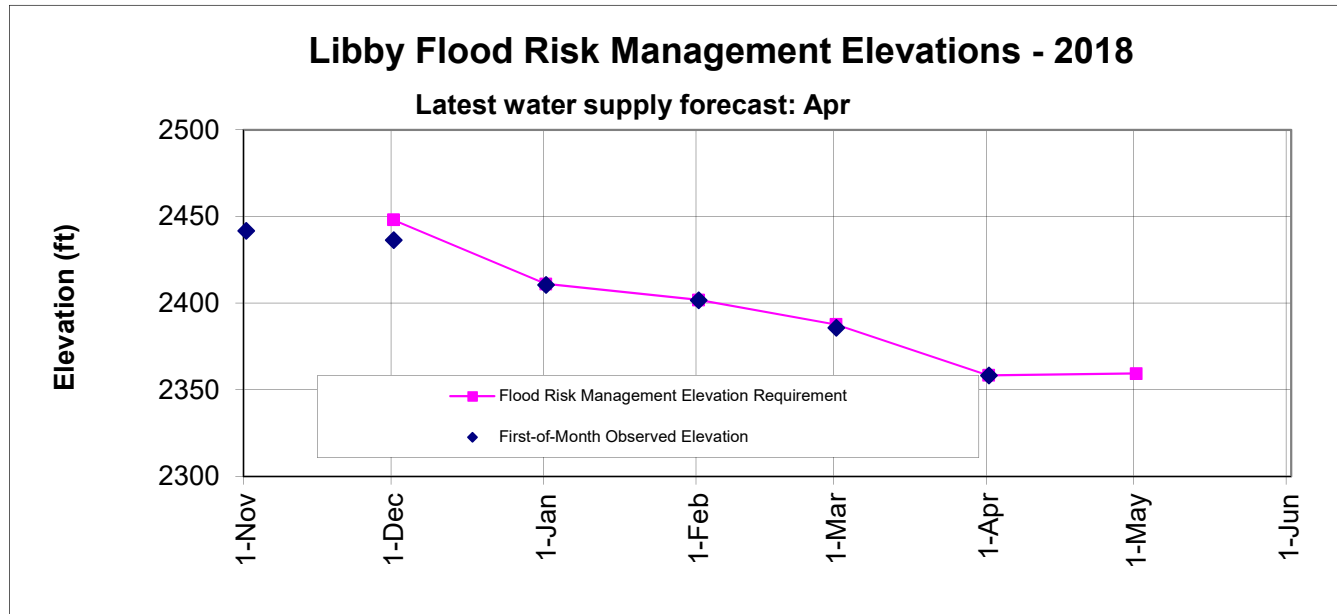
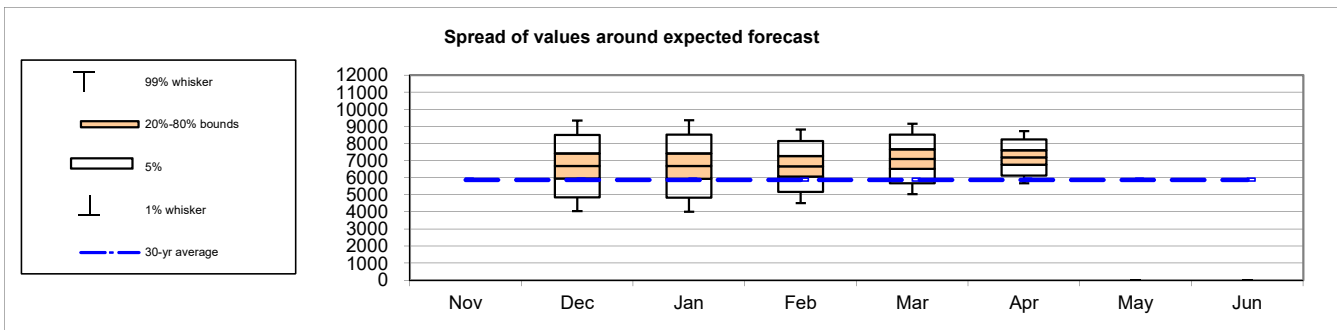


Libby : April Runoff Forecast & Flood Risk Management Calculation

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	7189	KAF	5885	122%	6282	114%	
	Apr-Jul	6526	KAF	5342	122%	5720	114%	
	May-Jul	5889	KAF	4821	122%	5199	113%	
30-Apr Flood Risk Management Space			3533	KAF				
30-Apr Flood Risk Management Elevation			2359.3	ft				
Seasonal Flood Risk Management				VARQ Flood Risk Management Implemented				
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast		6687	6681	6671	7096	7189		
First-of-Month Elev	2441.8	2436.5	2410.6	2401.8	2385.9	2358.4		
Date >>	30-Nov	31-Dec	31-Jan	28/29-Feb	31-Mar	30-Apr		
FRM Space	500	2000	2322	2762	3558	3533		
FRM Elevation	2448.0	2411.0	2401.8	2387.7	2358.3	2359.3		



Notes:

1. 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, Jon Moen (206) 764-3561, or the general Water Management line (206) 764-3584.
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. The Akamina Pass snow station was destroyed in a fire in Sept. 2017. Akamina Pass SWE was estimated based on a regression equation and observed values at nearby sites Grave Creek, Poorman Creek, Three Isle Lake, and Mount Odium.

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	8.16	140%	68.5	559.1
West Glacier, MT	ΣOct:Mar Prcp	inches	22.83	138%	29.5	672.8
Cranbrook A, BC	ΣOct:Mar Prcp	millimeters	219.00	137%	3.0	654.8
Fernie, BC	ΣOct:Mar Prcp	millimeters	770.80	115%	0.7	547.3
Hawkins Lake, MT	1-Apr SWE	inches	28.70	114%	22.4	643.7
Stahl Creek, MT	1-Apr SWE	inches	43.20	124%	19.7	851.0
East Creek, BC	1-Apr SWE	millimeters	905.00	105%	0.7	660.7
Moyie Mountain, BC	1-Apr SWE	millimeters	518.00	121%	1.2	626.8
Sunshine Village, AB	1-Apr SWE	millimeters	608.60	108%	1.4	870.3
Akamina Pass, AB	1-Apr SWE	millimeters	598.30	129%	0.7	430.8
South Racehorse Creek, AB	1-Apr SWE	millimeters	445.20	104%	1.4	601.0
Intercept			1		70.5	70.5
	1-Apr Forecast (KAF)				Σ	7188.8

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	2.33	0.84	1.35	1.01			inch
West Glacier, MT	3.10	4.57	4.23	4.18	5.02	1.73			inch
Cranbrook A, BC	25.00	63.60	47.00	29.80	27.20	26.40			mm
Fernie, BC	132.00	193.00	77.00	180.00	84.80	104.00			mm
Snow Water Equiv	1-Jan			1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Hawkins Lake, MT				18	23	29			inch
Stahl Creek, MT	15			26	35	43			inch
East Creek, BC				659	803	905			mm
Moyie Mountain, BC	194			318	429	518			mm
Sunshine Village, AB	284			407	511	609			mm
Akamina Pass, AB				362	479	598			mm
South Racehorse Creek, AB				240	356	445			mm
Streamflow	Jan			Feb	Mar	Apr	May	Jun	Units
Libby Inflow Volume	205.1			166.2	214.4				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	2401.8	2385.9	2358.4			feet

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