

Libby : January Runoff Forecast & Flood Risk Management Calculation

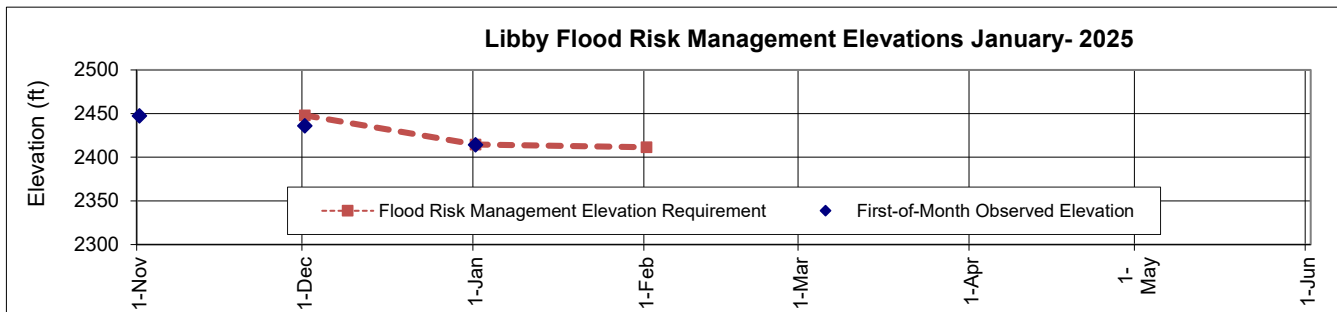
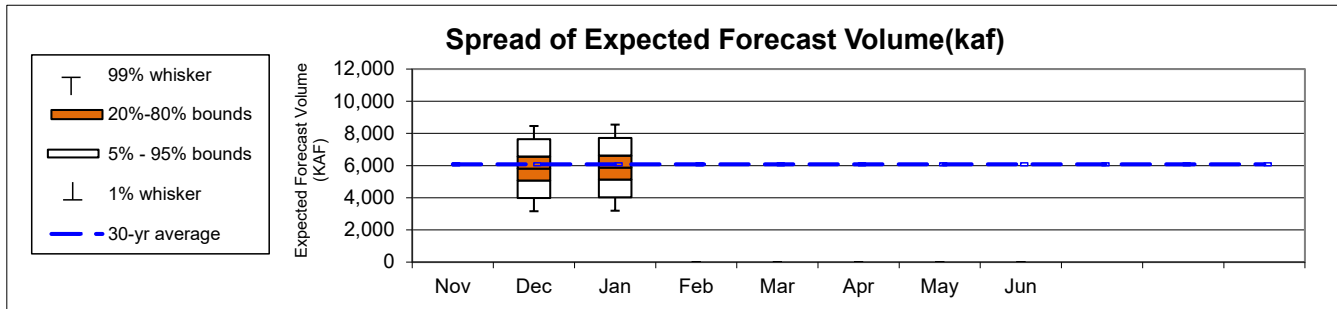
WY 2025

Runoff Forecast	January	1991-2020 Average	1991 - 2020 Percent of Average	1929-2020 Average	1929 - 2020 Percent of Average
Most Probable Runoff Volume: Apr-Aug (kaf)	5871	6080	97%	6259	94%
Most Probable Runoff Volume: Apr-Jul (kaf)	5379	5570	97%	5708	94%
Most Probable Runoff Volume: May-Jul (kaf)	4842	5014	97%	5183	93%

Flood Risk Management	January
31-Jan Flood Risk Management Space (kaf)	1983
31-Jan Flood Risk Management Elevation (ft)	2411.5

Forecast/Reservoir Data	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast (kaf)		5812	5871					
First-of-Month Elev (ft)	2447.5	2436.1	2414.4					

Seasonal FRM Requirements	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr		
Flood Risk Management Space (kaf)	500	1867	1983					
Flood Risk Management Elevation (ft)	2448.0	2414.6	2411.5					



Notes:

- The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact Leon Basdekas (208) 353-2564, Andrew McCall (206) 715-2793, or David Doll (206) 741-3538.
- 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.

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**Apr-Aug Runoff Forecast Calculation:**

Variable	Month(s)	Units	Observed Value A	Percent of Average (1991-2020)	Regression Coefficient B	Marginal Runoff (KAF) =A*B
SOI	ΣJun:Jul		-0.70		95.28	-66.7
Eureka RS, MT	ΣOct:Dec Prcp	inches	2.86	77%	141.74	405.4
West Glacier, MT	ΣOct:Dec Prcp	inches	8.48	89%	58.42	495.4
Cranbrook A, BC	ΣOct:Dec Prcp	millimeters	72.60	75%	4.58	332.5
Fernie, BC	ΣOct:Dec Prcp	millimeters	451.61	119%	1.20	541.9
Hawkins Lake, MT	1-Jan SWE	inches				
Stahl Peak, MT	1-Jan SWE	inches	19.70	117%	34.63	682.2
East Creek, BC	1-Jan SWE	millimeters				
Moyie Mountain, BC	1-Jan SWE	millimeters	192.00	106%	1.59	304.3
Sunshine Village, AB	1-Jan SWE	millimeters	211.00	78%	2.14	451.5
Akamina Pass, AB	1-Jan SWE	millimeters				
South Racehorse Creek, AB	1-Jan SWE	millimeters				
Intercept			1		2724.44	2724.4
January Forecast	April - August	kaf				5871.0

**Data used in Libby Water Supply Forecast**

Climate Data	Jun-22	Jul-22
SOI	0.00	-0.70

Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Eureka RS, MT (inch)	0.60	1.25	1.01					
West Glacier, MT (inch)	0.98	4.49	3.01					
Cranbrook A, BC (mm)	8.50	44.40	19.70					
Fernie, BC (mm)	151.89	187.20	112.52					

Snow Water Equiv	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Hawkins Lake, MT (inch)								
Stahl Peak, MT (inch)			20					
East Creek, BC (mm)								
Moyie Mountain, BC (mm)			192					
Sunshine Village, AB (mm)			211					
Akamina Pass, AB (mm)								
South Racehorse Creek, AB (mm)								

Streamflow	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Libby Inflow Volume (kaf)								

Reservoir Elevation	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Libby FOM Elev (feet)	2447.5	2436.1	2414.4					

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