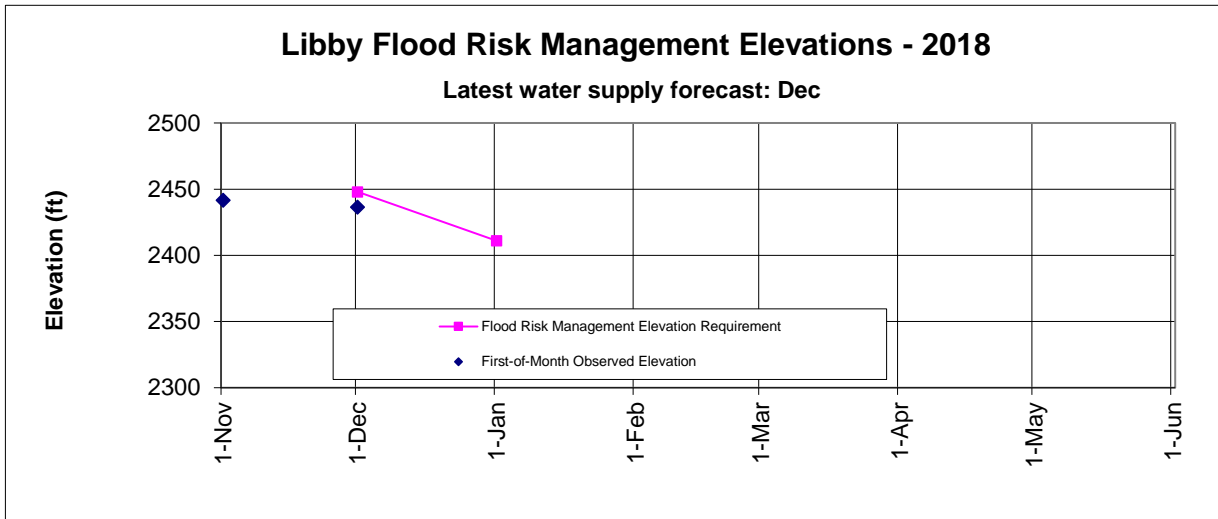
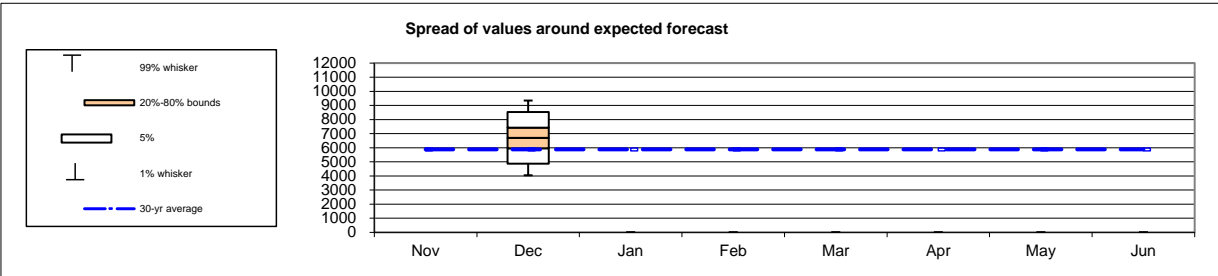


Libby : December Runoff Forecast & Flood Risk Management Calculation

WY 2018

Runoff Forecast and Flood Risk Management				1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average
Most Probable Runoff Volume:	Apr-Aug	6697	KAF	5885	114%	6282	107%
	Apr-Jul	6080	KAF	5342	114%	5720	106%
	May-Jul	5486	KAF	4821	114%	5199	106%
31-Dec Flood Risk Management Space		2000	KAF				
31-Dec Flood Risk Management Elevation		2411.0	ft				

Seasonal Flood Risk Management		Variable End-of-Dec Flood Risk Management Implemented						
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast		6697						
First-of-Month Elev	2441.8	2436.5						
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Risk Management Space	500	2000						
Flood Risk Management Elevation	2448.0	2411.0						



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, Jon Moen (206) 764 3561, or Kristian Mickelson (206) 764-6927.
2. If you notice that 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 : December Runoff Forecast & Flood Risk Management 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	ΣJun:Jul		0.40		133.4	53.4
Eureka RS, MT	ΣOct,Nov Precip	inches	2.67	113%	267.7	714.7
West Glacier, MT	ΣOct,Nov Precip	inches	7.67	128%	106.0	812.7
Cranbrook A, BC	ΣOct,Nov Precip	mm	88.60	149%	8.8	778.8
Fernie, BC	ΣOct,Nov Precip	mm	325.00	122%	2.0	633.8
Intercept			1		3704.0	3704.0
	1-Dec Forecast (KAF)				Σ	6697.3

Data used in Libby Water Supply Forecast

WY 2018

Climate Data				Jun-17	Jul-17				
SOI				-0.40	0.80				
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka RS, MT	0.87	1.80							inch
West Glacier, MT	3.10	4.57							inch
Cranbrook A, BC	25.00	63.60							mm
Fernie, BC	132.00	193.00							mm
Snow Water Equiv	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun			Units
Hawkins Lake, MT									inch
Stahl Creek, MT									inch
East Creek, BC									mm
Moyie Mountain, BC									mm
Sunshine Village, AB									mm
Akamina Pass, AB									mm
South Racehorse Creek, AB									mm
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	2441.8	2436.5							feet

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