

# RI Drought Steering Committee NWS Update

Tuesday November 26<sup>th</sup> 2024

*Prepared by: National Weather Service Boston/Norton, MA*

# Drought Indices from RI Water 2030



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WEATHER FORECAST OFFICE

Rhode Island Water 2030  
Part 3

State Guide Plan 721

**Table 2, Rhode Island Drought Indices and Phases**

Drought Phase	Palmer Drought Index +	Crop Moisture Index	Precipitation +	Ground Water** +	Stream flow +	Reservoirs**
Normal	-1.0 to -1.99	0.0 to -1.0	Slightly Dry	1 month below normal 1 month below normal	2 consecutive months below normal	Reservoir levels at or near normal for the time of year
Advisory	-2.0 to -2.99	-1.0 to -1.9 Abnormally Dry	2 month cumulative below 65% of normal	At least 2 out of 3 months below normal	3 consecutive months below normal	Small index Reservoirs below normal
Watch	-3.0 to -3.99	-2.0 to -2.9 Excessively Dry	1 of the following criteria met: 3 month cum. <65% or 6 month cum. <70% or 12 month cum. <70%	4-5 consecutive months below normal	At least 4 out of 5 consecutive months below normal	Medium index Reservoirs below normal
Warning	-4.0 and below	> -2.9 Severely Dry	2 out of 3 of the above criteria met: 3 month cum. <65% and 6 month cum. <65% or 6 month cum. <65% and 12 month cum. <65% or 3 month cum. <65% and 12 month cum. <65%	6-7 consecutive months below normal observation wells recording monthly record lows	At least 6 out of 7 consecutive months below normal	Large index reservoirs below normal
Emergency	-4.0 and below	> -2.9 Severely dry	Same criteria as Warning and Previous month was Warning or Emergency	>7 months below normal Observation wells recording monthly record lows	>7 months below normal	Continuation of previous month's conditions

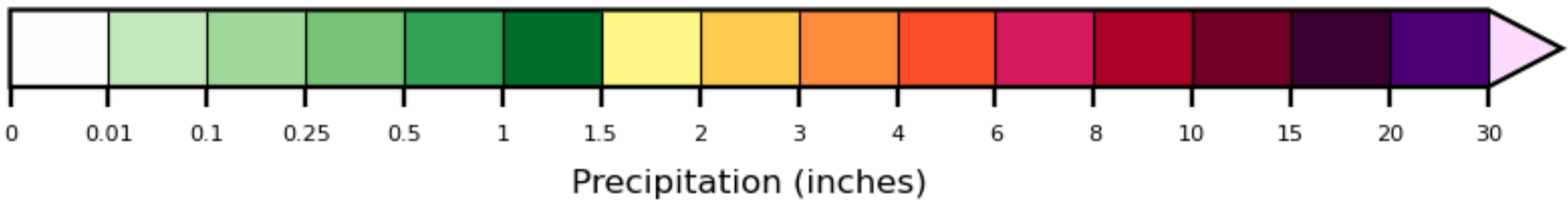
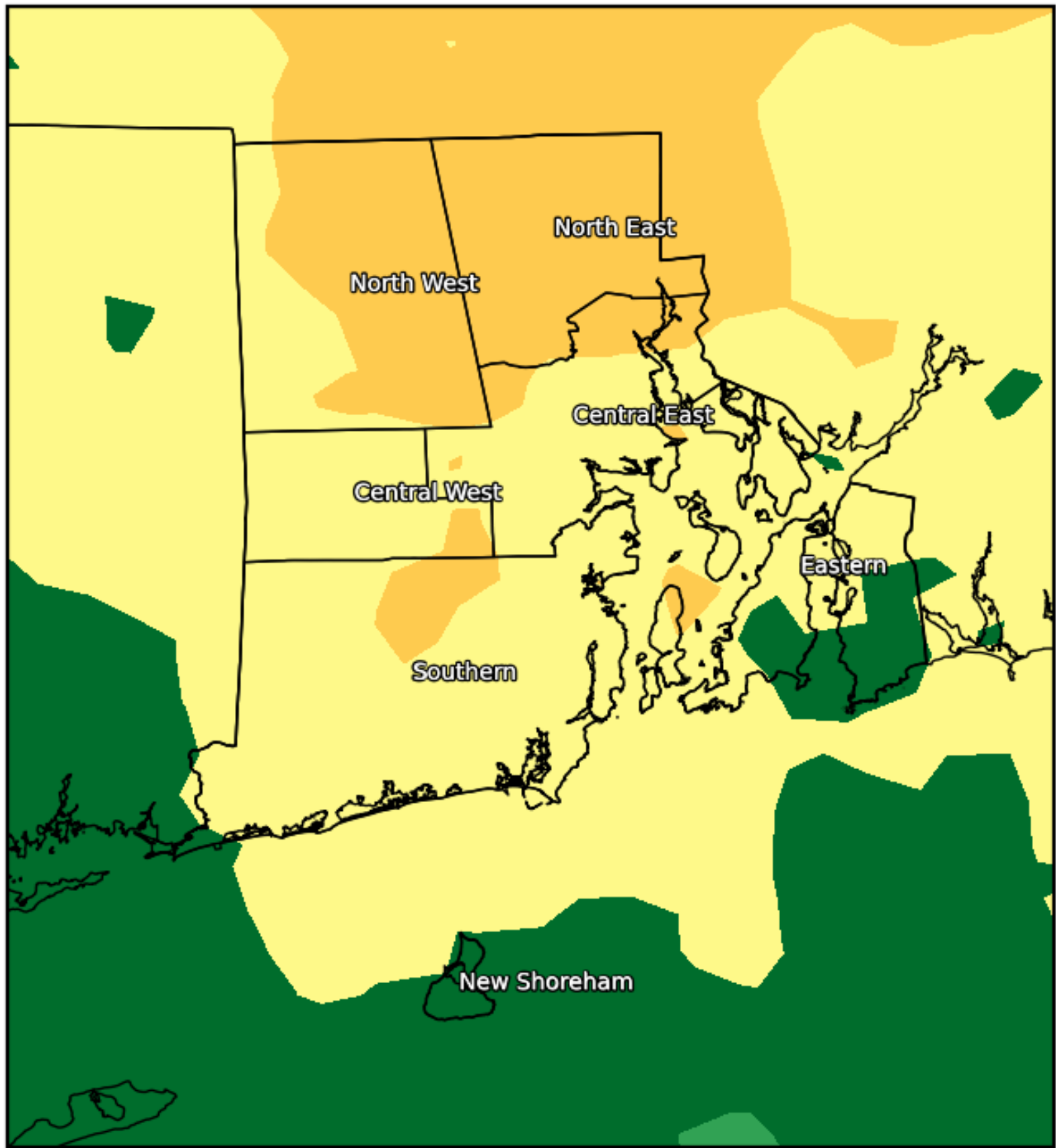
# November 2024 Rainfall and Departure



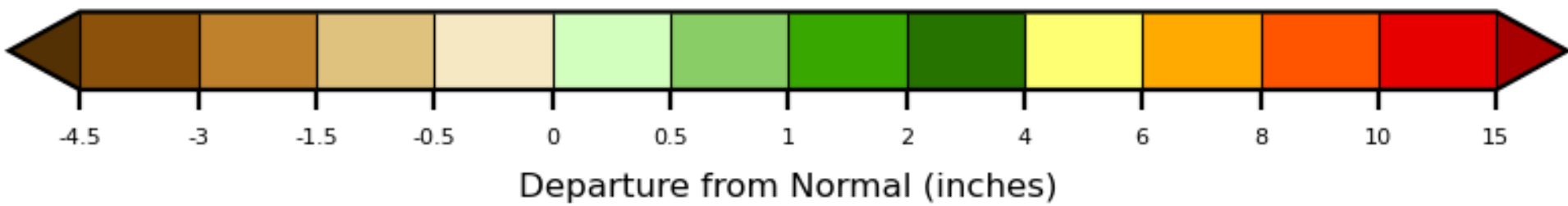
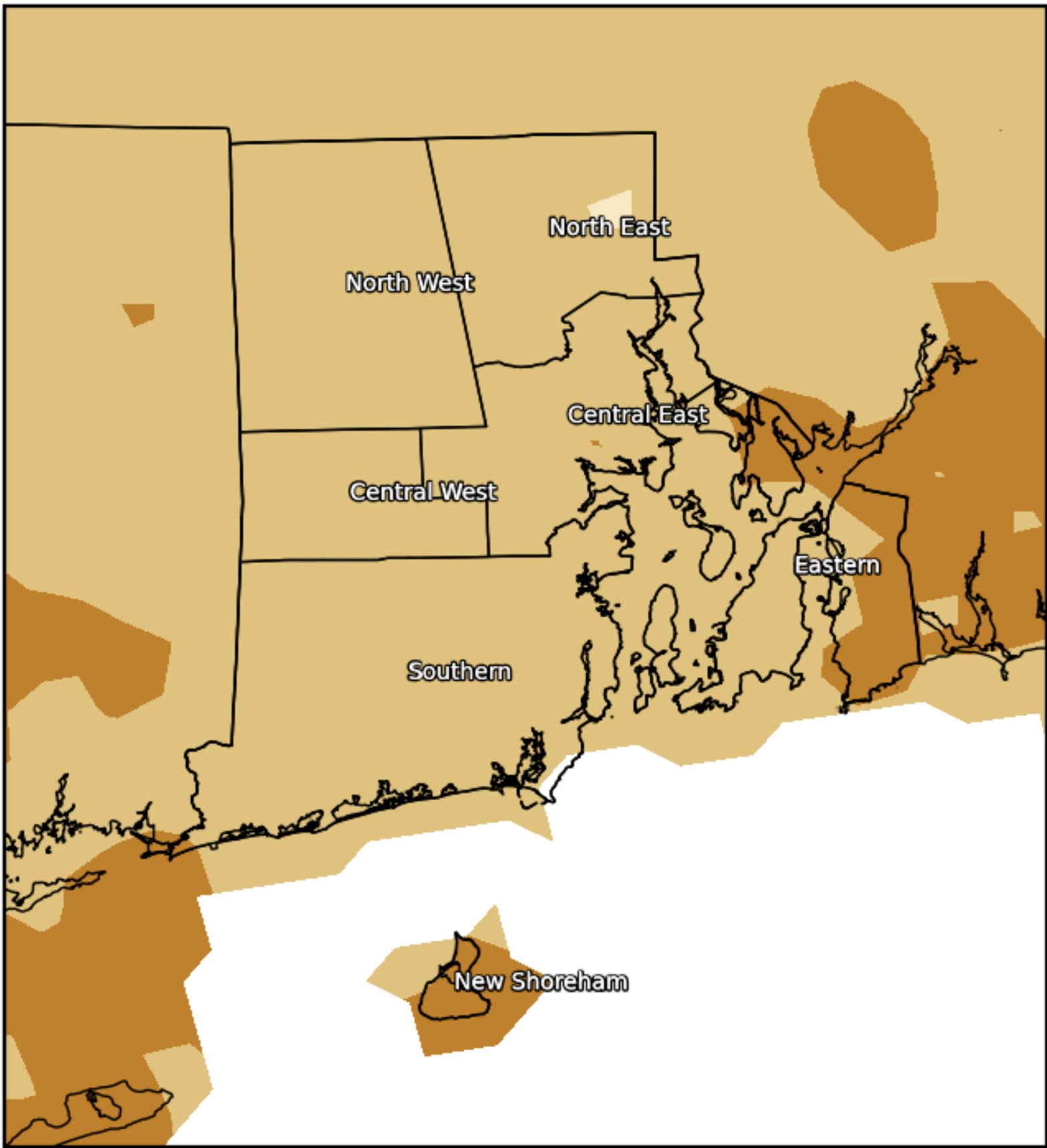
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Precipitation through November 24th

Accumulated Precipitation (inches)  
November 01, 2024 to November 24, 2024



Precipitation Departure from Normal (inches)  
November 01, 2024 to November 24, 2024



# Rainfall Percent by Region Last 6 Months



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	JUN Percent	JUL Percent	AUG Percent	SEPT Percent	OCT Percent	NOV Percent	3 Month Percent(S EPT- NOV)
Northwest	77	107	84	41	12	47	33
Northeast	68	78	95	46	13	37	31
Central West	139	169	91	36	24	56	38
Central East	92	129	108	47	19	44	36
Eastern	97	122	95	75	22	36	43
Southern	103	147	131	45	22	43	36
New Shoreham	26	114	104	18	18	23	20
RI Average	86	124	101	44	19	41	34

- **Modest surplus of precipitation Jun-Aug**
- **Massive deficit in October**
- **If November ended today, nearly all regions would be below 40 percent of normal precip for the last 3 months**



# Rainfall Departure by Region Last 6 Months



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	JUN Departure	JUL Departure	AUG Departure	SEPT Departure	OCT Departure	NOV Departure	3 Month Departure (SEPT- NOV)
Northwest	-1.02	0.25	-0.73	-2.58	-4.38	-2.39	-9.36
Northeast	-1.40	-0.81	-0.18	-2.21	-4.39	-2.70	-9.3
Central West	1.65	2.40	-0.40	-2.76	-3.69	-1.94	-8.3
Central East	-0.30	0.92	0.33	-2.17	-3.90	-2.45	-8.52
Eastern	-0.12	0.68	-0.19	-0.97	-3.46	-2.66	-7.09
Southern	0.12	1.57	1.24	-2.27	-3.54	-2.38	-8.19
New Shoreham	-2.79	0.41	0.18	-3.33	-3.92	-2.86	-10.11
RI Average	-0.55	0.77	0.04	-2.32	-3.9	-2.48	-8.7

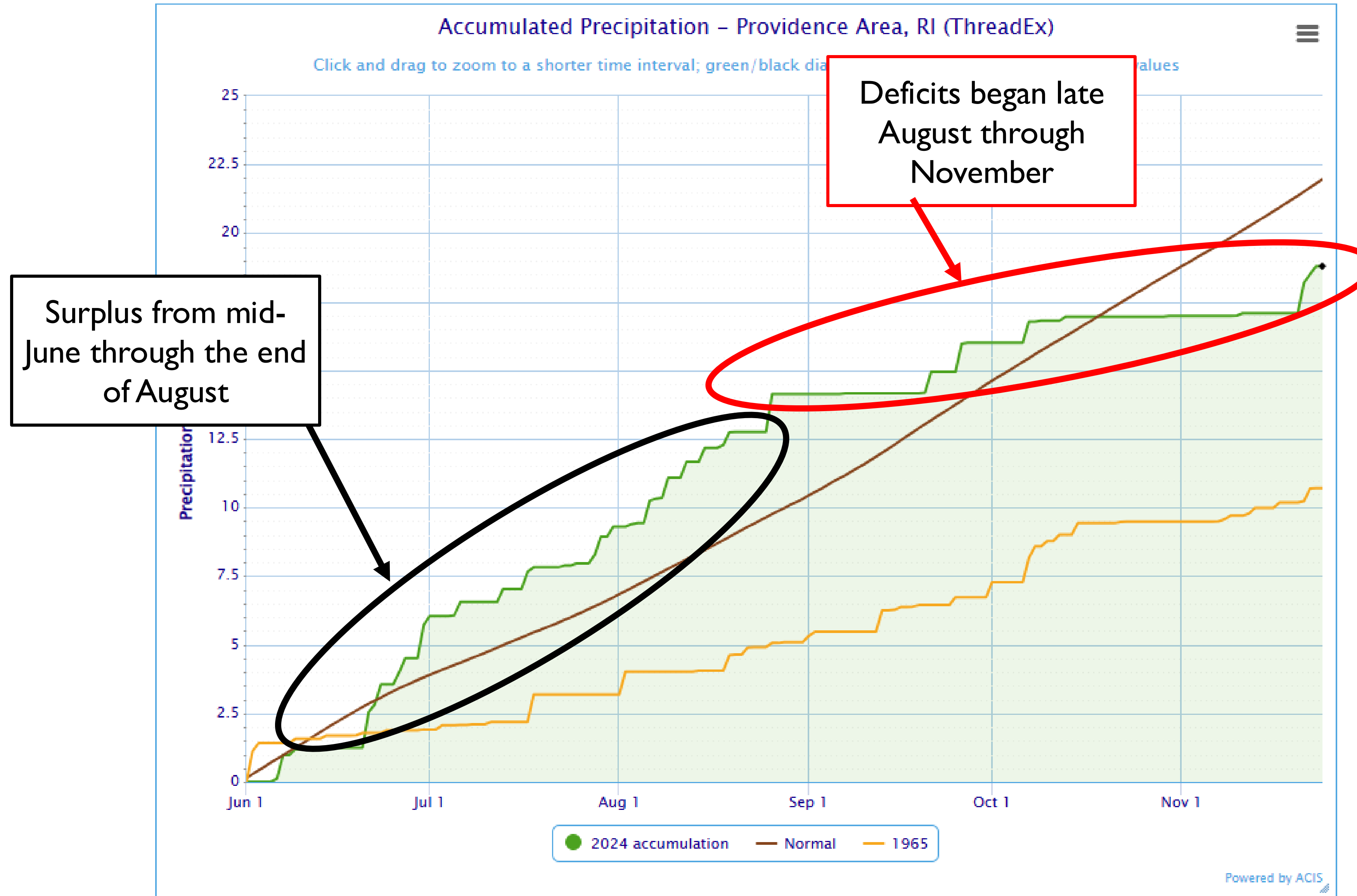
- **Modest surplus of precipitation Jun-Aug**
- **Massive deficit in October**
- **Need 2 to 2.5 inches of rain this week to achieve normal for November**
- **Up to 1.5 inches possible by Saturday (including today)**

# Rainfall Profiles Providence Climate Site



Boston/Norton MA  
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Precipitation since June 1st

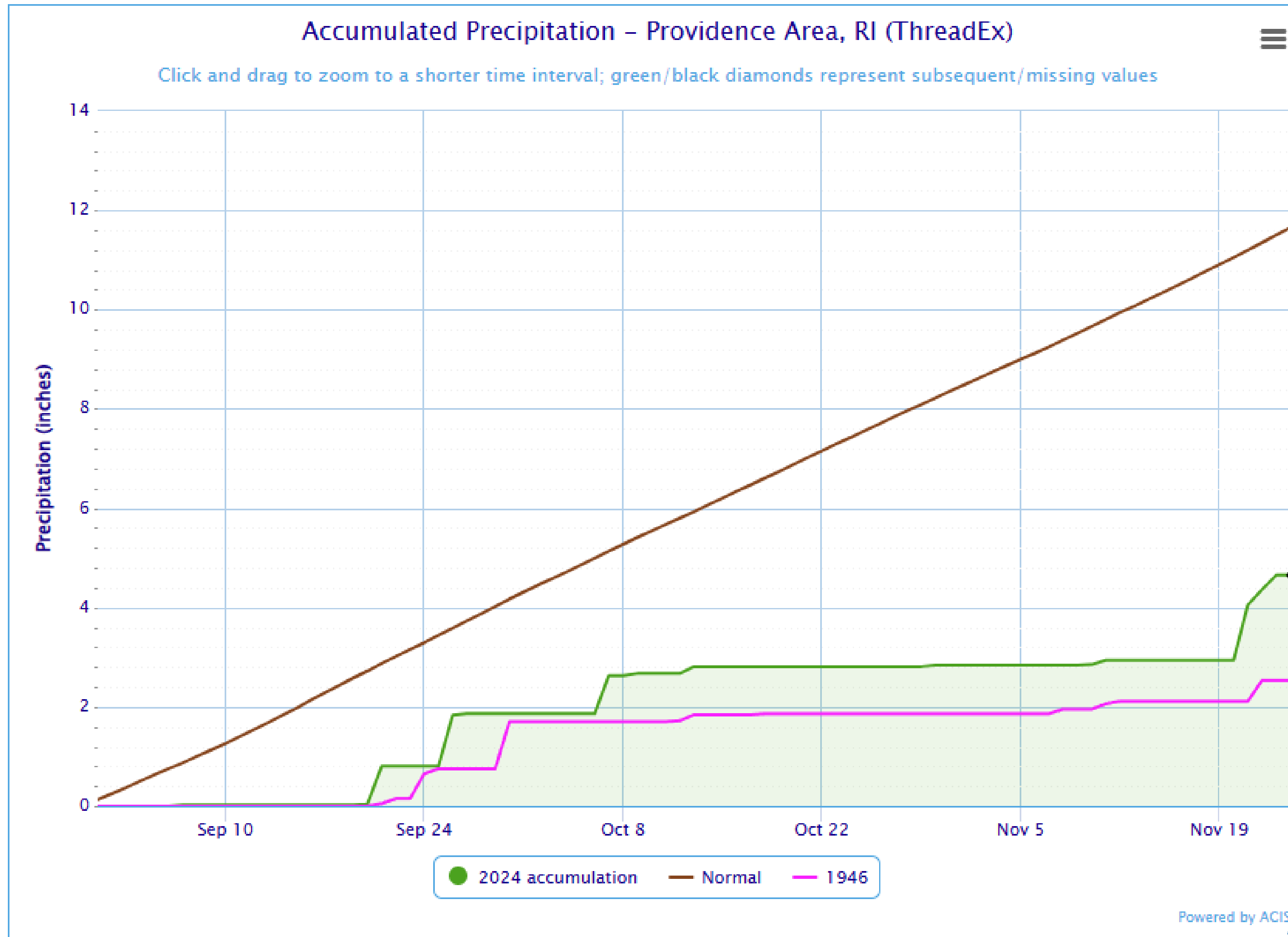


# Rainfall Profiles Providence Climate Site



Boston/Norton MA  
WEATHER FORECAST OFFICE

Precipitation since September 1st



# Review of Summer Rainfall Trends (August)



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RI 1-month August 2024	Rainfall	Departure	Percent	Normal
Northwest	3.78	-0.73	84	4.51
Northeast	3.83	-0.18	95	4.01
Central West	3.88	-0.40	91	4.28
Central East	4.34	0.33	108	4.01
Eastern	3.64	-0.19	95	3.83
Southern	5.26	1.24	131	4.02
New Shoreham	4.38	0.18	104	4.20

- **Near to above normal in both August and July**

RI 2-month Jul 24-Aug 24	Rainfall	Departure	Percent	Normal
Northwest	7.60	-0.48	94	8.08
Northeast	6.63	-0.99	87	7.62
Central West	9.74	2.00	126	7.74
Central East	8.41	1.25	117	7.16
Eastern	7.37	0.49	107	6.88
Southern	10.15	2.81	138	7.34
New Shoreham	7.75	0.59	108	7.16

- **Departures ranged from 0.5 inches below normal to almost 3 inches above normal**

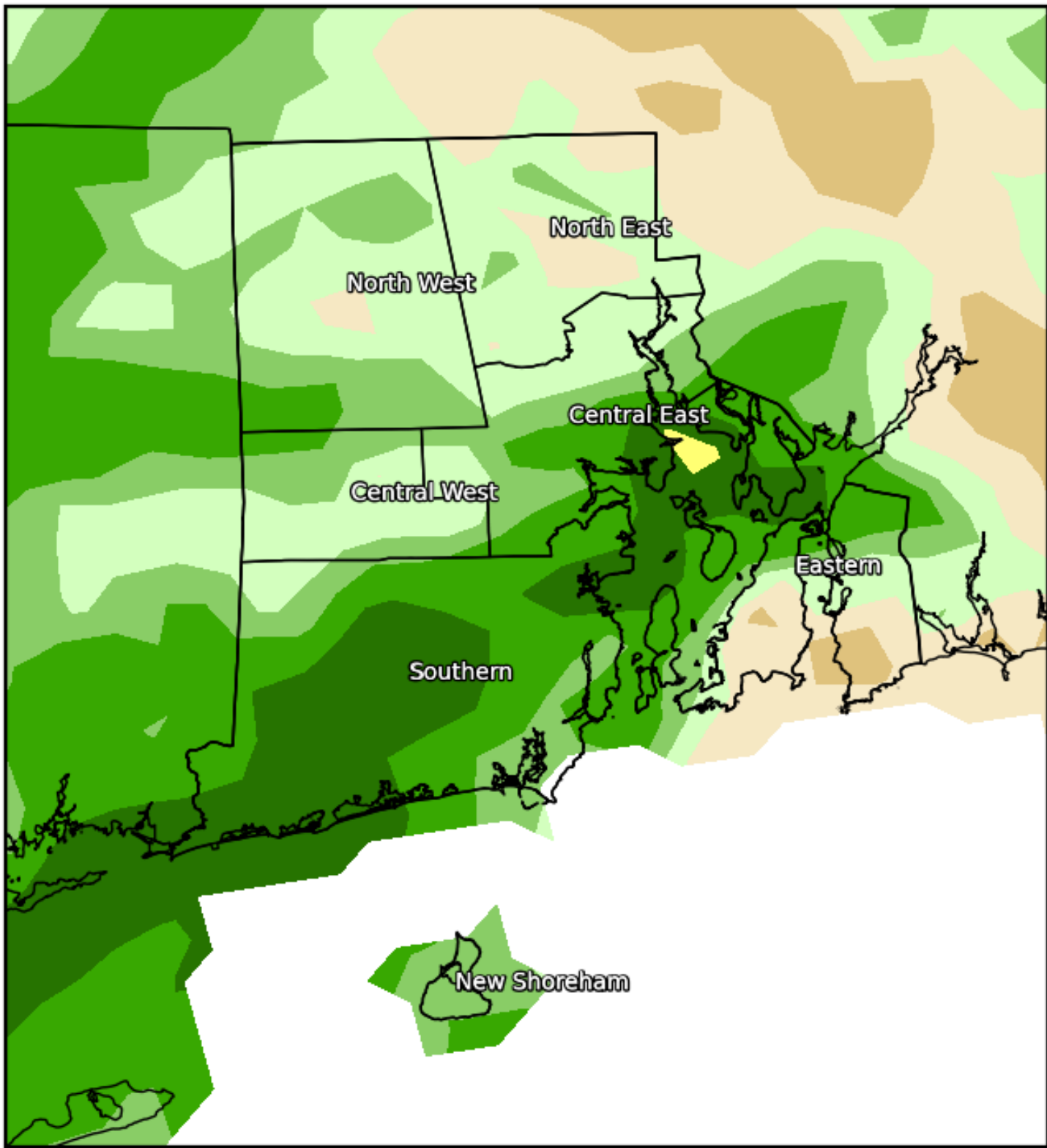


# Review of Summer Rainfall Trends (August)

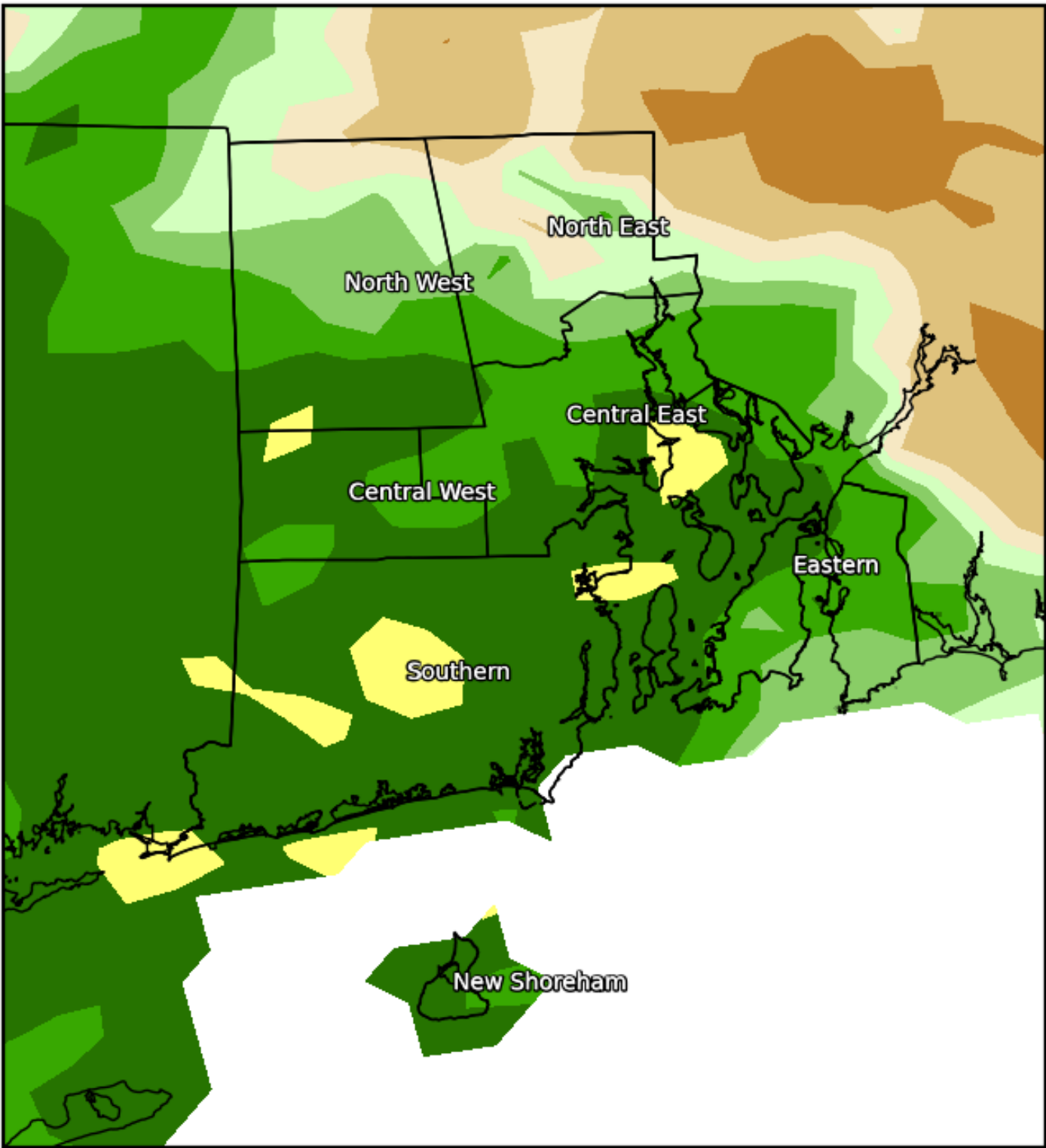


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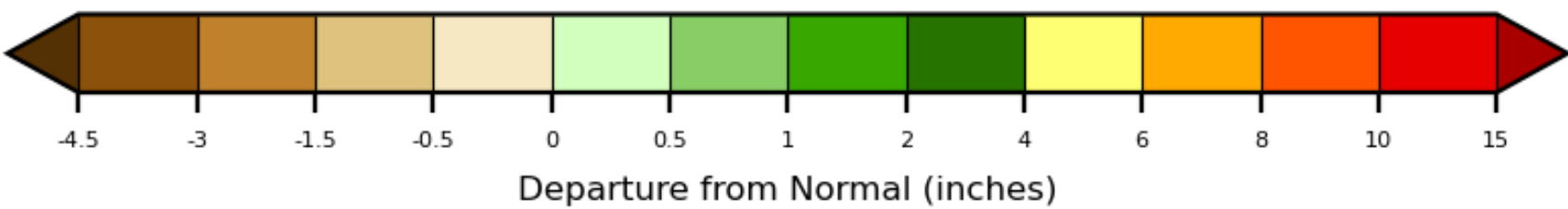
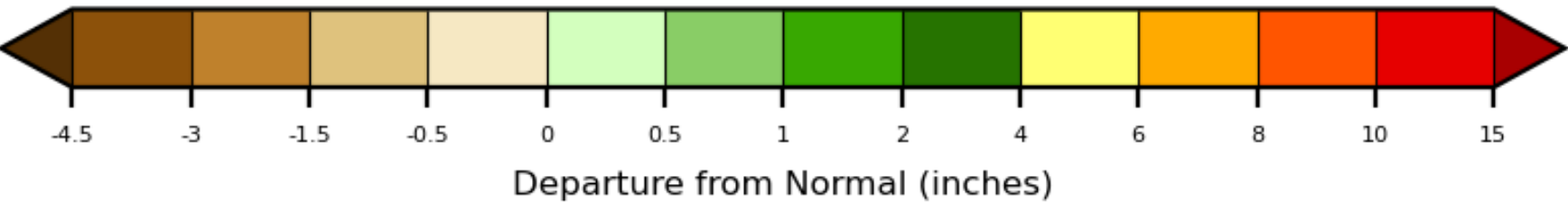
Precipitation Departure from Normal (inches)  
August 01, 2024 to August 31, 2024



Precipitation Departure from Normal (inches)  
July 01, 2024 to August 31, 2024



- **Near to above normal in both August and July**
- **Departures ranged from 0.5 inches below normal to almost 3 inches above normal**



# Review of Summer Rainfall Trends (August)



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RI 3-month Jun 24-Aug 24	Rainfall	Departure	Percent	Normal
Northwest	11.10	-1.50	88	12.60
Northeast	9.64	-2.39	80	12.03
Central West	15.60	3.65	131	11.95
Central East	12.14	0.95	108	11.19
Eastern	10.91	0.37	104	10.54
Southern	14.14	2.93	126	11.21
New Shoreham	8.74	-2.20	80	10.94

- **3 Month precipitation was near to above normal statewide**

RI 6-month Mar 24-Aug 24	Rainfall	Departure	Percent	Normal
Northwest	32.10	5.83	122	26.27
Northeast	30.63	5.45	122	25.18
Central West	43.11	17.67	169	25.44
Central East	34.74	10.40	143	24.34
Eastern	30.32	7.20	131	23.12
Southern	35.70	11.26	146	24.44
New Shoreham	26.68	3.20	114	23.48

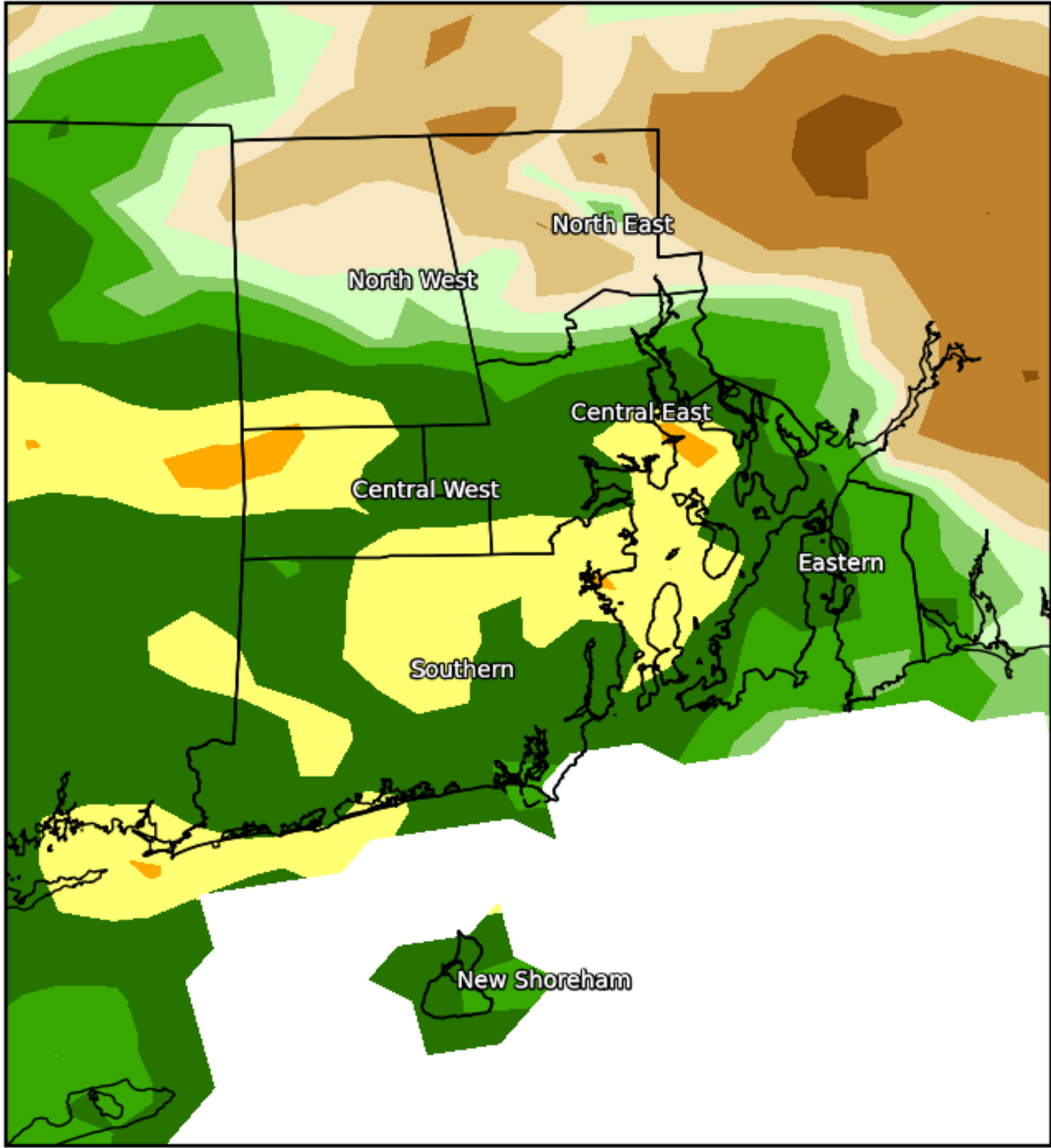
- **6 Month Rainfall was well above normal**
- **Departures ranged from 6 to 17.5 inches above normal**

# Review of Summer Rainfall Trends (August)



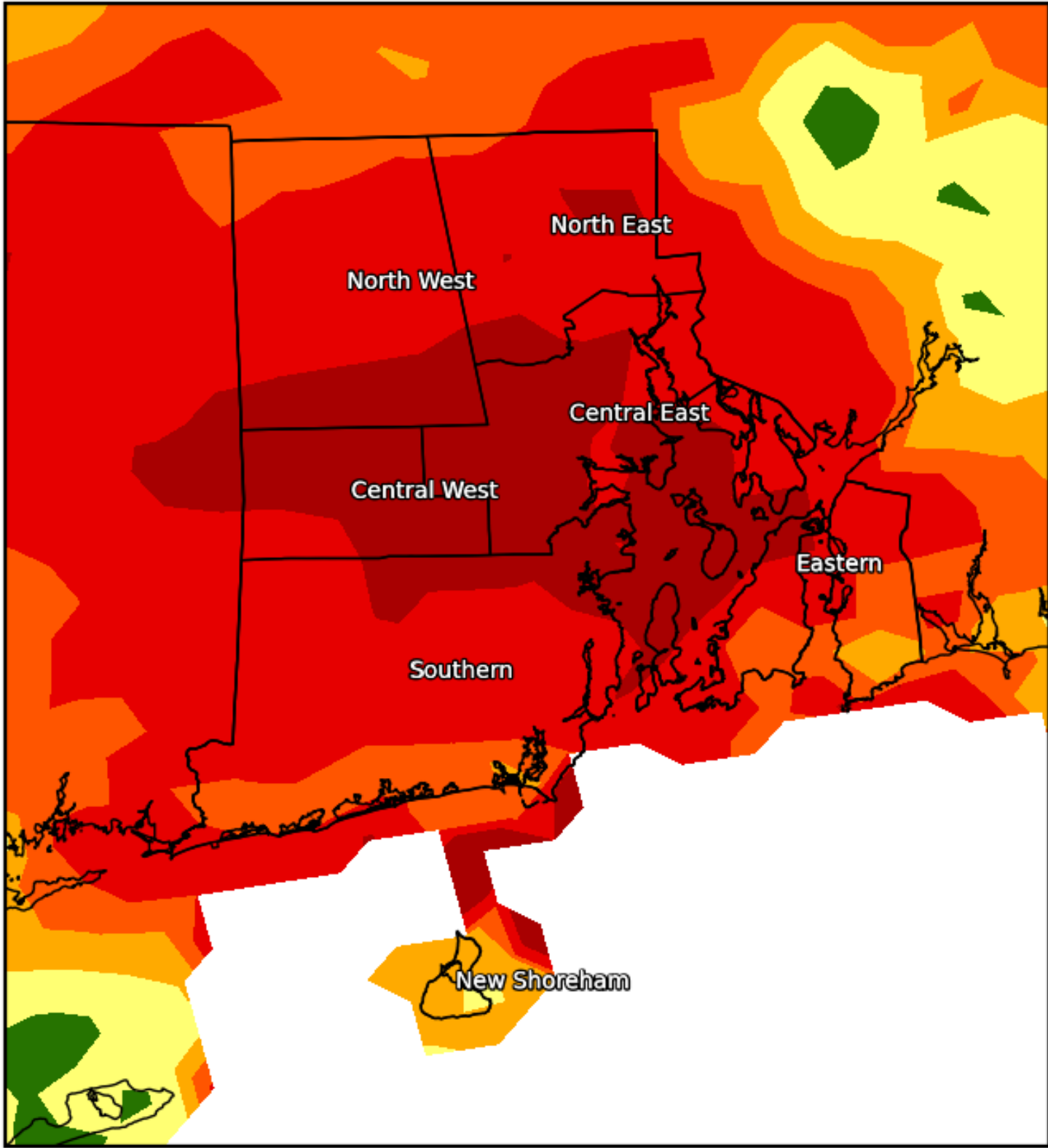
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Precipitation Departure from Normal (inches)  
June 01, 2024 to August 31, 2024



Departure from Normal (inches)

Precipitation Departure from Normal (inches)  
March 01, 2024 to August 31, 2024



Departure from Normal (inches)

- **3 Month precipitation was near to above normal statewide**

**6 Month Rainfall was well above normal**  
**Departures ranged from 6 to 17.5 inches above normal**



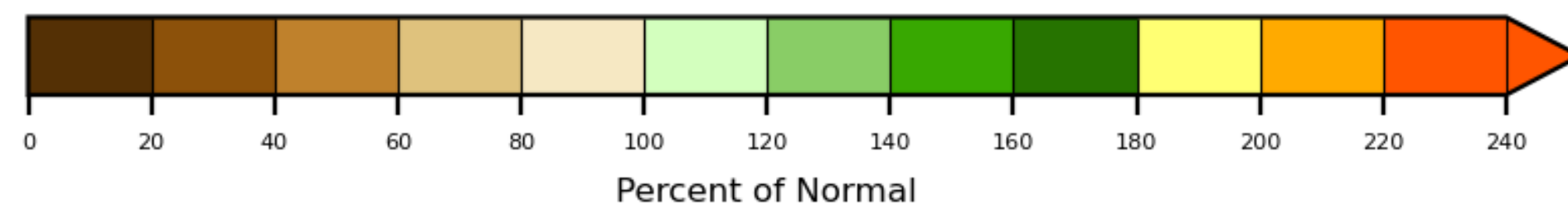
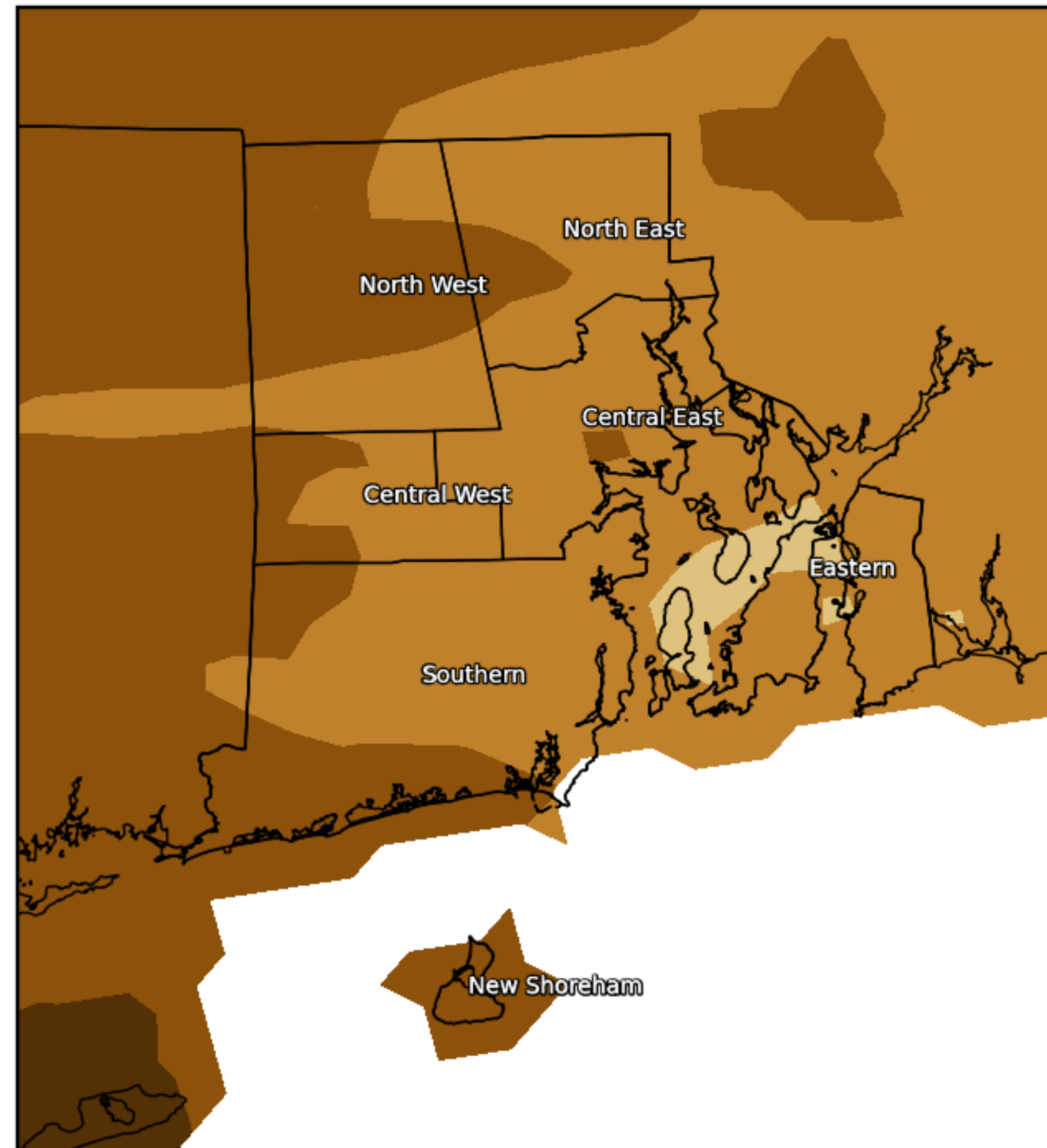
# Sep-Nov and Jun-Nov Departure of Normal



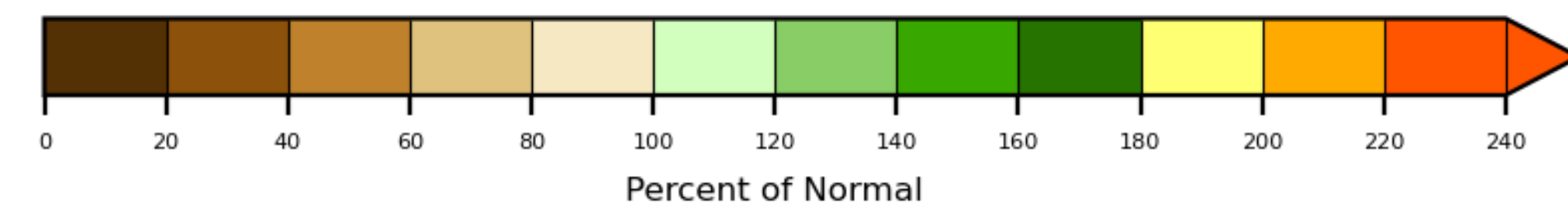
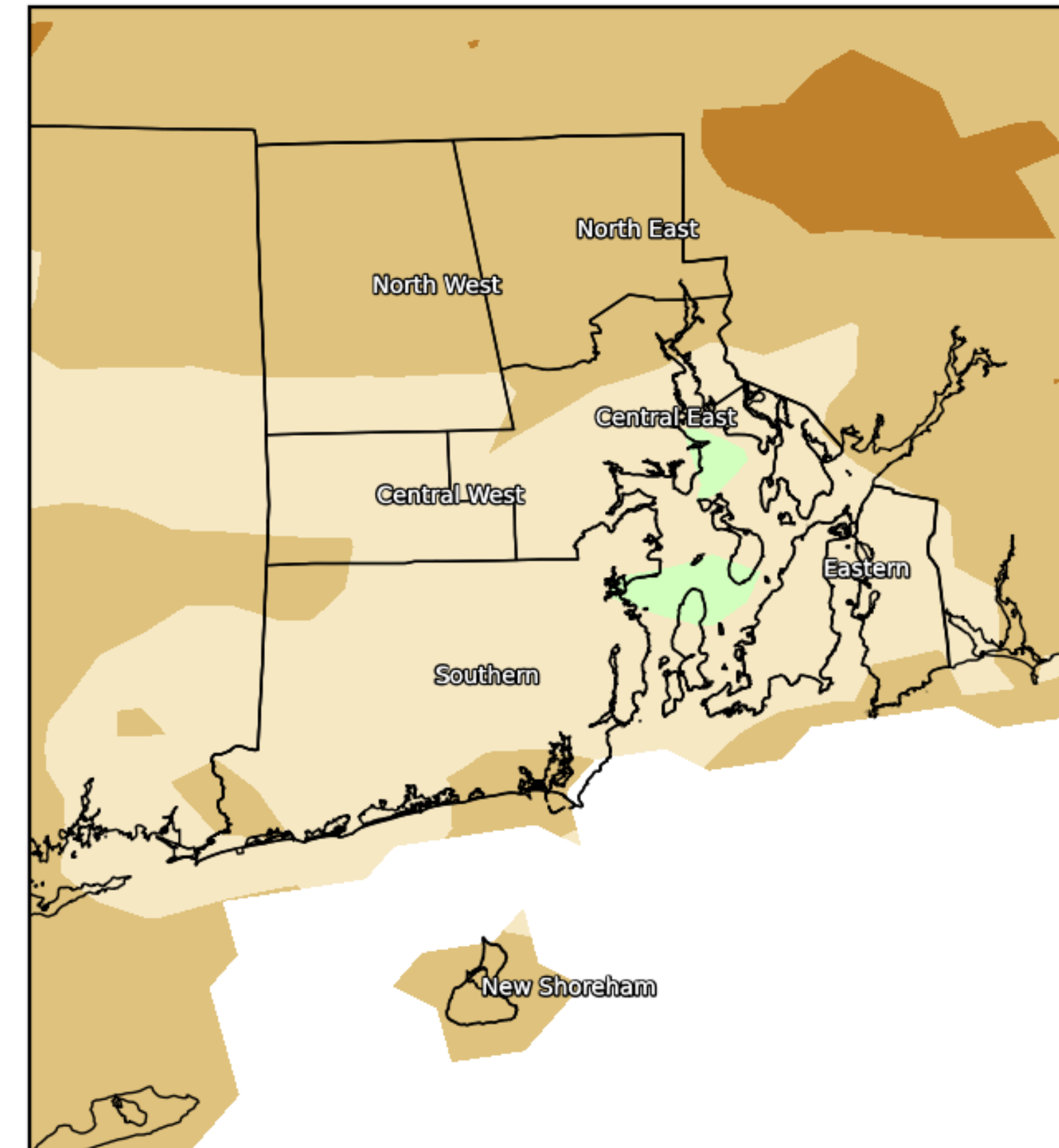
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Below Normal

Precipitation Percent of Normal  
September 01, 2024 to November 24, 2024



Precipitation Percent of Normal  
June 01, 2024 to November 24, 2024

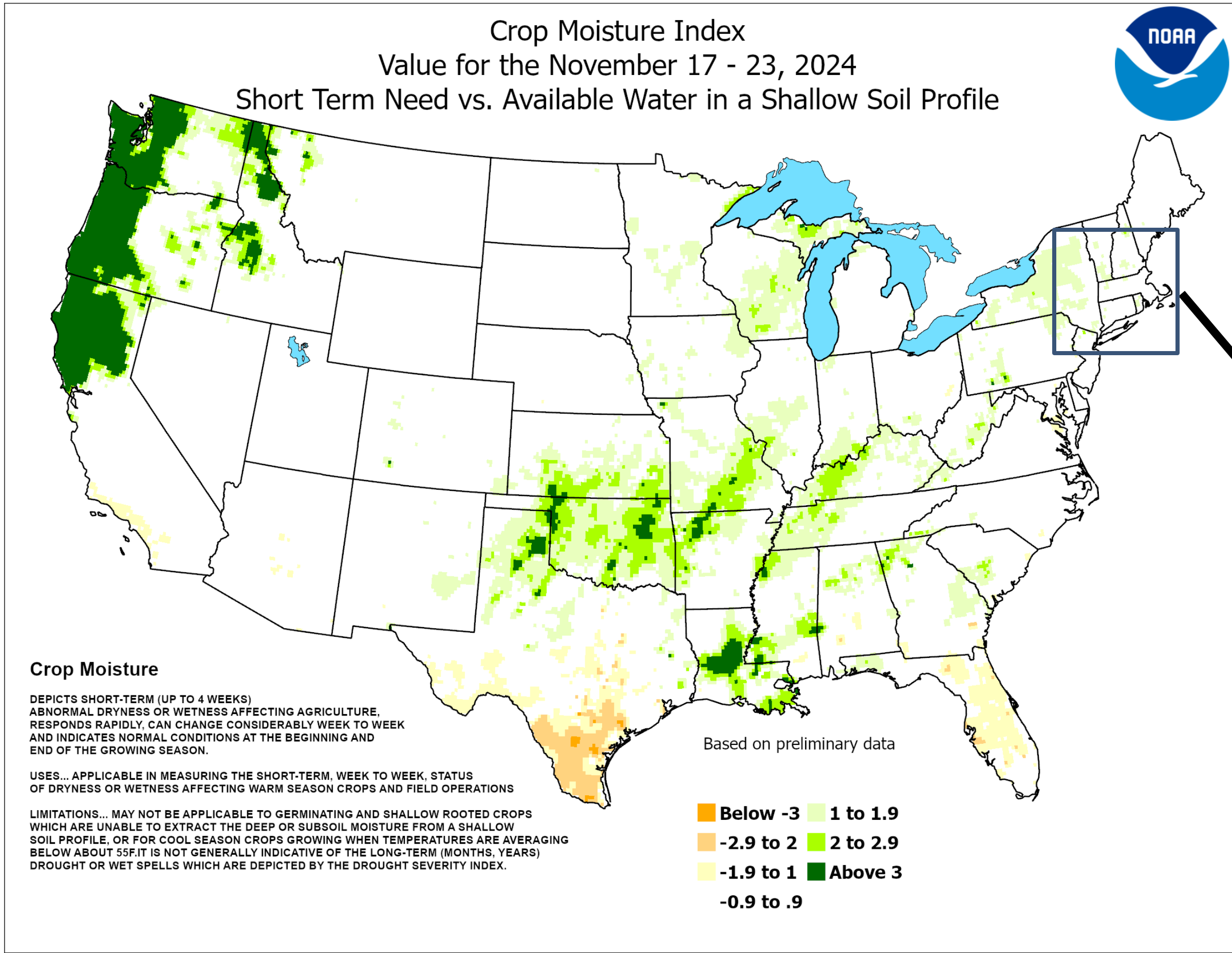


# Crop Moisture Index

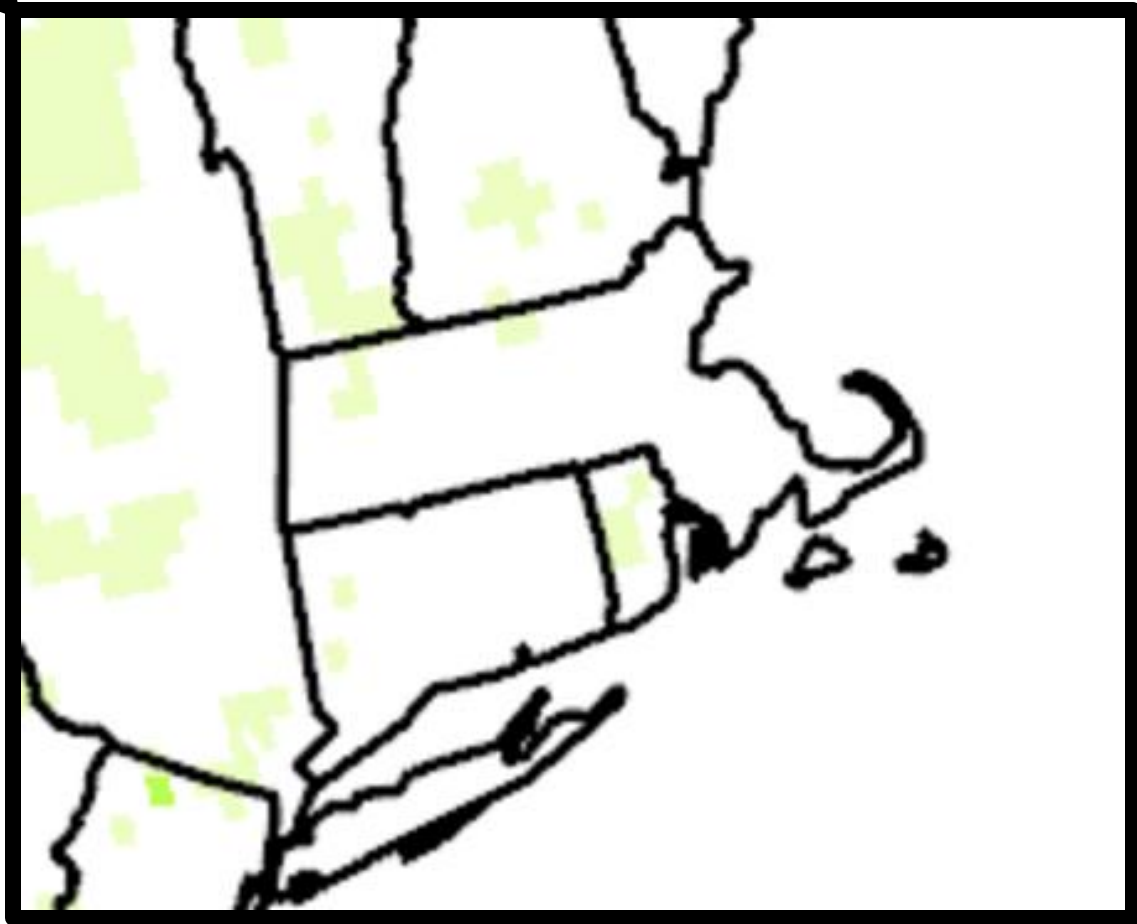
Valid through Week ending November 23rd



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- CMI for RI: 1.61 Above Normal



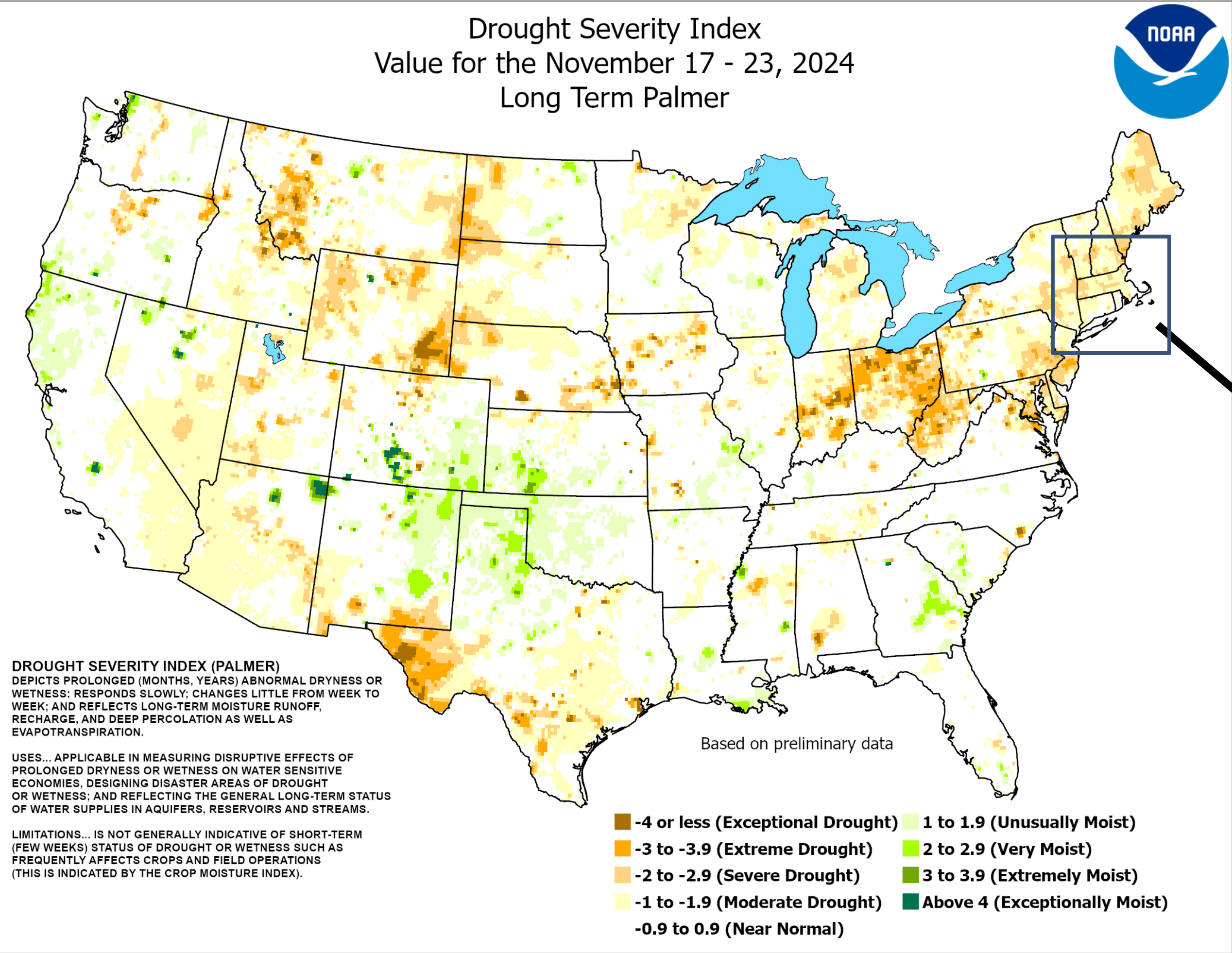


# Palmer Drought Index

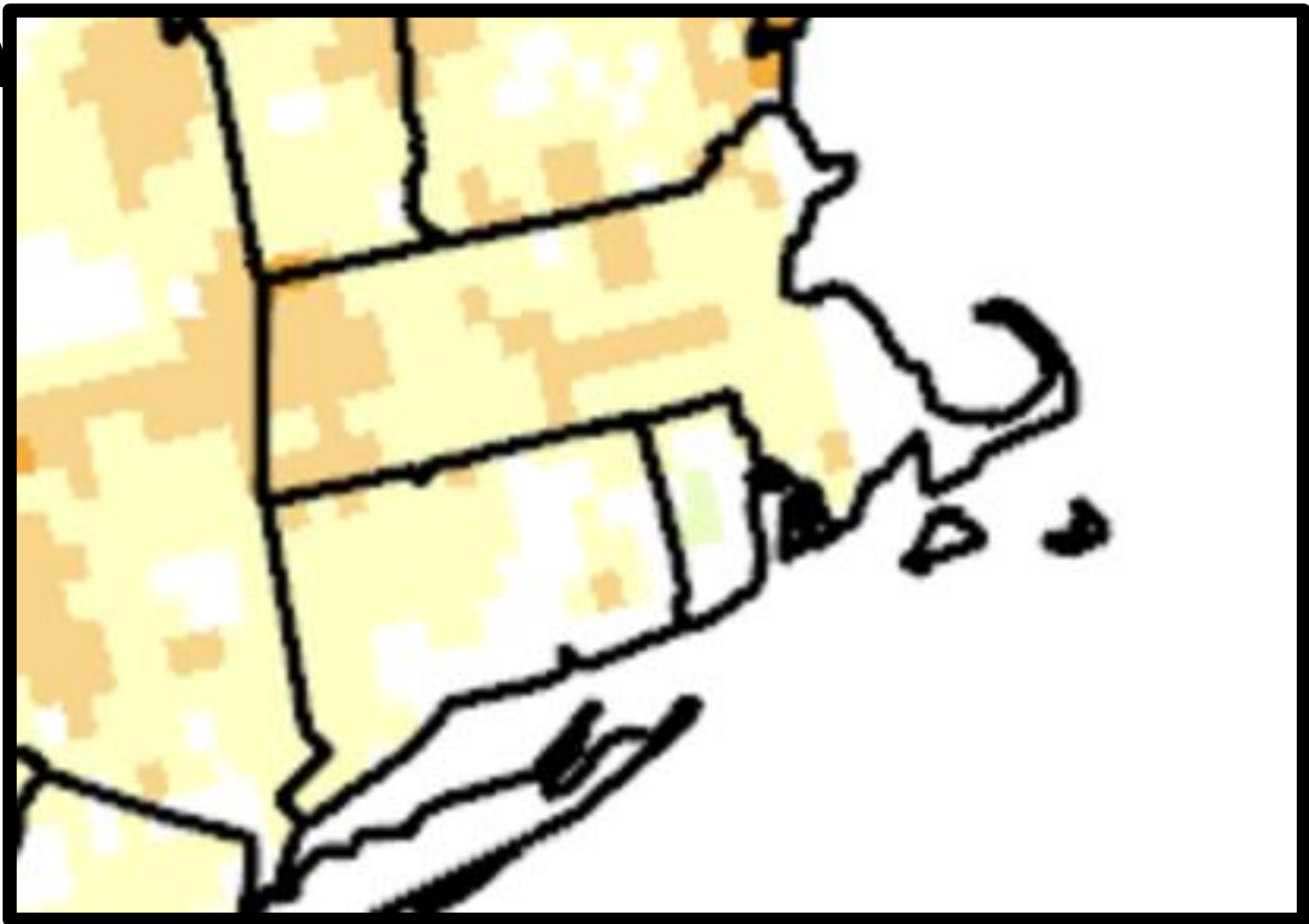
Valid through Week ending November 23rd



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“Near Normal to Unusually Moist”

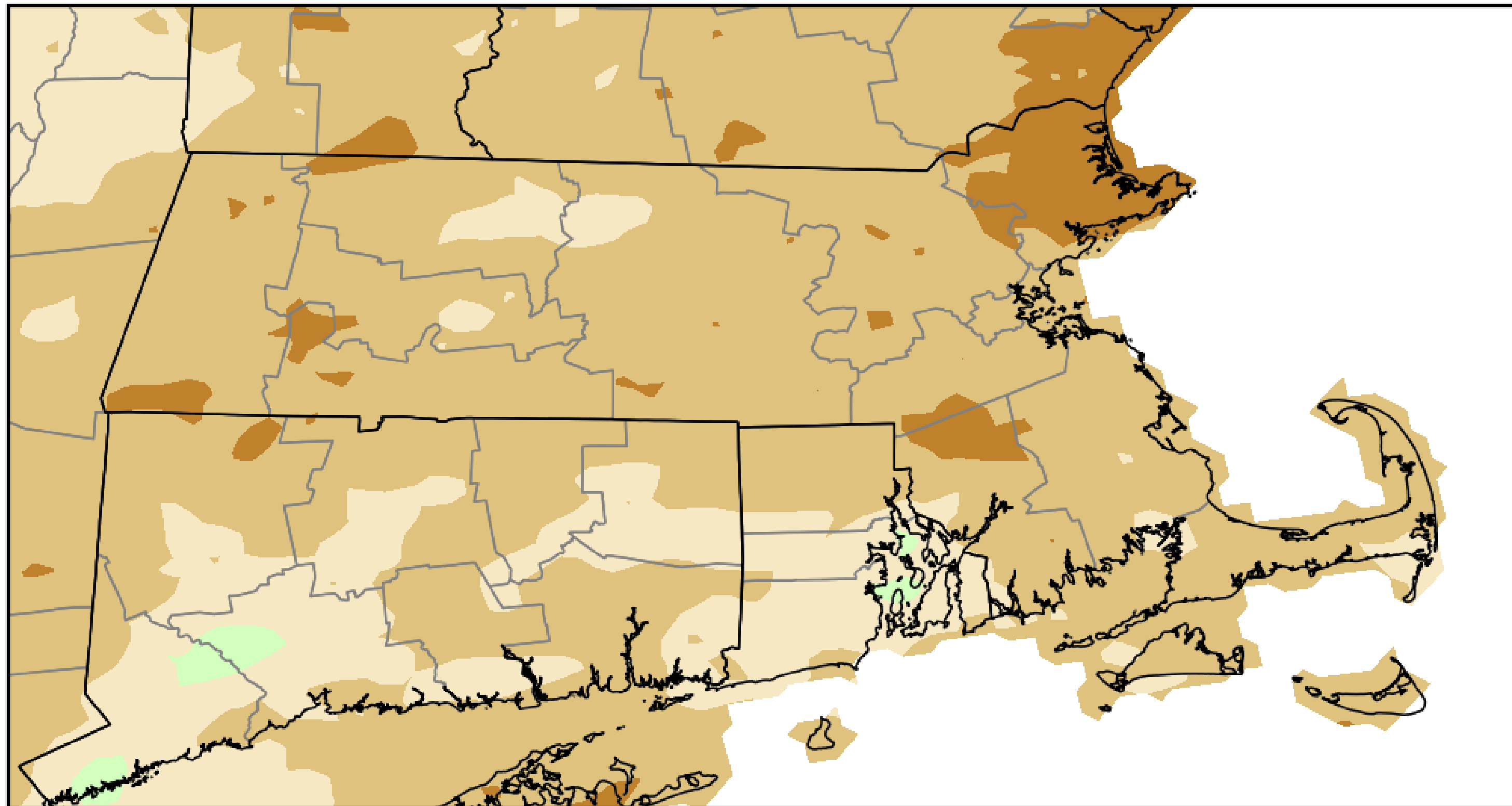


# Southern New England 6 Month Percent of Normal

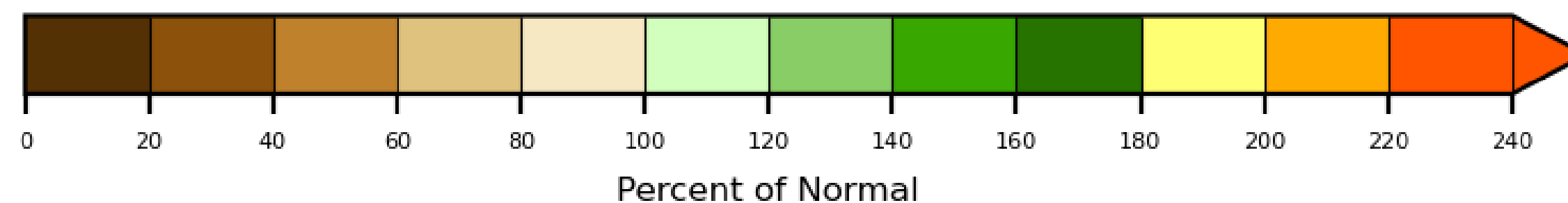


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Precipitation Percent of Normal  
June 01, 2024 to November 24, 2024



- **RI 6 month precipitation deficits are less than MA and similar to CT**





# 5 Day Rain Forecast



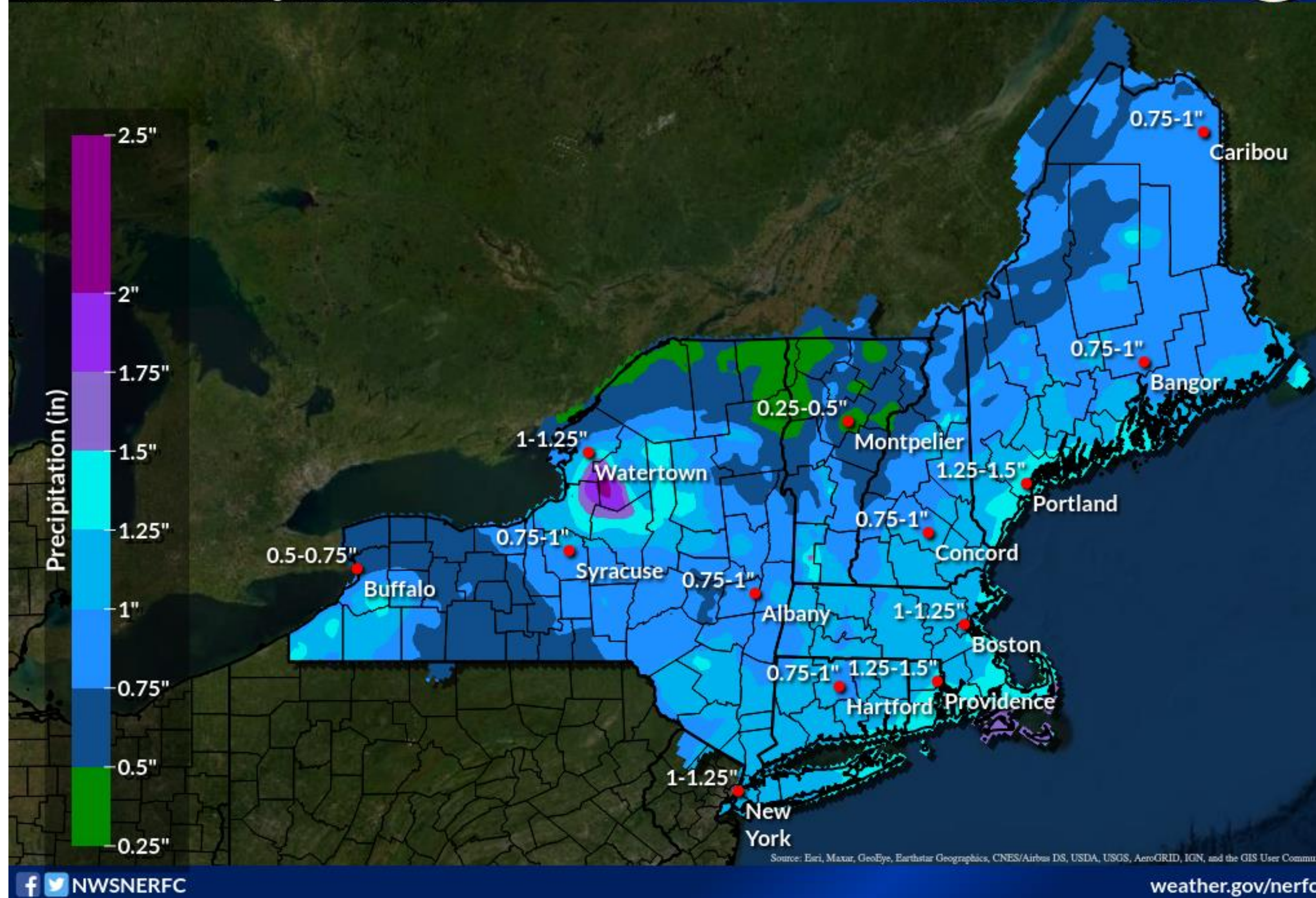
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## 5 Day WPC Precipitation Forecast

Valid Mon 7:00AM through Sat 7:00AM EST

River Forecast Center  
Northeast RFC

Issued Nov 25, 2024 7:05 AM EST



### Details

- 1 to 1.5 inches of new precipitation possible between today's rain and another storm Thursday/Friday*



# CPC 6-10 Day Outlook

December 1 - December 5 2024

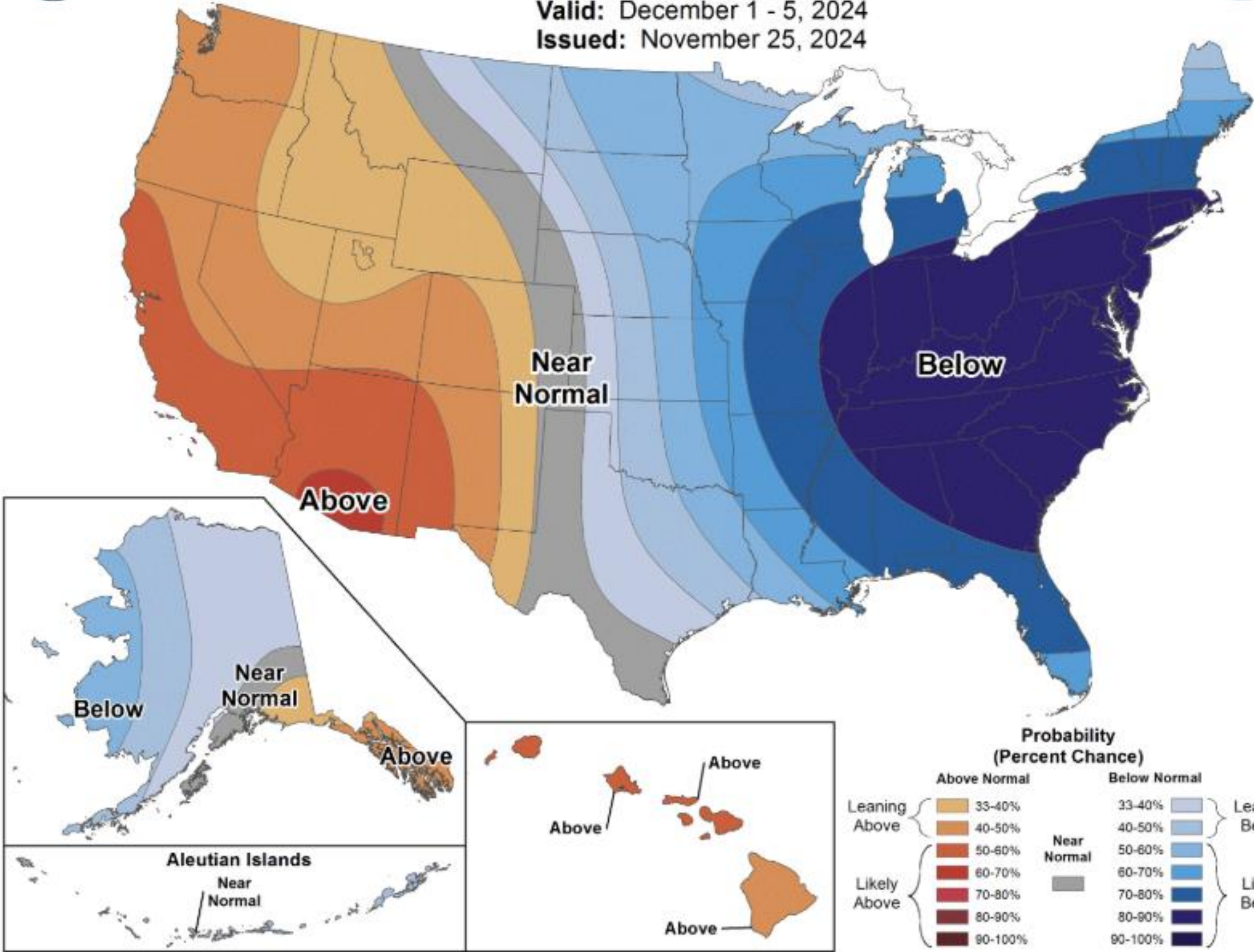


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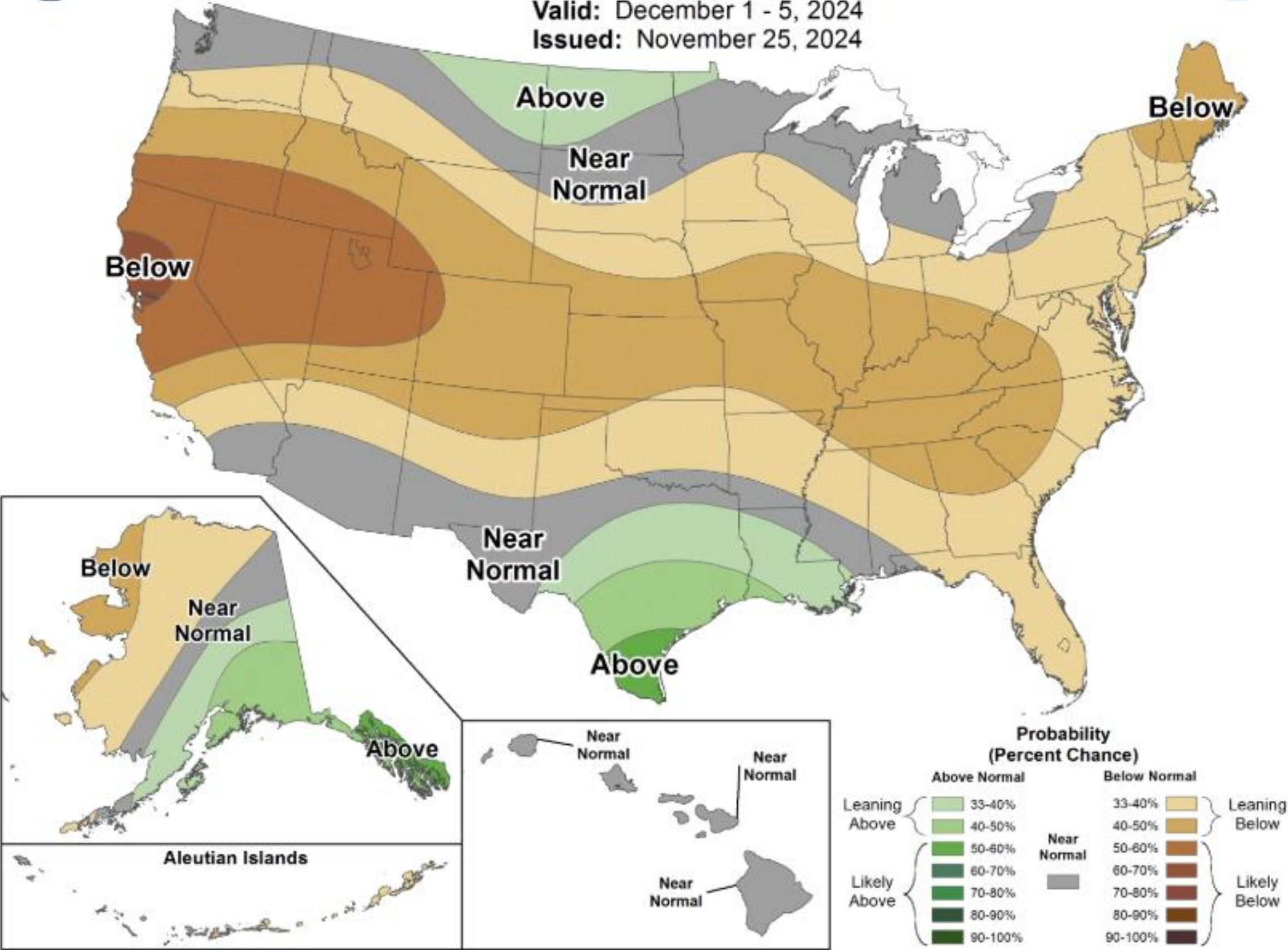
## 6-10 Day Temperature Outlook

Valid: December 1 - 5, 2024  
Issued: November 25, 2024



## 6-10 Day Precipitation Outlook

Valid: December 1 - 5, 2024  
Issued: November 25, 2024





# CPC 8-14 Day Outlook

December 3 - December 9 2024

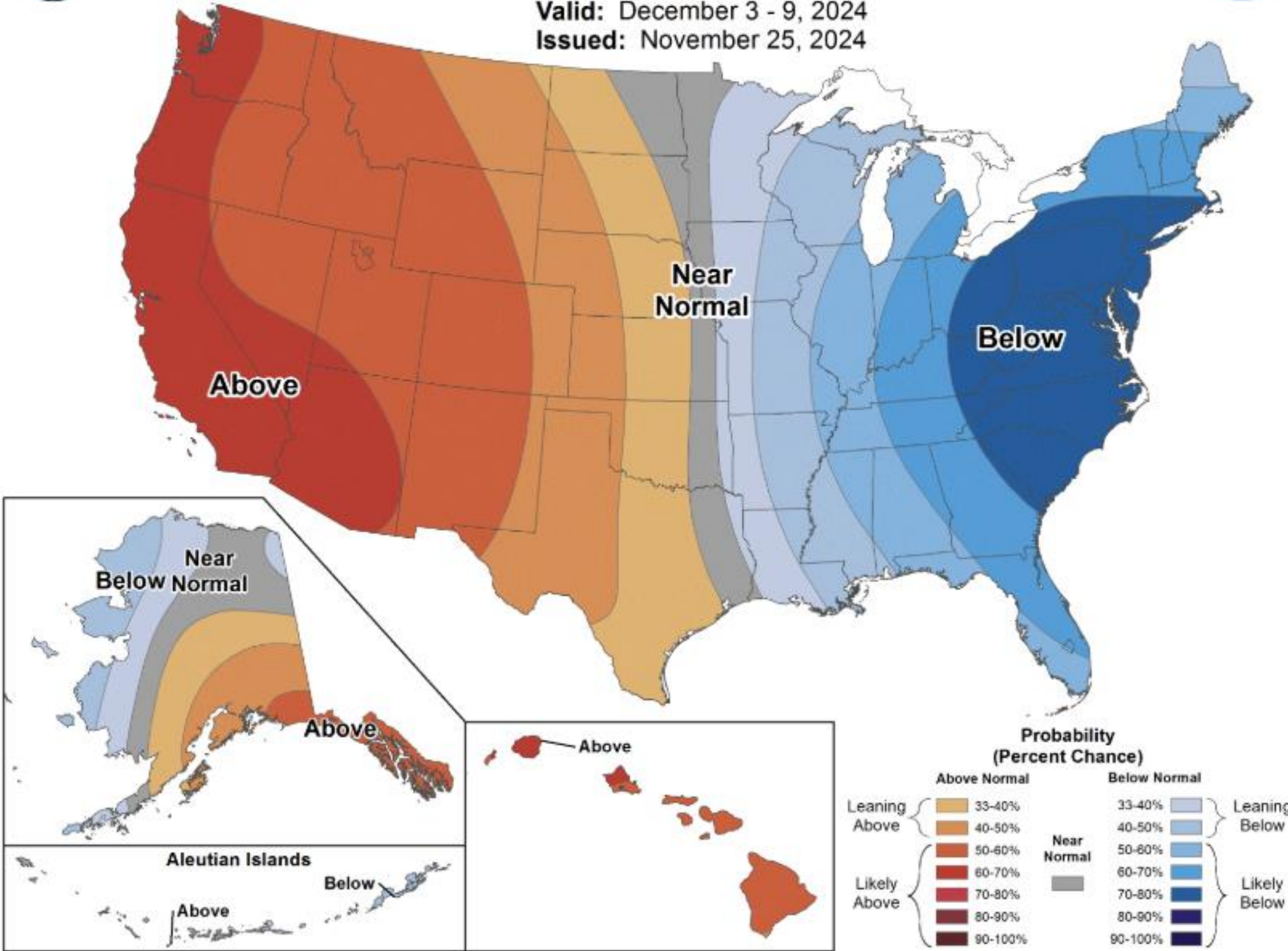


Boston/Norton MA  
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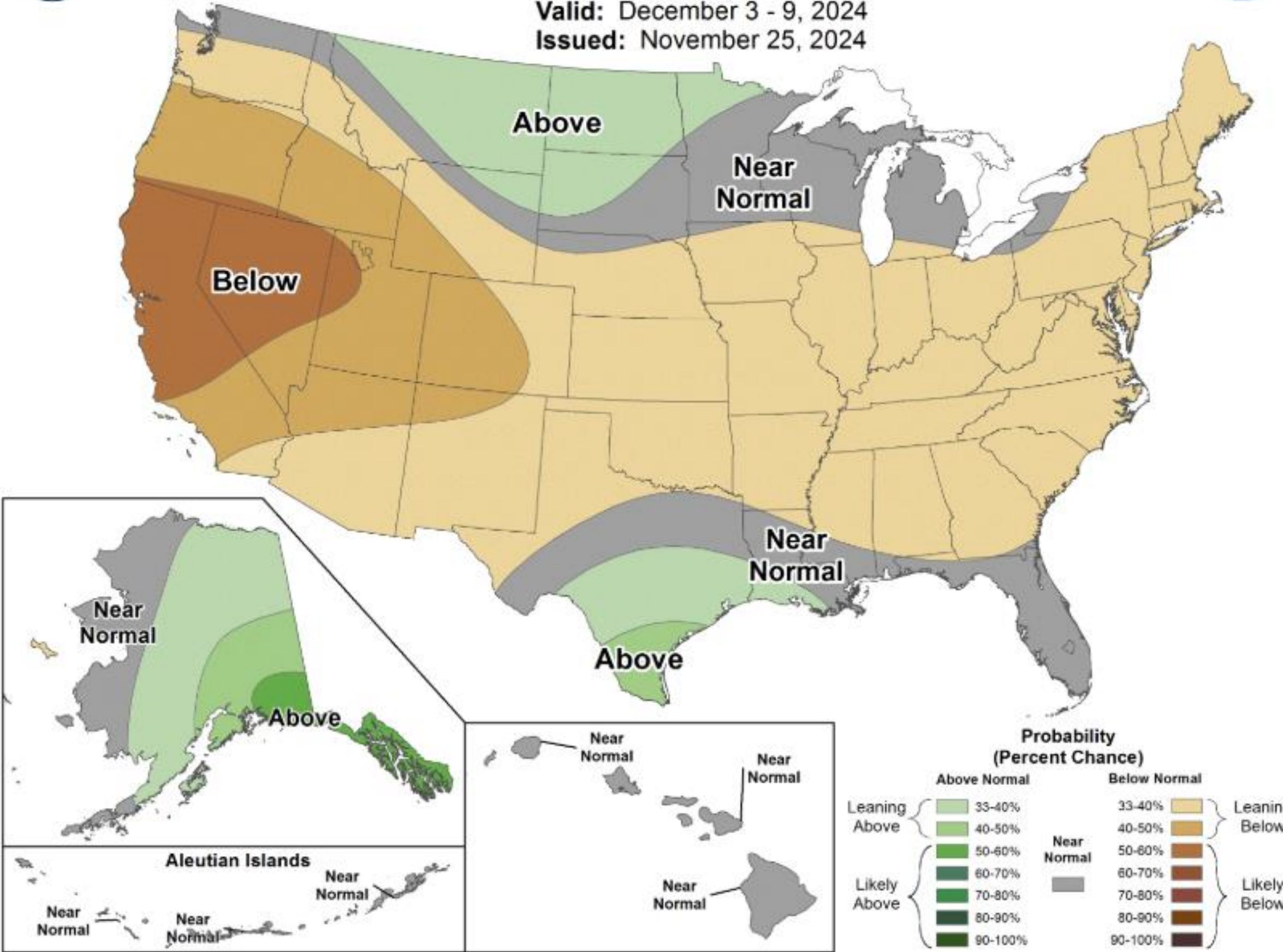
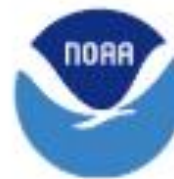
## 8-14 Day Temperature Outlook

Valid: December 3 - 9, 2024  
Issued: November 25, 2024



## 8-14 Day Precipitation Outlook

Valid: December 3 - 9, 2024  
Issued: November 25, 2024





# CPC 3-4 Week Outlook

December 7 - December 22 2024



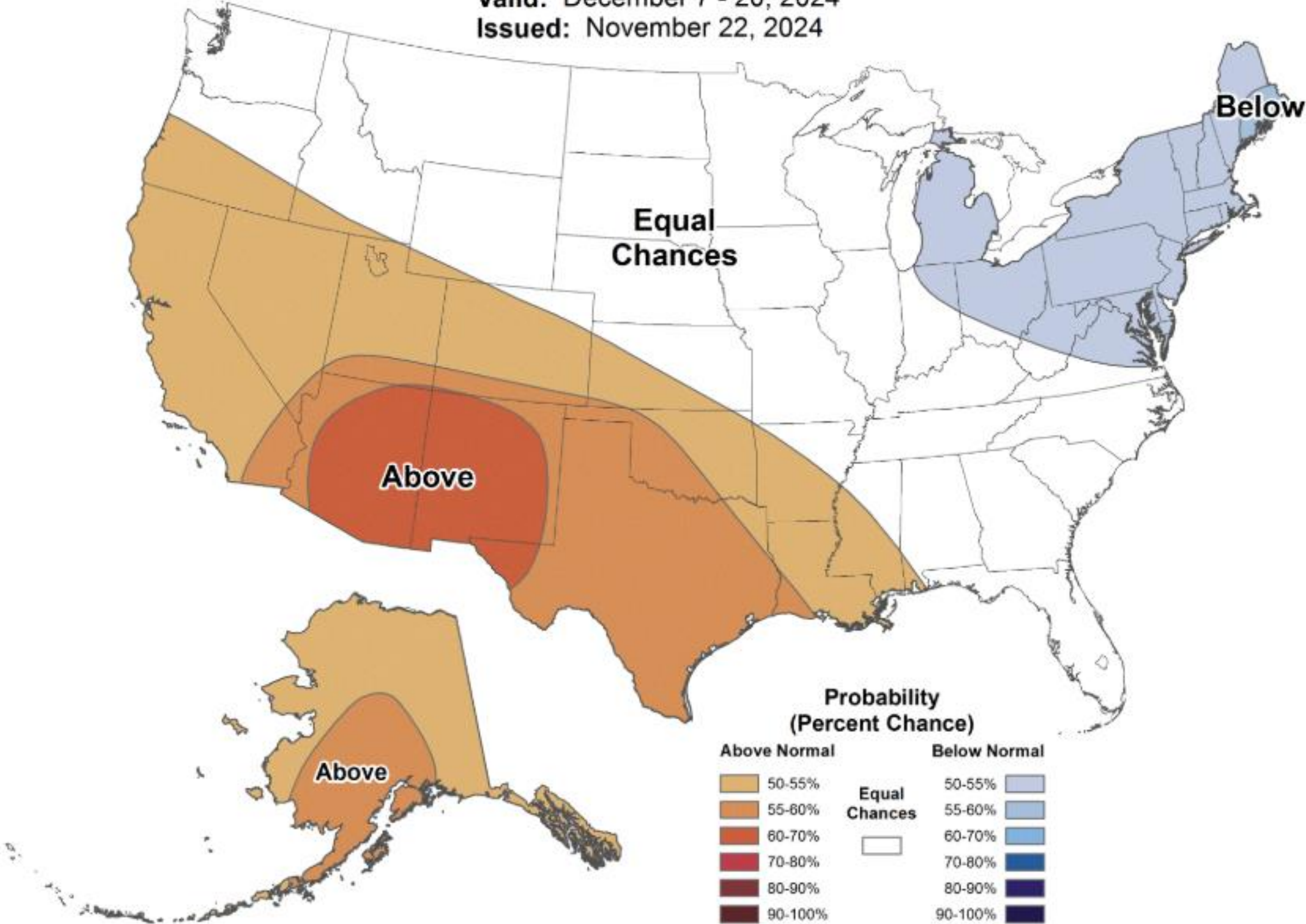
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## Weeks 3-4 Temperature Outlook



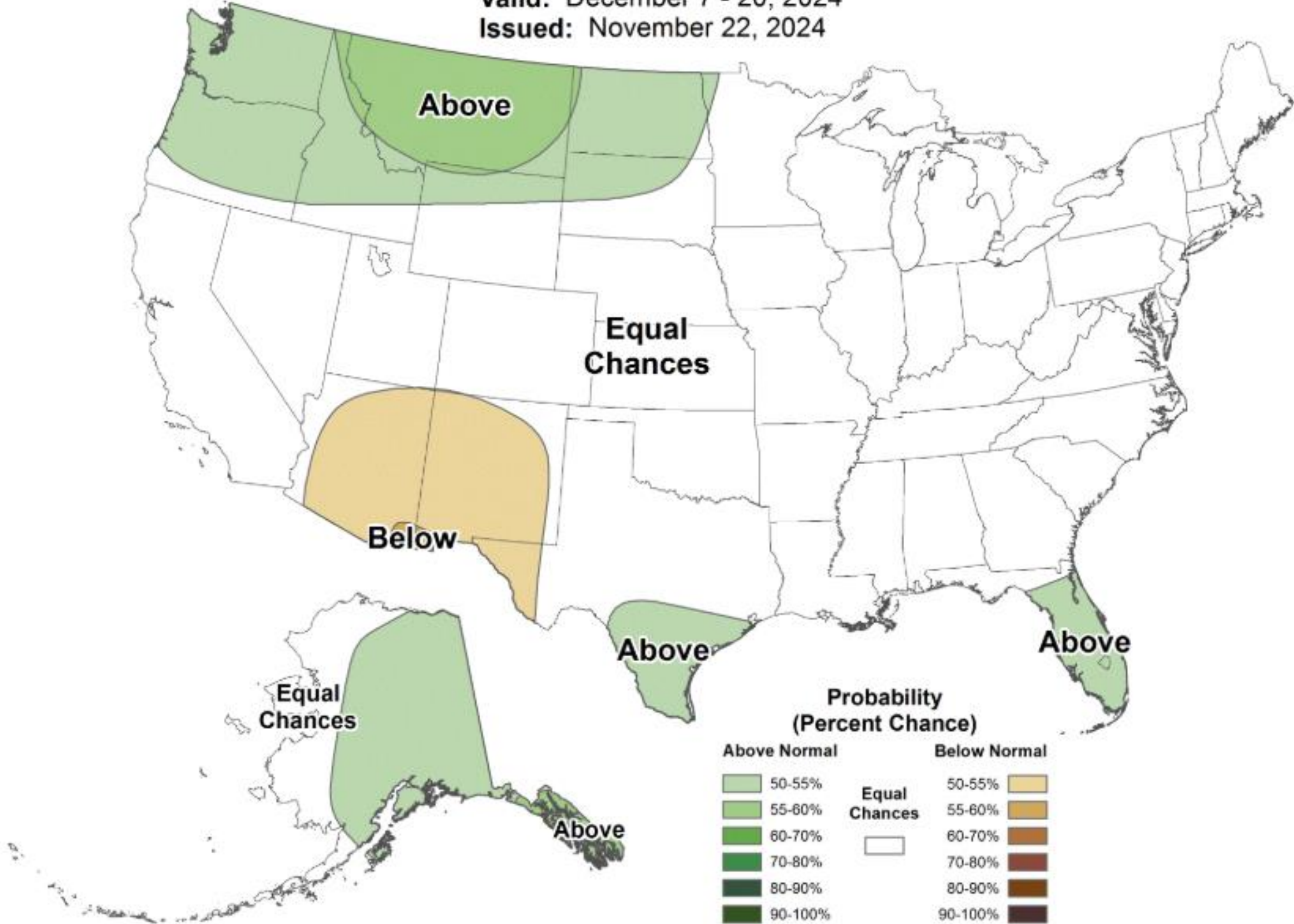
Valid: December 7 - 20, 2024  
Issued: November 22, 2024



## Weeks 3-4 Precipitation Outlook



Valid: December 7 - 20, 2024  
Issued: November 22, 2024





# CPC December Outlook

December 7 - December 22 2024



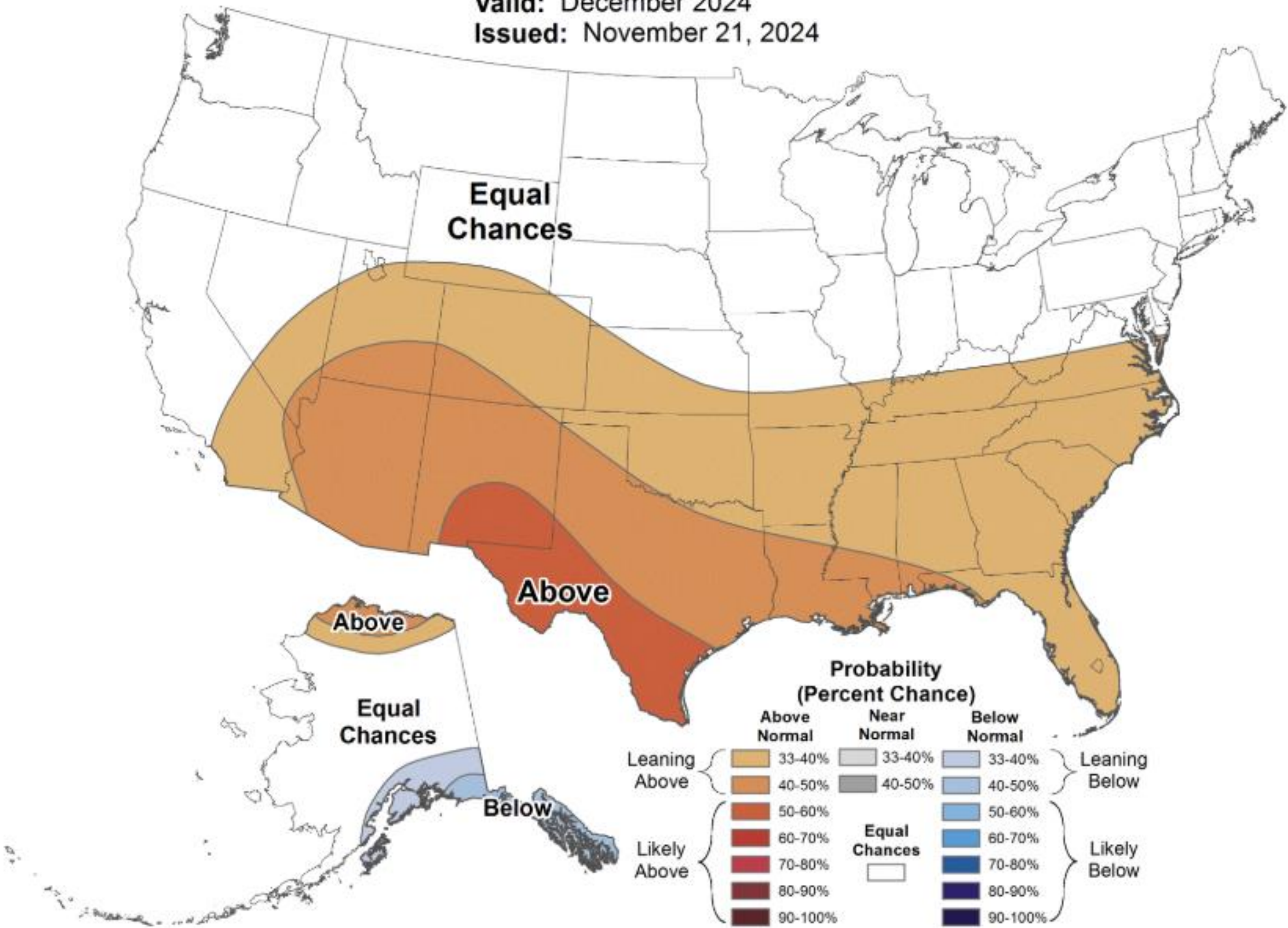
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## Monthly Temperature Outlook



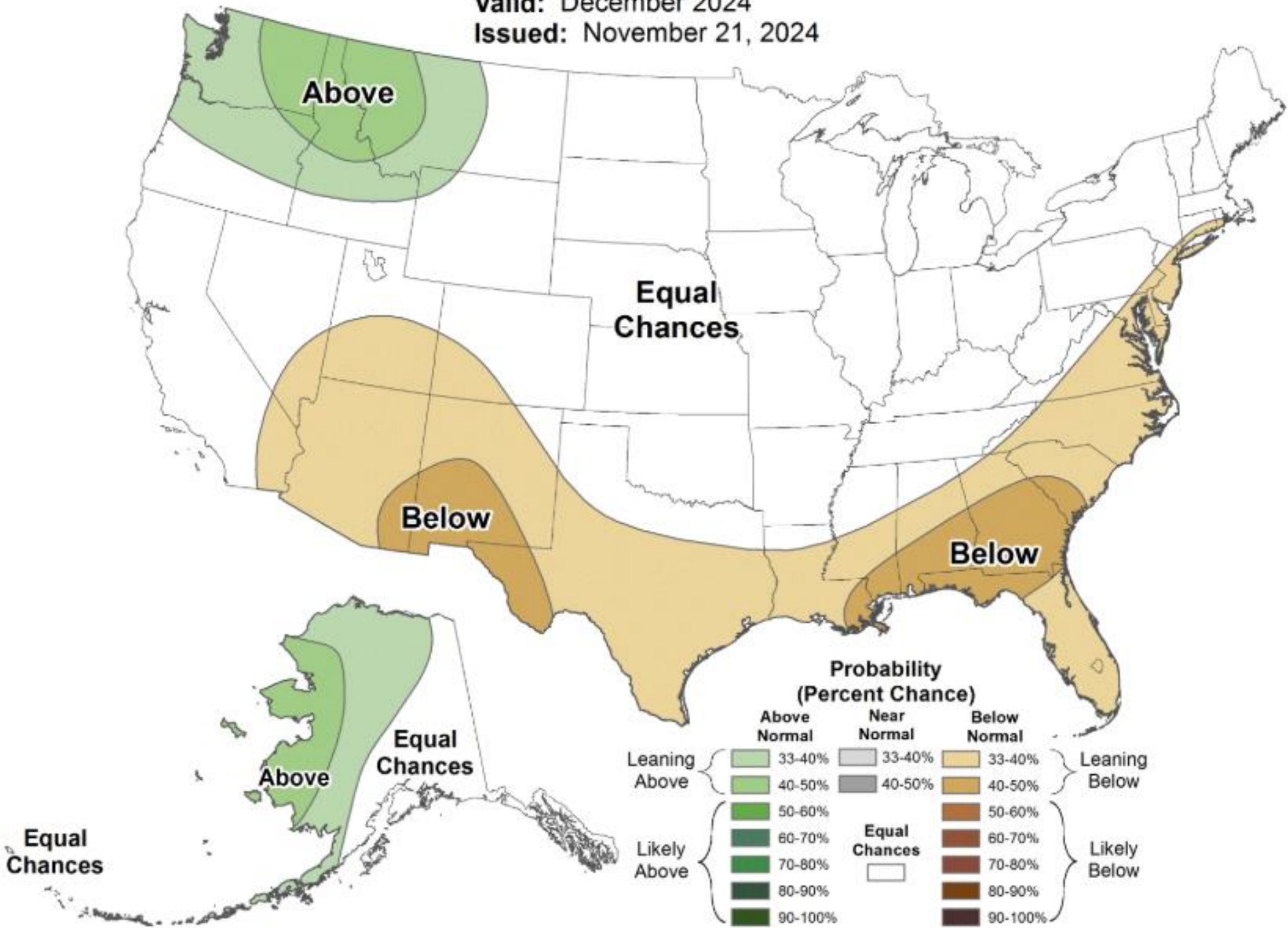
Valid: December 2024  
Issued: November 21, 2024



## Monthly Precipitation Outlook



Valid: December 2024  
Issued: November 21, 2024





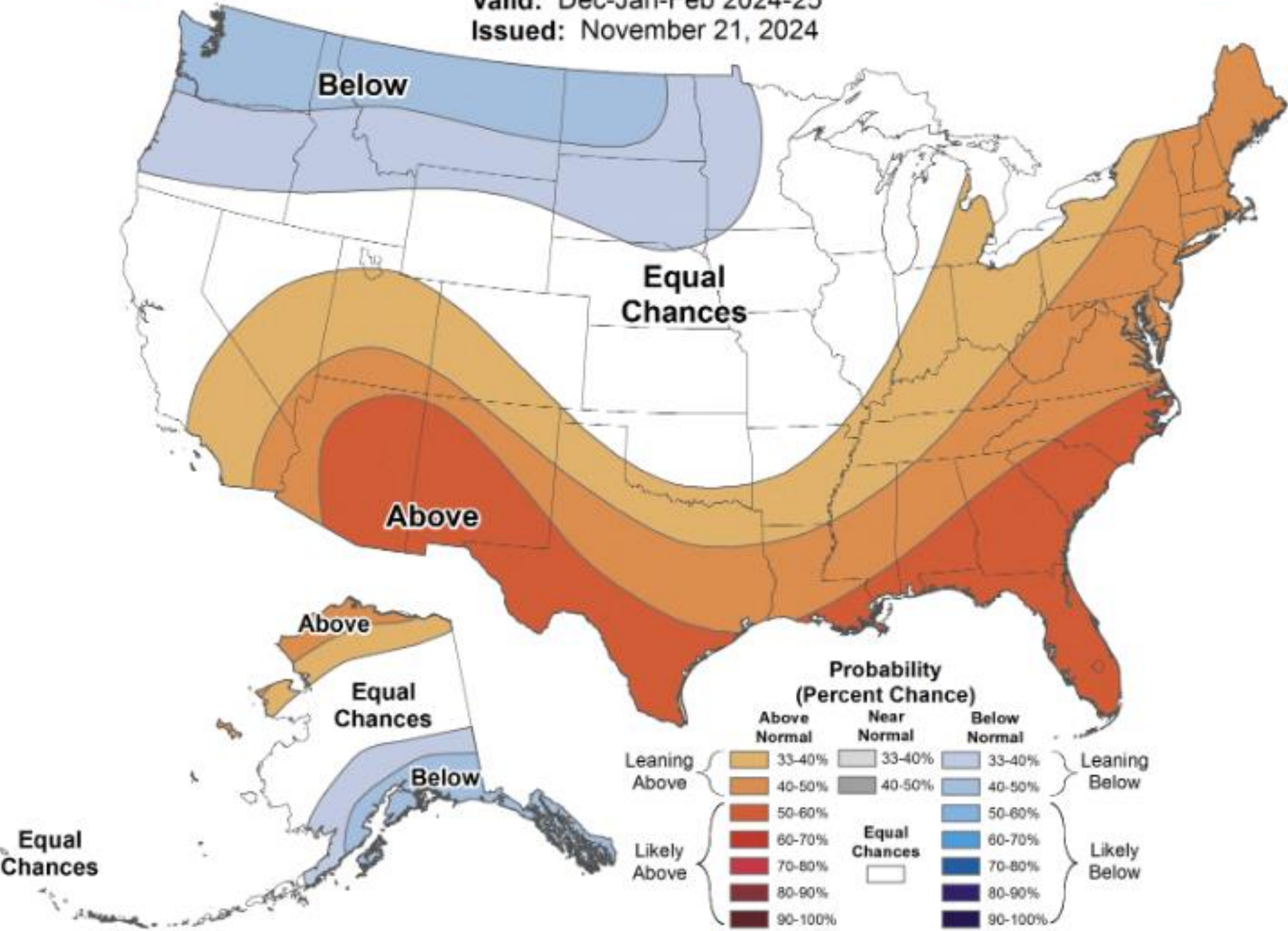
# CPC Outlook for Dec/Jan/Feb



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## Seasonal Temperature Outlook

Valid: Dec-Jan-Feb 2024-25  
Issued: November 21, 2024



## Seasonal Precipitation Outlook

Valid: Dec-Jan-Feb 2024-25  
Issued: November 21, 2024

