

Dworshak : April Runoff Forecast & Flood Control Calculation

WY 2011

Runoff Forecast and Non-Shifted Flood Control

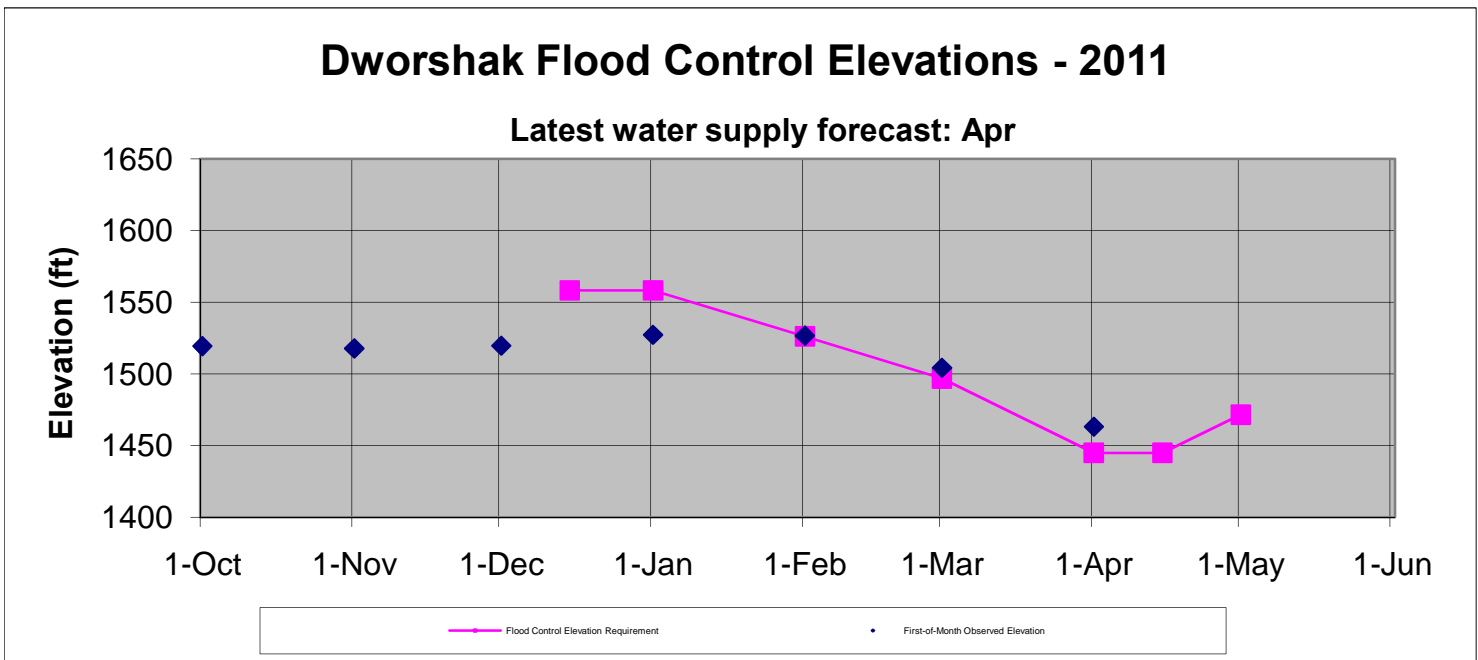
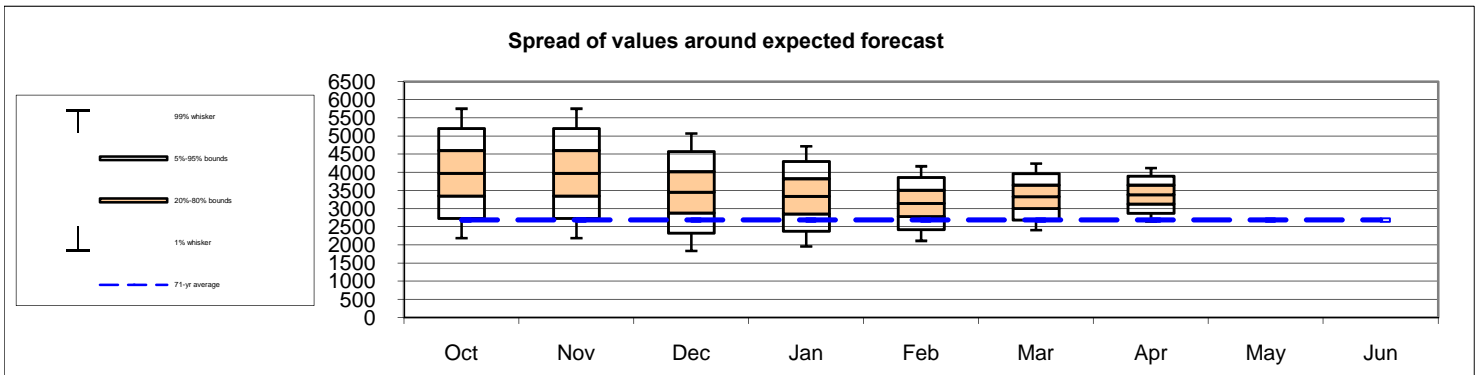
Most Probable Runoff Volume	Apr-Jul	3387	KAF
	May-Jul	2500	KAF
30-Apr Flood Control Space		1768	KAF
30-Apr Flood Control Elevation		1471.6	ft

1929-1999
Average

Percent of
Average
2683 126%
1980 126%

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		
First-of-Month Elev	1519.4	1517.8	1519.7	1527.3	1526.7	1504.3	1463.1		
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. 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.

Dworshak : April Runoff Forecast & Flood Control Calculation

Apr-Jul Runoff Forecast Calculation:					
Variable	Month	Observed Value	% of Average	Regression Coefficient	Marginal Runoff (KAF)
		A		B	=A*B
SOI	Sep	2.60		114.61	298.0
Elk Butte SWE	1-Apr	41.50	102%	14.98	621.5
Hemlock Butte SWE	1-Apr	56.10	115%	15.43	865.6
Hoodoo Basin SWE	1-Apr	49.70	109%	14.46	718.6
Shanghi Summit SWE	1-Apr	30.80	117%	16.82	518.1
DWR January Inflow	Jan	430.70	211%	0.860	370.4
DWR February Inflow	Feb	225.33	82%	0.150	33.8
DWR March Inflow	Mar	421.30	106%	0.406	171.0
Intercept		1		-209.67	-209.7
1-Apr Forecast (KAF)				Σ	3387.3

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