

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 **MARCH** 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 FRM draft requirement
		January, February, March	Sets VARQ FRM requirement
		April	Sets VARQ FRM requirement and VARQ refill flows
		May	Sets Libby min. sturgeon flow volume and min. bull trout flows for after sturgeon pulse through Sep; Sets VARQ FRM targets and VARQ refill flows; Sets end of September draft target
		June	VARQ refill flows
Dworshak	April – July Provided by NWRFC	January, February, March	Manage for reservoir FRM, VDL, and Flood Control Refill Curve (FCRC)
		April, May, June	Manage for reservoir FRM and FCRC

Source: 2025 Water Management Plan, page 16 - <https://pweb.crohms.org/tmt/documents/wmp/2025/>

4-Mar-2025

Hungry Horse Dam – Official Water Supply Forecast MARCH 2025

Below are the volumes for the March 2025 final forecast for Hungry Horse:

- Mar-Jul: 1,640 kaf (78%)
- Apr-Aug: 1,610 kaf (79%)
- May-Jul: 1,287 kaf (77%)
- May-Sep: 1,388 kaf (78%)

The minimum flows downstream of Hungry Horse based on the Apr-Aug Volume forecast are as follows:

- Columbia Falls: 3,410 cfs
- Hungry Horse: 750 cfs

The forecasted end of April forebay elevation at Hungry Horse is 3519.0 ft.

Chris Runyan

U.S. Bureau of Reclamation | Columbia-Pacific Northwest Interior - Region 9
Water Management | Operations Group
Boise, ID 83706



Northwest River Forecast Center

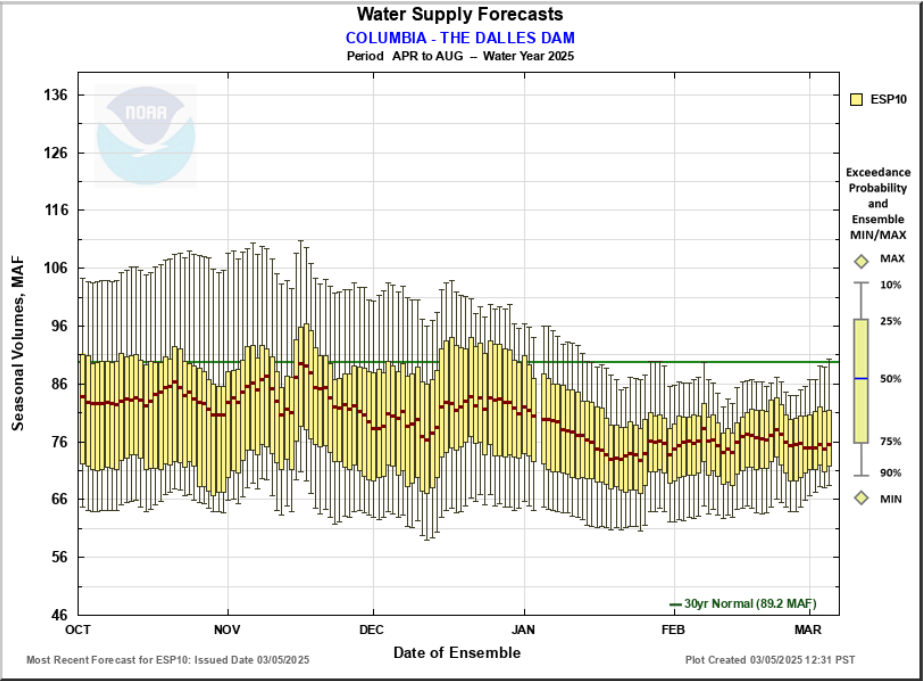
Water Supply Forecasts

- Home
- Data/Normals
- Rankings
- ENSO / Runoff
- Adjustments
- Verification
- Verify All Years
- Archive
- Monthly Water Supply Forecasts
- Help

Choose Date: 03/05/2025 Archive: Water Year

COLUMBIA - THE DALLES DAM (TDAO3) Forecasts for Water Year 2025					
Official Water Supply					
ESP with 10 Days QPF Ensemble: 2025-03-05 Issued: 2025-03-05					
Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	Average	10 %	
APR-SEP	72820	79859	85	94515	94166
APR-JUL	62460	68657	84	82434	81933
APR-AUG	67940	75123	84	89761	89196
JAN-SEP	90940	97782	84	113141	115946
JAN-JUL	80447	86684	84	100724	103714
OCT-SEP	105015	111857	85	127216	132314
Experimental Water Supply					
HEFS with 15 days EQPF Ensemble: 2025-03-05 Issued: 2025-03-05					
APR-SEP	71463	81765	87	91582	94166
APR-JUL	60804	69943	85	79467	81933
APR-AUG	66175	76547	86	86639	89196
JAN-SEP	89437	99360	86	111332	115946
JAN-JUL	79531	87979	85	100077	103714
OCT-SEP	103512	113434	86	125407	132314
Reference					
ESP with 0 Days QPF Ensemble: 2025-03-05 Issued: 2025-03-05					
APR-SEP	70112	81892	87	90796	94166
APR-JUL	59344	69998	85	78940	81933
APR-AUG	64832	76717	86	85317	89196
JAN-SEP	87800	99876	86	111216	115946
JAN-JUL	78436	88420	85	99388	103714
OCT-SEP	101875	113951	86	125291	132314

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



☐ Max Scale ☒ Scale To Data ☐ Scale To Last 45 Days ☐ Show Min/Max Ensemble Volume ☐ Show Tooltips Help

Overlay

ESP10 HEFS ESP0

Data Files

CSV (ESP10 / APR-AUG)

Forecast Ensemble





Northwest River Forecast Center

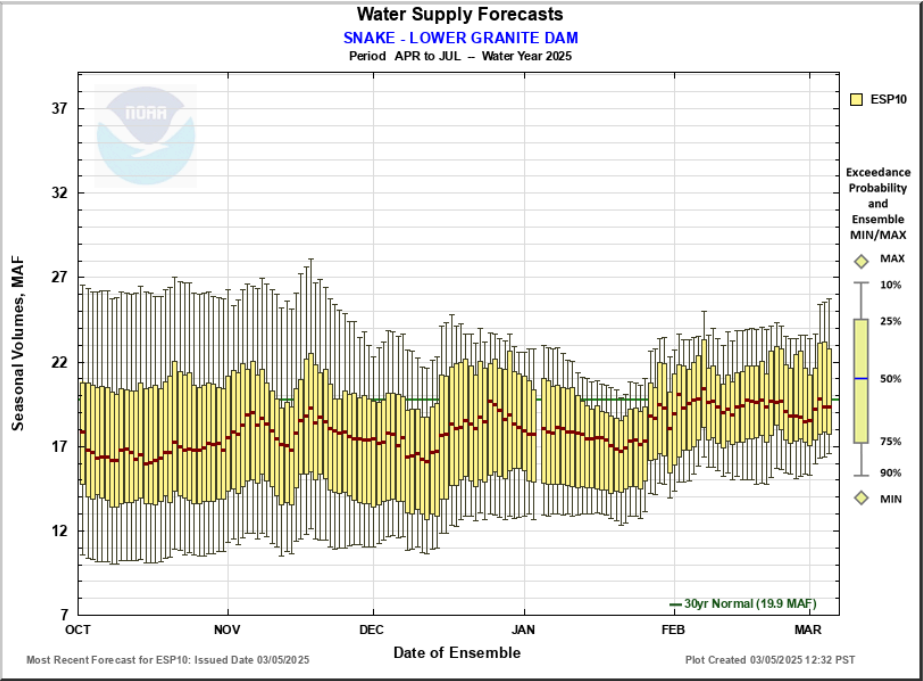
Water Supply Forecasts

- Home
- Data/Normals
- Rankings
- ENSO / Runoff
- Adjustments
- Verification
- Verify All Years
- Archive
- Monthly Water Supply Forecasts
- Help

Choose Date: 03/05/2025 Archive: Water Year

SNAKE - LOWER GRANITE DAM (LGDW1) Forecasts for Water Year 2025					
Official Water Supply					
ESP with 10 Days QPF Ensemble: 2025-03-05 Issued: 2025-03-05					
Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	Average	10 %	
APR-SEP	19127	22406	101	28604	22232
APR-JUL	16781	19540	98	25893	19946
APR-AUG	17957	21076	100	27308	21121
JAN-SEP	25856	29126	98	35891	29736
JAN-JUL	23546	26412	96	33147	27450
OCT-SEP	29434	32705	95	39469	34287
Experimental Water Supply					
HEFS with 15 days EQPF Ensemble: 2025-03-05 Issued: 2025-03-05					
APR-SEP	18039	22282	100	27417	22232
APR-JUL	15809	19628	98	24642	19946
APR-AUG	16898	20985	99	26114	21121
JAN-SEP	25528	29278	98	34640	29736
JAN-JUL	23298	26794	98	32002	27450
OCT-SEP	29107	32857	96	38218	34287
Reference					
ESP with 0 Days QPF Ensemble: 2025-03-05 Issued: 2025-03-05					
APR-SEP	17797	22121	99	26977	22232
APR-JUL	15587	19523	98	24163	19946
APR-AUG	16664	20806	99	25660	21121
JAN-SEP	25160	29546	99	34264	29736
JAN-JUL	22922	26927	98	31559	27450
OCT-SEP	28738	33125	97	37843	34287

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



☐ Max Scale ☒ Scale To Data ☐ Scale To Last 45 Days ☐ Show Min/Max Ensemble Volume ☐ Show Tooltips Help

Overlay

ESP10

HEFS

ESP0

Data Files

CSV (ESP10 / APR-JUL)

Forecast Ensemble



[Commerce Home](#) | [NOAA](#) | [NWS Organization](#) | [NWRFC Site Map](#) | [Search](#)

[Freedom of Information Act](#) | [Privacy Policy](#) | [Information Quality](#) | [USA.gov](#) | [Career Opportunities](#)

Libby : March Runoff Forecast & Flood Risk Management Calculation

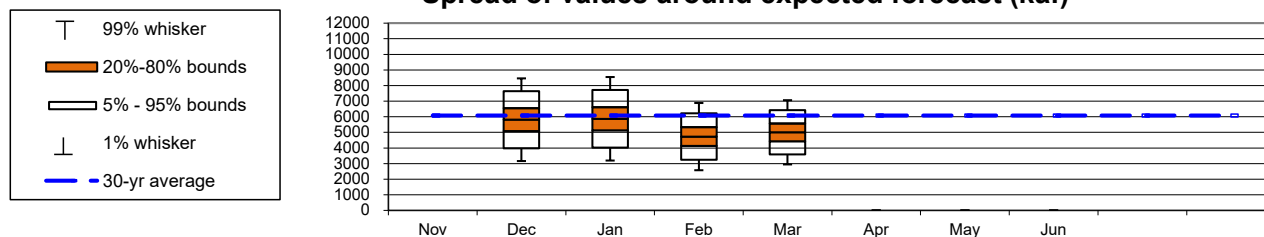
WY 2025

Runoff Forecast	March	1991-2020 Average	1991 - 2020 Percent of Average	1929-2020 Average	1929 - 2020 Percent of Average
Most Probable Runoff Volume: Apr-Aug (kaf)	5004	6080	82%	6259	80%
Most Probable Runoff Volume: Apr-Jul (kaf)	4585	5570	82%	5708	80%
Most Probable Runoff Volume: May-Jul (kaf)	4127	5014	82%	5183	80%

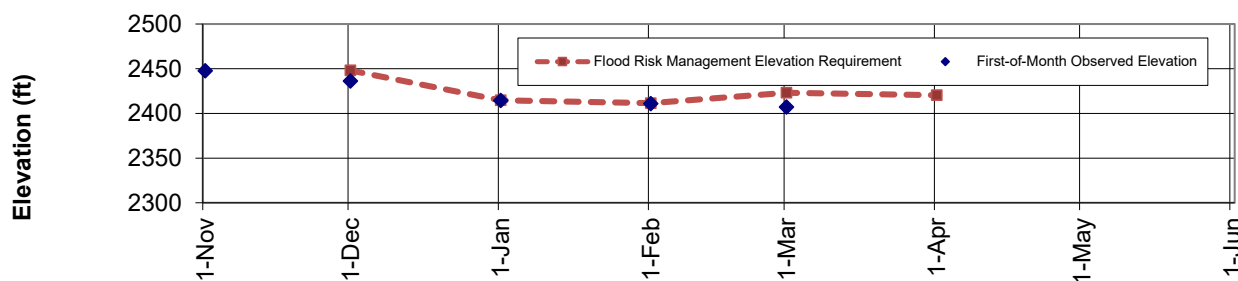
Forecast/Reservoir Data	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Apr-Aug Runoff Forecast (kaf)		5812	5871	4728	5004			
First-of-Month Elev (ft)	2447.5	2436.1	2414.4	2410.9	2407.0			

Seasonal FRM Requirements	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr		
Flood Risk Management Space (kaf)	500	1867	1983	1541	1647			
Flood Risk Management Elevation (ft)	2448.0	2414.6	2411.5	2423.1	2420.4			

Spread of values around expected forecast (kaf)



Libby Flood Risk Management Elevations March- 2025



1. The given forecast is the official Corps of Engineers forecast for Libby. If you have any questions please contact Leon Basdekas (208) 353-2564, Andrew McCall (206) 715-2793, or David Doll (206) 741-3538.
2. If a prior month's forecast as published in this document is different than what was originally published in the issue month, then the earlier forecast has been adjusted to reflect updated values for precipitation or streamflow.

Libby : March Runoff Forecast & Flood Risk Management Calculation
Apr-Aug Runoff Forecast Calculation:

Variable	Month(s)	Units	Observed Value A	Percent of Average (1991-2020)	Regression Coefficient B	Marginal Runoff (KAF) =A*B
SOI	ΣJun:Jul					
Eureka RS, MT	ΣOct:Feb Prcp	inches	4.57	86%	65.87	301.0
West Glacier, MT	ΣOct:Feb Prcp	inches	11.71	77%	28.51	333.9
Cranbrook A, BC	ΣOct:Feb Prcp	millimeters	95.50	66%	2.73	260.7
Fernie, BC	ΣOct:Feb Prcp	millimeters	554.48	96%	0.63	349.3
Hawkins Lake, MT	1-Mar SWE	inches	18.10	88%	24.33	440.4
Stahl Peak, MT	1-Mar SWE	inches	26.30	89%	19.11	502.6
East Creek, BC	1-Mar SWE	millimeters	506.58	69%	0.65	329.3
Moyie Mountain, BC	1-Mar SWE	millimeters	310.90	85%	1.27	394.8
Sunshine Village, AB	1-Mar SWE	millimeters	288.00	65%	1.26	362.9
Akamina Pass, AB	1-Mar SWE	millimeters	277.97	69%	1.04	289.1
South Racehorse Creek, AB	1-Mar SWE	millimeters	213.00	63%	1.40	298.2
Intercept			1		1142.00	1142.0
March Forecast	April - August	kaf				5004.2

Data used in Libby Water Supply Forecast

Precipitation Data	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Eureka RS, MT (inch)	0.60	1.25	1.01	0.41	1.30			
West Glacier, MT (inch)	0.98	4.49	3.01	0.67	2.56			
Cranbrook A, BC (mm)	8.50	44.40	19.70	7.00	15.90			
Fernie, BC (mm)	151.89	187.20	112.52	20.57	82.30			
Snow Water Equiv	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun
Hawkins Lake, MT (inch)				13	18			
Stahl Peak, MT (inch)			20	21	26			
East Creek, BC (mm)				420	507			
Moyie Mountain, BC (mm)			192	206	311			
Sunshine Village, AB (mm)			211	236	288			
Akamina Pass, AB (mm)				209	278			
South Racehorse Creek, AB (mm)				142	213			
Streamflow	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Libby Inflow Volume (kaf)			140	129				
Reservoir Elevation	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun
Libby FOM Elev (feet)	2447.5	2436.1	2414.4	2410.9	2407.0			

William D. Proctor, P.E.
Approving Official
Ch., Hydrologic Engineering and Power Branch
Northwestern Division

Leon Basdekas, P.E.
Upper Columbia Senior Water Manager
Seattle District



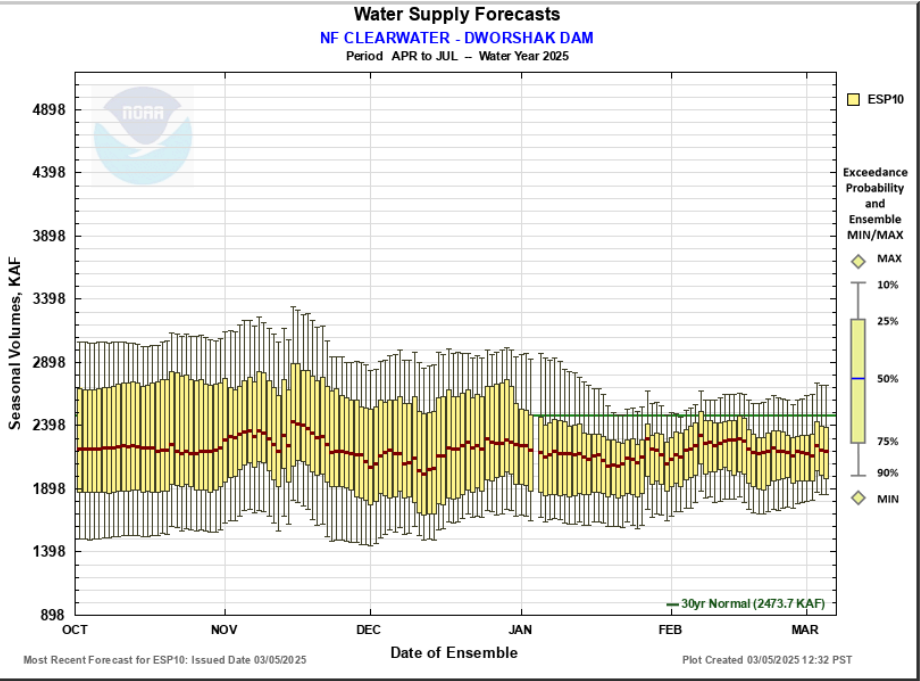
Northwest River Forecast Center

Water Supply Forecasts

- Home
- Data/Normals
- Rankings
- ENSO / Runoff
- Adjustments
- Verification
- Verify All Years
- Archive
- Monthly Water Supply Forecasts
- Help

Choose Date: 03/05/2025 Archive: Water Year

NF CLEARWATER - DWORSHAK DAM (DWR11) Forecasts for Water Year 2025					
Official Water Supply					
ESP with 10 Days QPF Ensemble: 2025-03-05 Issued: 2025-03-05					
Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	Average	10 %	
APR-SEP	1974	2320	89	2846	2620
APR-JUL	1856	2194	89	2713	2474
JAN-SEP	2668	3012	85	3624	3543
JAN-JUL	2553	2877	85	3482	3397
OCT-SEP	3008	3352	84	3964	3998
Experimental Water Supply					
HEFS with 15 days EQPF Ensemble: 2025-03-05 Issued: 2025-03-05					
APR-SEP	1951	2385	91	2820	2620
APR-JUL	1822	2262	91	2680	2474
JAN-SEP	2728	3095	87	3675	3543
JAN-JUL	2605	2939	87	3535	3397
OCT-SEP	3068	3436	86	4015	3998
Reference					
ESP with 0 Days QPF Ensemble: 2025-03-05 Issued: 2025-03-05					
APR-SEP	1907	2435	93	2823	2620
APR-JUL	1779	2283	92	2674	2474
JAN-SEP	2680	3114	88	3661	3543
JAN-JUL	2561	2985	88	3504	3397
OCT-SEP	3021	3454	86	4001	3998
Move the mouse over the desired "Forecast Period" to display a graph.					



☐ Max Scale ☒ Scale To Data ☐ Scale To Last 45 Days ☐ Show Min/Max Ensemble Volume ☐ Show Tooltips Help

Overlay

ESP10

HEFS

ESP0

Data Files

CSV (ESP10 / APR-JUL)

Forecast Ensemble



[Commerce Home](#) | [NOAA](#) | [NWS Organization](#) | [NWRFC Site Map](#) | [Search](#)

[Freedom of Information Act](#) | [Privacy Policy](#) | [Information Quality](#) | [USA.gov](#) | [Career Opportunities](#)