

# Dworshak : March Runoff Forecast & Flood Control Calculation

WY 2010

## Runoff Forecast and Flood Control

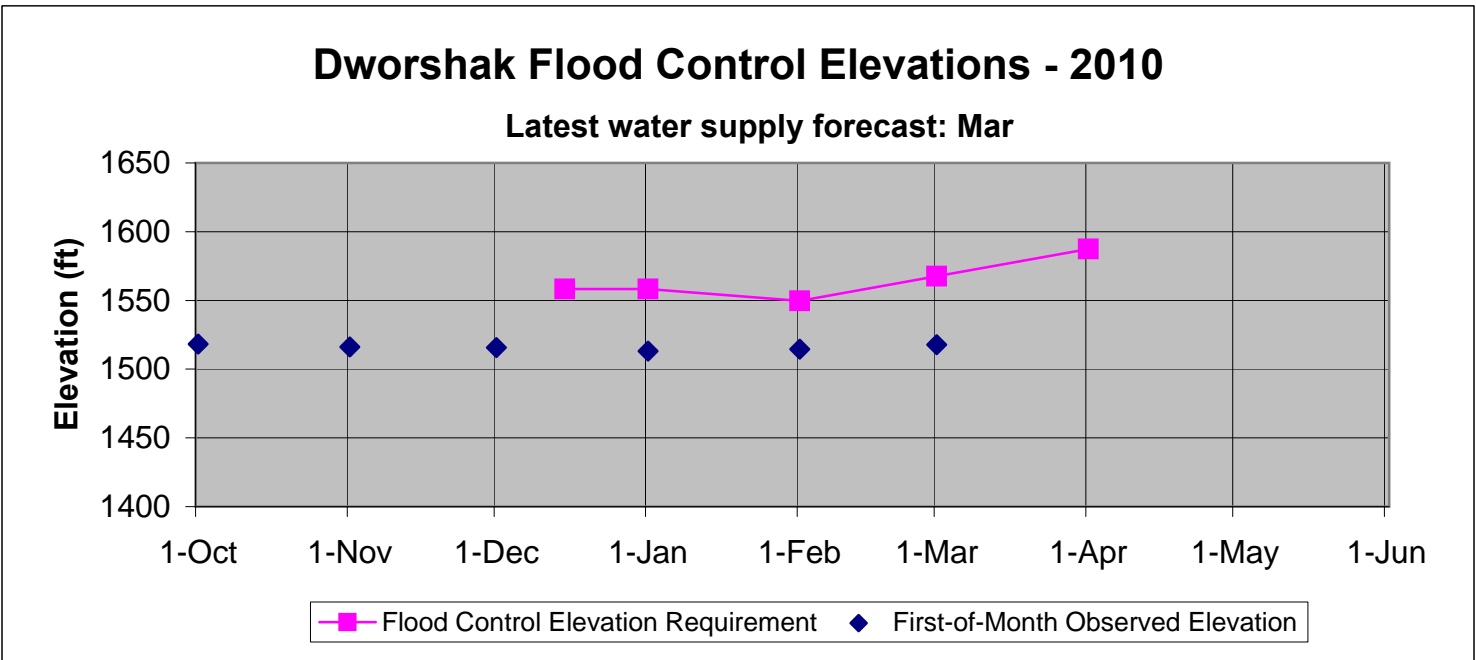
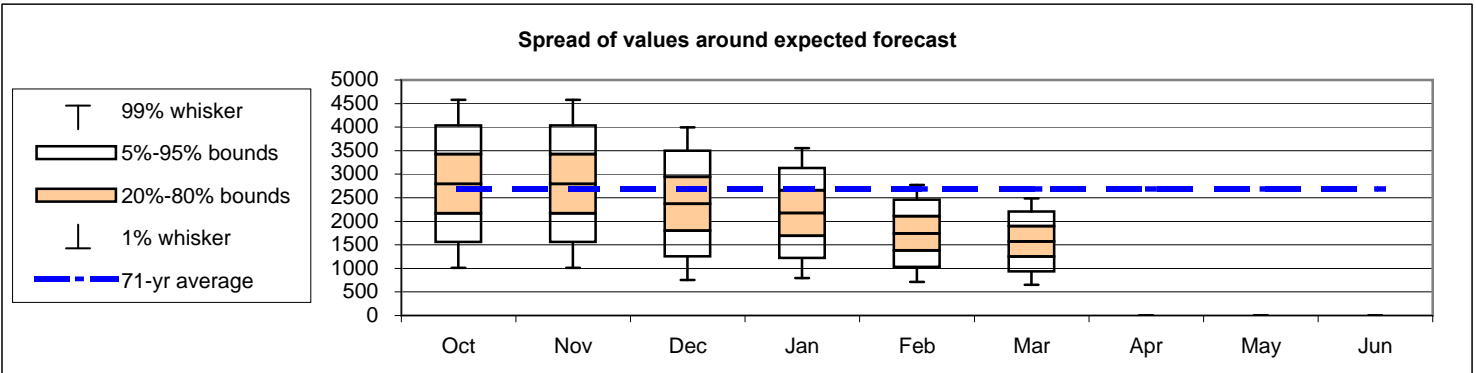
<b>Most Probable Runoff Volume</b>	<b>Apr-Jul</b>	<b>1571</b>	<b>KAF</b>
	<b>May-Jul</b>	<b>1159</b>	<b>KAF</b>
<b>31-Mar Flood Control Space</b>		<b>230</b>	<b>KAF</b>
<b>31-Mar Flood Control Elevation</b>		<b>1587.5</b>	<b>ft</b>

1929-1999  
Average

Percent of  
Average  
2683 59%  
1980 59%

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

Forecast Date>>	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Apr-Jul Runoff Forecast</b>	2795	2795	2373	2174	1742	1571			
<b>First-of-Month Elev</b>	1518.2	1516.2	1515.6	1513.0	1514.5	1517.9			
<b>Date &gt;&gt;</b>		<b>15-Dec</b>	<b>31-Dec</b>	<b>31-Jan</b>	<b>28-Feb</b>	<b>31-Mar</b>	<b>15-Apr</b>	<b>30-Apr</b>	
<b>Flood Control Space</b>	--	700	700	825	560	230			
<b>Flood Control Elevation</b>	--	1558.2	1558.2	1549.6	1567.5	1587.5			



**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.

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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		116.52	35.0
Elk Butte SWE	1-Mar	18.50	53%	14.89	275.5
Hemlock Butte SWE	1-Mar	25.30	63%	15.61	394.9
Hoodoo Basin SWE	1-Mar	17.70	46%	15.63	276.7
Pierce SWE	1-Mar	4.60	48%	38.10	175.3
DWR January Inflow	Jan	115.25	57%	0.977	112.6
DWR February Inflow	Feb	109.30	40%	0.147	16.1
Intercept		1		284.62	284.6
1-Mar Forecast (KAF)				Σ	1570.6

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