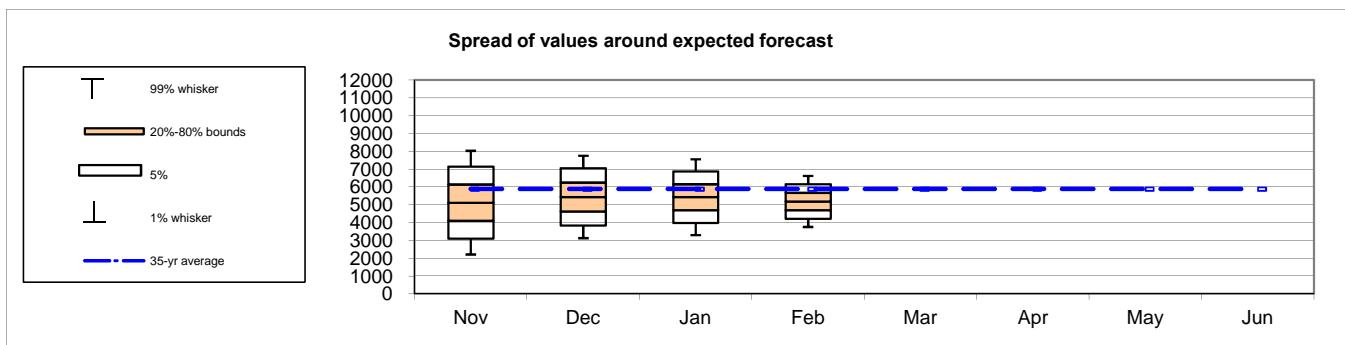


Libby : February Runoff Forecast & Flood Control Calculation

WY 2014

Runoff Forecast and Flood Control				1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average	
Most Probable Runoff Volume:	Apr-Aug	5192	KAF	5885	88%	6282	83%	
	Apr-Jul	4713	KAF	5342	88%	5720	83%	
	May-Jul	4253	KAF	4821	88%	5199	83%	
28 Feb Flood Control Space		1000	KAF					
28 Feb Flood Control Elevation		2436.4	ft					
Seasonal Flood Control				VARQ Flood Control Implemented				
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast	5125	5446	5432	5192				
First-of-Month Elev	2452.5	2437.4	2426.3	2424.9				
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	1403	1400	1000				
Flood Control Elevation	2448.0	2426.6	2426.7	2436.4				



Notes:

1. The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact Joel Fenolio (206) 764-6683, Kevin Shaffer (206) 764-3660, Adam Price (206) 764-3604, or Kristian Mickelson (206) 764-6927.
2. If a prior month's forecast as published in this document is different than what was originally published in the issue month, then the earlier forecast has been adjusted to reflect updated values for precipitation or streamflow.

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
QBO	∑Jan:Mar		-4.45		-7.9	35.0
Eureka, MT	∑Oct:Jan Prcp	inches	3.36	77%	62.2	208.9
Libby 1 NE RS, MT	∑Oct:Jan Prcp	inches	5.09	64%	54.7	278.3
West Glacier, MT	∑Oct:Jan Prcp	inches	10.22	82%	32.3	330.2
Fernie, BC	∑Oct:Jan Prcp	inches	18.01	81%	13.9	249.9
Floe Lake, BC	1-Feb SWE	inches	16.06	82%	10.9	175.1
Sunshine Village, AB	1-Feb SWE	inches	12.95	84%	22.4	289.5
East Creek, BC	1-Feb SWE	inches	18.54	76%	7.0	129.9
Stahl Peak, MT	1-Feb SWE	inches	20.80	87%	19.7	408.9
Gardiner Creek, AB	1-Feb SWE	inches	13.86	92%	16.6	229.7
Three Isle Lake, AB	1-Feb SWE	inches	10.98	85%	29.7	326.0
Lost Creek South, AB	1-Feb SWE	inches	16.06	101%	16.9	271.8
Morrissey Ridge, BC	1-Feb SWE	inches	15.79	86%	23.9	377.7
Hawkins Lake, MT	1-Feb SWE	inches	13.90	85%	32.9	457.6
Intercept			1		1423.0	1423.0
1-Feb Forecast (KAF)					∑	5191.6

Data used in Libby Water Supply Forecast

	WY							2014	
Climate Data	Jan-13	Feb-13	Mar-13	Jun-13	Jul-13	Oct-13	Nov-13	Dec-13	Jan-14
SOI				1.20	0.80				
QBO	-6.07	-1.23	2.85						
PNA						-0.21	-1.14	-1.16	
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka, MT	0.37	1.16	0.77	1.06					inch
Libby 1 NE RS, MT	0.59	2.22	1.20	1.08					inch
West Glacier, MT	0.55	4.31	2.66	2.70					inch
Fernie, BC	27.50	128.50	210.00	91.50					mm
Snow Water Equiv	1-Jan			1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Floe Lake, BC			274	408					mm
Sunshine Village, AB			236	329					mm
East Creek, BC			335	471					mm
Stahl Peak, MT			15	21					inch
Gardiner Creek, AB			257	352					mm
Three Isle Lake, AB			213	279					mm
Lost Creek South, AB			273	408					mm
Morrissey Ridge, BC			286	401					mm
Hawkins Lake, MT			8	14					inch
Streamflow	Jan		Feb	Mar	Apr	May	Jun	Units	
Libby Inflow Volume		190.4						KAF	
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Libby FOM Elev	2452.5	2437.4	2426.3	2424.9					feet

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