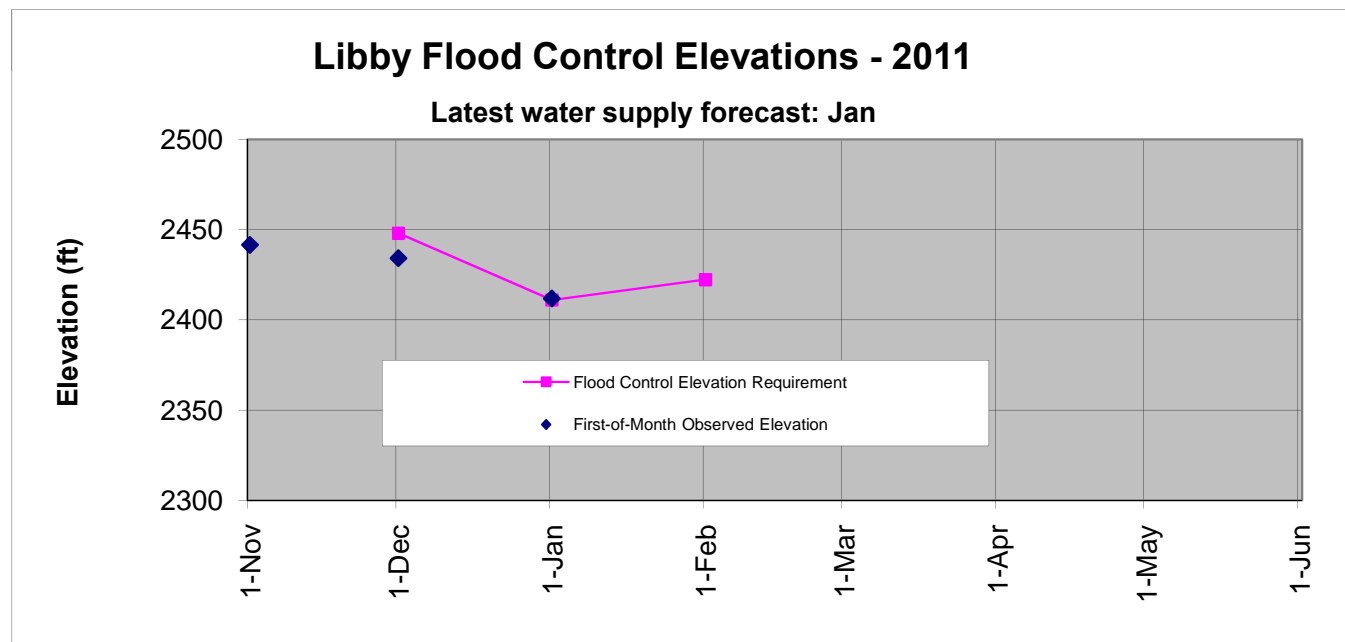
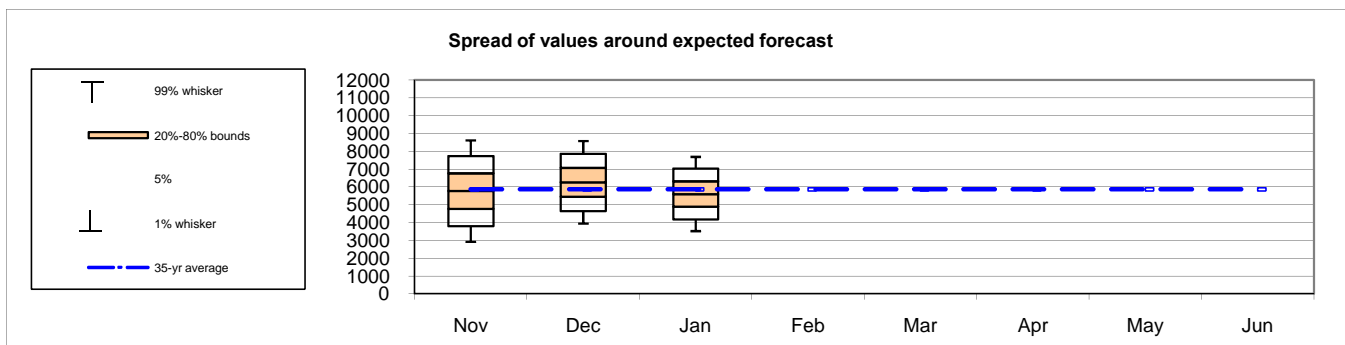


Libby : January Runoff Forecast & Flood Control Calculation

WY 2011

Runoff Forecast and Flood Control				1975-2009 Average	Percent of Average	1929-1999 Average	Percent of Average	
Most Probable Runoff Volume:	Apr-Aug	5610	KAF	5865	96%	6337	89%	
	Apr-Jul	5073	KAF	5303	96%	5771	88%	
	May-Jul	4589	KAF	4797	96%	5247	87%	
31-Jan Flood Control Space		1488	KAF					
31-Jan Flood Control Elevation		2422.3	ft					
Seasonal Flood Control VARQ Flood Control Implemented								
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast	5775	6262	5610					
First-of-Month Elev	2441.5	2434.2	2411.9					
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Control Space	500	2000	1488					
Flood Control Elevation	2448.0	2411.0	2422.3					



- 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), Amy Reese (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.

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		-52.68		-0.7	38.7
Eureka, MT	∑Oct,Nov,Dec Prcp	inches	3.47	101%	62.3	216.1
Libby 1 NE RS, MT	∑Oct,Nov,Dec Prcp	inches	6.63	109%	39.7	263.2
West Glacier, MT	∑Oct,Nov,Dec Prcp	inches	10.54	118%	29.7	313.3
Fernie, BC	∑Oct,Nov,Dec Prcp	inches	13.63	84%	14.0	190.3
Floe Lake, BC	1-Jan SWE	inches	9.89	70%	22.2	219.6
Sunshine Village, AB	1-Jan SWE	inches	6.59	62%	31.3	205.8
East Creek, BC	1-Jan SWE	inches	11.66	69%	15.4	179.9
Stahl Peak, MT	1-Jan SWE	inches	19.80	122%	19.7	390.9
Gardiner Creek, AB	1-Jan SWE	inches	13.14	145%	16.5	216.8
Three Isle Lake, AB	1-Jan SWE	inches	6.51	71%	36.2	235.7
Lost Creek South, AB	1-Jan SWE	inches	6.39	57%	24.6	156.9
Morrissey Ridge, BC	1-Jan SWE	inches	9.15	79%	20.1	184.1
Hawkins Lake, MT	1-Jan SWE	inches	11.00	102%	24.4	268.4
Intercept			1		2530.7	2530.7
1-Jan Forecast (KAF)					∑	5610.4

Data used in Libby Water Supply Forecast

WY 2011

Climate Data	Jan-10	Feb-10	Mar-10	Jun-10	Jul-10	Oct-10	Nov-10	Dec-10	Jan-11	
SOI				0.10	2.00					
QBO	-16.02	-16.98	-19.68							
PNA						1.80	-0.84			
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units	
Eureka, MT	0.52	2.11	0.84						inch	
Libby 1 NE RS, MT	1.27	2.65	2.71						inch	
West Glacier, MT	2.36	3.65	4.53						inch	
Fernie, BC	73.50	174.70	97.89						mm	
Snow Water Equiv				1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Floe Lake, BC				251						mm
Sunshine Village, AB				167						mm
East Creek, BC				296						mm
Stahl Peak, MT				20						inch
Gardiner Creek, AB				334						mm
Three Isle Lake, AB				165						mm
Lost Creek South, AB				162						mm
Morrissey Ridge, BC				233						mm
Hawkins Lake, MT				11						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	2441.5	2434.2	2411.9						feet	