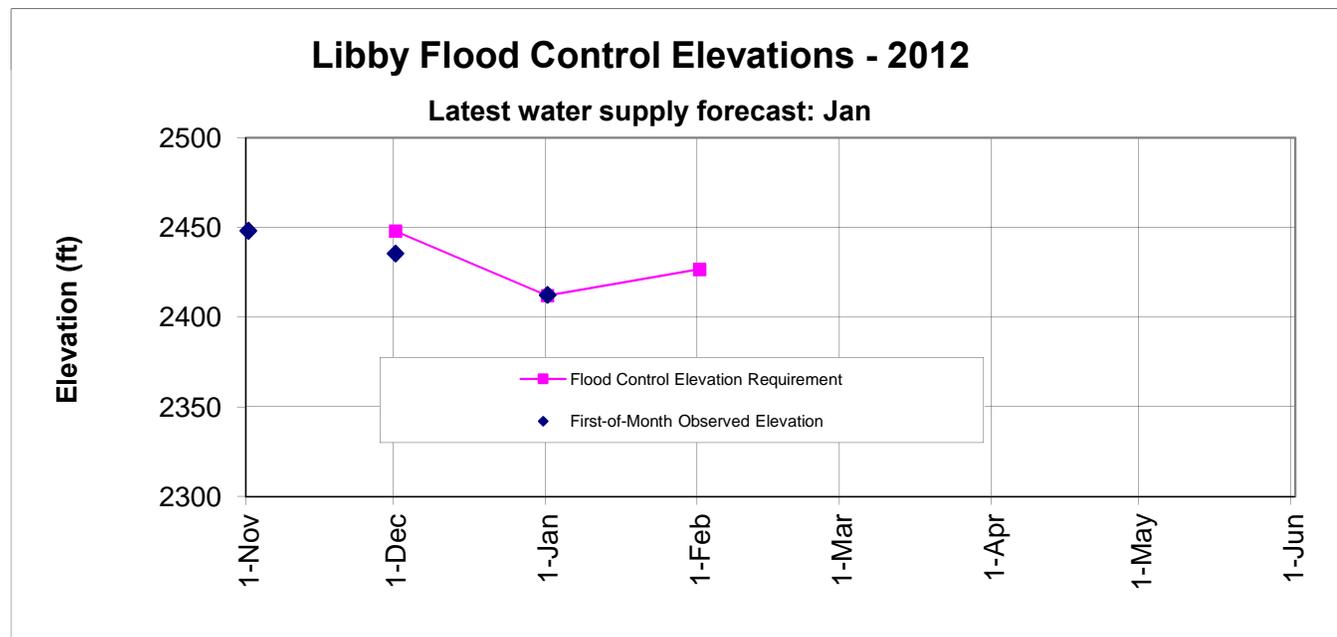
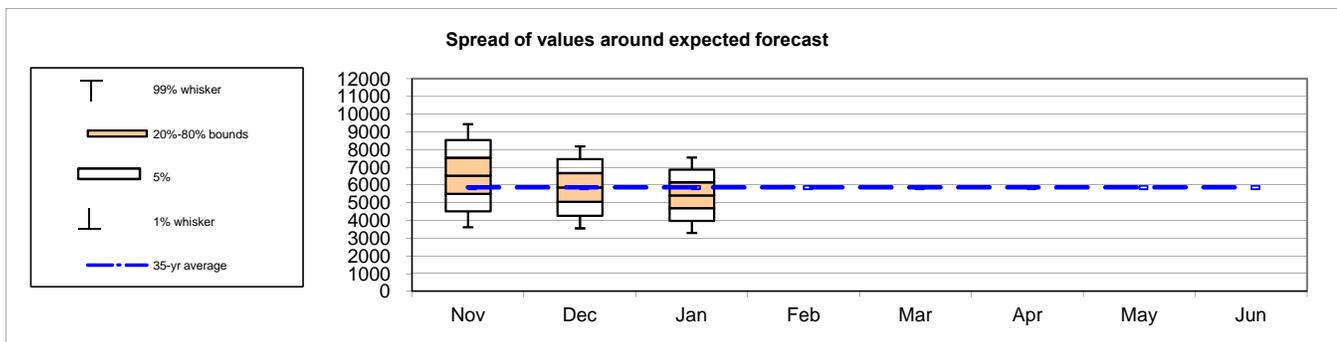


Libby : January Runoff Forecast & Flood Control Calculation

WY 2012

Runoff Forecast and Flood Control				1975-2009 Average	Percent of Average	1929-1999 Average	Percent of Average	
Most Probable Runoff Volume:	Apr-Aug	5429	KAF	5865	93%	6337	86%	
	Apr-Jul	4909	KAF	5303	93%	5771	85%	
	May-Jul	4440	KAF	4797	93%	5247	85%	
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	6532	5876	5429					
First-of-Month Elev	2448.3	2435.6	2412.5					
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	1965	1400					
Flood Control Elevation	2448.0	2412.0	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, or Kristian Mickelson (206) 764-6927.
 2. Subsequent forecasts may differ from the originally published forecast due to updated values for precipitation, snow or streamflow.
 3. The Lost Creek South, Alberta, snotel site is not currently functioning. Historical 1 January SWE data for Lost Creek South was regressed onto historical 1 January SWE for Mount Odium, Alberta. The regression was linear, with a correlation coefficient of 0.91. The result of the regression was used to estimate the 1 January 2012 SWE at Lost Creek South.

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		29.67		-7.4	-219.9
Eureka, MT	∑Oct,Nov,Dec Prcp	inches	3.09	90%	77.3	238.8
Libby 1 NE RS, MT	∑Oct,Nov,Dec Prcp	inches	5.66	93%	60.7	343.6
West Glacier, MT	∑Oct,Nov,Dec Prcp	inches	7.47	83%	31.8	237.6
Fernie, BC	∑Oct,Nov,Dec Prcp	inches	9.70	60%	13.3	129.0
Floe Lake, BC	1-Jan SWE	inches	16.09	114%	9.4	151.3
Sunshine Village, AB	1-Jan SWE	inches	10.87	102%	24.3	264.4
East Creek, BC	1-Jan SWE	inches	16.83	100%	5.8	98.1
Stahl Peak, MT	1-Jan SWE	inches	11.15	68%	22.6	251.7
Gardiner Creek, AB	1-Jan SWE	inches	3.52	39%	21.8	76.6
Three Isle Lake, AB	1-Jan SWE	inches	9.49	103%	28.7	272.1
Lost Creek South, AB	1-Jan SWE	inches	13.99	125%	17.8	248.6
Morrissey Ridge, BC	1-Jan SWE	inches	11.22	97%	24.4	274.2
Hawkins Lake, MT	1-Jan SWE	inches	13.75	127%	36.5	501.2
Intercept			1		2561.5	2561.5
1-Jan Forecast (KAF)					∑	5428.8

Data used in Libby Water Supply Forecast

WY 2012

Climate Data	Jan-11	Feb-11	Mar-11	Jun-11	Jul-11	Oct-11	Nov-11	Dec-11	Jan-12	
SOI				0.20	1.00					
QBO	9.18	10.05	10.44							
PNA						0.86	-0.76			
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units	
Eureka, MT	2.17	0.44	0.48						inch	
Libby 1 NE RS, MT	1.92	2.00	1.74						inch	
West Glacier, MT	3.90	1.51	2.06						inch	
Fernie, BC	120.10	73.80	52.60						mm	
Snow Water Equiv				1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Floe Lake, BC				409						mm
Sunshine Village, AB				276						mm
East Creek, BC				428						mm
Stahl Peak, MT				11						inch
Gardiner Creek, AB				89						mm
Three Isle Lake, AB				241						mm
Lost Creek South, AB				355						mm
Morrissey Ridge, BC				285						mm
Hawkins Lake, MT				14						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	2448.3	2435.6	2412.5						feet	