

Dworshak : April Runoff Forecast & Flood Control Calculation

WY 2012

Runoff Forecast and Non-Shifted Flood Control

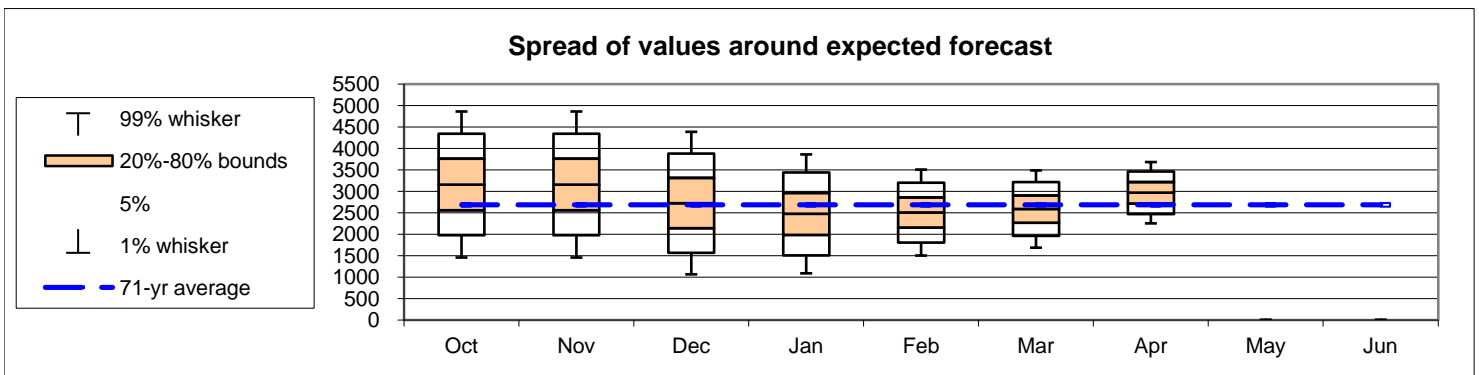
Most Probable Runoff Volume	Apr-Jul	2966	KAF
	May-Jul	2189	KAF
30-Apr Flood Control Space		1479	KAF
30-Apr Flood Control Elevation		1499.6	ft

1929-1999 Average Percent of Average

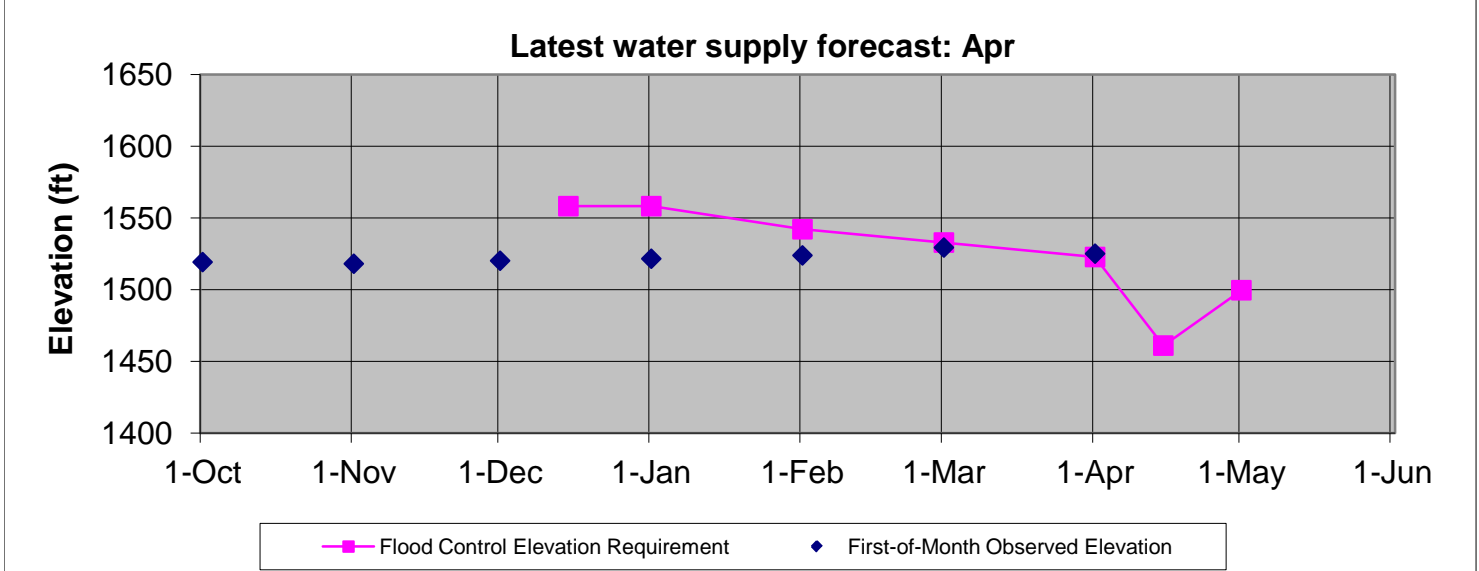
2683 111%
1980 111%

Seasonal Flood Control (assumes no shift of flood control space to Grand Coulee)

Forecast Date>>	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Jul Runoff Forecast	3157	3157	2724	2473	2504	2585	2966		
First-of-Month Elev	1519.2	1518.1	1520.2	1521.6	1523.9	1529.4	1525.1		
Date >>		15-Dec	31-Dec	31-Jan	28-Feb	31-Mar	15-Apr	30-Apr	
Flood Control Space	--	700	700	931	1059	1193	1868	1479	
Flood Control Elevation	--	1558.2	1558.2	1542.1	1532.9	1522.8	1461.0	1499.6	



Dworshak Flood Control Elevations - 2012



- Notes:
1. The given forecast is the official Corps of Engineers forecast for Dworshak. If you have any questions please contact Jeremy Giovando (509 527 7053), or Steve Hall (509 527 7550).
 2. Due to updated values for precipitation, snow or streamflow, subsequent forecasts may be different from the forecast published herein.
 3. 15-Dec and 31-Dec flood control space is fixed at 700 KAF.
 4. 15-Apr target elevation does not reflect flood control shift operation between Dworshak and Grand Coulee.
 5. 30-Apr target elevation may vary as runoff occurs throughout the month of April.

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Apr-Jul Runoff Forecast Calculation:					
<i>Variable</i>	<i>Month</i>	<i>Observed Value</i>	<i>% of Average</i>	<i>Regression Coefficient</i>	<i>Marginal Runoff (KAF)</i>
		A		B	=A*B
SOI	Sep	1.00		123.36	123.4
Elk Butte SWE	1-Apr	38.60	95%	15.71	606.4
Hemlock Butte SWE	1-Apr	53.80	110%	15.31	823.7
Hoodoo Basin SWE	1-Apr	48.60	107%	13.92	676.5
Shanghi Summit SWE	1-Apr	30.70	116%	17.92	550.1
DWR January Inflow	Jan	121.39	60%	0.750	91.0
DWR February Inflow	Feb	176.73	65%	0.210	37.1
DWR March Inflow	Mar	453.58	114%	0.440	199.6
Intercept		1		-141.94	-141.9
1-Apr Forecast (KAF)				Σ	2965.9

<i>Data Station</i>	<i>Sept</i>	<i>Nov</i>	<i>Dec</i>	<i>1-Jan</i>	<i>1-Feb</i>	<i>1-Mar</i>	<i>1-Apr</i>	<i>1-May</i>	<i>1-Jun</i>
Climate (Stdzd SOI)									
September SOI	1.00								
Precipitation (monthly depth, inches)									
Headquarters, ID		3.50	3.10						
Snow Water Equiv (first of month SWE depth, inches)									
Elk Butte, ID				10.5	22.6	30.4	38.6	--	--
Hemlock Butte, ID				15.0	29.1	40.3	53.8	--	--
Hoodoo Basin, MT				16.4	29.5	36.2	48.6	--	--
Pierce RS, ID				1.7	6.2	8.4			
Shanghi Summit, ID							30.7	--	
Lost Lake, ID								--	--
Streamflow (monthly volume, KAF)				Jan	Feb	Mar	Apr	May	Jun
Dworshak Inflow				121	177	454	--	--	--