February 2022 Water Supply Briefing

Telephone Conference: (562) 247-8422
Audio Access Code: 146-348-602#

Amy Burke
NWRFC.watersupply@noaa.gov

*Audio PIN is provided when logging into the webinar and will be required if you wish to ask questions at the end of presentation
The first half of January brought heavy precip while the second half brought very little.

Seasonal precipitation fell below normal for some portions of the basin.

Snowpack is near normal for most of the basin though percent normals have dropped.

Water supply forecasts have dropped in the southern areas of the basin and remained near normal in others.
Water Supply Forecast Briefing

Observed Conditions:
- Temperature
- Precipitation
- Snowpack
- Runoff

Future Conditions:
- 10 days of quantitative precipitation forecast (QPF)
- 10 days of quantitative temperature forecast (QTF)
- Historical climate forcings appended thereafter

Water Supply Forecasts
Change in Monthly Precipitation

Current Month Precipitation
Jan 1, 2022 – Jan 15, 2022

Monthly Precipitation (Percent Normal)
- Below 50%
- 50 – 70%
- 70 – 90%
- 90 – 110%
- 110 – 130%
- Above 130%

Creation Time: Sunday, Jan 16, 2022
Northwest River Forecast Center

Current Month Precipitation
Jan 1, 2022 – Jan 31, 2022

Monthly Precipitation (Percent Normal)
- Below 50%
- 50 – 70%
- 70 – 90%
- 90 – 110%
- 110 – 130%
- Above 130%

Creation Time: Tuesday, Feb 1, 2022
Northwest River Forecast Center
Snow data from NRCS, BC Hydro, and Alberta EP.
Snowpack and Seasonal Precipitation Data as of Feb 2, 2022. Snow data from NRCS, BC Hydro, and Alberta EP.

Upper Columbia

90% of normal as of Feb 2
Snowpack and Seasonal Precipitation

Data as of Feb 2, 2022. Snow data from NRCS, BC Hydro, and Alberta EP.

Snake River

89% of normal as of Feb 2

Accumulated Precip (in.)

Date

Nov-01, Jan-01, Mar-01, May-01, Jul-01, Sep-01
Snowpack and Seasonal Precipitation

Data as of Feb 2, 2022. Snow data from NRCS, BC Hydro, and Alberta EP.
% Normal Runoff Oct 1- Feb 2

**Upper Columbia Basin**
- Mica: 114, -1
- Duncan: 127, 2
- Queens Bay: 145, -8
- Libby: 144, 0
- Hungry Horse: 123, -1
- Grand Coulee: 124, -5

**Snake River Basin**
- American Falls: 86, -2
- Lucky Peak: 83, -4
- Dworshak: 90, -8
- Lower Granite: 81, -3

**Lower Columbia Basin**
- The Dalles: 103, -5
YTD Adjusted Natural Runoff - OR, WA

% Normal Runoff Oct 1- Feb 2

**Washington**

- Skagit nr Mt Vernon: 156, Δ -8
- Dungeness nr Sequim: 134, Δ -2
- Chehalis at Porter: 141, Δ 11
- Okanogan at Malott: 216, Δ -16
- Methow nr Pateros: 195, Δ -13
- Yakima at Parker: 118, Δ -5
- Walla Walla nr Touchet: 68, Δ 16

**Oregon**

- Willamette at Salem: 93, Δ 5
- Rogue at Raygold: 60, Δ 1
- Umatilla at Pendleton: 94, Δ 27
- Grande Ronde at Troy: 70, Δ 0
- Owyhee Dam: 74, Δ -4
Precipitation Forecast (Feb 2 - 12)

Northwest River Forecast Center
10 Day QPF, Ending 12Z, 02/12/22

Northwest River Forecast Center
10 Day QPF (Deviation from Climatology), Ending 12Z, 02/12/22

Creation Time: Wed Feb 2 14:53:18 UTC 2022

Creation Time: Wed Feb 2 14:54:31 UTC 2022
% Normal Apr-Sep Volume

**Upper Columbia Basin**

- Mica: 121
- Duncan: 120
- Queens Bay: 112
- Libby: 109
- Hungry Horse: 91
- Grand Coulee: 106

Δ since Jan 5

- Mica: 3
- Duncan: 8
- Queens Bay: 3
- Libby: 3
- Hungry Horse: 0
- Grand Coulee: 1

**Snake River Basin**

- American Falls: 72
- Lucky Peak: 93
- Dworshak: 96
- Lower Granite: 89

Δ since Jan 5

- American Falls: -26
- Lucky Peak: -20
- Dworshak: -8
- Lower Granite: -16

**Lower Columbia Basin**

- The Dalles: 100

Δ since Jan 5

- The Dalles: -4
### % Normal Apr-Sep Volume

#### Washington
- Skagit nr Mt Vernon: 95, \(\Delta -5\)
- Dungeness nr Sequim: 90, \(\Delta -10\)
- Chehalis at Porter: 88, \(\Delta -1\)
- Okanogan at Malott: 109, \(\Delta -5\)
- Methow nr Pateros: 98, \(\Delta -6\)
- Yakima at Parker: 88, \(\Delta -13\)
- Walla Walla nr Touchet: 77, \(\Delta -10\)

#### Oregon
- Willamette at Salem: 83, \(\Delta -8\)
- Rogue at Raygold: 71, \(\Delta -19\)
- Umatilla at Pendleton: 93, \(\Delta -20\)
- Grande Ronde R at Troy: 89, \(\Delta -16\)
- Owyhee Dam: 56, \(\Delta -36\)

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Feb 2, 2022
# ESP10 Apr-Sep Water Supply Forecasts

## Official Water Supply

**ESP with 10 Days QPF**  
**Ensemble: 2022-02-02**  
**Issued: 2022-02-02**

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## Experimental Water Supply

**HEFS with 15 Days EOP**  
**Ensemble: 2022-02-02**  
**Issued: 2022-02-02**

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## Reference

**ESP with 0 Days QPF**  
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**Issued: 2022-02-02**

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## ESP10 Apr-Sep Water Supply Forecasts

### SNAKE - LOWER GRANITE DAM (LGDW1)

#### Official Water Supply

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[https://www.nwrfc.noaa.gov/water_supply/ws_forecasts.php?id=LGDW1](https://www.nwrfc.noaa.gov/water_supply/ws_forecasts.php?id=LGDW1)
ESP10 Apr-Sep Water Supply Forecasts

COLUMBIA - THE DALLES DAM (TDAO3)
Forecasts for Water Year 2022

Official Water Supply
ESP with 10 Days QPF  Ensemble: 2022-02-02  Issued: 2022-02-02

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<th>Forecast Period</th>
<th>90 %</th>
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Experimental Water Supply
HEFS with 15 days EOPF  Ensemble: 2022-02-02  Issued: 2022-02-02

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https://www.nwrfc.noaa.gov/water_supply/ws_forecasts.php?id=TDAO3
Water Supply Volume Monthly Forecasts (ESP10) for Water Year 2022
(TDAO3) COLUMBIA - THE DALLES DAM

Volume, MAF

Ensemble Date: 2022-02-02
Plot Created: 02/03/2022 01:23 PST

A majority of models indicate La Niña is expected to continue into spring 2022 and then transition to ENSO-neutral.

Oceanic Nino Index vs Runoff

OCT-DEC Oceanic Nino Index vs APR-SEP Historical Water Supply Runoff
(TDAO3) COLUMBIA - THE DALLES DAM (1951-2021)

Historical Runoff (KAF)

La Nina
Neutral
El Nino

Oceonic Nino Index (ONI)

Runoff for Given Water Year
Current ESP10 Forecast
ONI vs Runoff Trendline
30 Year Normal (1981-2010)

ONI Index Date: 11/01/2021
ESP Forecast Date: 02/02/2022
Created: 02/02/2022 01:24 PST

The first half of January brought heavy precip while the second half brought very little.

Seasonal precipitation fell below normal for some portions of the basin.

Snowpack is near normal for most of the basin though percent normals have dropped.

Water supply forecasts have dropped in the southern areas of the basin and remained near normal in others.
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All presentations held at 10:00 am PST/PDT unless noted otherwise

Telephone Conference Call Number (same for each month's brief):
(562) 247 - 8422

Pass Code: 146-348-602#
Questions?

In order to ask questions using your phone, you will need to enter the AUDIO PIN followed by the # sign using your phone keypad. The AUDIO PIN was provided when you logged into the webinar. If you need to enter the PIN after you are connected, try #PIN#

You will be muted until the presenter unmutes you. If you have a question, use the ‘Raise Hand’ function to let us know to unmute your phone.

NWRFC.watersupply@noaa.gov
(503) 326-7291