

# Dworshak : May Runoff Forecast & Flood Control Calculation

WY 2011

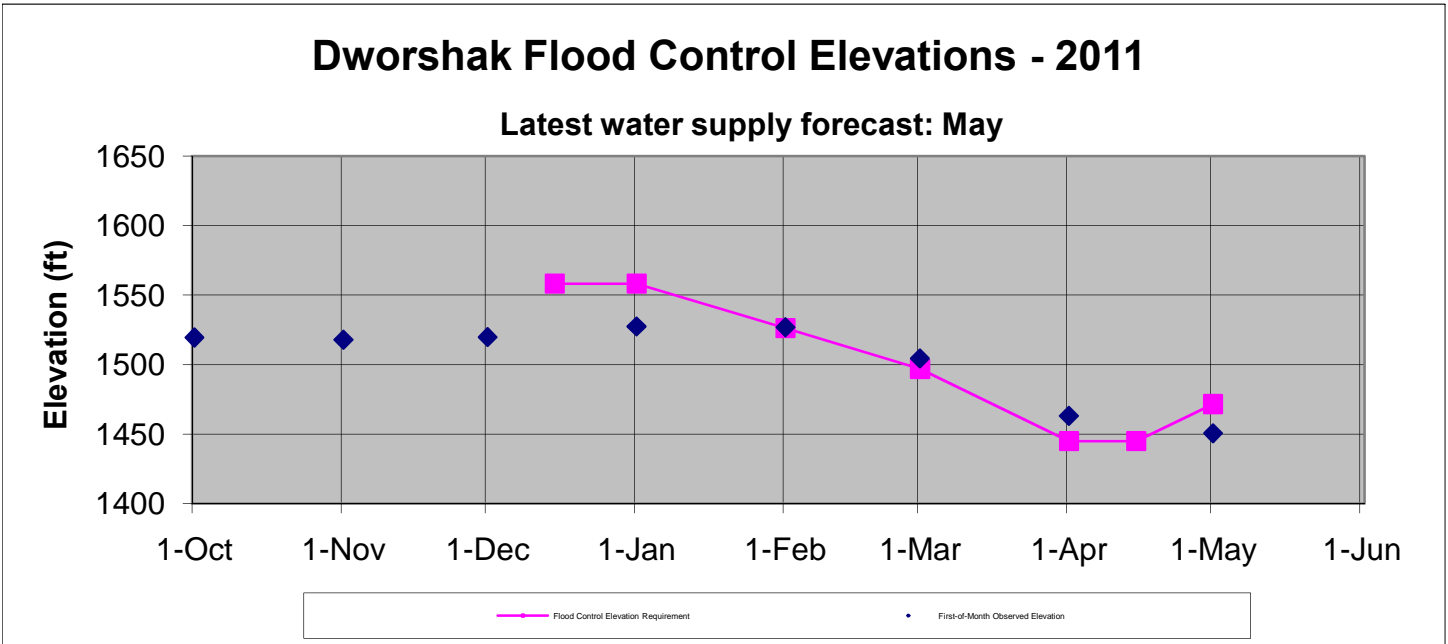
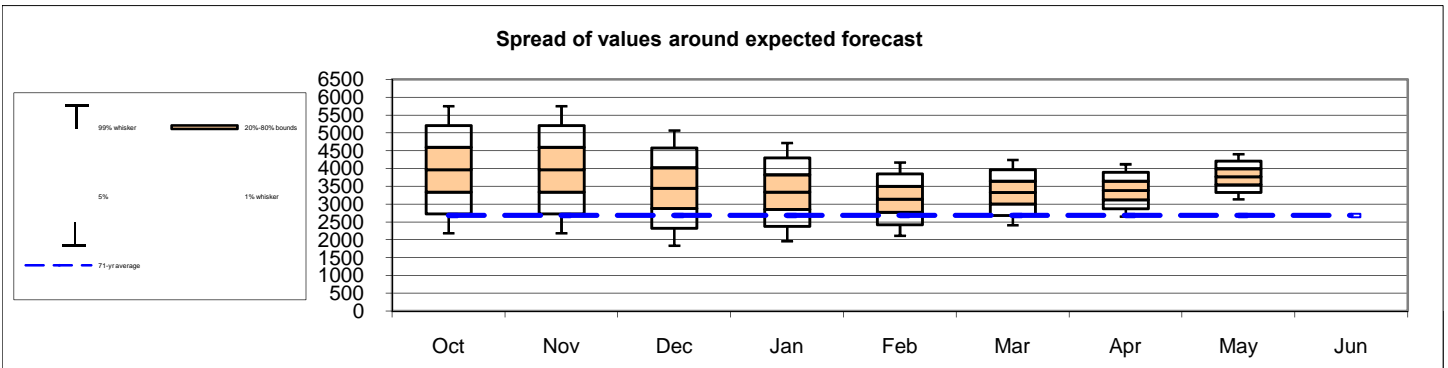
## Runoff Forecast and Flood Control

Most Probable Runoff Volume	Apr-Jul	3772	KAF
	May-Jul	2992	KAF

1929-1999 Average	Percent of Average
2683	141%
1980	151%

### 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	3972	3972	3452	3340	3142	3329	3387	3772	
First-of-Month Elev	1519.4	1517.8	1519.7	1527.3	1526.7	1504.3	1463.1	1450.6	
Date >>		15-Dec	31-Dec	31-Jan	28-Feb	31-Mar	15-Apr	30-Apr	
Flood Control Space	--	700	700	1148	1510	2016	2016	1768	
Flood Control Elevation	--	1558.2	1558.2	1526.2	1496.8	1445.0	1445.0	1471.6	



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. 30-Apr flood control elevation is based on the 95% confidence Flood Control Refill Curve as computed on 1 April.

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May-Jul Runoff Forecast Calculation:					
Variable	Month	Observed Value	% of Average	Regression Coefficient	Marginal Runoff (KAF)
		A		B	=A*B
SOI	Sep	2.60		84.14	218.8
Elk Butte SWE	1-May	52.10	143%	10.77	561.0
Hemlock Butte SWE	1-May	69.20	145%	9.66	668.4
Hoodoo Basin SWE	1-May	59.20	129%	9.57	566.6
Shanghi Summit SWE	1-May	34.90	190%	11.37	396.8
Lost Lake SWE	1-May	75.80	125%	7.54	571.5
Intercept		1		9.13	9.1
1-May Forecast (KAF)				Σ	2992.3

Data Station	Sept	Nov	Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun
<b>Climate (Stdzd SOI)</b>									
September SOI	2.60								
<b>Precipitation (monthly depth, inches)</b>									
Headquarters, ID		4.50	5.80						
<b>Snow Water Equiv (first of month SWE depth, inches)</b>									
Elk Butte, ID				13.0	24.2	33.8	41.5	52.1	--
Hemlock Butte, ID				20.2	34.5	45.4	56.1	69.2	--
Hoodoo Basin, MT				17.5	31.1	40.5	49.7	59.2	--
Pierce RS, ID				6.1	8.2	11.6			
Shanghi Summit, ID							30.8	34.9	
Lost Lake, ID								75.8	--
<b>Streamflow (monthly volume, KAF)</b>									
Dworshak Inflow				Jan	Feb	Mar	Apr	May	Jun
				431	225	421	780	--	--