

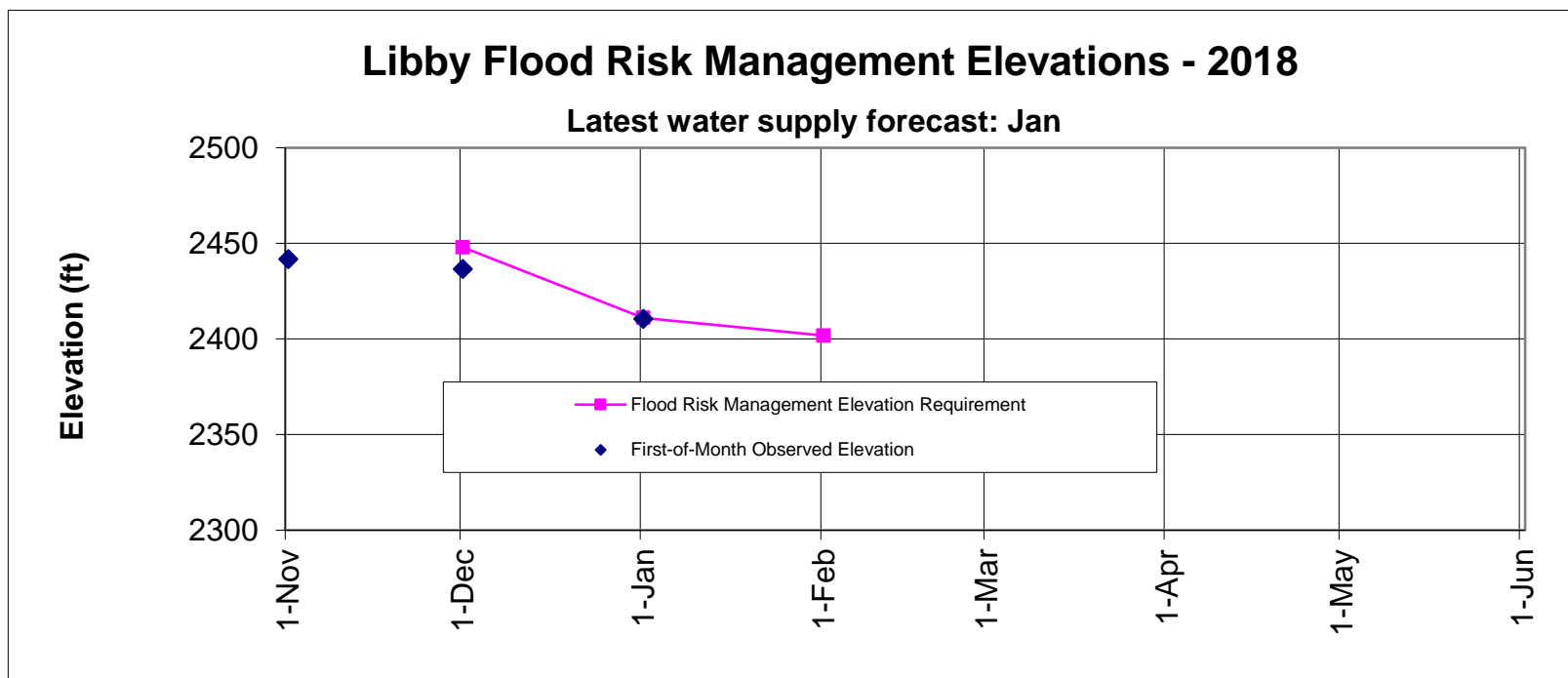
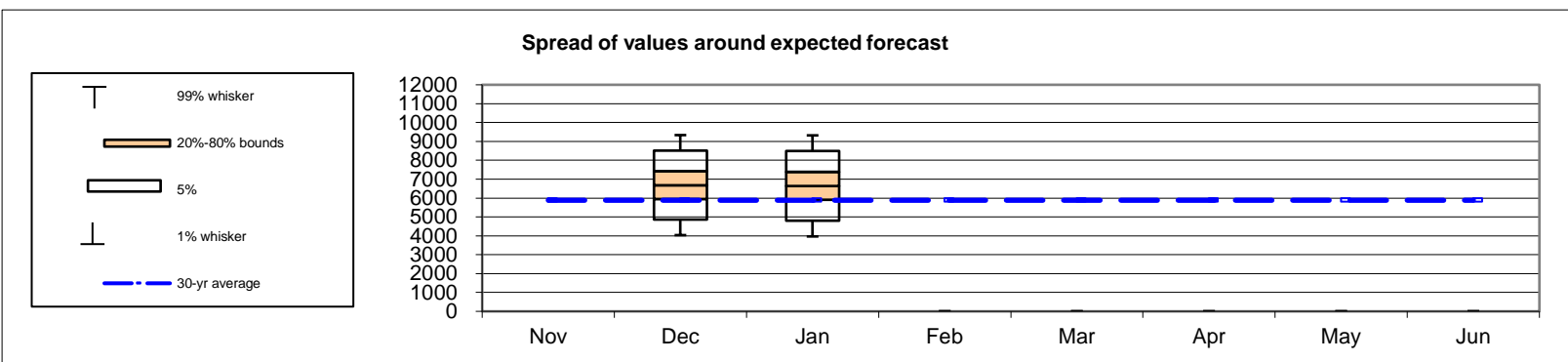
Libby : January Runoff Forecast & Flood Risk Management Calculation

WY 2018

Runoff Forecast and Flood Risk Management			
Most Probable Runoff Volume:	Apr-Aug	6645	KAF
	Apr-Jul	6032	KAF
	May-Jul	5443	KAF
31-Jan Flood Risk Management Space		2322	KAF
31-Jan Flood Risk Management Elevation		2401.8	ft

1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average
5885	113%	6282	106%
5342	113%	5720	105%
4821	113%	5199	105%

Seasonal Flood Risk Management								
VARQ Flood Risk Management Implemented								
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast		6687	6645					
First-of-Month Elev	2441.8	2436.5	2410.6					
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Risk Management Space	500	2000	2322					
Flood Risk Management Elevation	2448.0	2411.0	2401.8					



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, Jon Moen (206) 764-3561, 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 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		95.3	38.1
Eureka RS, MT	ΣOct,Nov,Dec Prcp	inches	4.69	138%	141.7	664.8
West Glacier, MT	ΣOct,Nov,Dec Prcp	inches	11.90	132%	58.4	695.2
Cranbrook A, BC	ΣOct,Nov,Dec Prcp	millimeters	135.60	149%	4.6	621.0
Fernie, BC	ΣOct,Nov,Dec Prcp	millimeters	403.00	110%	1.2	483.6
Hawkins Lake, MT	1-Jan SWE	inches				0.0
Stahl Creek, MT	1-Jan SWE	inches	14.50	89%	34.6	502.1
East Creek, BC	1-Jan SWE	millimeters				0.0
Moyie Mountain, BC	1-Jan SWE	millimeters	194.00	108%	1.6	307.5
Sunshine Village, AB	1-Jan SWE	millimeters	284.00	104%	2.1	607.8
Akamina Pass, AB	1-Jan SWE	millimeters				0.0
South Racehorse Creek, AB	1-Jan SWE	millimeters				0.0
Intercept			1		2724.4	2724.4
1-Jan Forecast (KAF)					Σ	6644.5

## 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	1.76	2.06						inch
West Glacier, MT		3.10	4.57	4.23						inch
Cranbrook A, BC		25.00	63.60	47.00						mm
Fernie, BC		132.00	193.00	78.00						mm
Snow Water Equiv		1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units		
Hawkins Lake, MT										inch
Stahl Creek, MT		15								inch
East Creek, BC										mm
Moyie Mountain, BC		194								mm
Sunshine Village, AB		284								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	2410.6						feet

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