

Northwest River Forecast Center May 2025 Water Supply Briefing

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May 1, 2025





- April was warm and dry compared to normal.
- Snowpack peaked higher than normal in the south and lower than normal in the north. Snow is generally melting across the region.
- Observed and forecast runoff have the same north/south trend with higher amounts in the south.
- Water supply forecasts generally decreased during the dry month of April.







Observed Monthly Precipitation and Temperature



Creation Time: Wednesday, Apr 30, 2025 Northwest River Forecast Center



Water Year Precipitation



nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php?tab=2





Snow data from Natural Resources Conservation Service, BC Hydro, Ministry of Environment and Climate Change Strategy, and Alberta Environment and Parks.





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Accumulated Precipitation





The dry month of January can be seen as a flat line in the precipitation accumulation plots.

Precip averages from PRISM, OSU and PCIC.

Water Year to Date Adjusted Observed Runoff

% Normal Runoff Oct 1 - April 30						
<u>Upper Columbia Basin</u>		<u>Δ since Apr 2</u>				
Mica	115	-6				
Duncan	114	-5				
Queens Bay	83	1				
Libby	80	-2				
Hungry Horse	84	2				
Grand Coulee	92	0				
Snake River Basin						
American Falls	82	-5				
Lucky Peak	98	10				
Dworshak	85	-2				
Lower Granite	90	1				
<u>Lower Columbia Basin</u>	wer Granite 90 1 wer Columbia Basin					
The Dalles	89	2				



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Water Year to Date Natural Observed Runoff

% Normal Runoff Oct 1 - Apr 30		
<u>Washington</u>		<u>Δ since Apr 2</u>
Skagit near Mt Vernon	94	2
Dungeness near Sequim	77	4
Chehalis at Porter	79	1
Okanogan at Malott	79	10
Methow near Pateros	97	23
Yakima at Parker	82	9
Walla Walla near Touchet	88	-3
<u>Oregon</u>		
Willamette at Salem	103	-3
Rogue at Raygold	139	-7
Umatilla at Pendleton	102	-9
Grande Ronde at Troy	93	-4
Crooked near Prineville	230	-19
Owyhee Dam	134	-19



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Quantitative Precipitation Forecast (QPF) Sources:

- Days 1 2 NWS Weather Forecast Offices (WFO) in the US, WPC in BC. Days 3 7 NWS Weather Prediction Center (WPC). Days 8 10 NWS National Blend of Models (NBM).

ESP10 Water Supply Forecasts



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Natural Water Supply Forecasts

% Normal Apr-Sep Volume		
<u>Washington</u>		<u>Δ since Apr 2</u>
Skagit near Mt Vernon	83	-6
Dungeness near Sequim	85	-2
Chehalis at Porter	74	-12
Okanogan at Malott	60	-2
Methow near Pateros	68	9
Yakima at Parker	88	-11
Walla Walla near Touchet	77	-13
<u>Oregon</u>		
Willamette at Salem	76	-17
Rogue at Raygold	108	-17
Umatilla at Pendleton	72	-26
Grande Ronde at Troy	78	-34
Crooked near Prineville	158	11
Owyhee Dam	89	-24



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ESP10 Water Supply Forecast









JAN-JUL

OCT-SEP

ESP10 Water Supply Forecast

Forecasts for Water Year 2025 Official Water Supply ESP with 10 Days QPF Ensemble: 2025-04-30 Issued: 2025-04-30 Forecasts Are in KAF 30 Year Forecast % Average Period 90 % 50 % 10 % (1991-2020) Average APR-SEP APR-JUL APR-AUG JAN-SEP

Experimental Water Supply HEFS with 15 days EQPF Ensemble: 2025-04-30 Issued: 2025-04-30					
APR-SEP	19167	20501	92	24156	22232
APR-JUL	16739	18031	90	21508	19946
APR-AUG	17919	19238	91	22829	21121
JAN-SEP	26288	27622	93	31277	29736
JAN-JUL	23860	25152	92	28628	27450
OCT-SEP	29867	31201	91	34856	34287

Seasonal Vo

Reference ESP with 0 Days QPF Ensemble: 2025-04-30 Issued: 2025-04-30 APR-SEP APR-JUL APR-AUG JAN-SEP JAN-JUL OCT-SEP



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<u>nwrfc.noaa.gov/water_supply/ws_forecasts.php?id=LGDW1</u>

nwrfc.noaa.gov/water supply/monthly/monthly forecasts.php?id=LGDW1 \rightarrow





JAN-JUL

OCT-SEP

ESP10 Water Supply Forecast

COLUMBIA - THE DALLES DAM (TDAO3) Forecasts for Water Year 2025

Official Water Supply ESP with 10 Days QPF Ensemble: 2025-04-30 Issued: 2025-04-30 Forecasts Are in KAF 30 Year Forecast % Average Period 90 % 50 % Average 10 % (1991-2020) APR-SEP APR-JUL APR-AUG JAN-SEP

Experimental Water Supply HEFS with 15 days EQPF Ensemble: 2025-04-30 Issued: 2025-04-30					
APR-SEP	77606	81806	87	89900	94166
APR-JUL	65943	70050	85	77455	81933
APR-AUG	72702	76896	86	84242	89196
JAN-SEP	96857	101057	87	109151	115946
JAN-JUL	85194	89301	86	96706	103714
OCT-SEP	110932	115131	87	123226	132314

Reference ESP with 0 Days QPF Ensemble: 2025-04-30 Issued: 2025-04-30 APR-SEP APR-JUL APR-AUG JAN-SEP JAN-JUL OCT-SEP



🚽 🔿 Max Scale 🖲 Scale To Data 🔿 Scale To Last 45 Days 🗆 Show Min/Max Ensembl



<u>nwrfc.noaa.gov/water_supply/ws_forecasts.php?id=TDAO3</u>

<u>nwrfc.noaa.gov/water_supply/monthly/monthly_forecasts.php?id=TDAO3</u> \rightarrow



ESP10 Monthly Water Supply Forecast





Monthly and Seasonal Outlooks



cpc.ncep.noaa.gov

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Monthly Water Supply Briefings First Thursday of Each Month *nwrfc.noaa.gov/water_supply/ws_schd.cgi*



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Northwest River Forecast Center



326,000 Square Miles

- 2 Countries, 6+ States
- 10 NWS WFOs

Forecast Service Suite

- ~ 400 river locations
- ~ 100 reservoirs
- Multiple time scales
- Deterministic & probabilistic

NWRFC forecast and services inform regional and local decisions:

- Water Management
 - USACE, USBR, Others
- Hydropower
- Flood Control
- Drought Planning
- River Commerce
- Species Protection





