

Libby: May Runoff Forecast & Flood Control Calculation

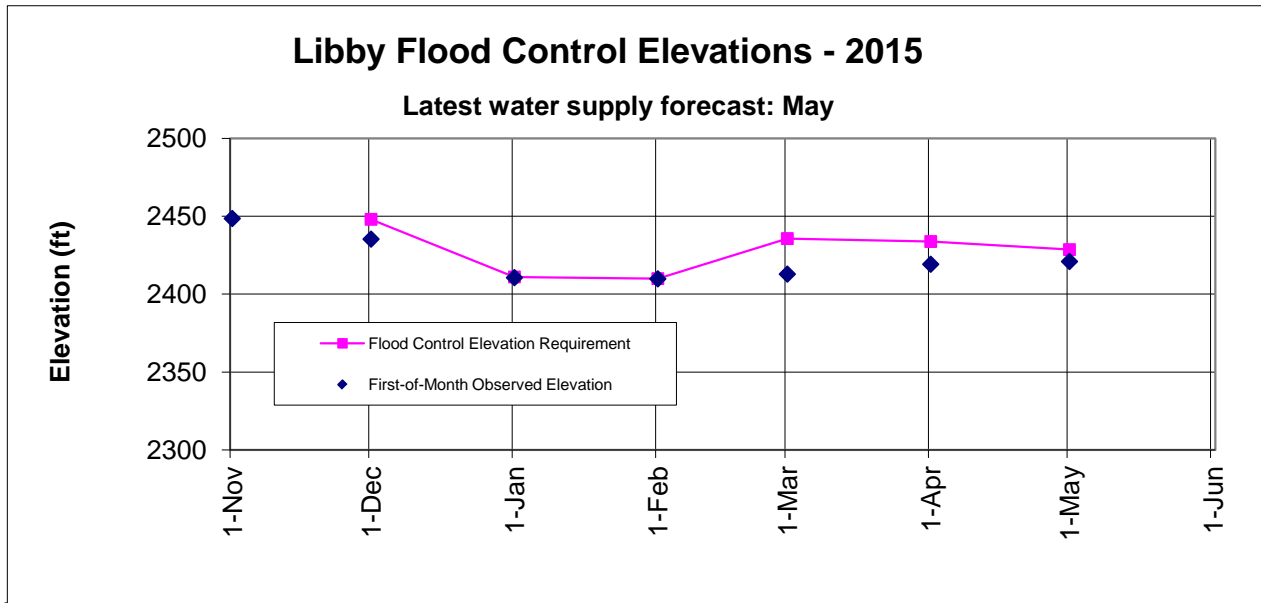
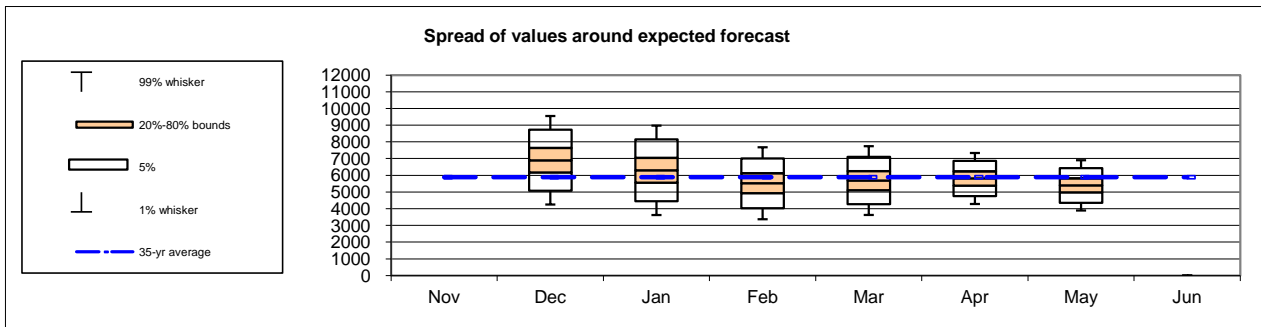
WY 2015

Runoff Forecast and Flood Control			
Most Probable Runoff Volume:	Apr-Aug	5396	KAF
	Apr-Jul	4908	KAF
	May-Jul	4338	KAF

1981-2010 Average	Percent of Average	1929-2008 Average	Percent of Average
5885	92%	6282	86%
5342	92%	5720	86%
4821	90%	5199	83%

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

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



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.

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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:Apr Prcp	inches	8.51	125%	57.5	488.9	
West Glacier, MT	ΣOct:Apr Prcp	inches	22.21	120%	28.0	622.8	
Cranbrook A, BC	ΣOct:Apr Prcp	millimeters	204.10	111%	2.8	571.5	
Fernie, BC	ΣOct:Apr Prcp	millimeters	880.50	116%	0.6	537.1	
Hawkins Lake, MT	1-May SWE	inches	19.50	74%	17.3	337.4	
Stahl Peak, MT	1-May SWE	inches	24.80	66%	16.7	415.2	
East Creek, BC	1-May SWE	millimeters	932.00	101%	0.6	531.2	
Moyie Mountain, BC	1-May SWE	millimeters	113.00	31%	0.9	102.8	
Sunshine Village, AB	1-May SWE	millimeters	486.00	79%	1.3	612.4	
Akamina Pass, AB	1-May SWE	millimeters	17.00	5%	0.6	9.4	
South Racehorse Creek, AB	1-May SWE	millimeters	229.00	63%	0.8	190.1	
Intercept			1		408.0	408.0	
May-Aug Forecast (KAF)					Σ	4826.6	

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		inch
West Glacier, MT	2.64	5.77	4.07	3.08	2.58	3.31	0.76		inch
Cranbrook A, BC	29.40	53.60	25.50	22.90	20.20	47.10	5.40		mm
Fernie, BC	126.90	273.00	95.00	93.00	81.00	194.60	17.00		mm
Snow Water Equiv	1-Jan			1-Feb	1-Mar	1-Apr	1-May	1-Jun	Units
Hawkins Lake, MT				12	16	21	20		inch
Stahl Peak, MT				15	19	24	25		inch
East Creek, BC				537	706	872	932		mm
Moyie Mountain, BC				131	193	228	113		mm
Sunshine Village, AB				200	266	372	486		mm
Akamina Pass, AB				230	290	293	17		mm
South Racehorse Creek, AB				234	303	376	229		mm
Streamflow	Jan		Feb	Mar	Apr	May	Jun	Units	
Libby Inflow Volume	220.6		335.4	485.2	569.9			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		feet

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