

Dworshak : April Runoff Forecast & Flood Control Calculation

WY 2010

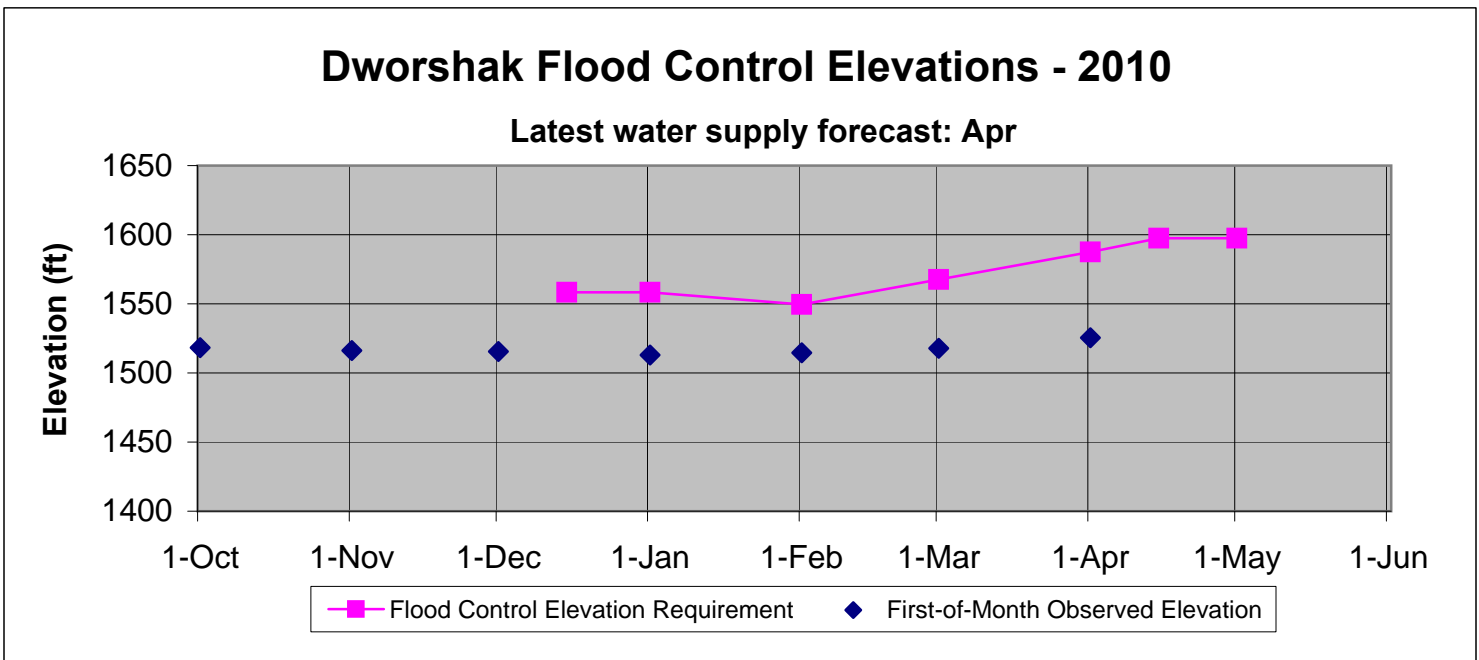
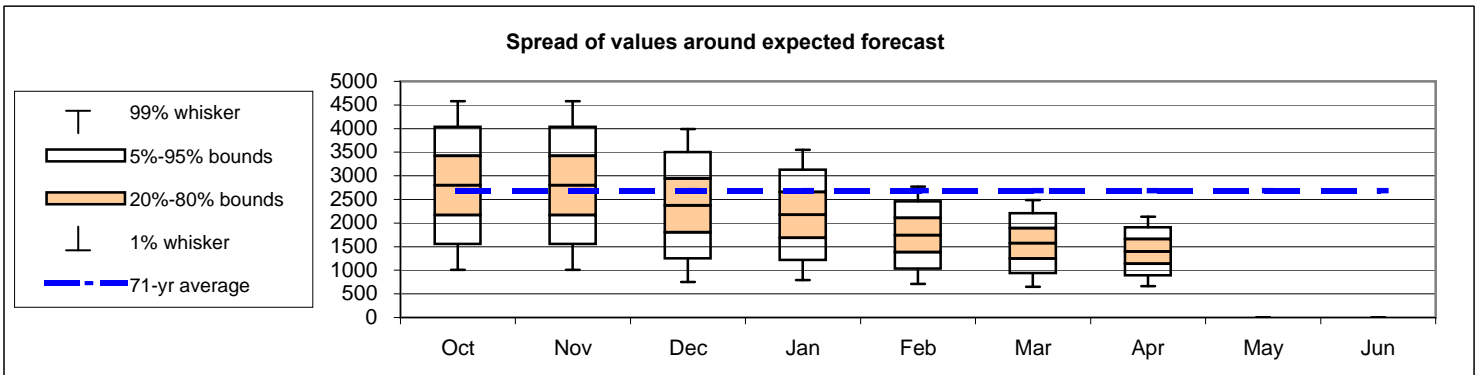
Runoff Forecast and Non-Shifted Flood Control

Most Probable Runoff Volume	Apr-Jul	1398	KAF
	May-Jul	1032	KAF
30-Apr Flood Control Space		50	KAF
30-Apr Flood Control Elevation		1597.4	ft

1929-1999 Average	Percent of Average
2683	52%
1980	52%

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	2795	2795	2373	2174	1742	1571	1398		
First-of-Month Elev	1518.2	1516.2	1515.6	1513.0	1514.5	1517.9	1525.4		
Date >>		15-Dec	31-Dec	31-Jan	28-Feb	31-Mar	15-Apr	30-Apr	
Flood Control Space	--	700	700	825	560	230	50	50	
Flood Control Elevation	--	1558.2	1558.2	1549.6	1567.5	1587.5	1597.4	1597.4	



- 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:					
Variable	Month	Observed Value	% of Average	Regression Coefficient	Marginal Runoff (KAF)
		A		B	=A*B
SOI	Sep	0.30		114.61	34.4
Elk Butte SWE	1-Apr	22.00	54%	14.98	329.5
Hemlock Butte SWE	1-Apr	31.50	64%	15.43	486.0
Hoodoo Basin SWE	1-Apr	23.30	51%	14.46	336.9
Shanghi Summit SWE	1-Apr	13.90	53%	16.82	233.8
DWR January Inflow	Jan	115.25	57%	0.860	99.1
DWR February Inflow	Feb	109.30	40%	0.150	16.4
DWR March Inflow	Mar	175.70	44%	0.406	71.3
Intercept		1		-209.67	-209.7
1-Apr Forecast (KAF)				Σ	1397.8

Data Station	Sept	Nov	Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun
Climate (Stdzd SOI)									
September SOI	0.30								
Precipitation (monthly depth, inches)									
Headquarters, ID		2.93	3.69						
Snow Water Equiv (first of month SWE depth, inches)									
Elk Butte, ID				10.3	15.2	18.5	22.0	--	--
Hemlock Butte, ID				15.4	21.0	25.3	31.5	--	--
Hoodoo Basin, MT				10.8	15.2	17.7	23.3	--	--
Pierce RS, ID				2.9	5.0	4.6			
Shanghi Summit, ID							13.9	--	
Lost Lake, ID								--	--
Streamflow (monthly volume, KAF)									
Dworshak Inflow				Jan	Feb	Mar	Apr	May	Jun
				115	109	176	--	--	--