

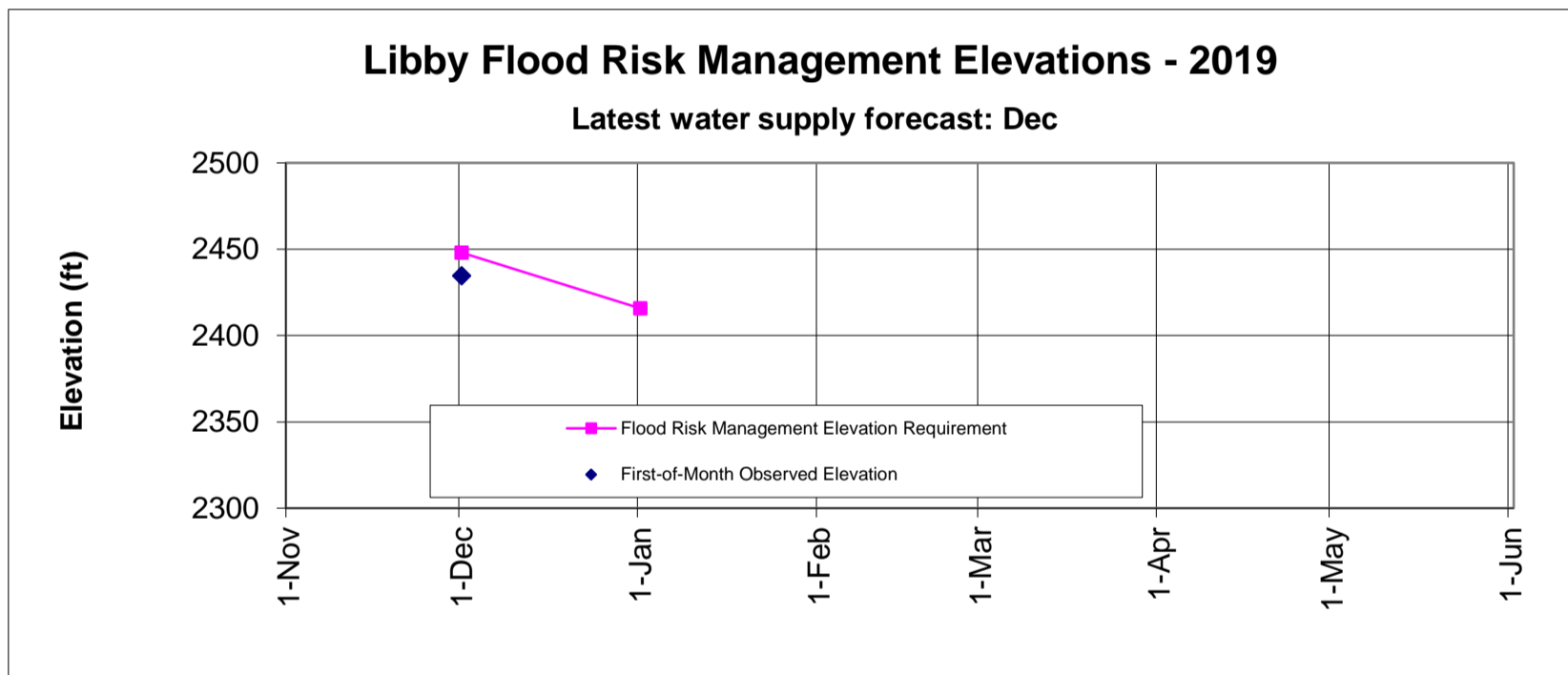
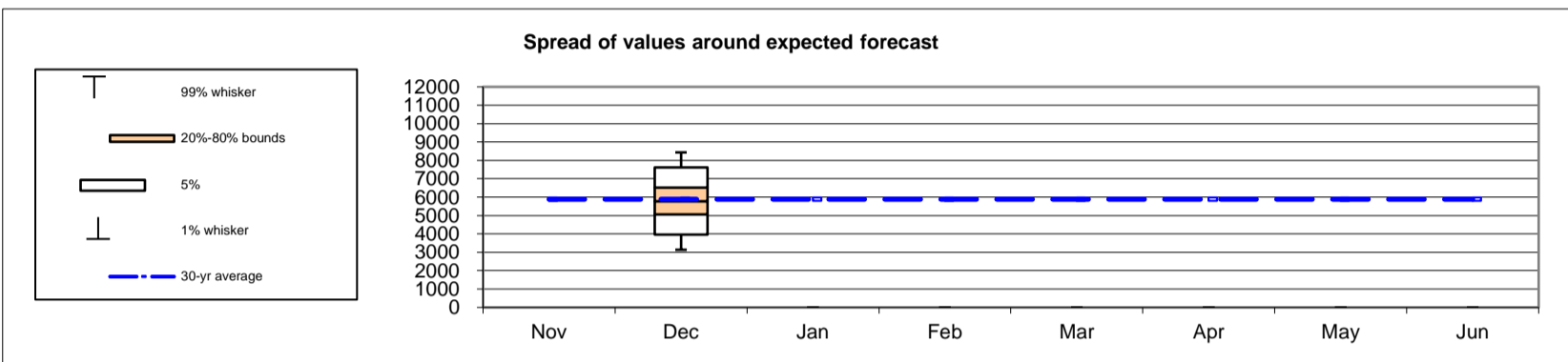
Libby : December Runoff Forecast & Flood Risk Management Calculation

WY 2019

Runoff Forecast and Flood Risk Management			
Most Probable Runoff Volume:	Apr-Aug	5784	KAF
	Apr-Jul	5251	KAF
	May-Jul	4738	KAF
31-Dec Flood Risk Management Space		1826	KAF
31-Dec Flood Risk Management Elevation		2415.7	ft

1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average
5885	98%	6282	92%
5342	98%	5720	92%
4821	98%	5199	91%

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		5784						
First-of-Month Elev	2441.9	2434.6						
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	15-Mar	31-Mar	15-Apr	30-Apr
Flood Risk Management Space	500	1826						
Flood Risk Management Elevation	2448.0	2415.7						



Notes:

- The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact Logan Osgood-Zimmerman (206) 764-6928, Kevin Shaffer (206) 764-3660, Sonja Michelsen (206) 316-3947, or Jon Moen (206) 764-3561.
- 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.

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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		0.10		133.4	13.3
Eureka RS, MT	∑Oct,Nov Precip	inches	2.19	93%	267.7	586.2
West Glacier, MT	∑Oct,Nov Precip	inches	5.74	95%	106.0	608.2
Cranbrook A, BC	∑Oct,Nov Precip	mm	49.10	83%	8.8	431.6
Fernie, BC	∑Oct,Nov Precip	mm	226.00	85%	2.0	440.7
Intercept			1		3704.0	3704.0
1-Dec Forecast (KAF)					∑	5784.0

Data used in Libby Water Supply Forecast

WY 2019

Climate Data		Jun-18	Jul-18							
SOI		-0.10	0.20							
Precipitation Data		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka RS, MT		1.64	0.55							inch
West Glacier, MT		2.55	3.19							inch
Cranbrook A, BC		34.50	14.60							mm
Fernie, BC		87.00	139.00							mm
Snow Water Equiv		1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units		
Hawkins Lake, MT										inch
Stahl Peak, 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		2441.9	2434.6							feet

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