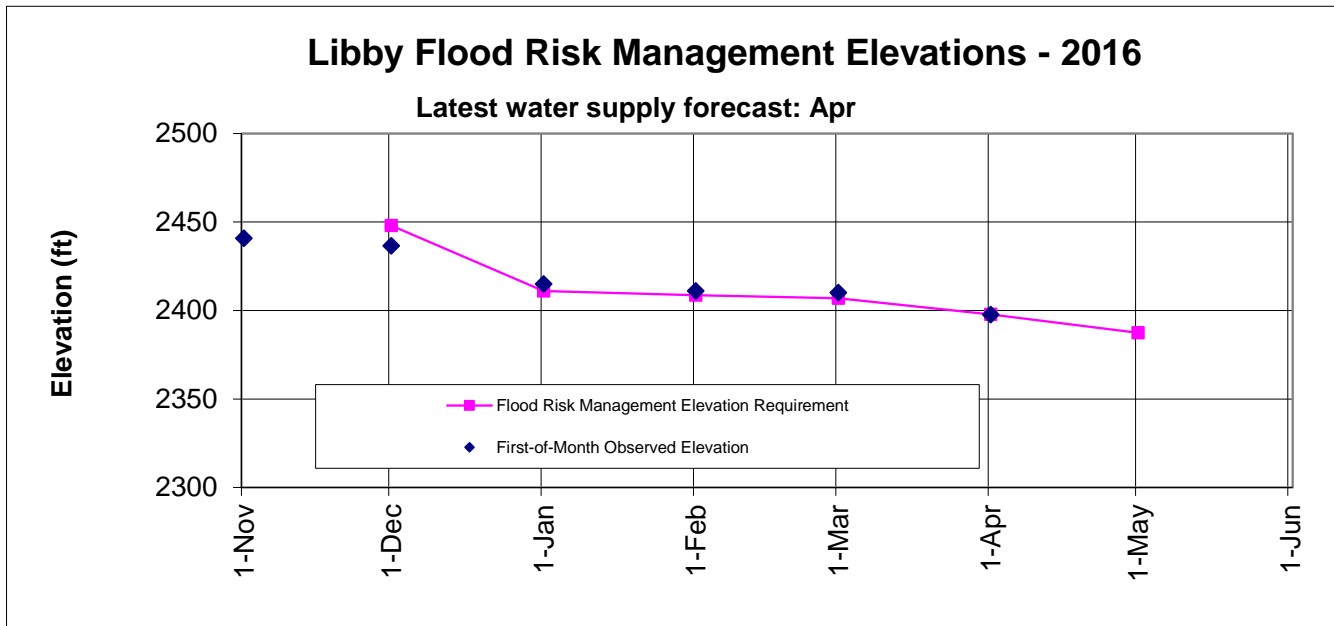
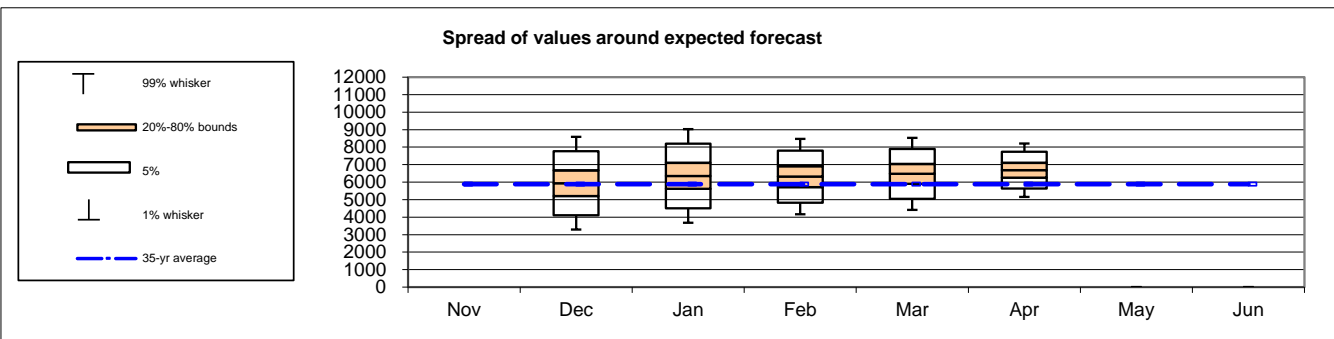


# Libby : April Runoff Forecast & Flood Risk Management Calculation

WY 2016

Runoff Forecast and Flood Risk Management				1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average	
<b>Most Probable Runoff Volume:</b>		<b>Apr-Aug</b>	<b>6681 KAF</b>	5885	114%	6282	106%	
		<b>Apr-Jul</b>	<b>6065 KAF</b>	5342	114%	5720	106%	
		<b>May-Jul</b>	<b>5473 KAF</b>	4821	114%	5199	105%	
<b>30-Apr Flood Risk Management Space</b>		<b>2772 KAF</b>						
<b>30-Apr Flood Risk Management Elevation</b>		<b>2387.4 ft</b>						
Seasonal Flood Risk Management				VARQ Flood Risk Management Implemented				
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Apr-Aug Runoff Forecast</b>		5940	6354	6318	6472	6681		
<b>First-of-Month Elev</b>	2440.7	2436.5	2415.0	2411.0	2410.1	2397.6		
Date >>	30-Nov	31-Dec	31-Jan	28/29-Feb	31-Mar	30-Apr		
<b>d Risk Management Space</b>	500	2000	2083	2145	2453	2772		
<b>isk Management Elevation</b>	2448.0	2411.0	2408.7	2407.0	2397.8	2387.4		



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, Kristy Riley (206) 316-3947, 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.

# Libby : April 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					
Eureka RS, MT	ΣOct:Mar Prcp	inches	8.22	141%	68.5	563.2
West Glacier, MT	ΣOct:Mar Prcp	inches	18.43	112%	29.5	543.1
Cranbrook A, BC	ΣOct:Mar Prcp	millimeters	200.90	126%	3.0	600.7
Fernie, BC	ΣOct:Mar Prcp	millimeters	775.40	115%	0.7	550.5
Hawkins Lake, MT	1-Apr SWE	inches	29.70	118%	22.4	666.2
Stahl Creek, MT	1-Apr SWE	inches	39.30	112%	19.7	774.2
East Creek, BC	1-Apr SWE	millimeters	1006.00	117%	0.7	734.4
Moyie Mountain, BC	1-Apr SWE	millimeters	406.00	95%	1.2	491.3
Sunshine Village, AB	1-Apr SWE	millimeters	541.00	96%	1.4	773.6
Akamina Pass, AB	1-Apr SWE	millimeters	464.00	100%	0.7	334.1
South Racehorse Creek, AB	1-Apr SWE	millimeters	429.00	100%	1.4	579.2
Intercept			1		70.5	70.5
1-Apr Forecast (KAF)					Σ	6681.0

## Data used in Libby Water Supply Forecast

	WY							2016	
	WY							Jul-05	
Climate Data	Jan-15	Feb-15	Mar-15	Jun-15	Jul-15	Oct-15	Nov-15	Dec-15	Jan-16
SOI				-0.60	-1.10				
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka RS, MT	1.37	1.73	2.69	1.33	0.59	0.51			inch
West Glacier, MT	1.93	2.45	4.62	3.07	2.68	3.68			inch
Cranbrook A, BC	16.60	49.30	50.80	38.00	17.20	29.00			mm
Fernie, BC	104.00	198.40	172.00	104.00	85.00	112.00			mm
Snow Water Equiv	1-Jan			1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Hawkins Lake, MT				17	23	30			inch
Stahl Creek, MT	15			24	32	39			inch
East Creek, BC				691	846	1006			mm
Moyie Mountain, BC	185			286	353	406			mm
Sunshine Village, AB	252			291	414	541			mm
Akamina Pass, AB				283	320	464			mm
South Racehorse Creek, AB				286	361	429			mm
Streamflow	Jan		Feb	Mar	Apr	May	Jun	Units	
Libby Inflow Volume	189.4		199.1	294.0				KAF	
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Libby FOM Elev	2440.7	2436.5	2415.0	2411.0	2410.1	2397.6			feet

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