

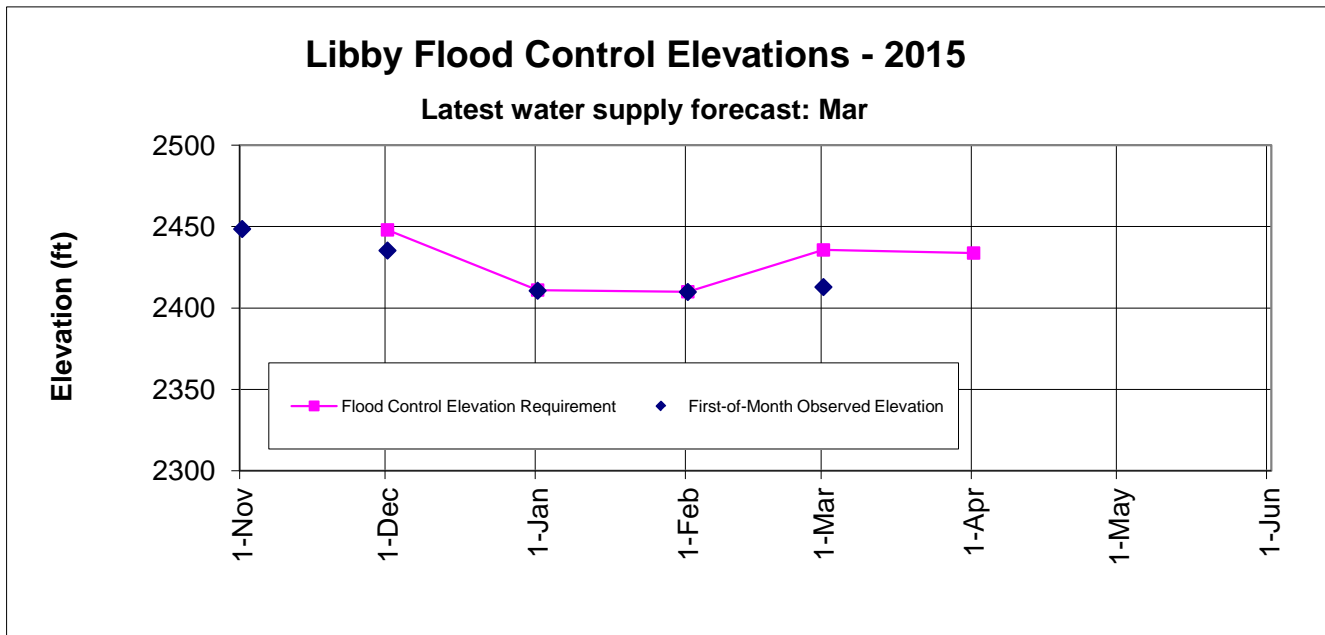
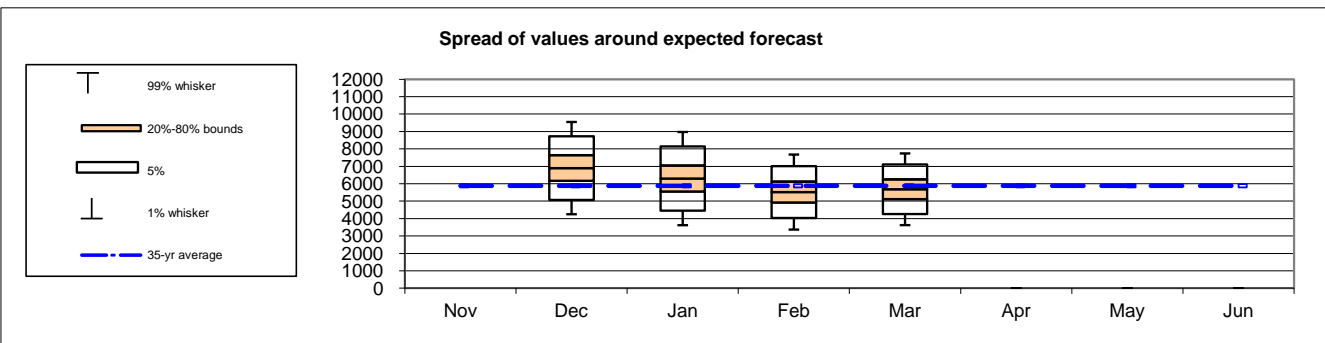
# Libby : March Runoff Forecast & Flood Control Calculation

WY 2015

Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	5683	KAF
	Apr-Jul	5159	KAF
	May-Jul	4656	KAF
31-Mar Flood Control Space		1112	KAF
31-Mar Flood Control Elevation		2433.8	ft

1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average
5885	97%	6282	90%
5342	97%	5720	90%
4821	97%	5199	90%

Seasonal Flood Control		VARQ Flood Control Implemented						
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast		6899	6297	5523	5683			
First-of-Month Elev	2448.5	2435.3	2410.6	2409.8	2412.9			
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr		
Flood Control Space	500	2000	2037	1032	1112			
Flood Control Elevation	2448.0	2411.0	2410.0	2435.7	2433.8			



**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.
3. Fernie precipitation values were not collected for 11 days during February. Fernie precipitation was scaled up using the ratio of Total February precipitation at Sparwood to precipitation at Sparwood on the days Fernie reported precip.

# Libby : March 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
SOI	∑Jun:Jul					
Eureka RS, MT	∑Oct:Feb Prcp	inches	6.05	122%	65.9	398.5
West Glacier, MT	∑Oct:Feb Prcp	inches	18.14	128%	28.5	517.2
Cranbrook A, BC	∑Oct:Feb Prcp	millimeters	151.60	112%	2.7	413.9
Fernie, BC	∑Oct:Feb Prcp	millimeters	668.90	117%	0.6	421.4
Hawkins Lake, MT	1-Mar SWE	inches	15.90	79%	24.3	386.8
Stahl Peak, MT	1-Mar SWE	inches	24.10	84%	19.1	460.6
East Creek, BC	1-Mar SWE	millimeters	706.00	100%	0.7	458.9
Moyie Mountain, BC	1-Mar SWE	millimeters	228.00	64%	1.3	289.6
Sunshine Village, AB	1-Mar SWE	millimeters	372.00	80%	1.3	468.7
Akamina Pass, AB	1-Mar SWE	millimeters	290.00	74%	1.0	301.6
South Racehorse Creek, AB	1-Mar SWE	millimeters	303.00	88%	1.4	424.2
Intercept			1		1142.0	1142.0
1-Mar Forecast (KAF)					∑	5683.3

## Data used in Libby Water Supply Forecast

WY 2015

Climate Data	Jan-14	Feb-14	Mar-14	Jun-14	Jul-14	Oct-14	Nov-14	Dec-14	Jan-15
SOI				0.20	-0.20				
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka RS, MT	0.55	2.42	1.22	1.21	0.65				inch
West Glacier, MT	2.64	5.77	4.07	3.08	2.58				inch
Cranbrook A, BC	29.40	53.60	25.50	22.90	20.20				mm
Fernie, BC	126.90	273.00	95.00	93.00	81.00				mm
Snow Water Equiv	1-Jan			1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Hawkins Lake, MT				12	16				inch
Stahl Peak, MT	15			19	24				inch
East Creek, BC				537	706				mm
Moyie Mountain, BC	131			193	228				mm
Sunshine Village, AB	200			266	372				mm
Akamina Pass, AB				230	290				mm
South Racehorse Creek, AB				234	303				mm
Streamflow	Jan		Feb	Mar	Apr	May	Jun	Units	
Libby Inflow Volume	218.8		335.0					KAF	
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Libby FOM Elev	2448.5	2435.3	2410.6	2409.8	2412.9				feet

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