

# Libby : June Runoff Forecast & Flood Control Calculation

WY 2015

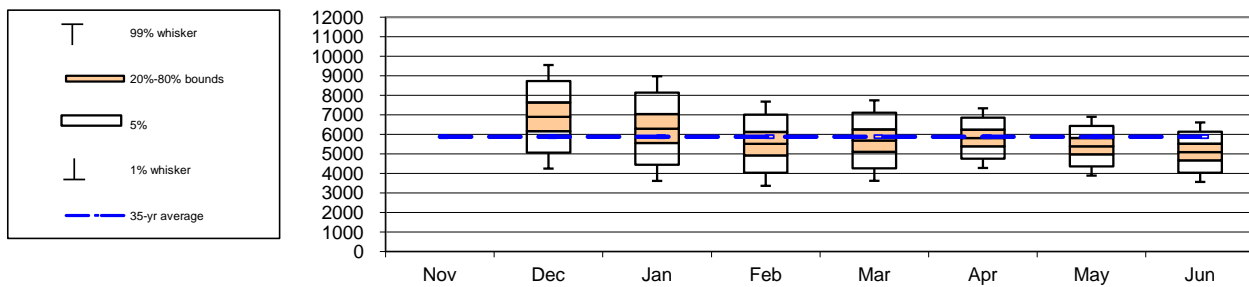
Runoff Forecast and Flood Control				1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average
<b>Most Probable Runoff Volume:</b>	<b>Apr-Aug</b>	<b>5090</b>	<b>KAF</b>	5885	86%	6282	81%
	<b>Apr-Jul</b>	<b>4627</b>	<b>KAF</b>	5342	87%	5720	81%
	<b>May-Jul</b>	<b>4058</b>	<b>KAF</b>	4821	84%	5199	78%

Seasonal Flood Control VARQ Flood Control Implemented								
Forecast Date >>	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Apr-Aug Runoff Forecast</b>		6899	6297	5523	5683	5808	5396	5090
<b>First-of-Month Elev</b>	2448.5	2435.3	2410.6	2409.8	2412.9	2419.2	2420.9	2426.9

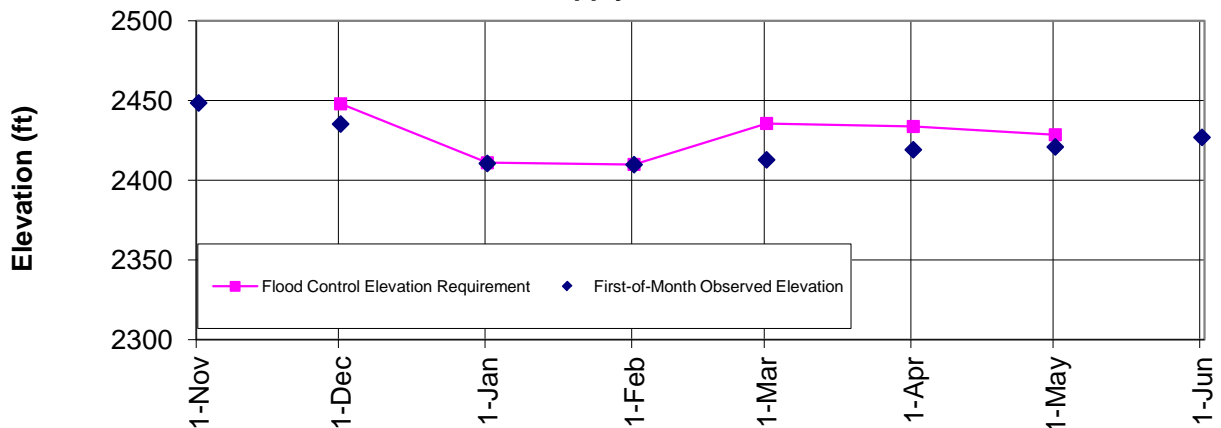
Date >>	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr
<b>Flood Control Space</b>	500	2000	2037	1032	1112	1324
<b>Flood Control Elevation</b>	2448.0	2411.0	2410.0	2435.7	2433.8	2428.6

Spread of values around expected forecast



## Libby Flood Control Elevations - 2015

Latest water supply forecast: Jun



**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 or Kevin Shaffer (206) 764-3660.
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 : June Runoff Forecast & Flood Control 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	∑Jun:Jul					
Eureka RS, MT	∑Oct:May Prcp	inches	9.47	109%	37.7	356.7
West Glacier, MT	∑Oct:May Prcp	inches	23.35	110%	22.5	524.5
Cranbrook A, BC	∑Oct:May Prcp	millimeters	228.90	99%	2.0	464.7
Fernie, BC	∑Oct:May Prcp	millimeters	950.50	112%	0.5	477.2
Hawkins Lake, MT	1-Jun SWE	inches	0.00	0%	10.1	0.0
Stahl Peak, MT	1-Jun SWE	inches	9.00	31%	10.3	92.8
East Creek, BC	1-Jun SWE	millimeters	472.00	65%	0.4	204.0
Moyie Mountain, BC	1-Jun SWE	millimeters	5.00	5%	0.8	4.2
Sunshine Village, AB	1-Jun SWE	millimeters	192.00	40%	0.6	119.3
Akamina Pass, AB	1-Jun SWE	millimeters	0.00	0%	0.7	0.0
South Racehorse Creek, AB	1-Jun SWE	millimeters	0.00	0%	0.6	0.0
Intercept			1		978.0	978.0
Jun-Aug Forecast (KAF)					∑	3221.4

## Data used in Libby Water Supply Forecast

WY 2015

Climate Data	Jan-14	Feb-14	Mar-14	Jun-14	Jul-14	Oct-14	Nov-14	Dec-14	Jan-15
SOI				0.20	-0.20				
Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Units
Eureka RS, MT	0.55	2.42	1.22	1.21	0.65	2.13	0.33	0.96	inch
West Glacier, MT	2.64	5.77	4.07	3.08	2.58	3.31	0.76	1.14	inch
Cranbrook A, BC	29.40	53.60	25.50	22.90	20.20	47.10	5.40	24.80	mm
Fernie, BC	126.90	273.00	95.00	93.00	81.00	194.60	17.00	70.00	mm
Snow Water Equiv	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units		
Hawkins Lake, MT		12	16	21	20	0	inch		
Stahl Peak, MT			19	24	28	25	9	inch	
East Creek, BC			537	706	872	932	472	mm	
Moyie Mountain, BC		131	193	228	265	113	5	mm	
Sunshine Village, AB		200	266	372	447	486	192	mm	
Akamina Pass, AB			230	290	293	17	0	mm	
South Racehorse Creek, AB			234	303	376	229	0	mm	
Streamflow	Jan	Feb	Mar	Apr	May	Jun	Units		
Libby Inflow Volume		220.6	335.4	485.2	569.9	1298.4	KAF		
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Libby FOM Elev	2448.5	2435.3	2410.6	2409.8	2412.9	2419.2	2420.9	2426.9	feet

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