

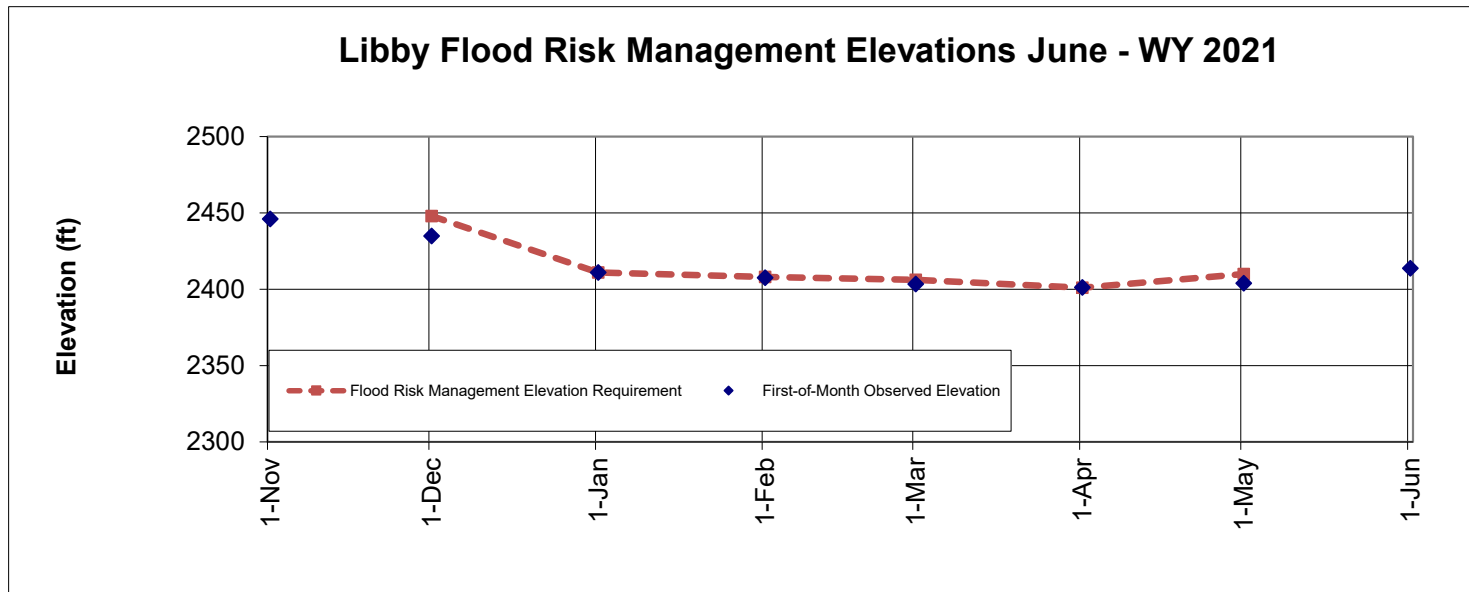
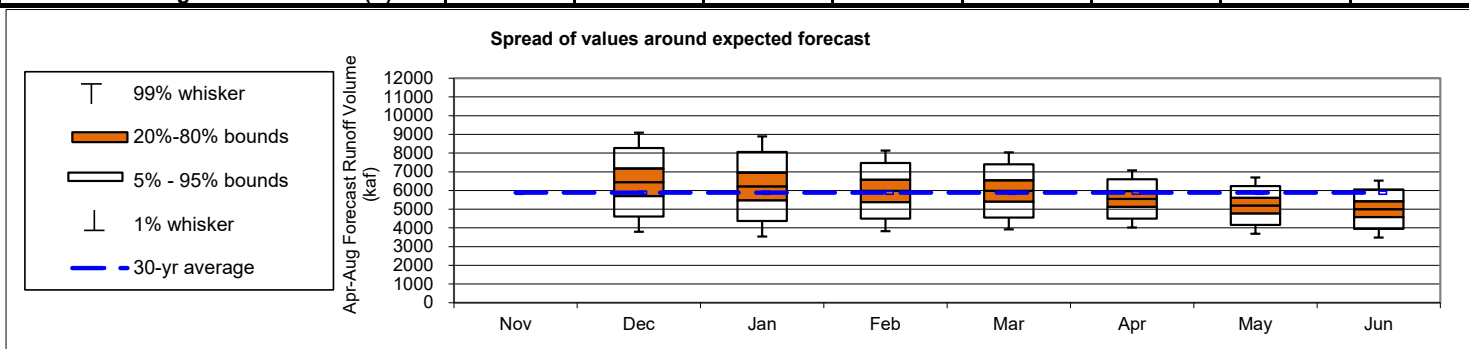
Libby : June Runoff Forecast & Flood Control Calculation

WY 2021

Runoff Forecast	June	1981-2010 Average	1981 - 2010 Percent of Average	1929-2008 Average	1929 - 2008 Percent of Average
Most Probable Runoff Volume: Apr-Aug (kaf)	5006	5885	85%	6282	80%
Most Probable Runoff Volume: Apr-Jul (kaf)	4540	5342	85%	5720	79%
Most Probable Runoff Volume: May-Jul (kaf)	4205	4821	87%	5199	81%

Forecast/Reservoir Data	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast (kaf)		6442	6215	5979	5980	5549	5191	5006
First-of-Month Elev (ft)	2446.1	2434.8	2410.9	2407.6	2403.4	2401.2	2403.9	2413.8

Seasonal FRM Requirements	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr		
Flood Risk Management Space (kaf)	500	2000	2105	2173	2349	2039		
Flood Risk Management Elevation (ft)	2448.0	2411.0	2408.1	2406.2	2401.0	2409.9		



Notes:

- The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact David Bogema (615) 736-5631, Justin Lawrence (206) 764-3699, Logan Osgood-Zimmerman (206) 764-6928, or Kristian Mickelson (206) 764-6927.
- 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.
- Cranbrook A gage data was intermittent during the month of April. Nearby Cranbrook Airport Auto gage data was used instead.

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Apr-Aug Runoff Forecast Calculation:

Variable	Month(s)	Units	Observed Value A	Percent of Average	Regression Coefficient	Marginal Runoff (KAF) =A*B
SOI	ΣJun:Jul					
Eureka RS, MT	ΣOct:May Prcp	inches	6.65	77%	37.7	250.45
West Glacier, MT	ΣOct:May Prcp	inches	20.40	96%	22.5	458.25
Cranbrook A, BC	ΣOct:May Prcp	millimeters	154.70	67%	2.0	314.08
Fernie, BC	ΣOct:May Prcp	millimeters	736.80	87%	0.5	369.89
Hawkins Lake, MT	1-Jun SWE	inches	0.00	0%	10.1	0.00
Stahl Peak, MT	1-Jun SWE	inches	14.60	50%	10.3	150.49
East Creek, BC	1-Jun SWE	millimeters	767.00	105%	0.4	331.54
Moyie Mountain, BC	1-Jun SWE	millimeters	6.00	6%	0.8	5.09
Sunshine Village, AB	1-Jun SWE	millimeters	541.50	114%	0.6	336.47
Akamina Pass, AB	1-Jun SWE	millimeters	75.79	121%	0.7	51.54
South Racehorse Creek, AB	1-Jun SWE	millimeters	3.80	4%	0.6	2.44
Intercept			1		978.0	977.98
Forecast Inflow	June-August	kaf				3248.20
Observed Inflow	April-May	kaf				1757.68
1-June Forecast	April-August	kaf				5005.88

Data used in Libby Water Supply Forecast

WY 2021

Climate Data	Jun-20	Jul-20
SOI	0.40	0.40

Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Eureka RS, MT (inch)	1.77	0.92	0.98	0.37	0.29	0.17	0.80	1.35
West Glacier, MT (inch)	4.52	4.32	2.34	2.92	2.36	0.72	1.29	1.93
Cranbrook A, BC (mm)	27.60	21.90	26.30	34.20	3.40	0.90	17.10	23.30
Fernie, BC (mm)	118.80	158.00	106.68	109.73	55.63	73.15	52.07	62.74
Snow Water Equiv	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun
Hawkins Lake, MT (inch)				16	19	21	21	0
Stahl Peak, MT (inch)			16	21	24	28	28	15
East Creek, BC (mm)				715	848	991	1029	767
Moyie Mountain, BC (mm)			166	235	323	354	220	6
Sunshine Village, AB (mm)			322	422	522	609	626	542
Akamina Pass, AB (mm)				316	384	428	263	76
South Racehorse Creek, AB (mm)				263	345	398	372	4
Streamflow	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Libby Inflow Volume (kaf)			182.3	128.4	169.4	335.0	1422.7	
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun
Libby FOM Elev (feet)	2446.1	2434.8	2410.9	2407.6	2403.4	2401.2	2403.9	2413.8

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