

Dworshak : April Runoff Forecast & Flood Risk Management Calculation

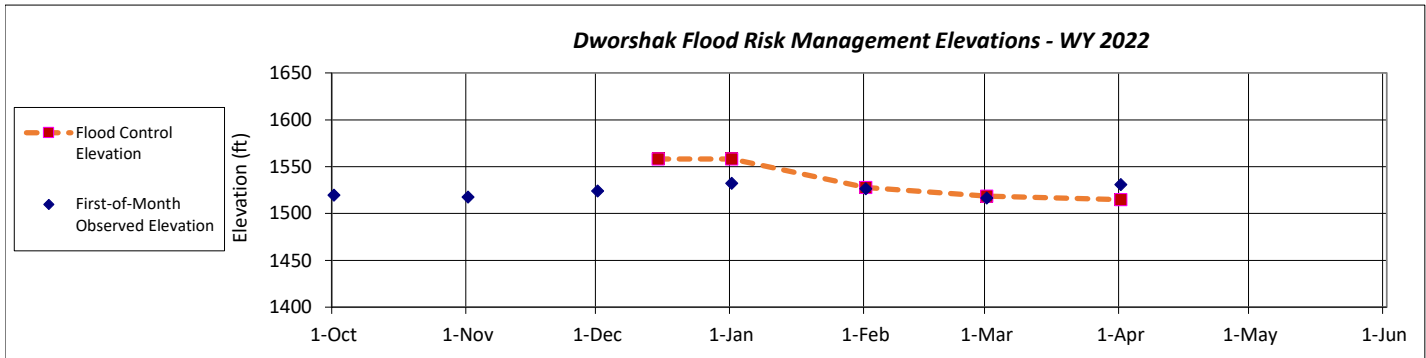
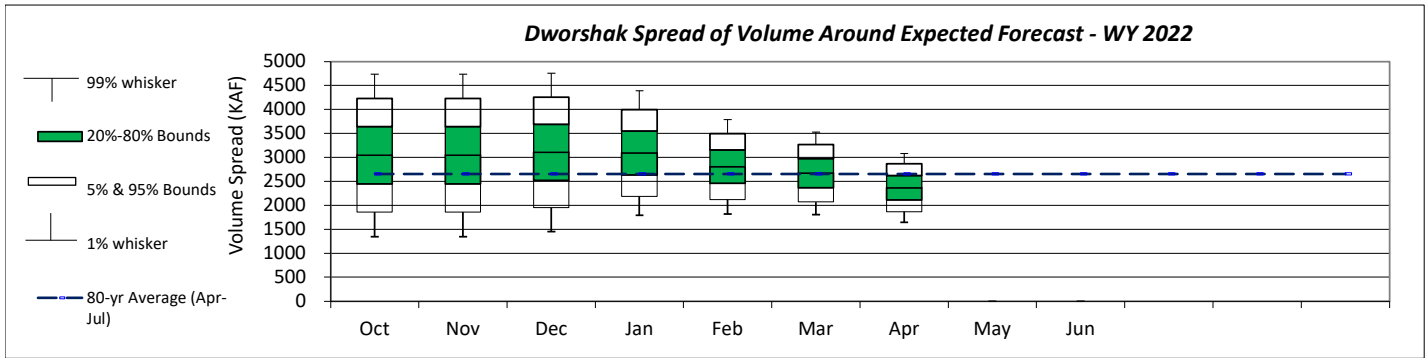
Runoff Forecast	April Value	1991 2020 Average	1991 2020 Percent of Average	1929 2008 Average	1929 2008 Percent of Average
Most Probable Runoff Volume: Apr-Jul (KAF)	2367	2474	96%	2655	89%
Most Probable Runoff Volume: May-Jul (KAF)	1710	1788	96%	1959	87%

Flood Risk Management (FRM)	April Value
30-April Flood Risk Management Space (KAF)	1000
30-Apr Flood Risk Management Elevation (ft)	1537.2

Seasonal Flood Risk Management (assumes no shift of Flood Risk Management space to Grand Coulee, nor refill on the Flood Control Refill Curve)

Seasonal FRM Forecast	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Jul Runoff Forecast (KAF)	3043	3043	3104	3090	2805	2669	2367		
First-of-Month Elevation (ft)	1519.7	1517.7	1524.3	1532.3	1526.5	1516.7	1530.9		

Seasonal FRM Space	15 Dec	31 Dec	31 Jan	28 Feb	31 Mar	15 Apr	30 Apr	31 May
Flood Risk Management Space (KAF)	700	700	1127	1248	1297	1000	1000	
Flood Risk Management Elevation (ft)	1558	1558	1527.8	1518.6	1514.8	1537.2	1537.2	



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Apr-Jul Runoff Forecast Calculation

Variable	Month(s)	Units	Observed Value A	Percent of Average (1991 2020)	Regression Coefficient B	Marginal Runoff (KAF) A*B
SOI	Sept		0.80		171.32	137.1
Headquarters Precipitation	Oct-Apr	Inch	28.50	105%	22.32	636.1
Elk Butte SWE	1-Apr	Inch	25.60	72%	11.61	297.2
Hoodoo Basin SWE	1-Apr	Inch	36.60	90%	10.27	375.9
Sherwin SWE	1-Apr	Inch	2.50	38%	19.49	48.7
Lost Lake SWE	1-Apr	Inch	42.30	81%	7.91	334.8
Crater Meadows SWE	1-Apr	Inch	41.30	88%	13.37	552.2
Intercept			1		-15.43	-15.4
1-Apr Forecast	Apr-Jul	KAF				2366.5

Data used in Dworshak Water Supply Forecast

Climate Data		Sept								
SOI		0.80								
Precipitation Data		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Headquarters, ID (inch)		2.30	7.10	7.50	5.70	2.60	3.30	--		
Cumulative HQSI Data (inch)		2.30	9.40	16.90	22.60	25.20	28.50	--		
Snow Water Equivalent, 1st of Month		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Elk Butte, ID (inch)					13.0	21.4	24.8	25.6		
Cool Creek, ID (inch)					20.7	31.2				
Hoodoo Basin, MT (inch)					18.1	26.0	31.8	36.6	--	--
Sherwin, ID (inch)					6.1	9.1	10.9	2.5		
Shanghi Summit, ID (inch)									--	--
Lost Lake, ID (inch)					21.3	32.5	39.4	42.3	--	--
Hemlock, ID (inch)									--	--
Crater Meadows Mar (inch)							37.0	41.3		
Streamflow		Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Dworshak Inflow Volume (KAF)					205	145	109	533	--	--

Notes:

1. Values do not reflect FRM shift to Grand Coulee or deviation in March. They do not reflect the commencement of refill prior to 30 April, which may occur based on daily inflow values from NWRFC and the calculation of the refill guide curve.
2. The given forecast is the official Corps of Engineers forecast for Dworshak. If you have any questions please contact Willow Walker (509-527-7073), or Jon Roberts (509-527-7518).
3. Due to updated values for precipitation, snow or streamflow, subsequent forecasts may be different from the forecast published herein.
4. 15-Dec and 31-Dec Flood Management Space is fixed at 700 KAF.

Approval:

John J. Heitstuman P.E., D.WRE
 Chief Hydrology Section
 Walla Walla District USACE

William D. Proctor, P.E.
 Ch., Hydrologic Engineering and Power Branch
 Columbia Basin Water Management Division