February 2025
Water Supply Briefing

Colorado Basin
River Forecast Center
National Weather Service

Briefing Overview

Soil Moisture Conditions

Observed Precipitation

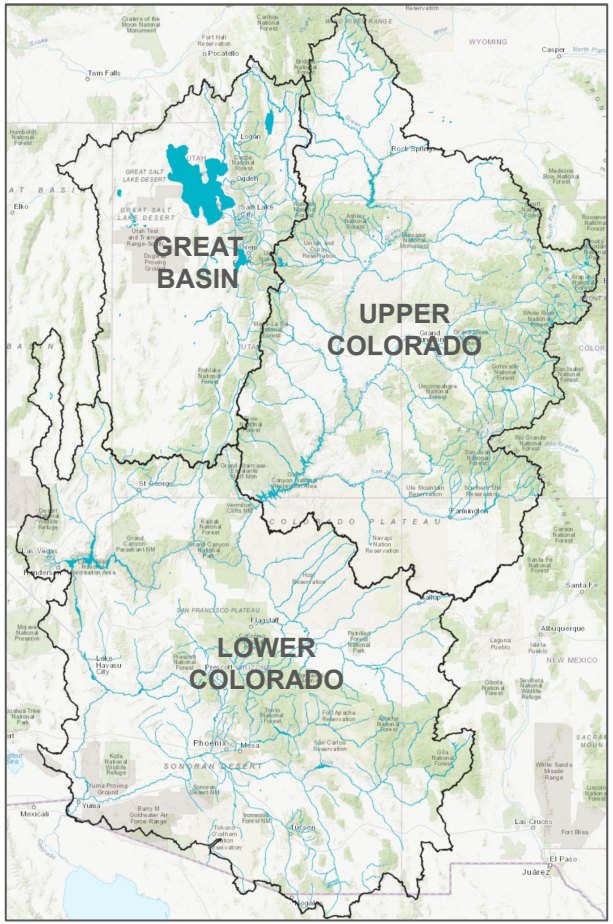
Snowpack Conditions

Water Supply Forecasts

February Forecast Error

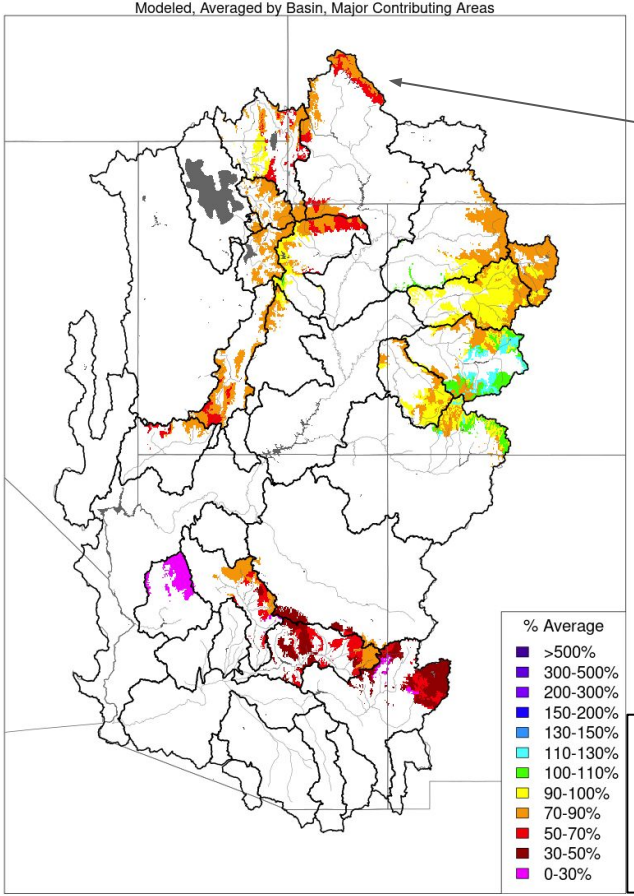
Upcoming Weather

Contacts & Questions



CBRFC Hydrologic Model Soil Moisture Conditions

Soil Moisture - Fall - 2024 (November 15)
Modeled, Averaged by Basin, Major Contributing Areas



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Below Normal + Worse
Upper Green, Utah

Near/Below Normal + Similar
White/Yampa, Colorado River Headwaters

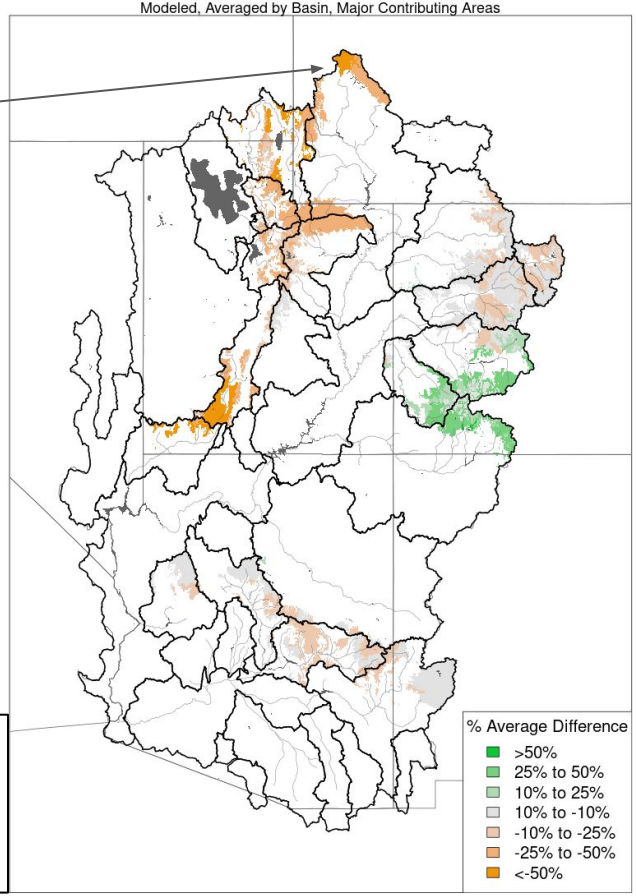
Near/Above Normal + Better
Gunnison, Dolores, San Juan

Below Normal + Similar
Lower Colorado

Soil Moisture Impacts on Water Supply / Runoff
Above normal → positive impact (increased runoff efficiency)
Below normal → negative impact (decreased runoff efficiency)

Spring runoff timing and magnitude factors:
snowpack conditions, spring weather, soil moisture conditions

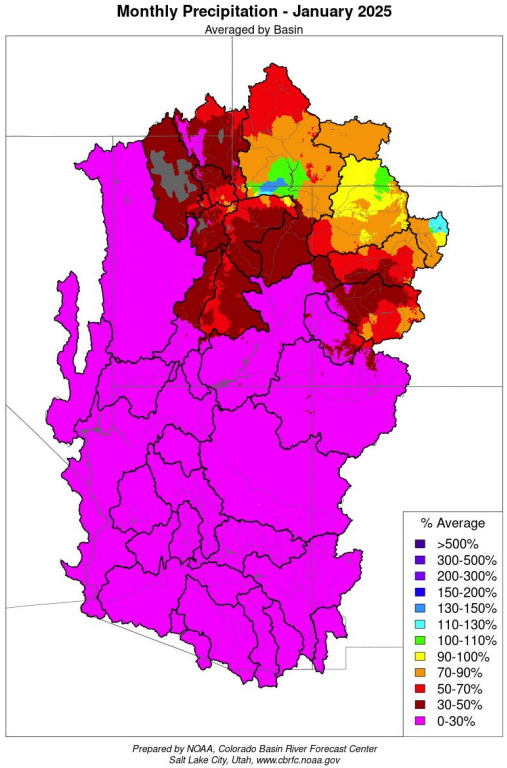
Soil Moisture - Fall - 2024 vs 2023
Modeled, Averaged by Basin, Major Contributing Areas

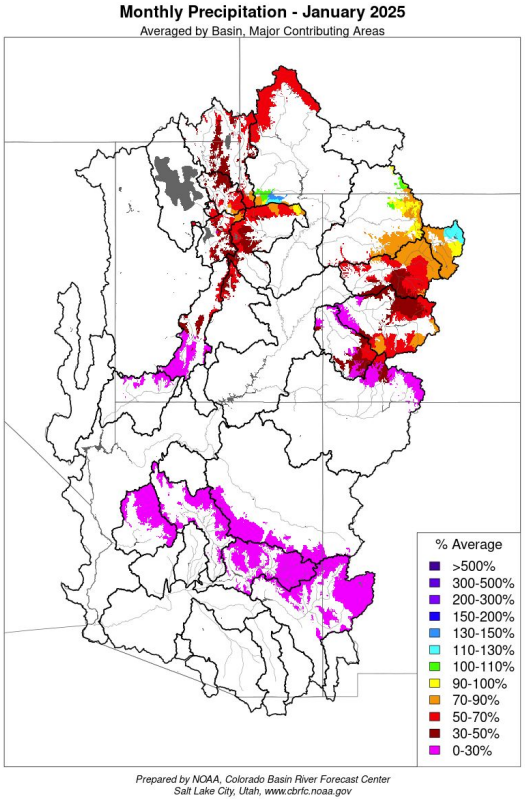


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

January 2025 Precipitation

Most of January 2025 featured a continuation of the relatively dry, northerly storm track that has dominated the winter season.

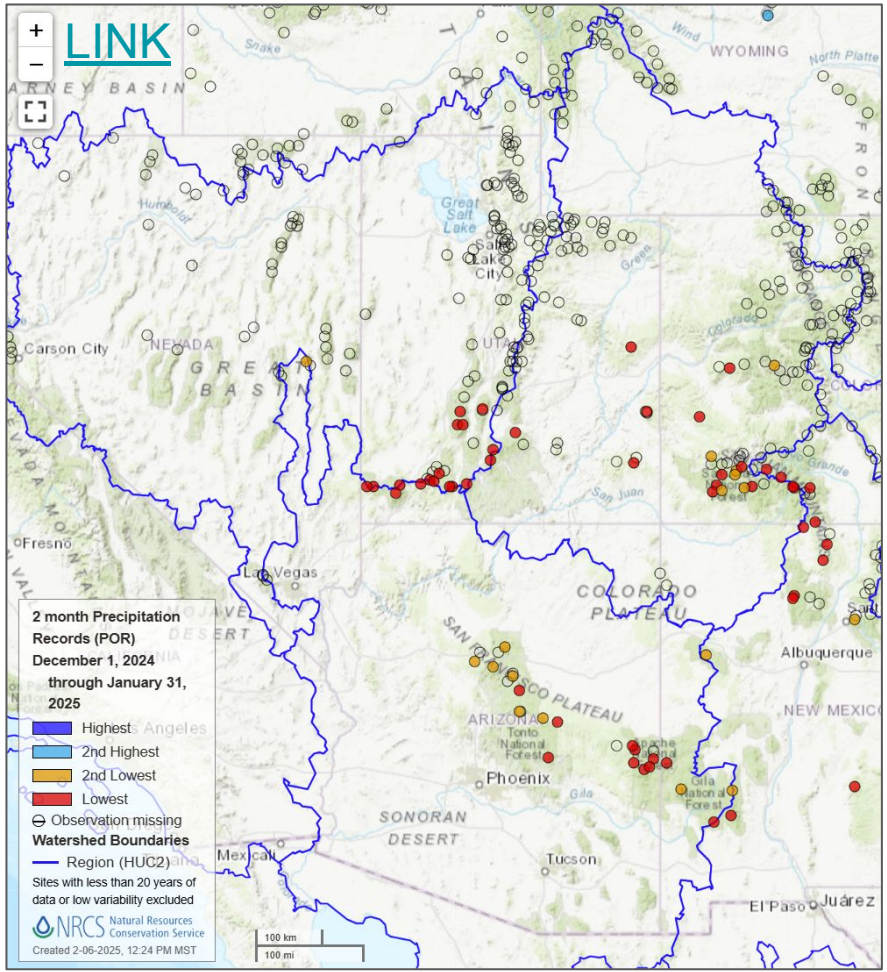




Water Year 2025
CBRFC Precipitation (Major Contributing Areas)
Percent of 1991-2020 Average

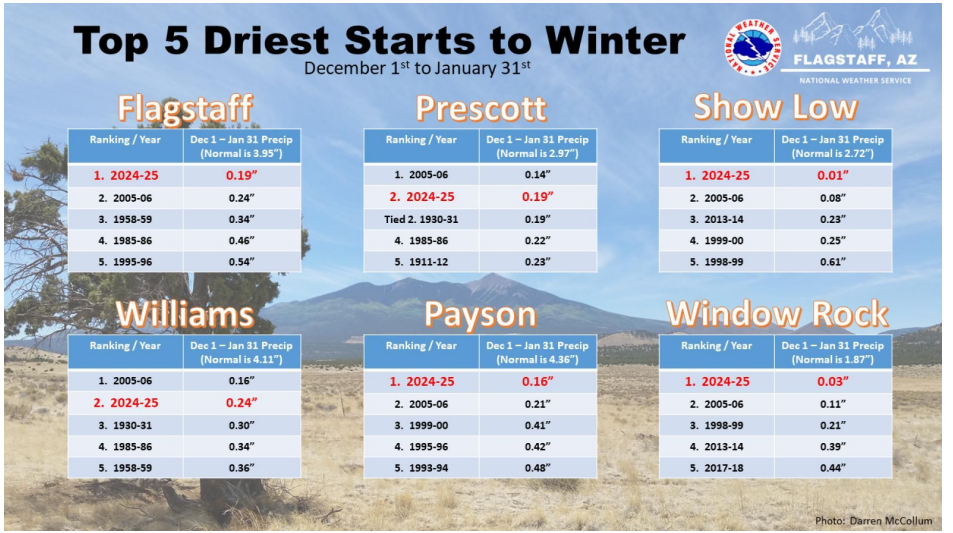
	Jan	Oct-Jan
UPPER COLORADO RIVER BASIN		
Above Lake Powell	61	87
Green River Basin		
Above Fontenelle	60	78
Above Flaming Gorge	69	84
Yampa/White	88	95
Duchesne	60	79
Price/San Rafael/Dirty Devil	50	95
Colorado River Headwaters		
Above Kremmling	95	96
Eagle	76	100
Roaring Fork	53	85
Above Cameo	74	92
Southwest Colorado		
Gunnison	57	90
Dolores	39	85
San Juan	28	73
LOWER COLORADO RIVER BASIN		
Virgin	6	49
Little Colorado	12	31
Verde	14	23
Salt	5	19
Upper Gila	13	20
GREAT BASIN		
Bear	50	76
Weber	52	76
Six Creeks	64	76
Provo/Utah Lake	53	76
Sevier	28	71

December 2024 / January 2025 Precipitation



Many locations in the LCRB have experienced their driest winter to-date on record.

Southern portions of the GB (Sevier) and UCRB (Dolores, San Juan) received near record or record low December–January precipitation amounts.

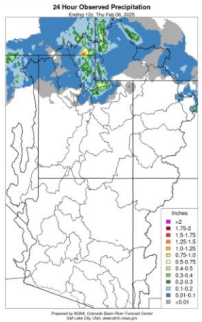


Late January / Early February Weather

The large-scale weather pattern changed significantly at the end of January with the development of troughing over the West Coast.

This funneled anomalously warm, moist, Pacific air into the Rockies, with heavy precipitation in the northern reaches of the GB and UCRB.

06 Data File



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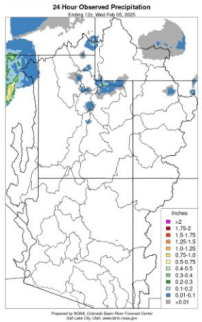

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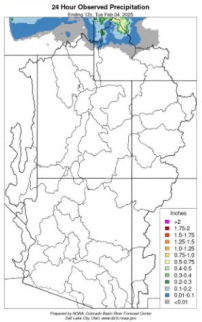

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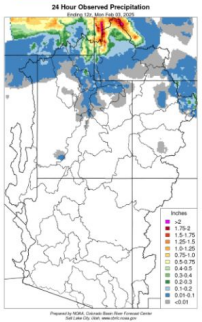

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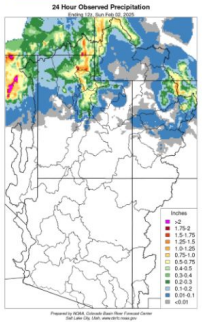

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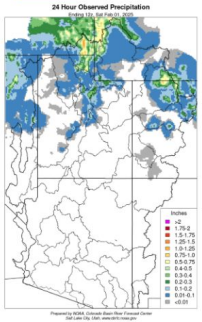
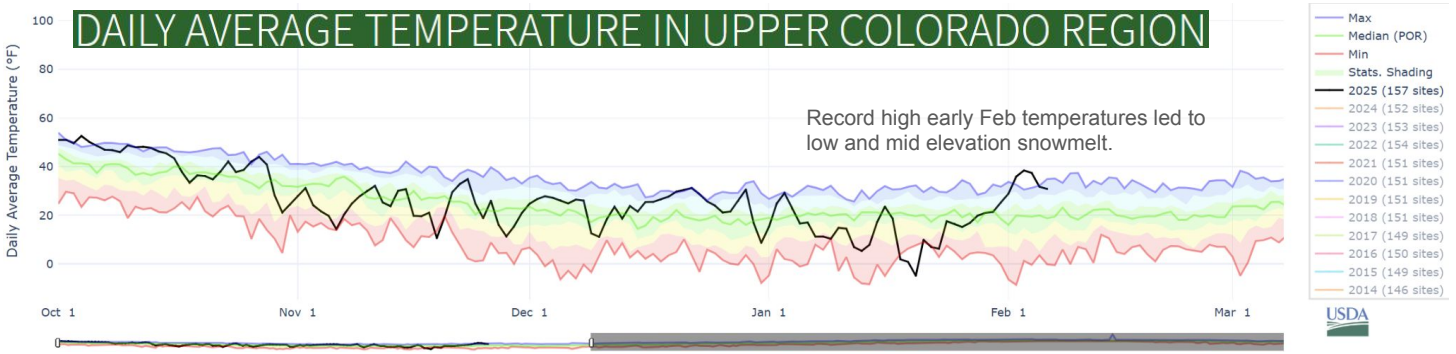
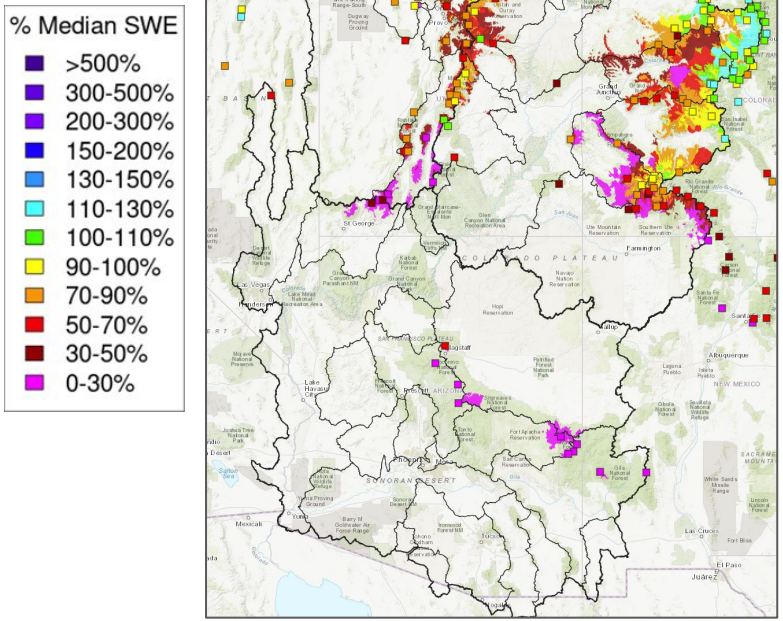




Snowpack Conditions

February 6 SWE Conditions

NRCS SNOTEL Observed (Squares)
CBRFC Model (Significant Areas)



SWE = Snow Water Equivalent
The amount of water in snow.

Water Year 2025 CBRFC Model SWE (Major Contributing Areas) Percent of 1991-2020 Median			
UPPER COLORADO RIVER BASIN			
	Jan1	Feb1	Change
Above Lake Powell	94	86	-8
Green River Basin			
Above Fontenelle	81	78	-3
Above Flaming Gorge	84	83	-1
Yampa/White	101	96	-5
Duchesne	86	77	-9
Price/San Rafael/Dirty Devil	89	82	-7
Colorado River Headwaters			
Above Kremmling	110	111	1
Eagle	117	110	-7
Roaring Fork	103	92	-11
Above Cameo	108	102	-6
Southwest Colorado			
Gunnison	104	92	-12
Dolores	85	69	-16
San Juan	69	55	-14
LOWER COLORADO RIVER BASIN			
Virgin	11	6	-5
Little Colorado	0	3	3
Verde	0	0	0
Salt	1	6	5
Upper Gila	0	2	2
GREAT BASIN			
Bear	103	84	-19
Weber	88	73	-15
Six Creeks	86	72	-14
Provo/Utah Lake	76	67	-9
Sevier	68	51	-17

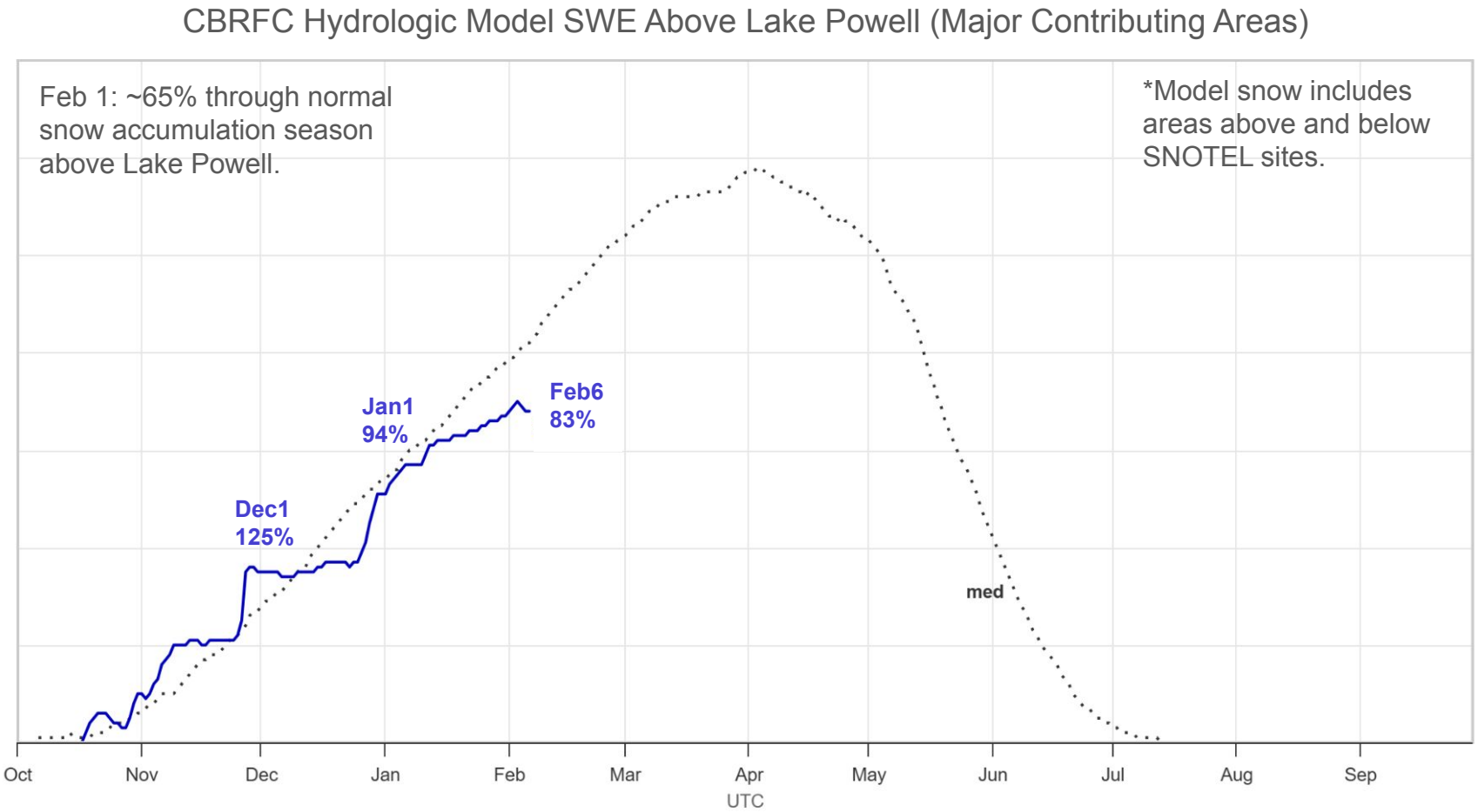
SWE as a percent of normal declined during January due to below normal precipitation.

UCRB 55-110%

LCRB 0-5%

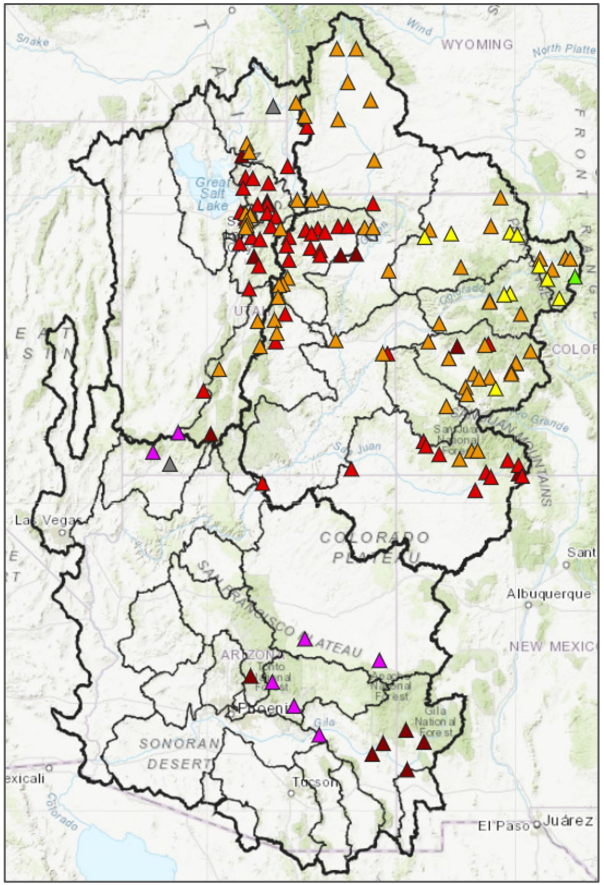
GB 50-85%

Water Year 2025 UCRB Snowpack Evolution



February 1 Water Supply Forecasts

% Normal
- < 30%
- 30-50%
- 50-70%
- 70-90%
- 90-100%
- 100-110%
- 110-130%
- 130-150%
- 150-200%
- 200-300%
- 300-500
- >500%
- Regulated



Colorado Basin River Forecast Center Water Supply Forecasts
February 1, 2025

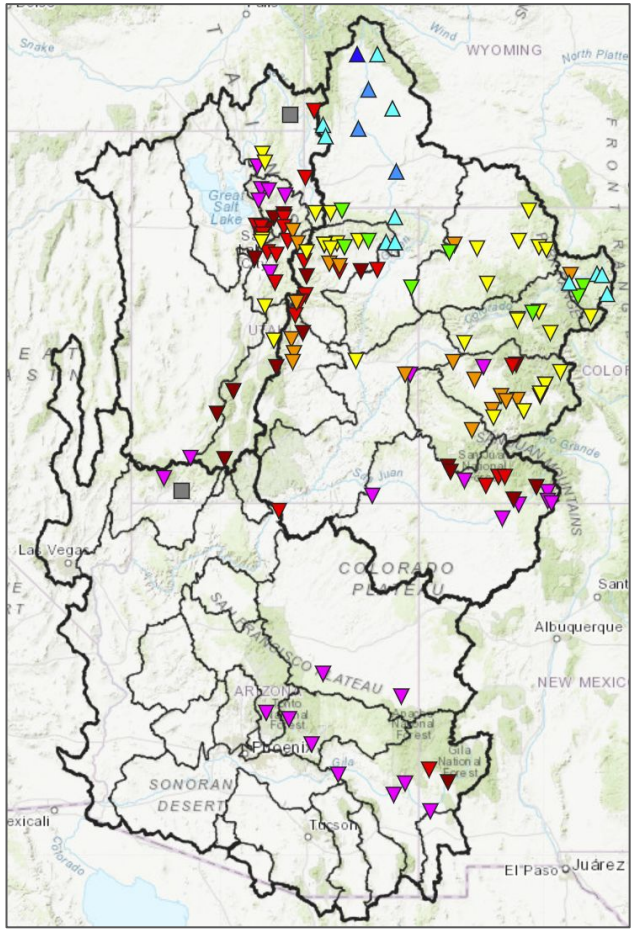
Basin	Volume (KAF)	%Normal (1991-2020)	Period
UPPER COLORADO RIVER BASIN			
Lake Powell	4300	67	Apr-Jul
Green River Basin			
Green-Flaming Gorge Reservoir	665	69	Apr-Jul
Yampa-Deerlodge	1100	92	Apr-Jul
Duchesne-Tabiona	68	66	Apr-Jul
Colorado River Headwaters			
Colorado-Kremmling	800	92	Apr-Jul
Eagle-Gypsum	305	91	Apr-Jul
Roaring Fork-Glenwood Springs	550	84	Apr-Jul
Colorado-Cameo	1960	86	Apr-Jul
Southwest Colorado			
Gunnison-Blue Mesa Reservoir	520	82	Apr-Jul
Dolores-McPhee Reservoir	155	61	Apr-Jul
San Juan-Navajo Reservoir	355	56	Apr-Jul
Animas-Durango	295	77	Apr-Jul
LOWER COLORADO RIVER BASIN			
Virgin-Virgin (*Regulated)	21	38	Apr-Jul
Little Colorado-Chevelon Creek	1.0	7	Jan-May
Verde-Above Horseshoe Dam	54	35	Jan-May
Salt-Roosevelt	55	22	Jan-May
Upper Gila-San Carlos Reservoir	18.8	26	Jan-May
GREAT BASIN			
Bear-UT/WY State Line	84	77	Apr-Jul
Weber-Oakley	74	67	Apr-Jul
Big Cottonwood Creek	27	79	Apr-Jul
Provo-Woodland	70	73	Apr-Jul
Sevier-Hatch	18.0	34	Apr-Jul

Apr-Jul runoff volumes as a percent of the 1991-2020 average.
Jan-May runoff volumes as a percent of the 1991-2020 median.

Water supply forecasts are generally below to well below normal.

Forecasts more favorable in areas with:
-better soil moisture conditions
-better snowpack conditions

Jan 1 → Feb 1 Trend in the Water Supply Outlook



New CBRFC web map layer shows trend in the water supply outlook:

-some increases in northern basins

-large decreases in southern basins

Water Supply Forecasts

Official | Model | Compare | Observed

Show | Hide Other

Data | Label

Forecast Difference

01/01/2025 Start

Official

Model

02/01/2025 End

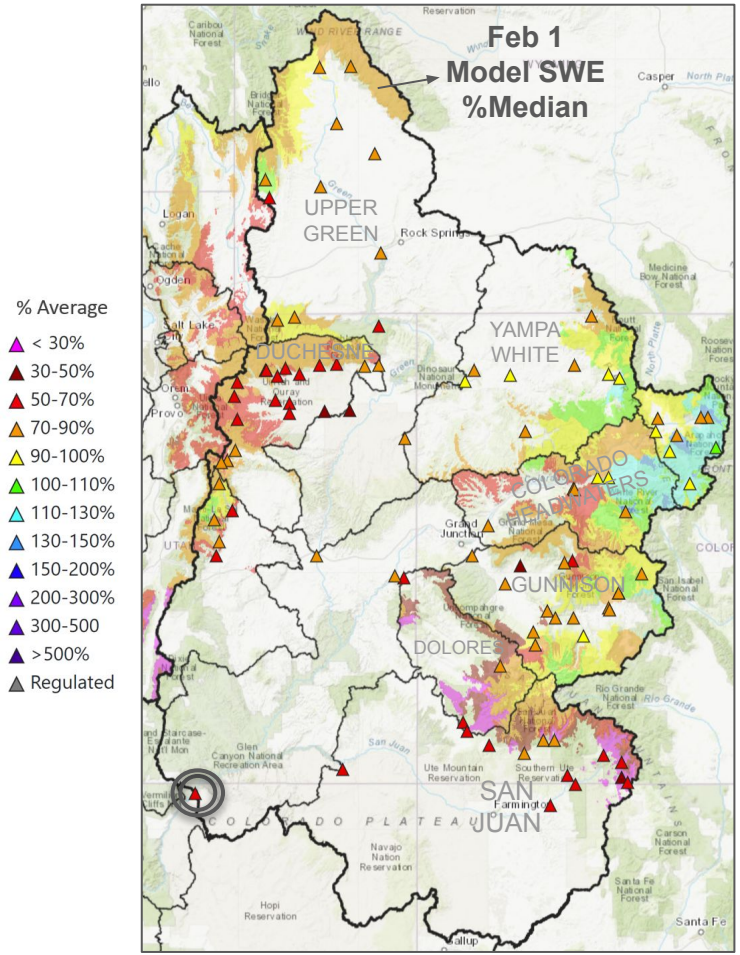
Official

Model

Percent Difference Between
Official 2025-01-01 and
Official 2025-02-01

- <-25%
- -20% to -25%
- -15% to -20%
- -10% to -15%
- -5% to -10%
- 0% to -5%
- 0% to 5%
- 5% to 10%
- 10% to 15%
- 15% to 20%
- 20% to 25%
- >25%%
- Regulated
- No Forecast

Upper Colorado River Basin Water Supply Summary

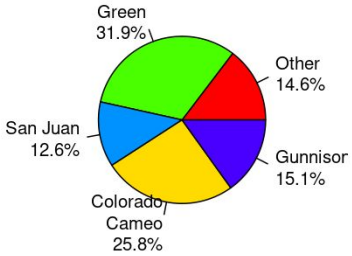


Lake Powell summarizes the hydrologic conditions throughout the Upper Colorado River Basin.

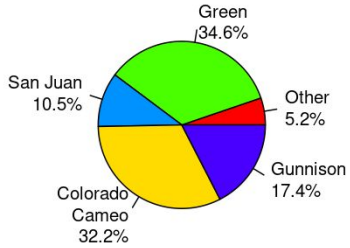
April - July Unregulated Inflow into Lake Powell

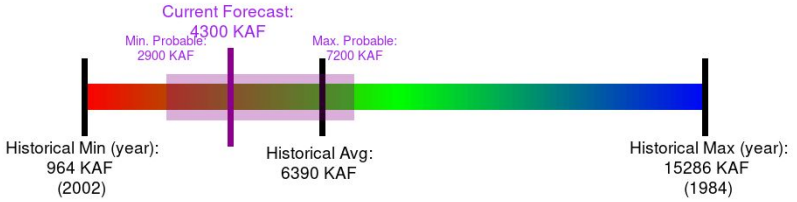
As of 2025-02-01

Average Streamflow Contribution



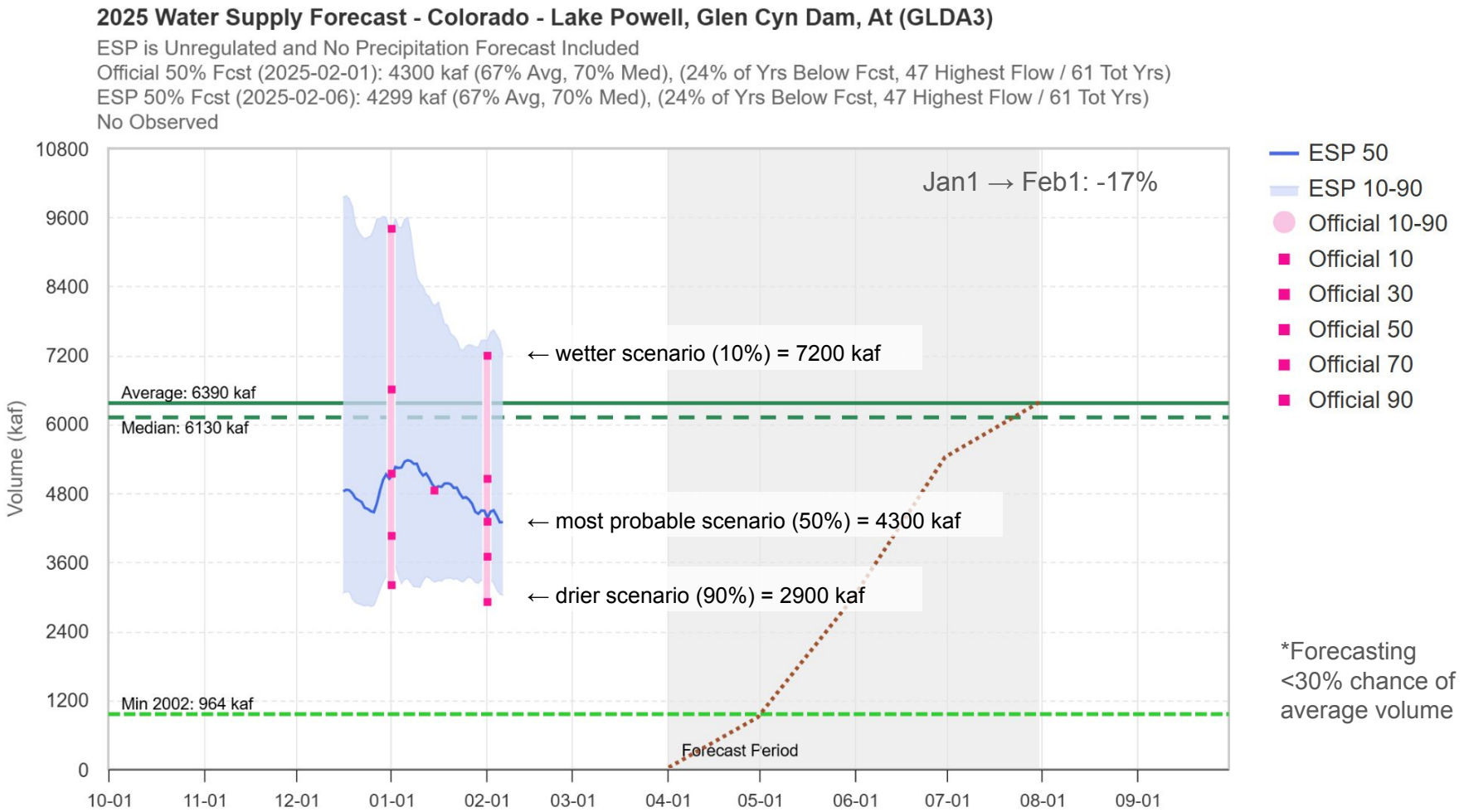
February Final Forecast





Averages are over the 1991 - 2020 period

Lake Powell Water Supply Forecast



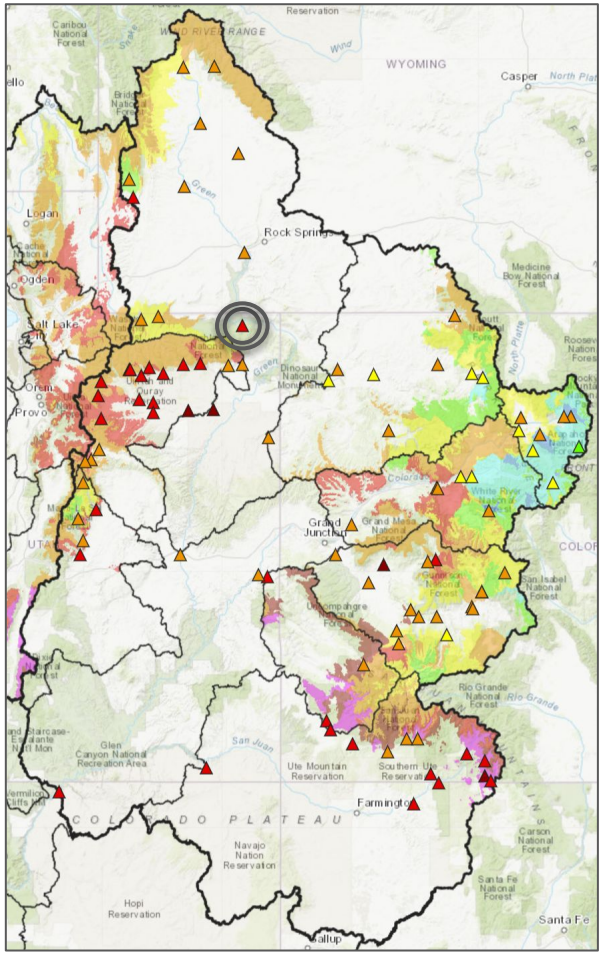
*Forecasting <30% chance of average volume

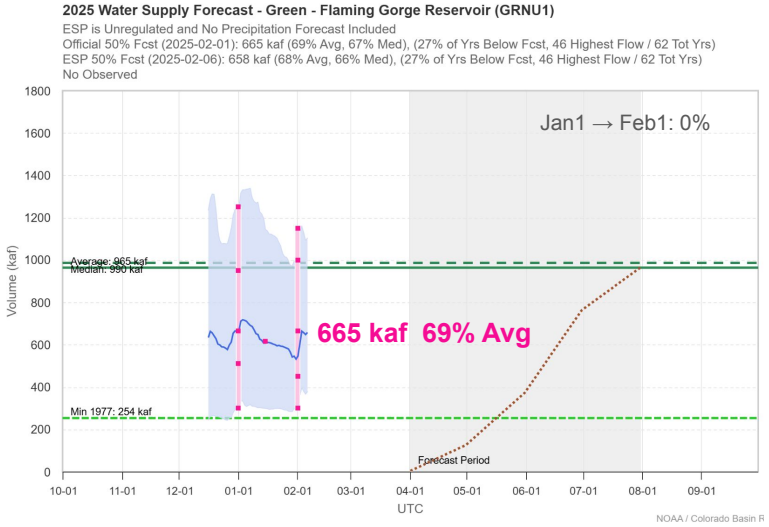
Upper Green River Basin - Flaming Gorge Reservoir

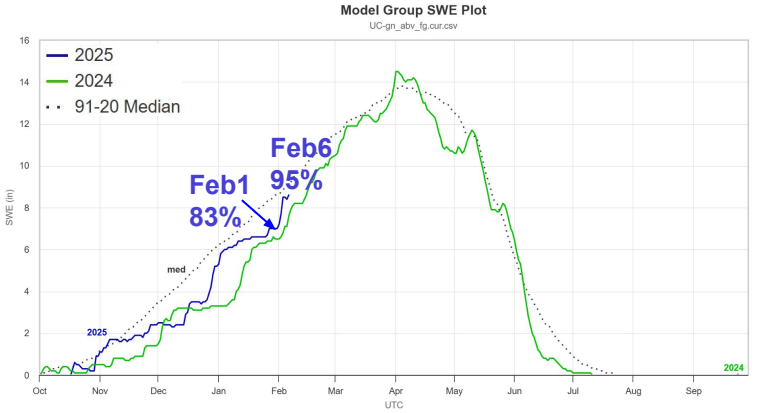
△ Water Supply Forecast

Model Snow

- >500%
- 300-500%
- 200-300%
- 150-200%
- 130-150%
- 110-130%
- 100-110%
- 90-100%
- 70-90%
- 50-70%
- 30-50%
- 0-30%





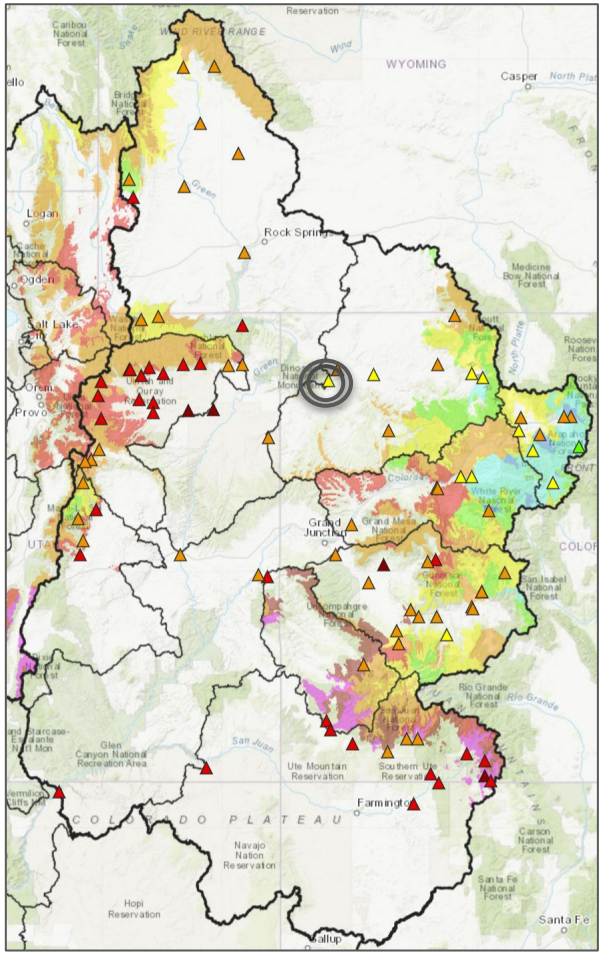


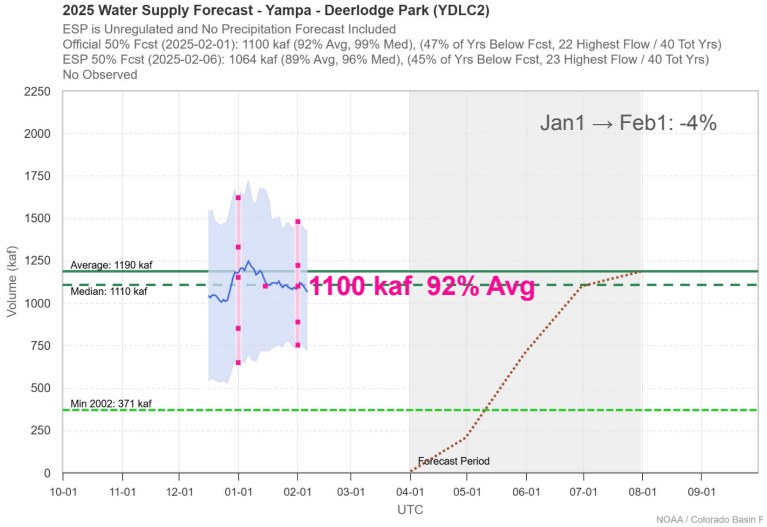
White/Yampa River Basin - Yampa-Deerlodge

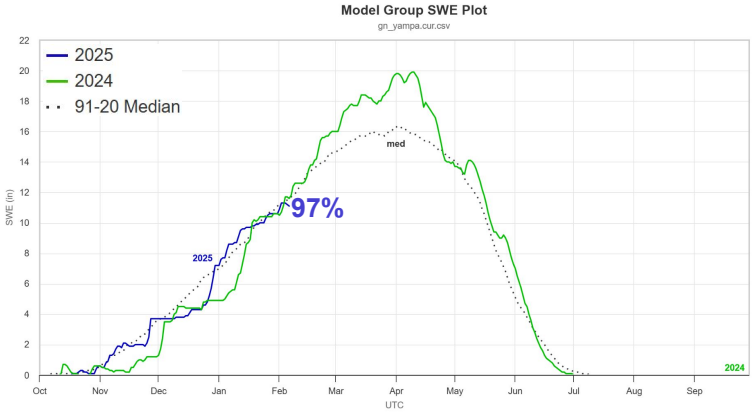
△ Water Supply Forecast

Model Snow

- >500%
- 300-500%
- 200-300%
- 150-200%
- 130-150%
- 110-130%
- 100-110%
- 90-100%
- 70-90%
- 50-70%
- 30-50%
- 0-30%





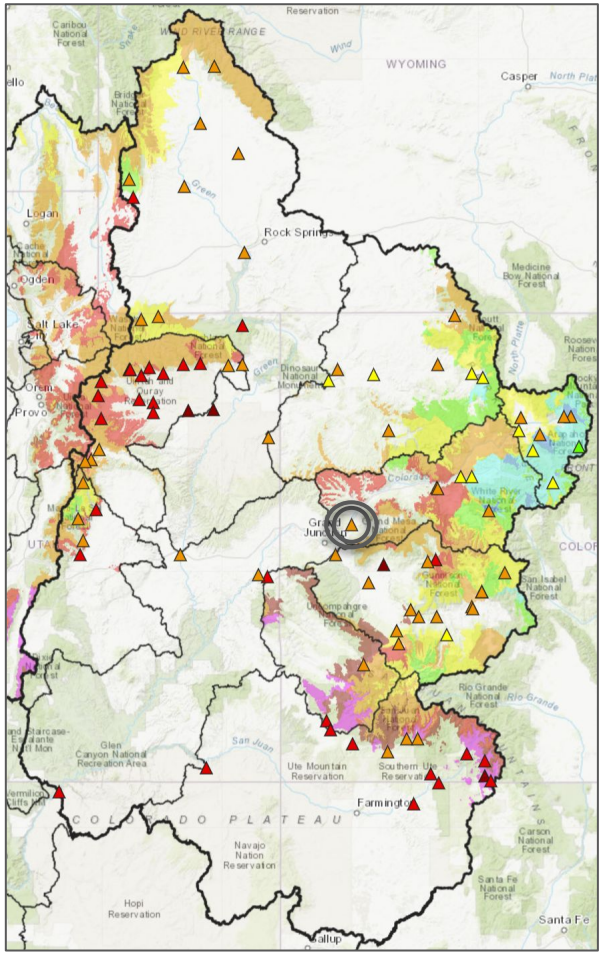


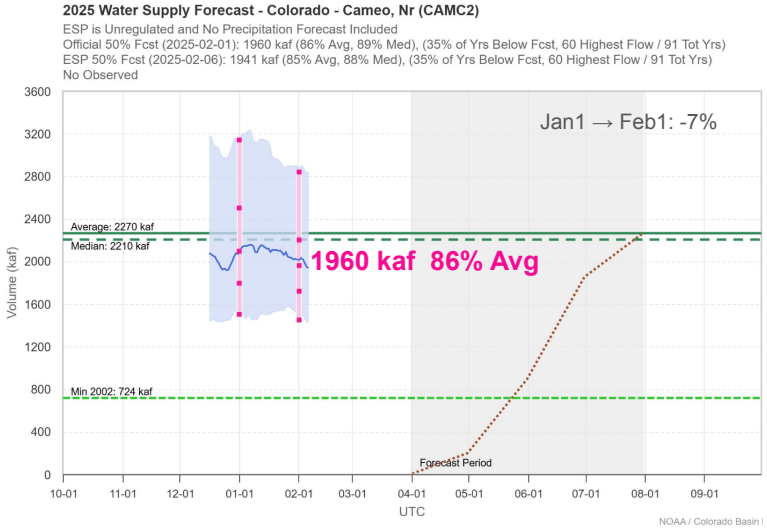
Colorado River Headwaters - Cameo

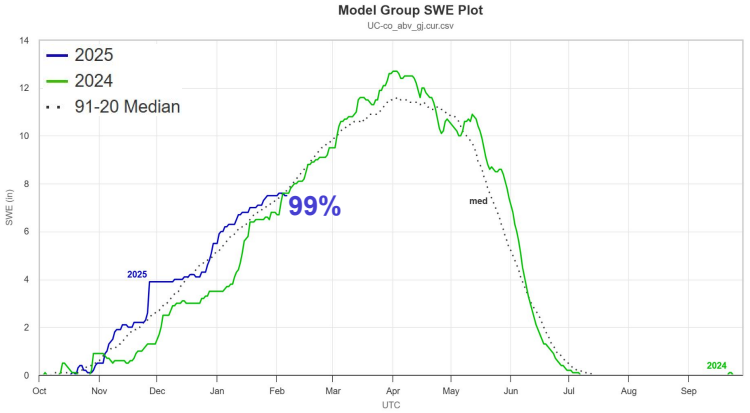
△ Water Supply Forecast

Model Snow

- >500%
- 300-500%
- 200-300%
- 150-200%
- 130-150%
- 110-130%
- 100-110%
- 90-100%
- 70-90%
- 50-70%
- 30-50%
- 0-30%





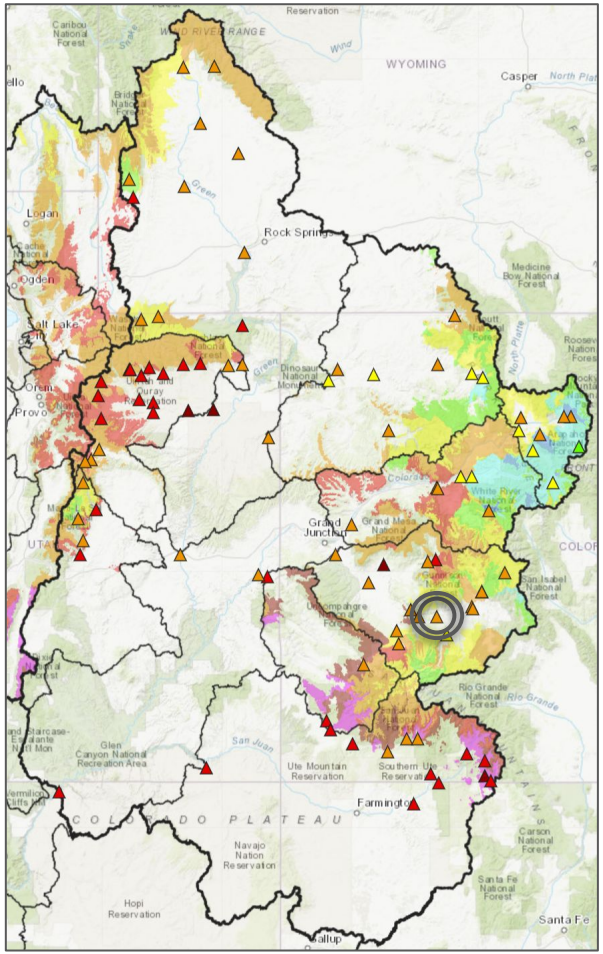


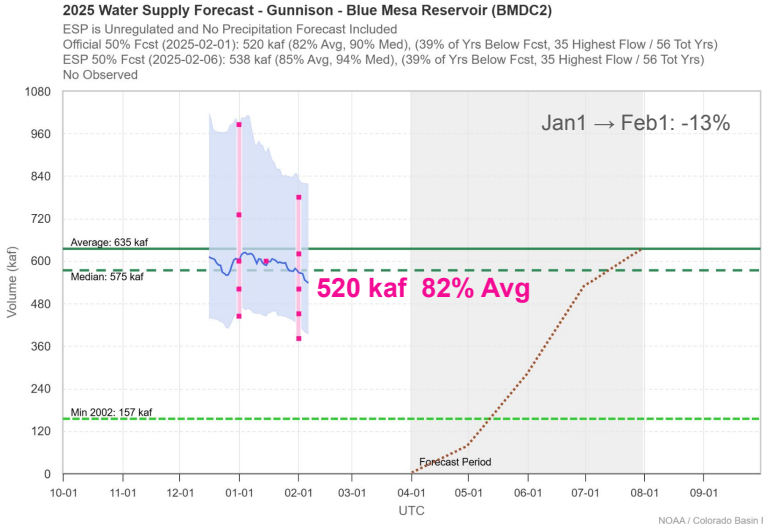
Gunnison River Basin - Blue Mesa Reservoir

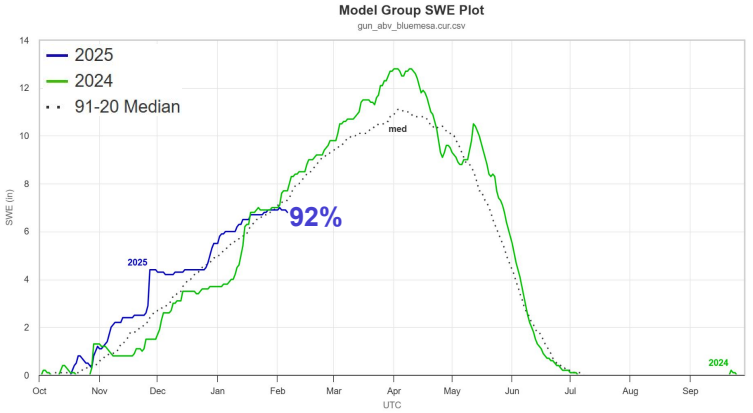
△ Water Supply Forecast

Model Snow

- >500%
- 300-500%
- 200-300%
- 150-200%
- 130-150%
- 110-130%
- 100-110%
- 90-100%
- 70-90%
- 50-70%
- 30-50%
- 0-30%





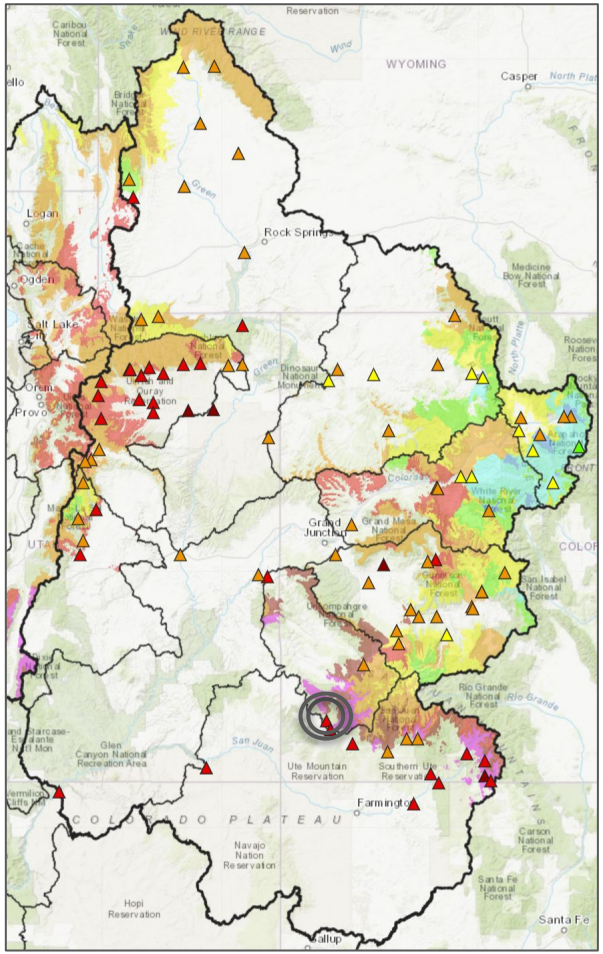


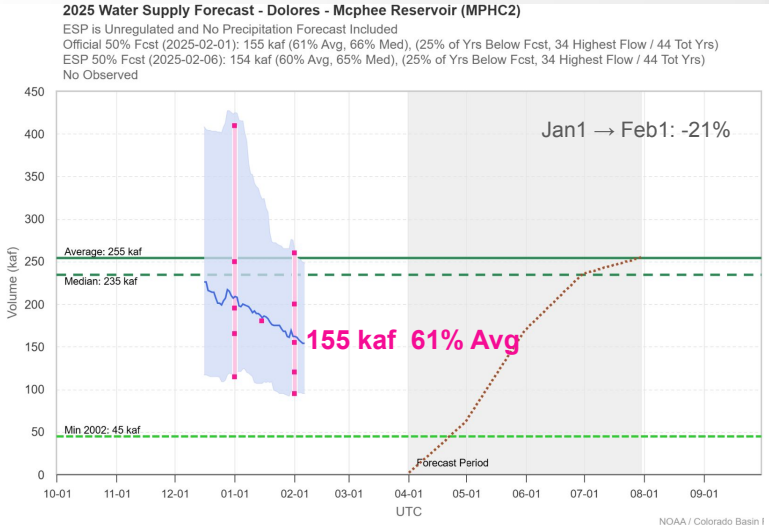
Dolores River Basin - McPhee Reservoir

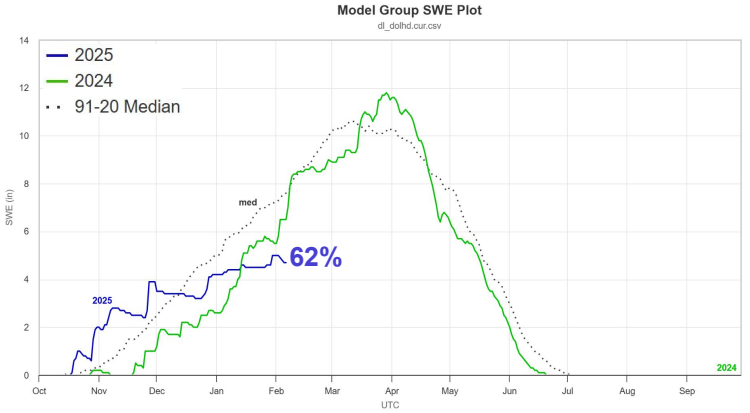
△ Water Supply Forecast

Model Snow

- >500%
- 300-500%
- 200-300%
- 150-200%
- 130-150%
- 110-130%
- 100-110%
- 90-100%
- 70-90%
- 50-70%
- 30-50%
- 0-30%





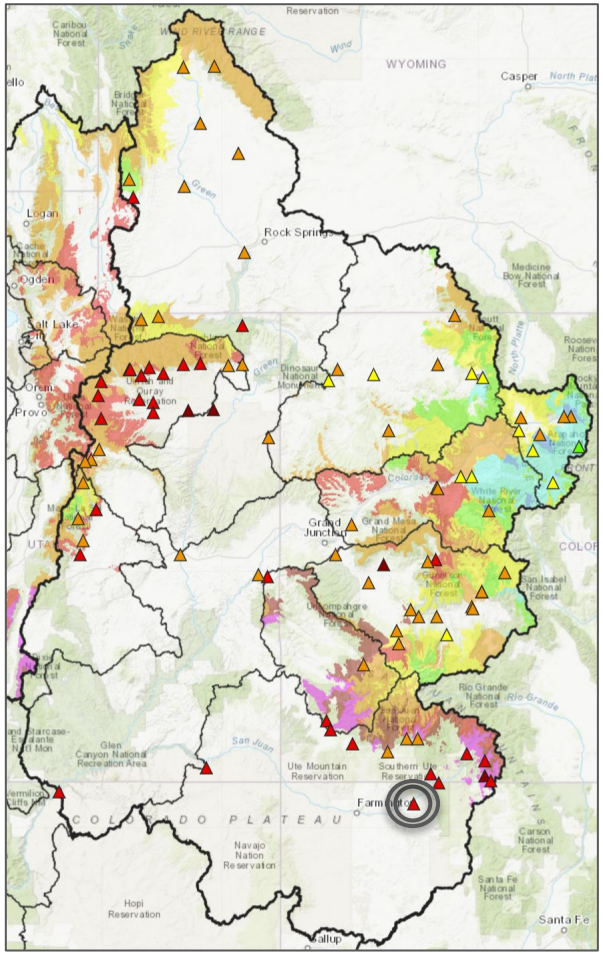


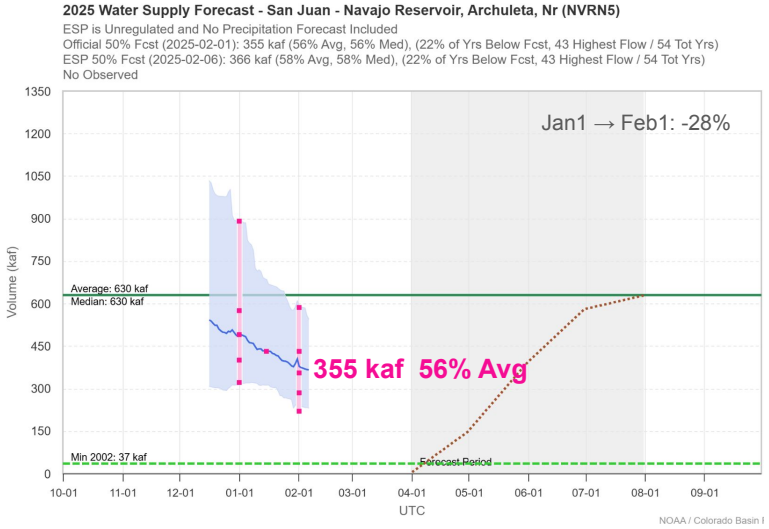
San Juan River Basin - Navajo Reservoir

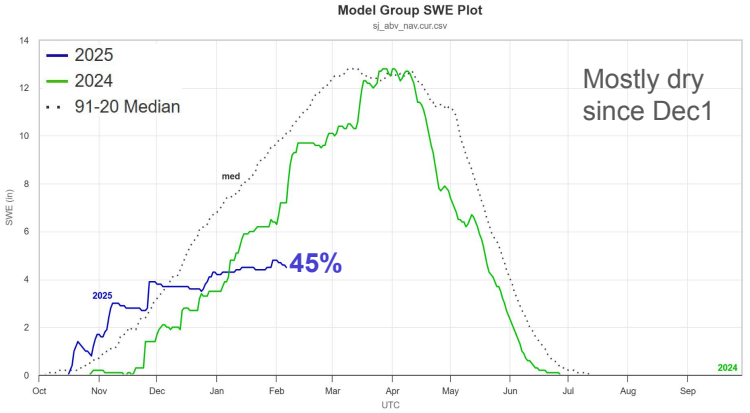
△ Water Supply Forecast

Model Snow

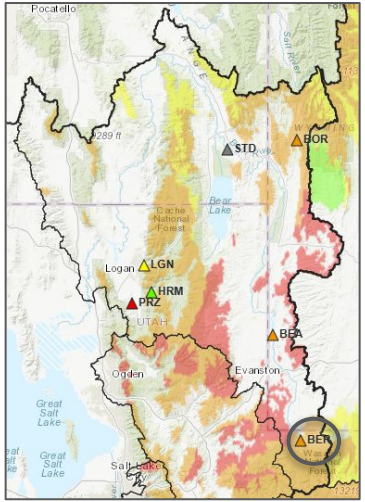
- >500%
- 300-500%
- 200-300%
- 150-200%
- 130-150%
- 110-130%
- 100-110%
- 90-100%
- 70-90%
- 50-70%
- 30-50%
- 0-30%

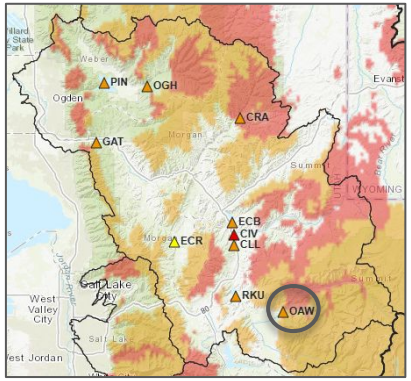


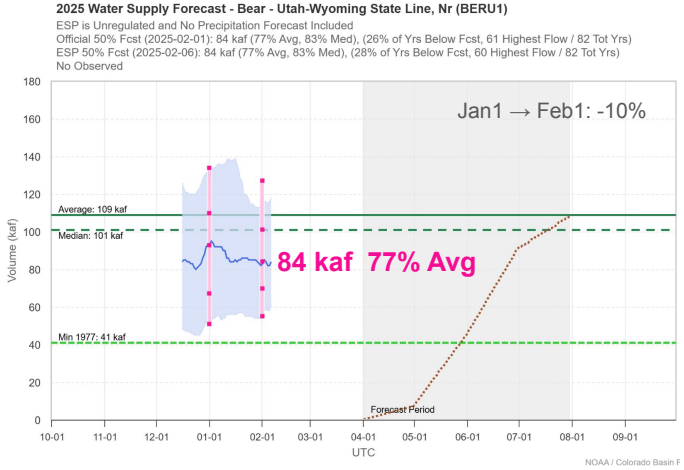


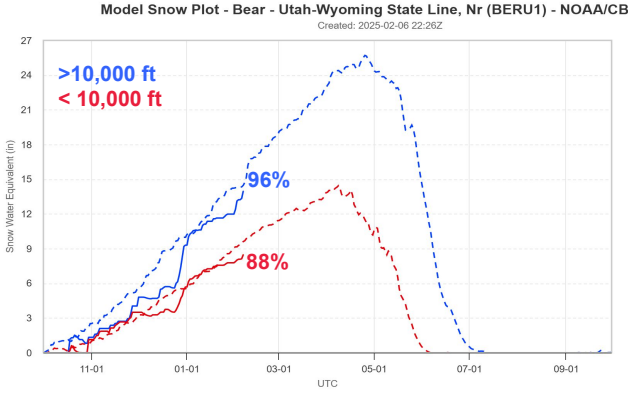


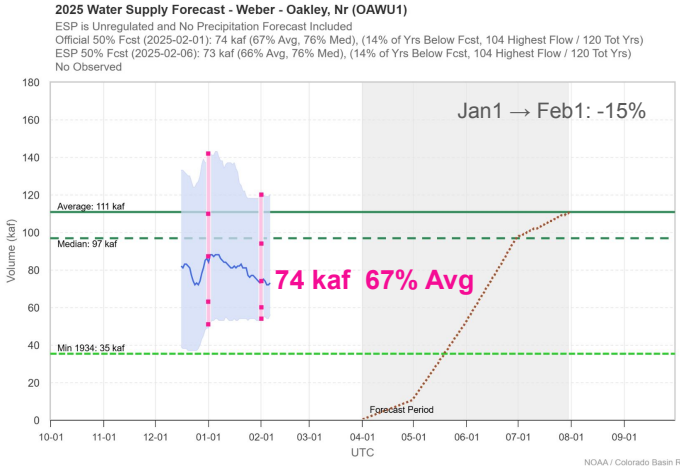
Great Basin: Bear & Weber River Basins

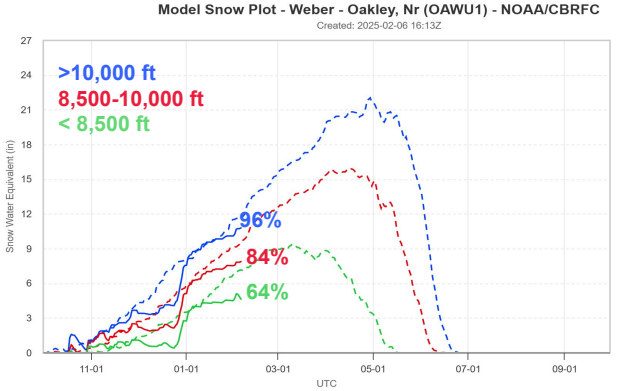




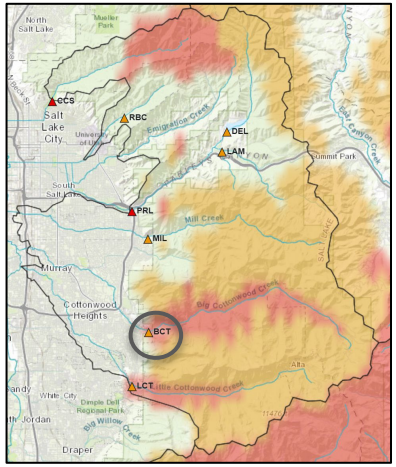


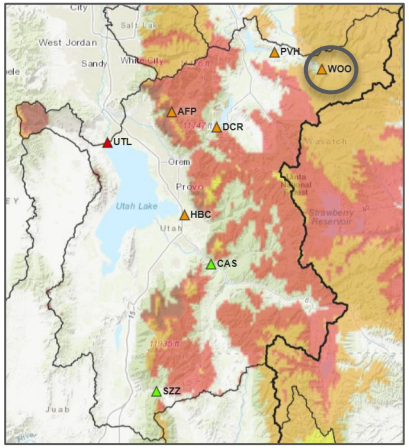


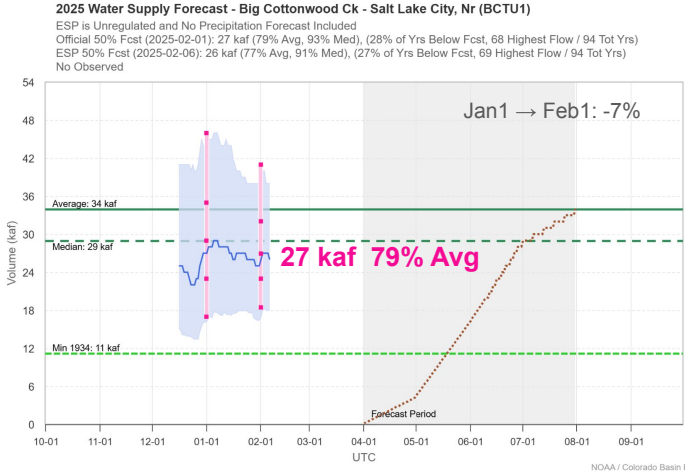


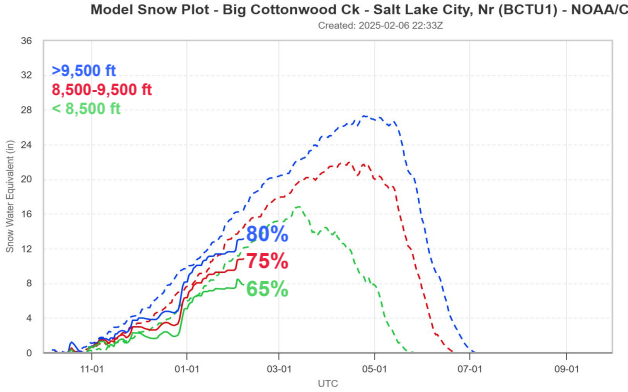


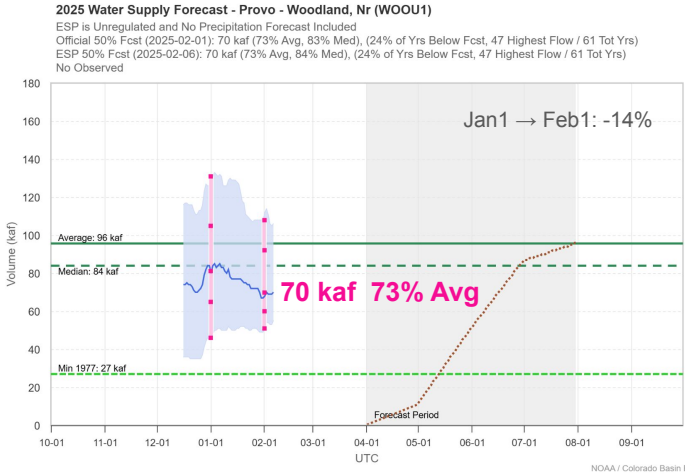
Great Basin: Big Cottonwood Creek & Provo River Basin

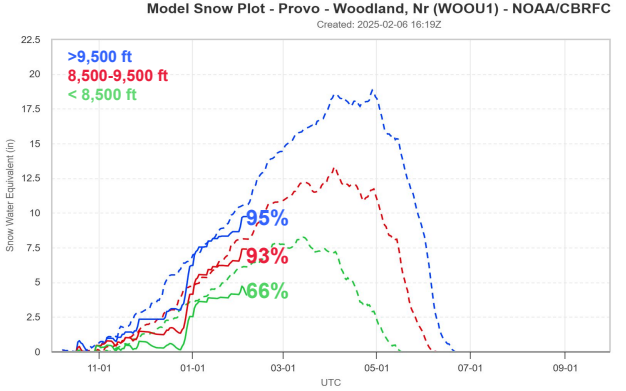






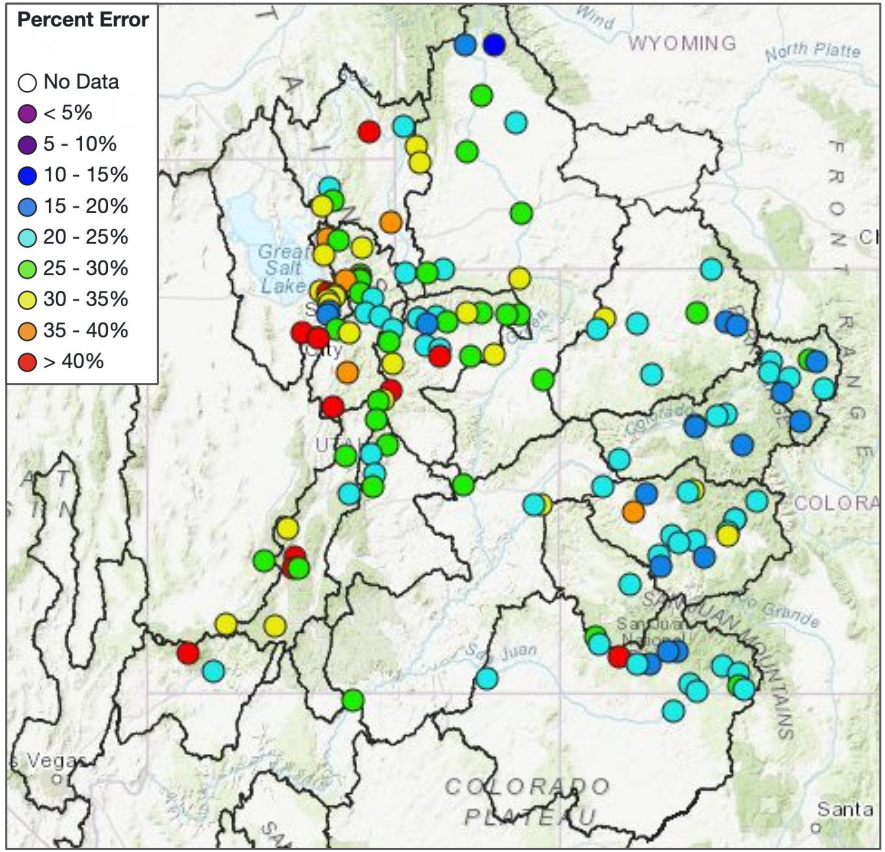






Historical Forecast Verification

February Forecast Error: April-July Volume



Location	Avg February Forecast Error
Green River - Warren Bridge	17%
Fontenelle Reservoir	28%
Yampa River - Deerlodge	24%
Blue River - Dillon Reservoir	19%
Colorado River - Cameo	20%
Blue Mesa Reservoir (Gunnison)	22%
McPhee Reservoir (Dolores)	29%
Navajo Reservoir (San Juan)	24%
Lake Powell	25%
Virgin River at Virgin	22%

Error tends to decrease each month into the spring

Where Forecasts are Better:
- -Headwaters
- -Primarily snow melt basins
- -Known diversions / demands

Where Forecasts are Worse:
- -Lower elevations (rain or early melt)
- -Downstream of diversions / irrigation
- -Little is known about diversions / demands

Future weather is the primary source of early season water supply forecast error/uncertainty.

EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

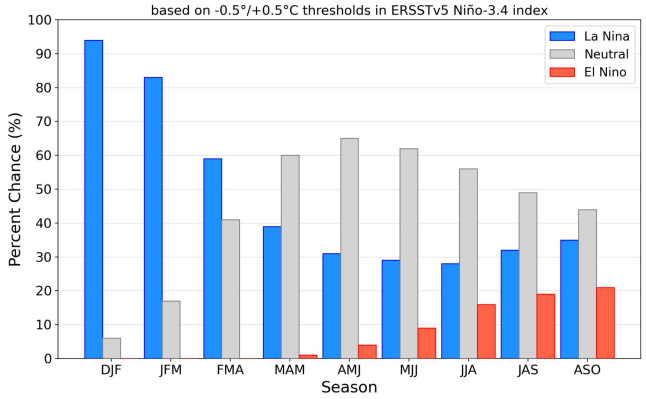
issued by
CLIMATE PREDICTION CENTER/NCEP/NWS

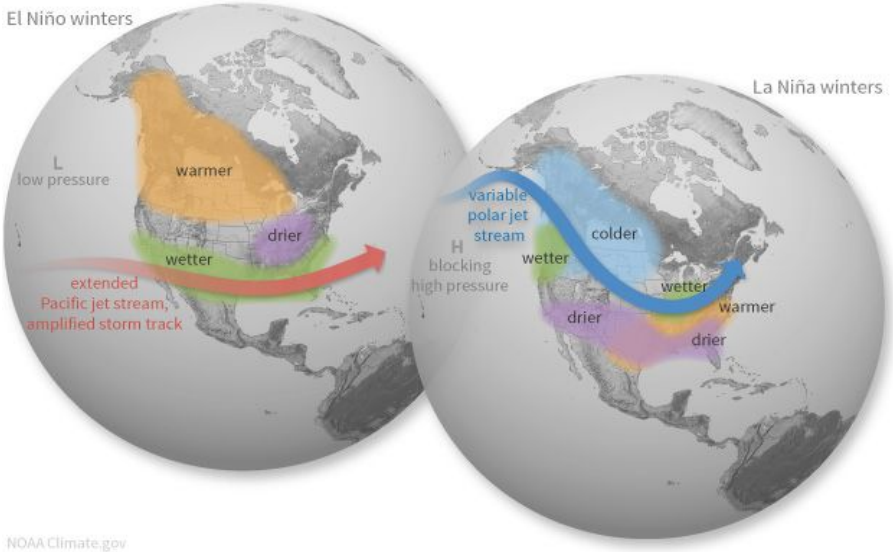
9 January 2025

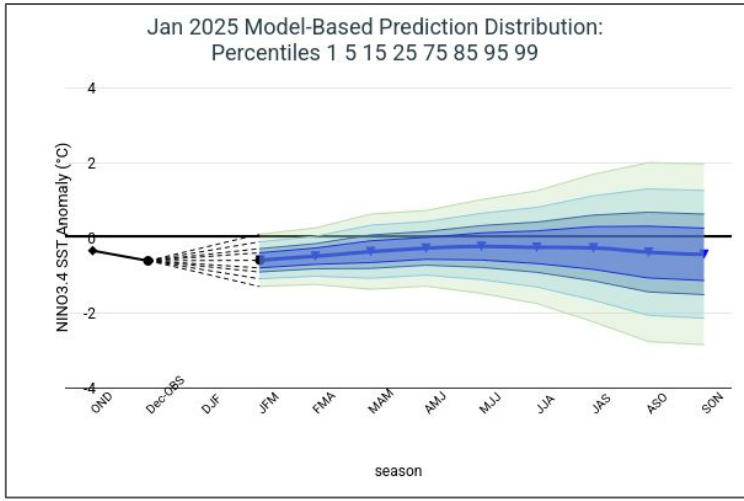
ENSO Alert System Status: La Niña Advisory

- **La Niña conditions expected to persist through Feb-Apr (59% chance)**
- **A transition to ENSO-neutral likely during Mar-May (60% chance)**

Official NOAA CPC ENSO Probabilities (issued January 2025)





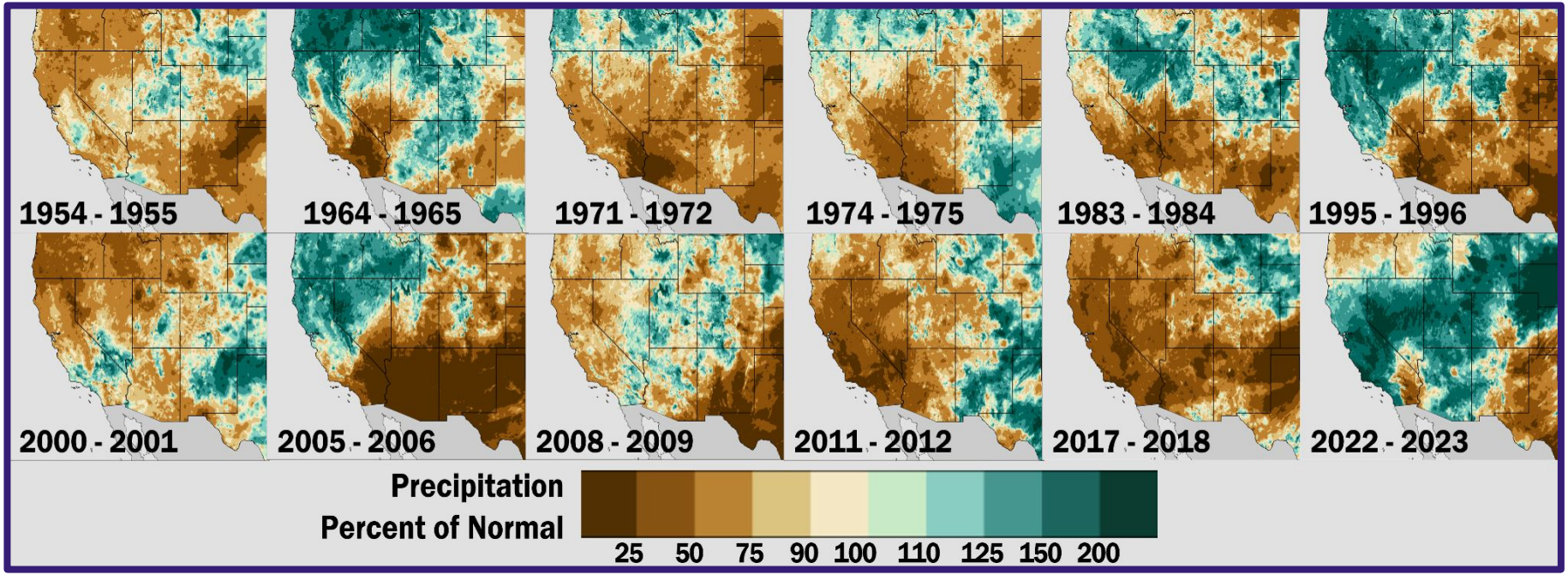


Sources: NOAA, IRI

Past Weak La Nina Events: Dec-Jan-Feb Precipitation

Some correlation with drier winters in the LCRB, but still plenty of variability

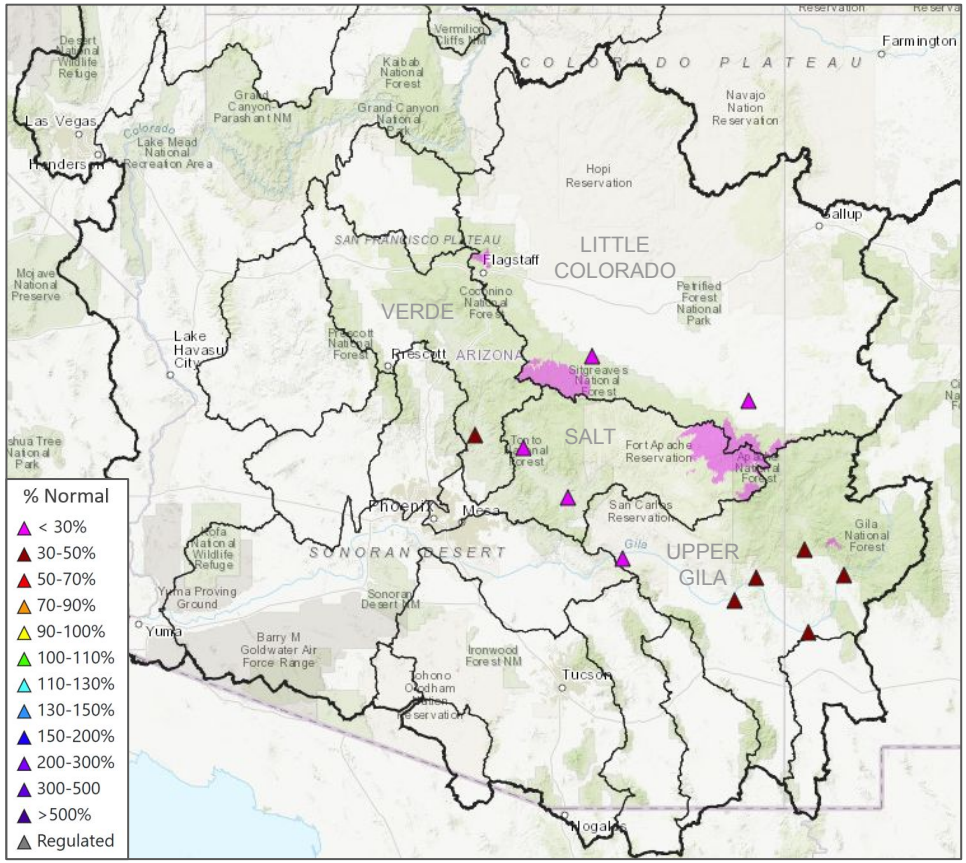
Much weaker correlation/winter weather signal elsewhere in basin (GB/UCRB)



Sources: NOAA, PRISM

LCRB: Jan-May Water Supply forecasts

Forecast Range: 5-35%

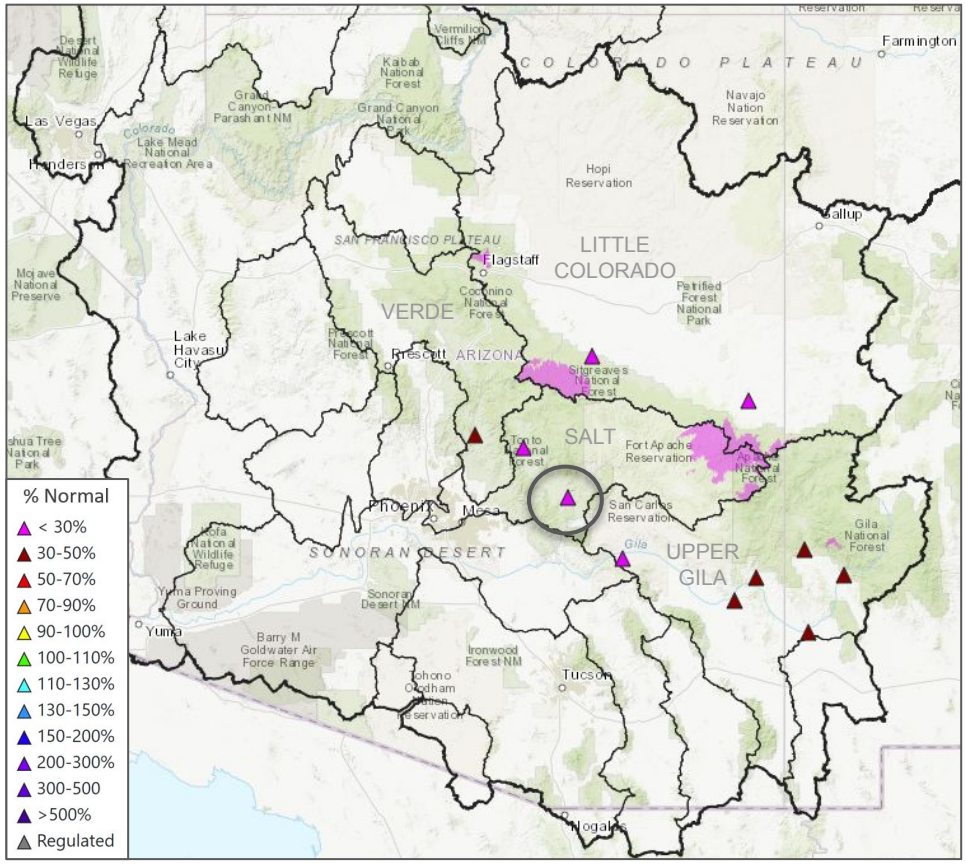


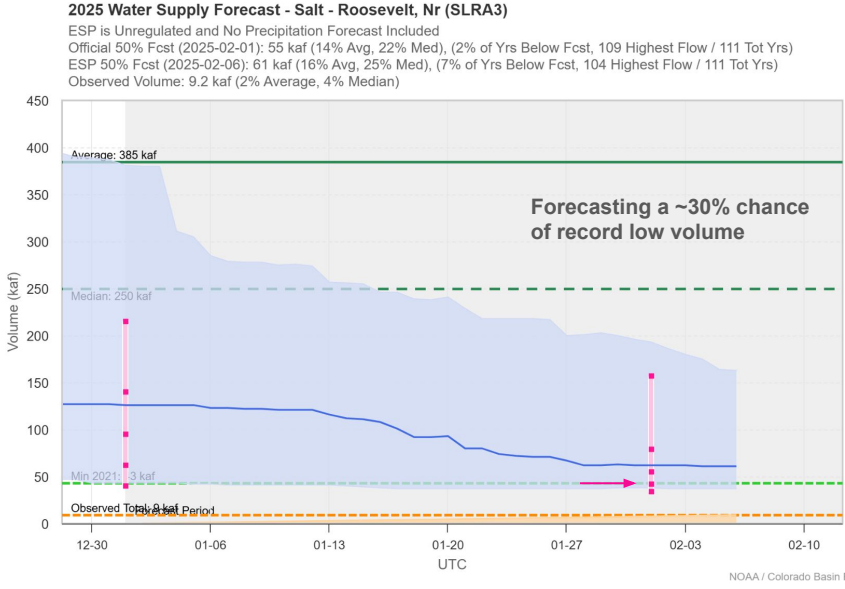
LCRB January-May volume forecasts are well below normal.

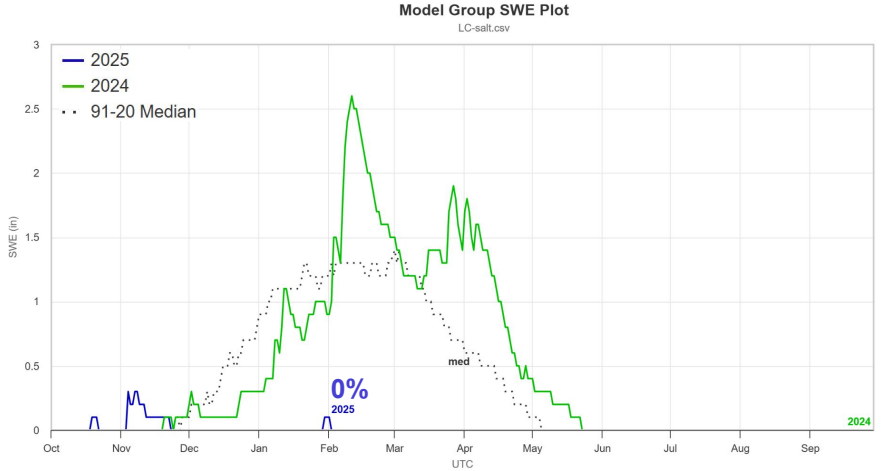
Many locations in the LCRB have experienced their driest winter to-date on record.

	ID	Vol	%Avg	%Med	%ile	Description
▲	CHWA3	1	5	7	9	Chevelon Ck - Winslow Nr Wildcat Cyn Blo
▲	CLDA3	18.8	9	26	19	Gila - San Carlos Reservoir Coolidge Dam At
▲	GILN5	17.4	25	33	12	Gila - Gila Nr
▲	GLHA3	34	15	32	8	Gila - Solomon Nr Head Of Safford Vly
▲	GSFN5	6.3	17	34	12	San Francisco - Glenwood Nr
▲	GVRN5	19.3	18	30	12	Gila - Virden Nr Blue Ck Blo
▲	LCLA3	1.44	18	24	15	Little Colorado - Lyman Lk Abv St. Johns Nr
▲	SFCA3	14.1	15	32	5	San Francisco - Clifton
▲	SLRA3	55	14	22	2	Salt - Roosevelt Nr
▲	TNRA3	5.4	7	14	7	Tonto Ck - Roosevelt Nr Gun Ck Abv
▲	VDTA3	54	20	35	1	Verde - Tangle Ck Blo Horseshoe Dam Abv

Salt River Basin





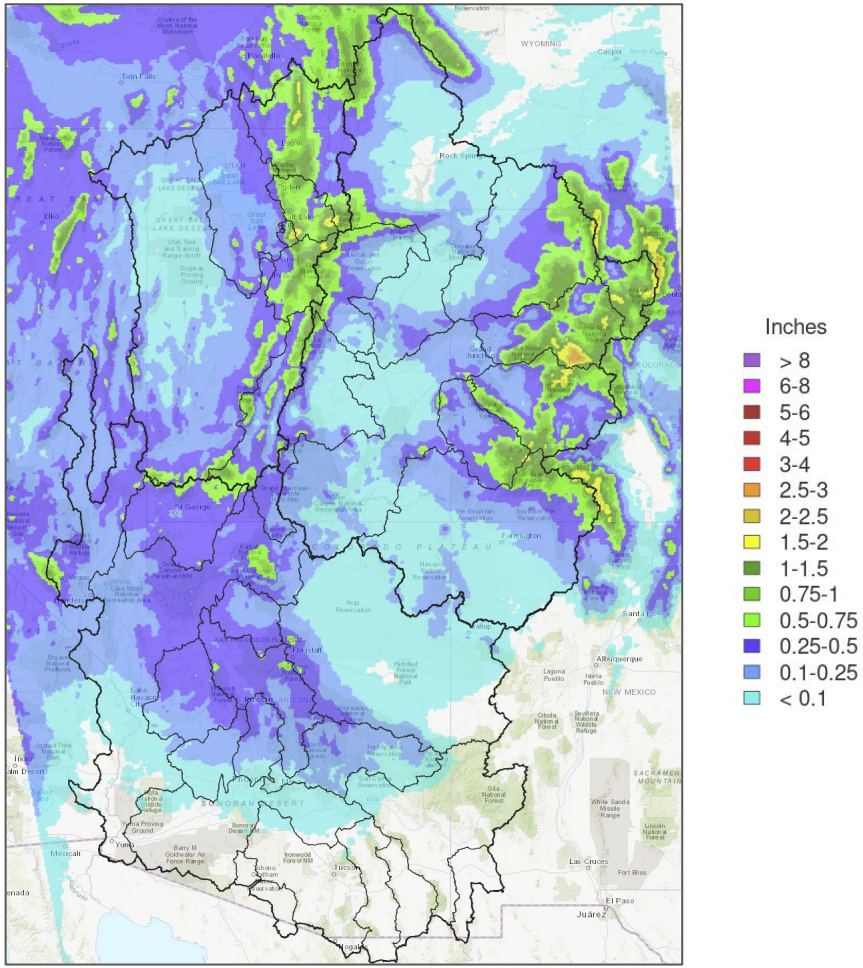


Upcoming Weather: 7-Day Precipitation Forecast (February 8-13)

The atmospheric river regime that arrived at the end of January continued into February.

Confidence is growing in the return of a productive, southerly storm track around the middle of the month.

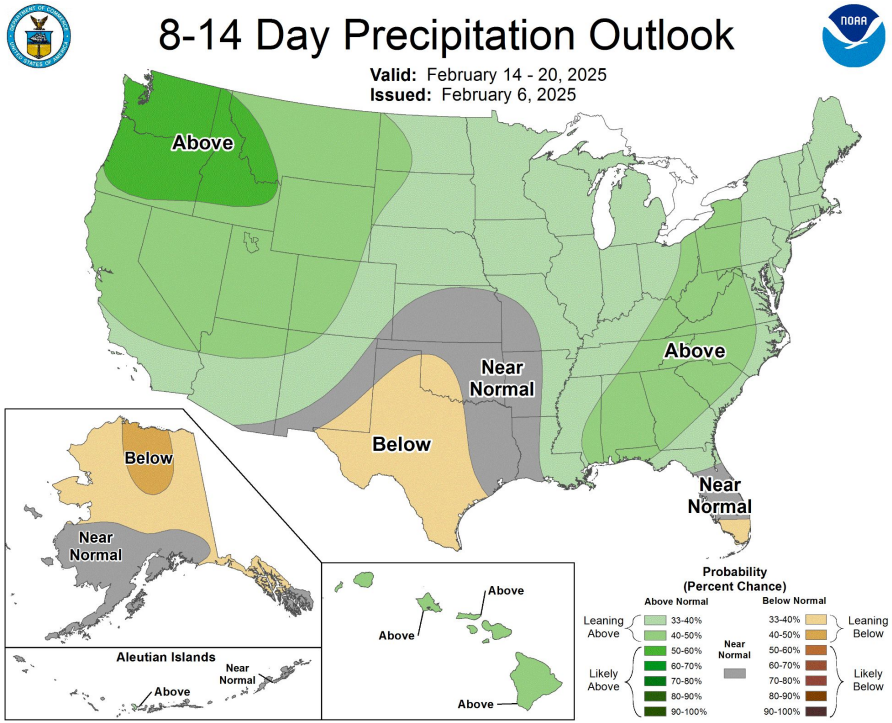
7-day forecast precipitation amounts of 0.5-1.5” across most high elevation areas of the UCRB and GB.

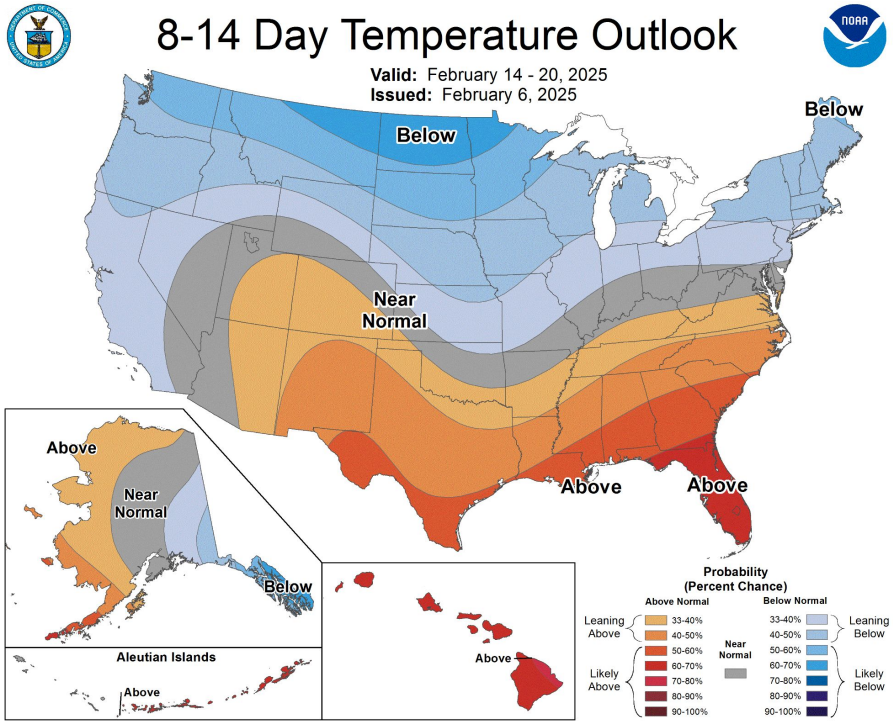


Upcoming Weather: 8-14 Day Outlook (February 14-20)

Above normal precipitation favored

Near/Above normal temperature favored

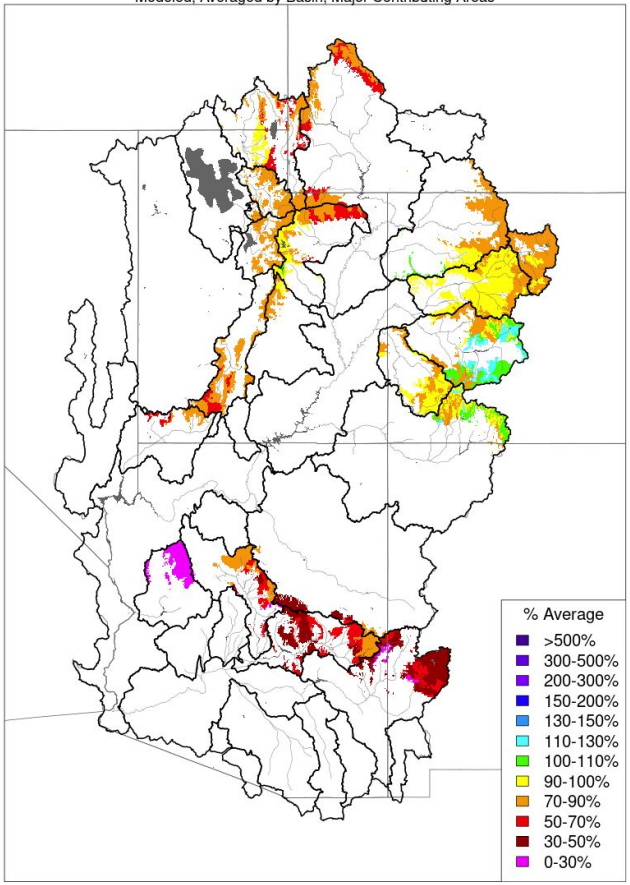




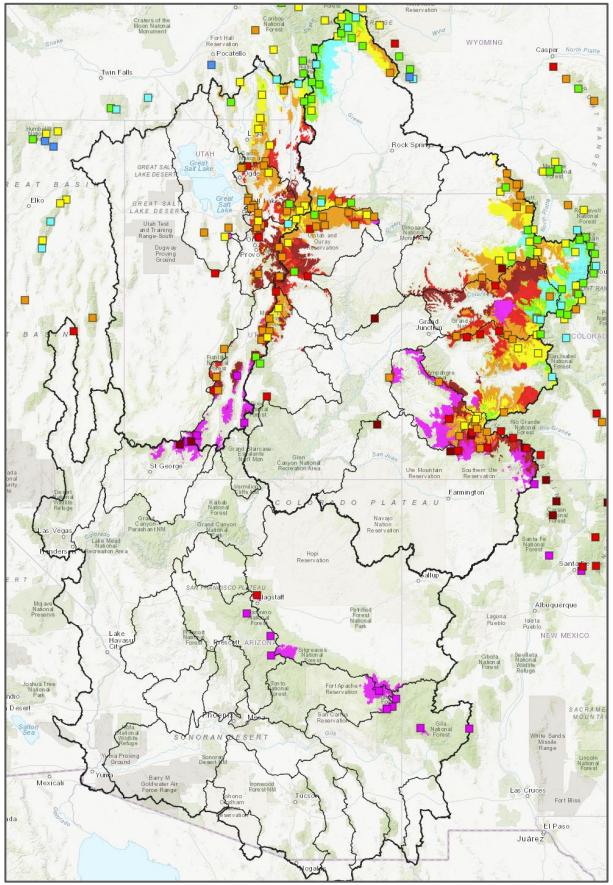
Summary

Soil Moisture - Fall - 2024 (November 15)

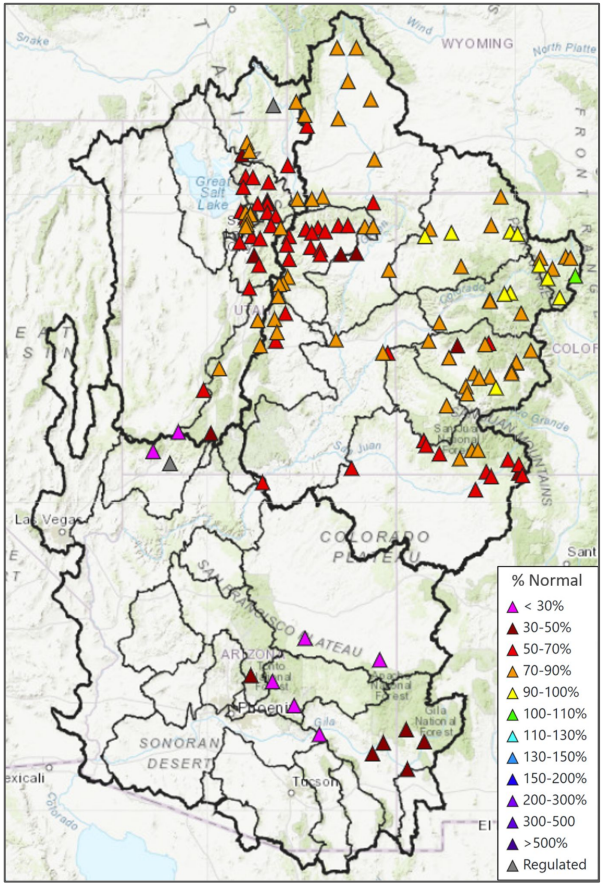
Modeled, Averaged by Basin, Major Contributing Areas



February 6 SWE Conditions



February 1 Water Supply Forecasts



2025 Water Supply Briefings

Colorado Basin River Forecast Center
National Weather Service

cbrfc.noaa.gov

Rivers | Snow | Water Supply | Peak Flow | Reservoirs | Weather | Climate | Help | About | News

Friday, January 10, 2025: CBRFC Water Supply Briefing Webinar Registration

Webinars
Email Updates

CBRFC Water Supply Briefings - Webinar Schedule & Registration - Water Year 2025

The Colorado Basin River Forecast Center (CBRFC) produces water supply forecasts for the Colorado River Basin and eastern Great Basin. CBRFC briefings provide information on water supply forecasts and current hydrologic conditions.

Register for a webinar using the links below.

Colorado River & Great Basin Water Supply Briefing Webinars @ 10:00 am MT

- Friday January 10
- Friday February 7
- Friday March 7
- Monday April 7
- Wednesday May 7

Spring Peak Flow Briefing Webinar @ 10:00 am MT

- Wednesday March 19

Briefing material is available on the CBRFC presentations page.
A notification email will be sent if a date or time change occurs. Additional webinars are scheduled as needed.

CBRFC Contacts & Water Year 2025 Basin Focal Points

Basin Focal Points (Forecasters)

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CBRFC Webpage
https://www.cbrfc.noaa.gov/

CBRFC Water Supply Presentations
https://www.cbrfc.noaa.gov/present/present.html

QUESTIONS?