

The Official Water Supply Forecasts for January through July are computed on the 3rd workday of the month. Flood Risk Management (FRM) is computed at standard intervals and posted at: www.nwd.usace.army.mil/Missions/Water/Columbia/FloodControl

The **JULY** Water Supply Forecast sets BiOp actions as highlighted in the table below:

Forecast Point	Forecast period	Forecast	BiOp Actions to be Determined
Hungry Horse	April – August Provided by Reclamation	January, February, March	Sets min. flows at Hungry Horse and Columbia Falls
	May – September Provided by Reclamation	January, February, March	Sets VARQ FRM targets
		April	Sets VARQ FRM targets and VARQ refill flows
		May	Sets VARQ refill flows Sets end of September draft target
		June	Sets VARQ refill flows
The Dalles	April – September Provided by NWRFC	March	Sets CRWMP adjustments at Grand Coulee
	April – August Provided by NWRFC	April	Sets spring flow objective at McNary Dam
		July	Sets end of August draft limit at Grand Coulee
Lower Granite	April – July Provided by NWRFC	April	Sets spring flow objective at Lower Granite
		June	Sets summer flow objective at Lower Granite
Libby	April – August Provided by Corps Seattle District	December	Sets end of December variable draft target
		January, February, March	Sets VARQ FRM targets
		April	Sets VARQ FRM targets and VARQ refill flows
		May	Sets Libby min. sturgeon flow volume and min. bull trout flows for after sturgeon pulse through Sept. Sets VARQ FRM targets and VARQ refill flows Sets end of September draft limit.
		June	VARQ refill flows
Dworshak	April – July Provided by NWRFC	January to March	Manage for reservoir FRM, VDL, and Flood Control Refill Curve (FCRC)
		April to June	Manage for reservoir FRM and FCRC

Source: 2023 Water Management Plan, page 15 - <https://pweb.crohms.org/tmt/documents/wmp/2023/>

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SF FLATHEAD - HUNGRY HORSE DAM (HHWM8)
Forecasts for Water Year 2023

Official Water Supply

ESP with 10 Days QPF Ensemble: **2023-07-06** Issued: 2023-07-06

Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	1613	1616	77	1634	2088
APR-JUL	1534	1534	77	1534	1981
APR-AUG	1577	1578	77	1583	2043
JAN-SEP	1754	1757	75	1775	2343
JAN-JUL	1676	1676	75	1676	2236
OCT-SEP	1889	1892	74	1910	2567

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2023-07-06 Issued: 2023-07-06

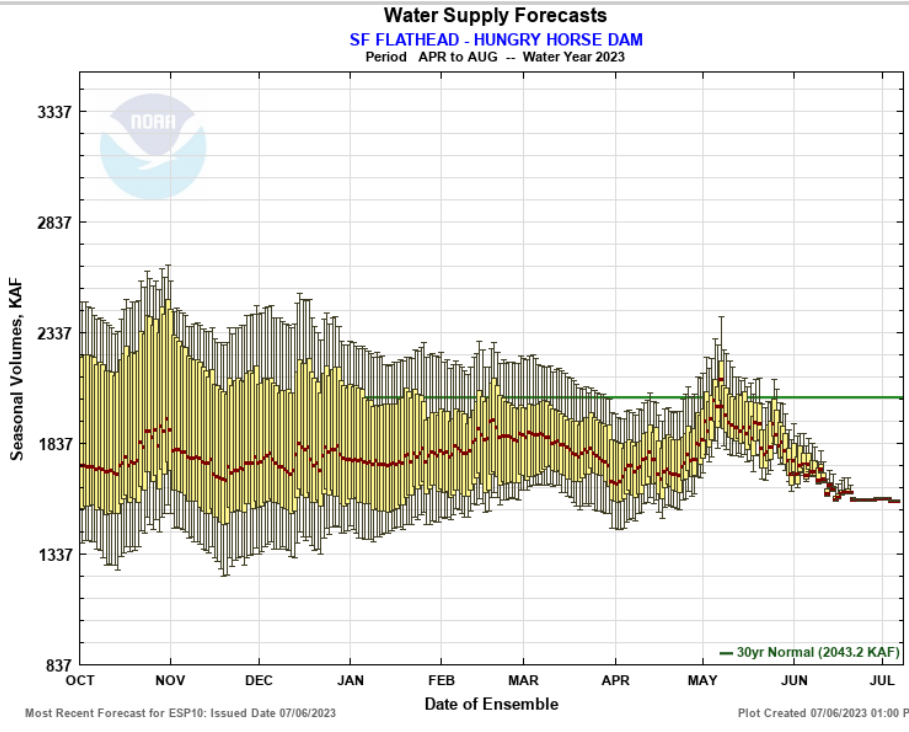
APR-SEP	1614	1617	77	1633	2088
APR-JUL	1534	1534	77	1534	1981
APR-AUG	1577	1578	77	1584	2043
JAN-SEP	1755	1758	75	1774	2343
JAN-JUL	1676	1676	75	1676	2236
OCT-SEP	1890	1893	74	1909	2567

Reference

ESP with 0 Days QPF Ensemble: 2023-07-06 Issued: 2023-07-06

APR-SEP	1614	1617	77	1638	2088
APR-JUL	1534	1534	77	1535	1981
APR-AUG	1577	1579	77	1586	2043
JAN-SEP	1755	1759	75	1779	2343
JAN-JUL	1676	1676	75	1676	2236
OCT-SEP	1890	1894	74	1914	2567

Move the mouse over the desired "Forecast Period" to display a graph.



- Max Scale
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- Show Min/Max Ensemble Volume
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Forecast Ensemble

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COLUMBIA - THE DALLES DAM (TDAO3)
Forecasts for Water Year 2023

Official Water Supply
ESP with 10 Days QPF Ensemble: **2023-07-06** Issued: 2023-07-06

Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	77810	78280	83	79552	94166
APR-JUL	68664	68825	84	69063	81933
APR-AUG	73676	74024	83	74562	89196
JAN-SEP	89424	89894	78	91166	115946
JAN-JUL	80277	80439	78	80677	103714
OCT-SEP	99807	100277	76	101549	132314

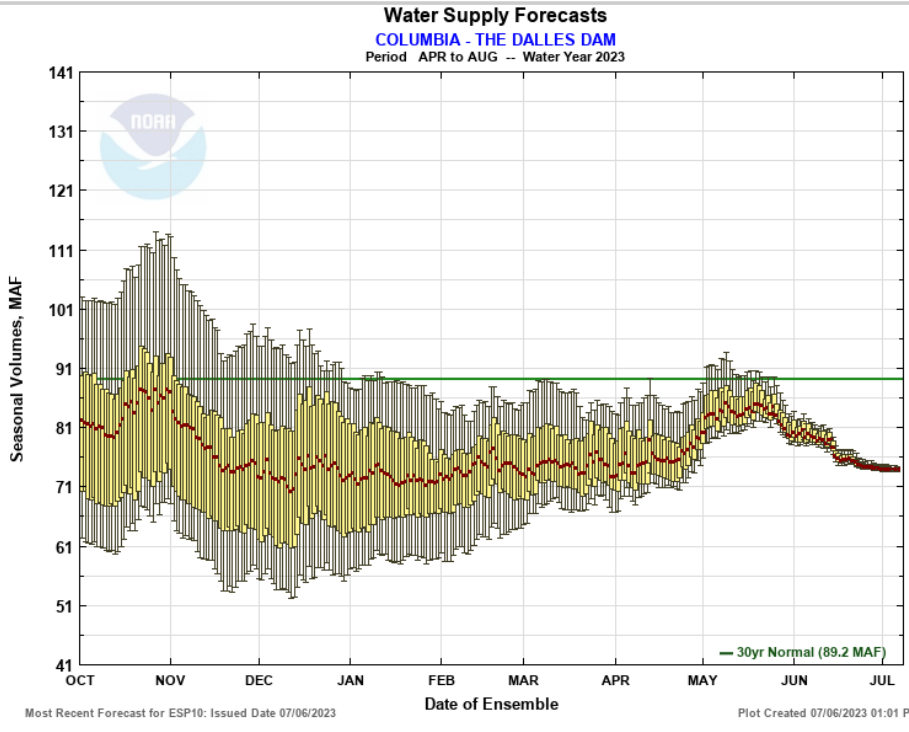
Experimental Water Supply
HEFS with 15 days EQPF Ensemble: 2023-07-06 Issued: 2023-07-06

APR-SEP	77973	78474	83	80272	94166
APR-JUL	68730	69015	84	69558	81933
APR-AUG	73778	74267	83	75215	89196
JAN-SEP	89587	90087	78	91886	115946
JAN-JUL	80344	80629	78	81172	103714
OCT-SEP	99970	100471	76	102269	132314

Reference
ESP with 0 Days QPF Ensemble: 2023-07-06 Issued: 2023-07-06

APR-SEP	77830	78447	83	80401	94166
APR-JUL	68547	68944	84	69330	81933
APR-AUG	73753	74148	83	75190	89196
JAN-SEP	89444	90061	78	92015	115946
JAN-JUL	80161	80557	78	80944	103714
OCT-SEP	99827	100444	76	102398	132314

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SNAKE - LOWER GRANITE DAM (LGDW1)
Forecasts for Water Year 2023

Official Water Supply
ESP with 10 Days QPF Ensemble: 2023-07-06 Issued: 2023-07-06

Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	21819	21900	99	22107	22232
APR-JUL	19424	19435	97	19449	19946
APR-AUG	20619	20674	98	20755	21121
JAN-SEP	25945	26027	88	26234	29736
JAN-JUL	23551	23562	86	23575	27450
OCT-SEP	29414	29496	86	29703	34287

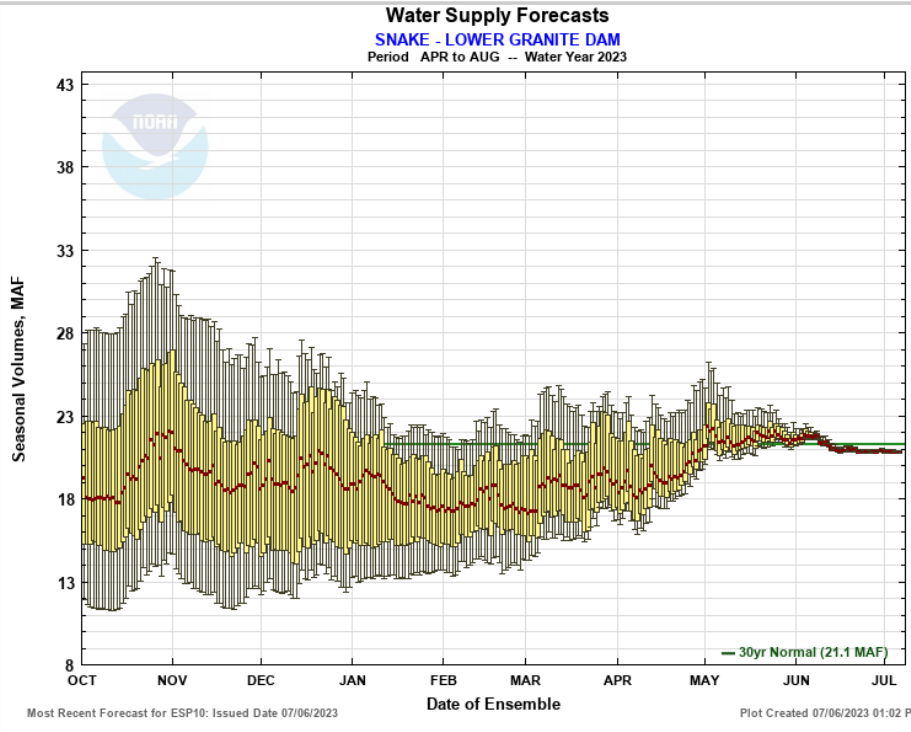
Experimental Water Supply
HEFS with 15 days EQPF Ensemble: 2023-07-06 Issued: 2023-07-06

APR-SEP	21821	21899	99	22113	22232
APR-JUL	19424	19436	97	19453	19946
APR-AUG	20621	20675	98	20760	21121
JAN-SEP	25947	26026	88	26240	29736
JAN-JUL	23551	23563	86	23580	27450
OCT-SEP	29416	29495	86	29709	34287

Reference
ESP with 0 Days QPF Ensemble: 2023-07-06 Issued: 2023-07-06

APR-SEP	21839	21924	99	22176	22232
APR-JUL	19427	19448	98	19508	19946
APR-AUG	20643	20694	98	20803	21121
JAN-SEP	25966	26051	88	26303	29736
JAN-JUL	23554	23575	86	23634	27450
OCT-SEP	29435	29520	86	29772	34287

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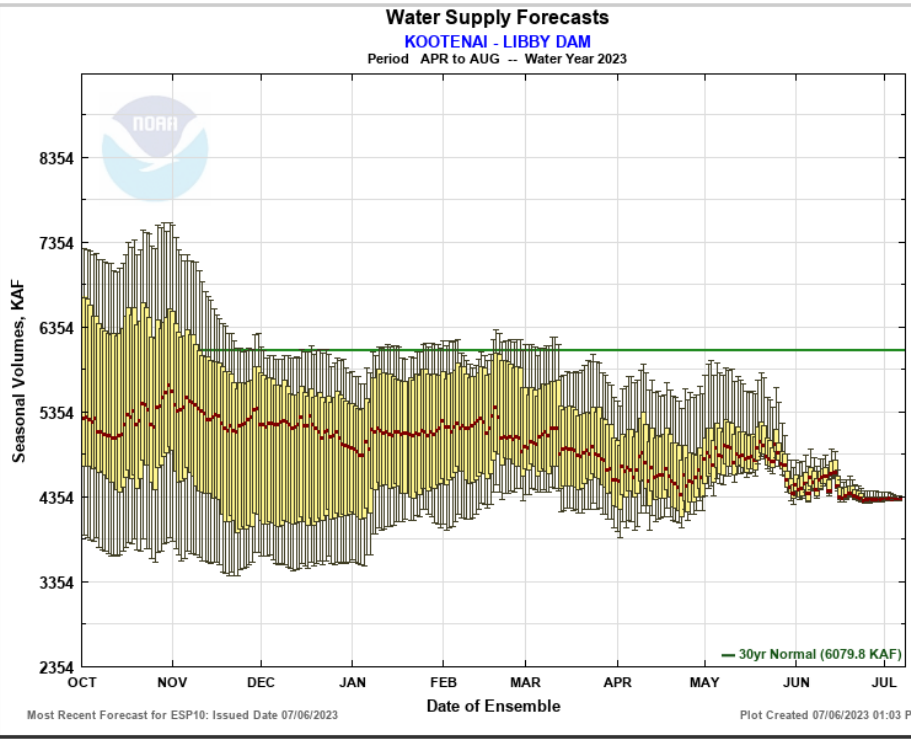
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KOOTENAI - LIBBY DAM (LYDM8) Forecasts for Water Year 2023					
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Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	4493	4557	71	4684	6429
APR-JUL	4027	4029	72	4043	5570
APR-AUG	4309	4323	71	4363	6080
JAN-SEP	4917	4980	70	5107	7086
JAN-JUL	4451	4452	72	4467	6227
OCT-SEP	5506	5569	70	5697	7981
Experimental Water Supply					
HEFS with 15 days EQPF Ensemble: 2023-07-06 Issued: 2023-07-06					
APR-SEP	4504	4583	71	4741	6429
APR-JUL	4029	4041	73	4098	5570
APR-AUG	4315	4339	71	4464	6080
JAN-SEP	4928	5006	71	5164	7086
JAN-JUL	4453	4464	72	4522	6227
OCT-SEP	5517	5595	70	5753	7981
Reference					
ESP with 0 Days QPF Ensemble: 2023-07-06 Issued: 2023-07-06					
APR-SEP	4494	4568	71	4781	6429
APR-JUL	4027	4036	72	4114	5570
APR-AUG	4309	4330	71	4460	6080
JAN-SEP	4917	4992	70	5204	7086
JAN-JUL	4451	4459	72	4537	6227
OCT-SEP	5506	5581	70	5793	7981

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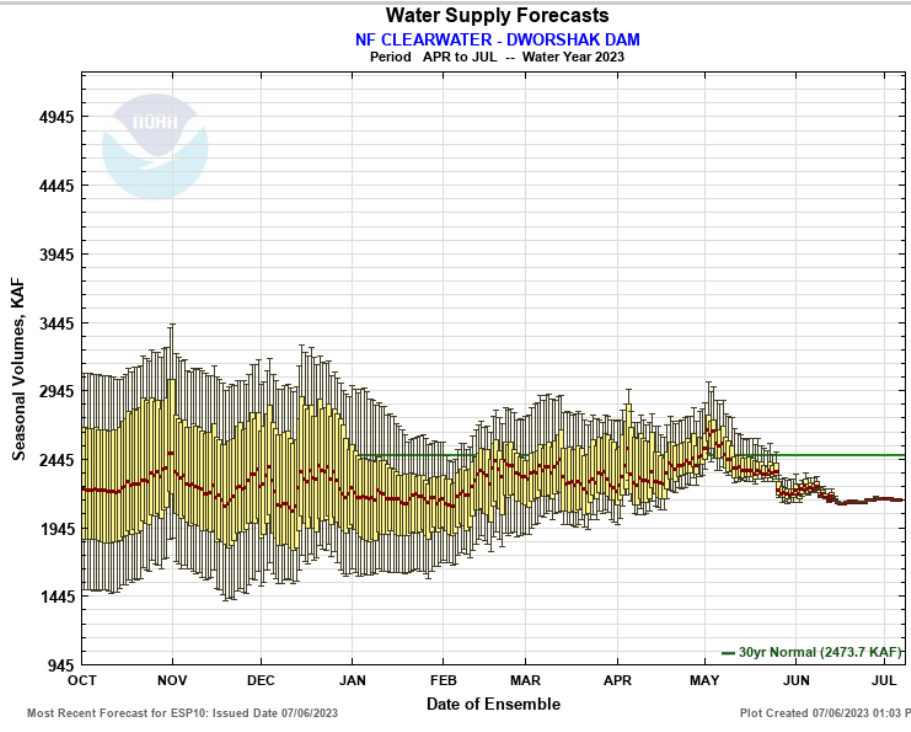
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NF CLEARWATER - DWORSHAK DAM (DWR11) Forecasts for Water Year 2023					
Official Water Supply					
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Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	2268	2272	87	2288	2620
APR-JUL	2145	2146	87	2150	2474
JAN-SEP	2652	2656	75	2671	3543
JAN-JUL	2529	2529	74	2533	3397
OCT-SEP	2944	2948	74	2963	3998
Experimental Water Supply					
<i>HEFS with 15 days EQPF Ensemble: 2023-07-06 Issued: 2023-07-06</i>					
APR-SEP	2268	2272	87	2287	2620
APR-JUL	2145	2146	87	2149	2474
JAN-SEP	2652	2656	75	2671	3543
JAN-JUL	2529	2529	74	2533	3397
OCT-SEP	2944	2948	74	2963	3998
Reference					
<i>ESP with 0 Days QPF Ensemble: 2023-07-06 Issued: 2023-07-06</i>					
APR-SEP	2269	2273	87	2289	2620
APR-JUL	2145	2147	87	2152	2474
JAN-SEP	2652	2657	75	2673	3543
JAN-JUL	2529	2530	75	2536	3397
OCT-SEP	2945	2949	74	2965	3998
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