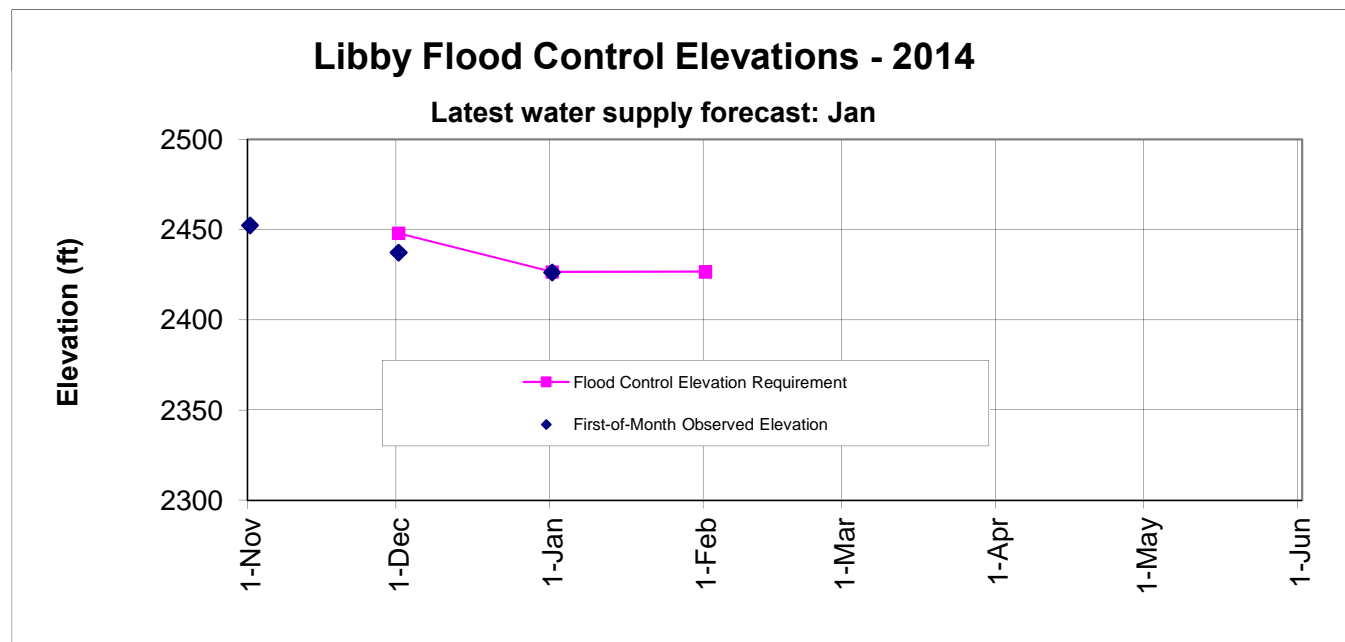
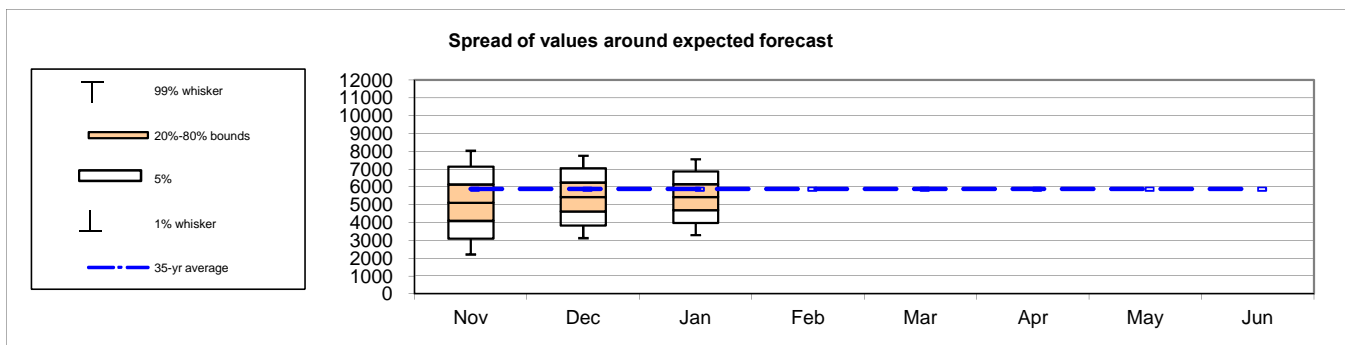


Libby : January Runoff Forecast & Flood Control Calculation

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	5432	KAF	5885	92%	6282	86%	
	Apr-Jul	4931	KAF	5342	92%	5720	86%	
	May-Jul	4450	KAF	4821	92%	5199	86%	
31-Jan Flood Control Space				1400	KAF			
31-Jan Flood Control Elevation				2426.7	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					
First-of-Month Elev	2452.5	2437.4	2426.3					
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	1403	1400					
Flood Control Elevation	2448.0	2426.6	2426.7					



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 : January 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		-7.4	33.0
Eureka, MT	∑Oct,Nov,Dec Prcp	inches	2.30	67%	77.3	177.8
Libby 1 NE RS, MT	∑Oct,Nov,Dec Prcp	inches	4.01	66%	60.7	243.4
West Glacier, MT	∑Oct,Nov,Dec Prcp	inches	7.52	84%	31.8	239.2
Fernie, BC	∑Oct,Nov,Dec Prcp	inches	14.41	88%	13.3	191.5
Floe Lake, BC	1-Jan SWE	inches	10.79	77%	9.4	101.4
Sunshine Village, AB	1-Jan SWE	inches	9.29	87%	24.3	226.0
East Creek, BC	1-Jan SWE	inches	13.19	78%	5.8	76.9
Stahl Peak, MT	1-Jan SWE	inches	15.40	95%	22.6	347.7
Gardiner Creek, AB	1-Jan SWE	inches	10.12	112%	21.8	220.6
Three Isle Lake, AB	1-Jan SWE	inches	8.39	91%	28.7	240.5
Lost Creek South, AB	1-Jan SWE	inches	10.75	96%	17.8	191.0
Morrissey Ridge, BC	1-Jan SWE	inches	11.26	97%	24.4	275.2
Hawkins Lake, MT	1-Jan SWE	inches	8.40	78%	36.5	306.2
Intercept			1		2561.5	2561.5
1-Jan Forecast (KAF)					∑	5431.9

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		
Precipitation Data		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka, MT		0.37	1.16	0.77						inch
Libby 1 NE RS, MT		0.59	2.22	1.20						inch
West Glacier, MT		0.55	4.31	2.66						inch
Fernie, BC		27.50	128.50	210.00						mm
Snow Water Equiv		1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units		
Floe Lake, BC		274								mm
Sunshine Village, AB		236								mm
East Creek, BC		335								mm
Stahl Peak, MT		15.4								inch
Gardiner Creek, AB		257								mm
Three Isle Lake, AB		213								mm
Lost Creek South, AB		273								mm
Morrissey Ridge, BC		286								mm
Hawkins Lake, MT		8.4								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		2452.5	2437.4	2426.3						feet

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