



RI Drought Steering Committee NWS Update

Thursday January 9th, 2025

Prepared by: National Weather Service Boston/Norton, MA

Drought Indices from RI Water 2030



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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

Drought Recovery Phases



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Returning to Normal

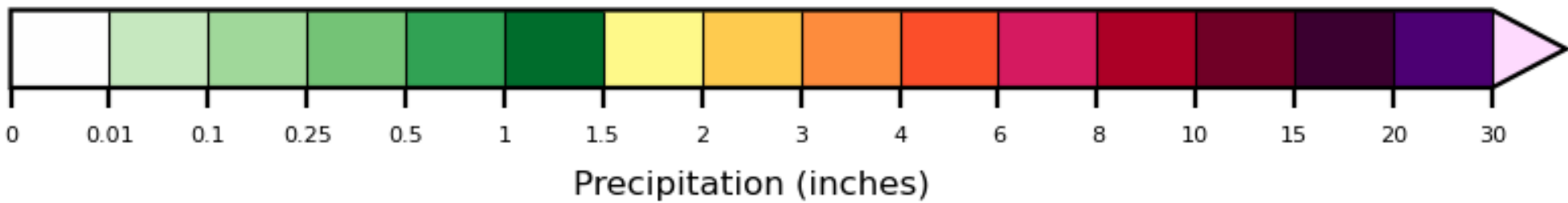
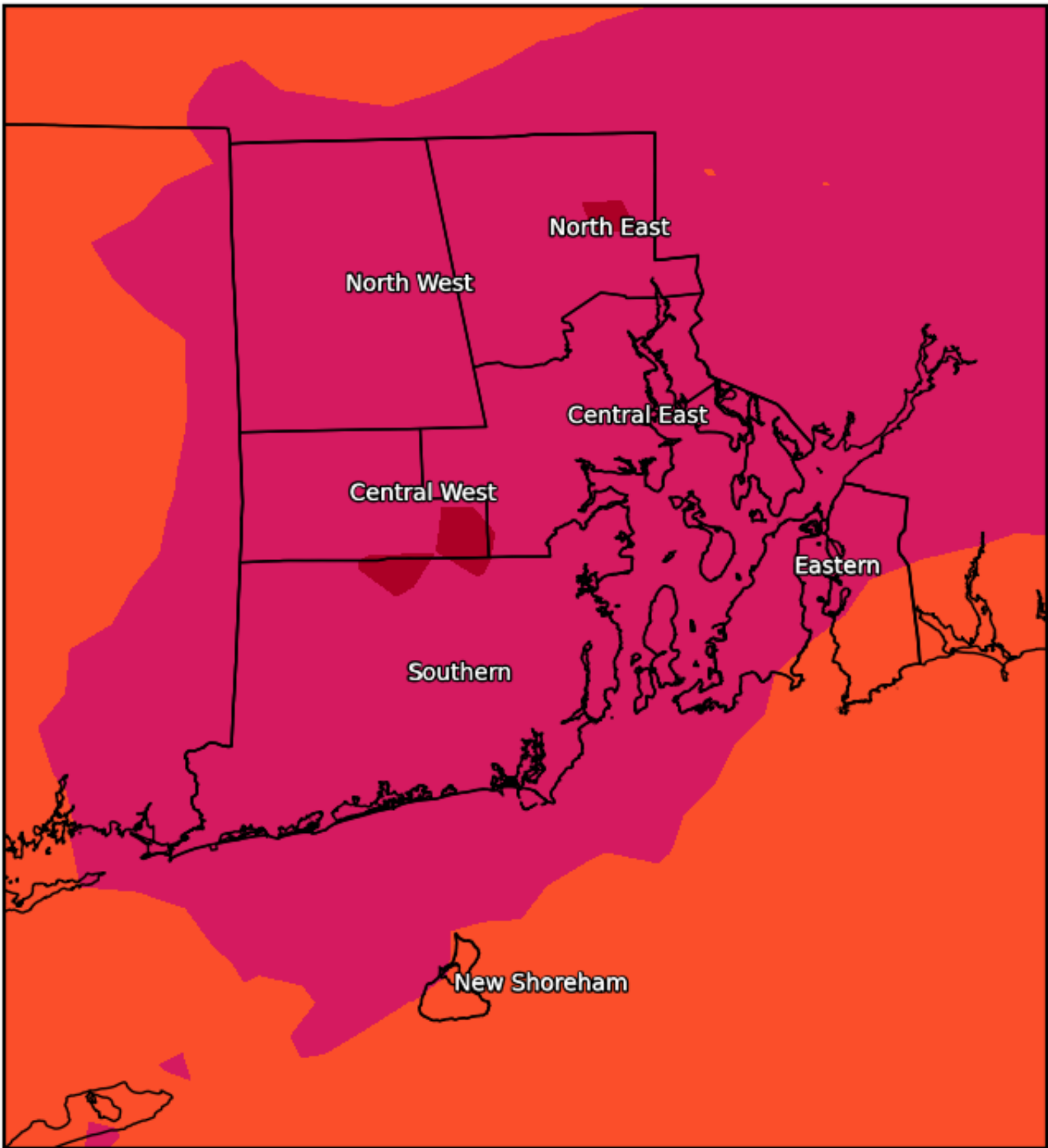
Current Drought Phase	Next Drought Phase	Reduce Drought Phase by one category
Emergency	Emergency-continued below normal conditions	Groundwater levels at or above normal and no precipitation deficit for past 3 months; and/or water resource problems which prompted the emergency have abated
Warning	Emergency-worsening conditions or continued below normal conditions	2 consecutive months of groundwater levels at or above normal and near normal precipitation for past 6 months
Watch	Warning-worsening conditions Watch continued below normal	2 consecutive months of groundwater levels at or above normal and near normal precipitation for past 6 months
Advisory	Watch-worsening conditions	2 consecutive months of groundwater levels at or above normal and near normal precipitation for past 3 months

December 2024 Rainfall and Departure

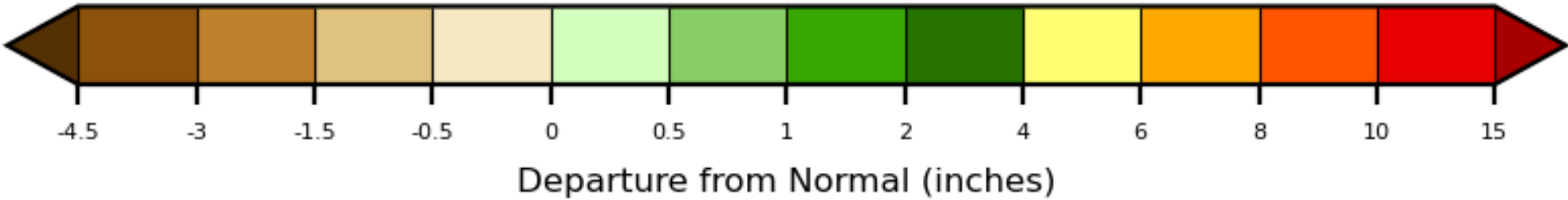
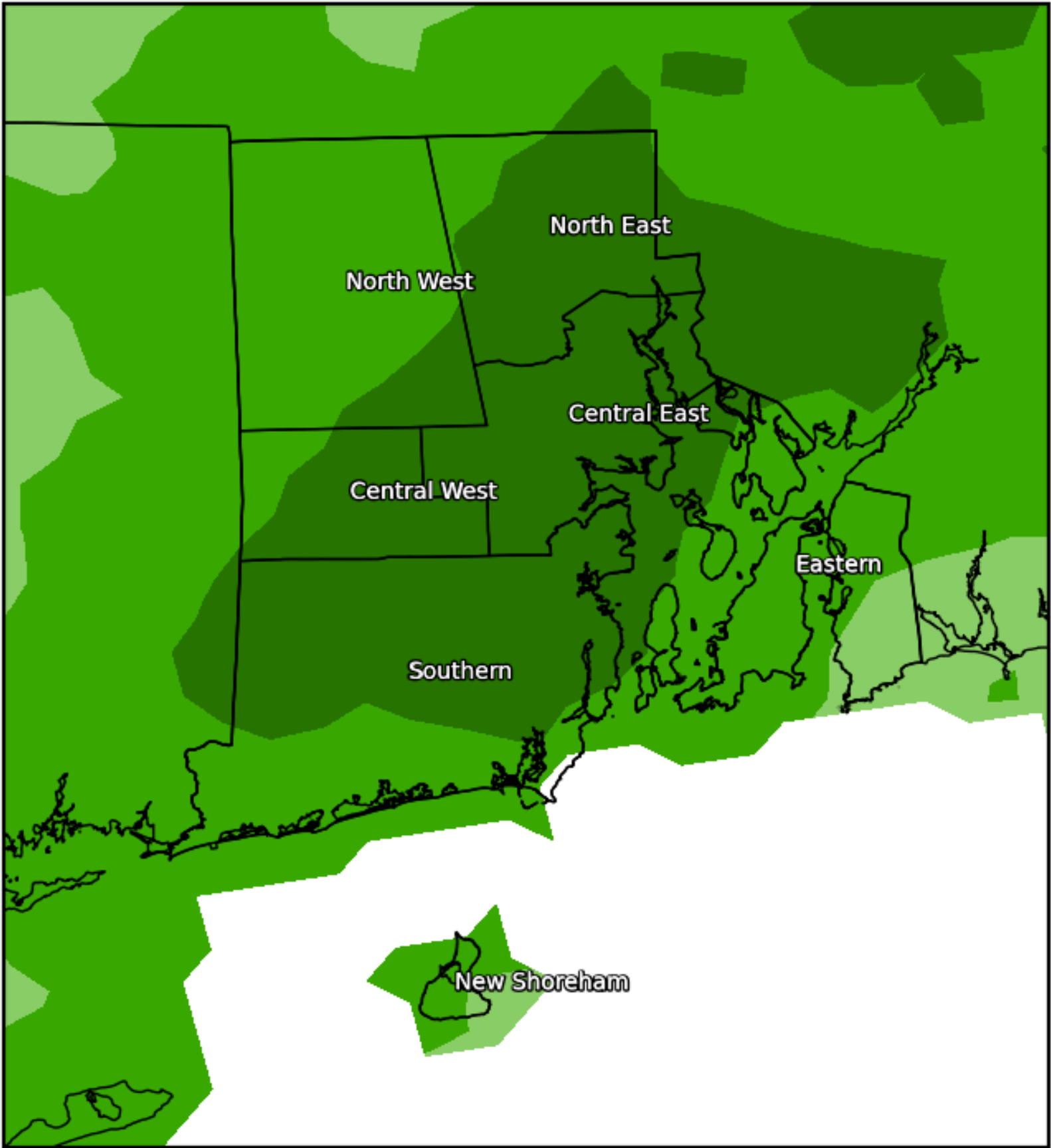


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Accumulated Precipitation (inches)
December 01, 2024 to December 31, 2024



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



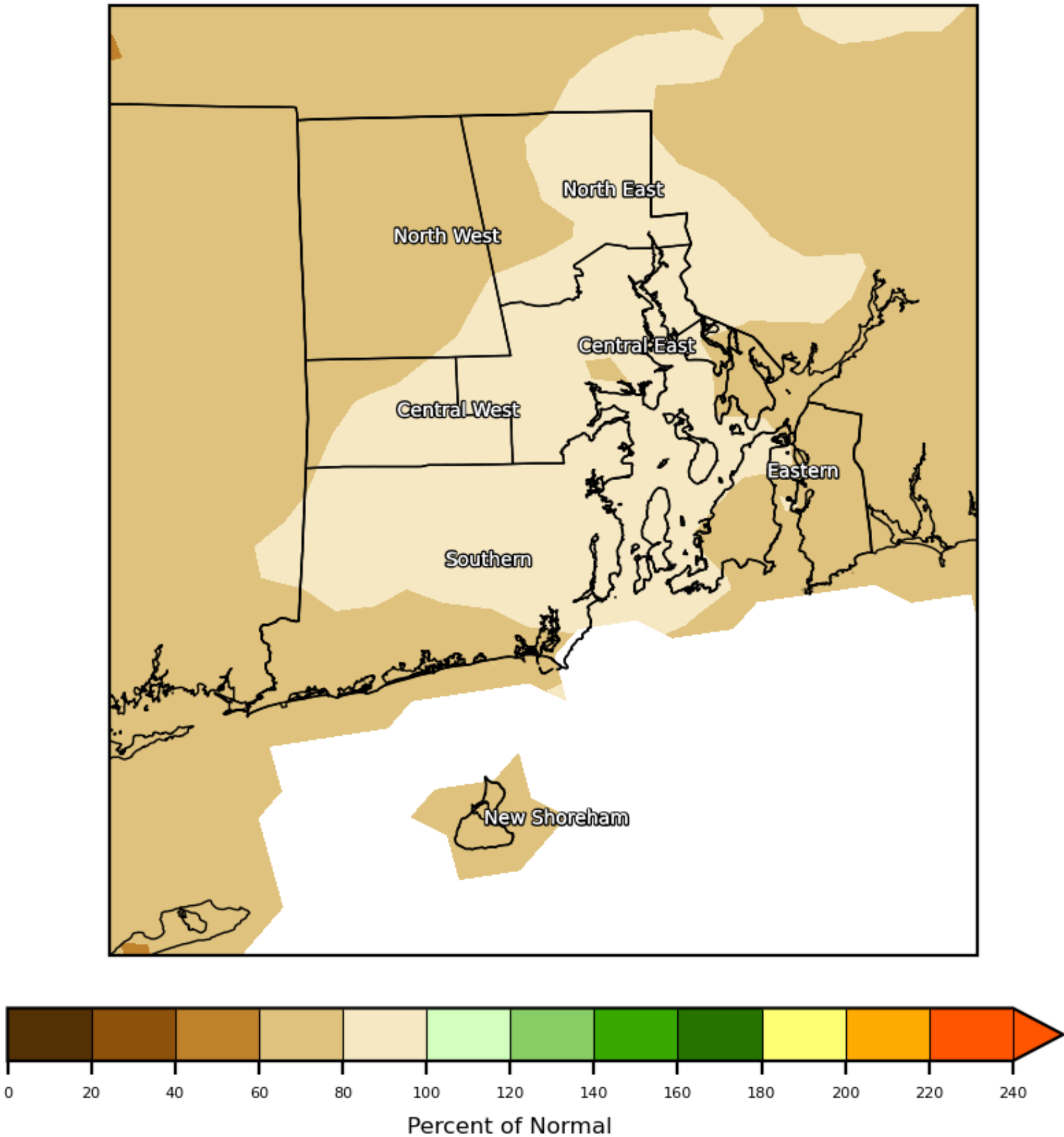
Oct-Dec and Jul-Dec Percent of Normal

Ranging slightly below to slightly above normal

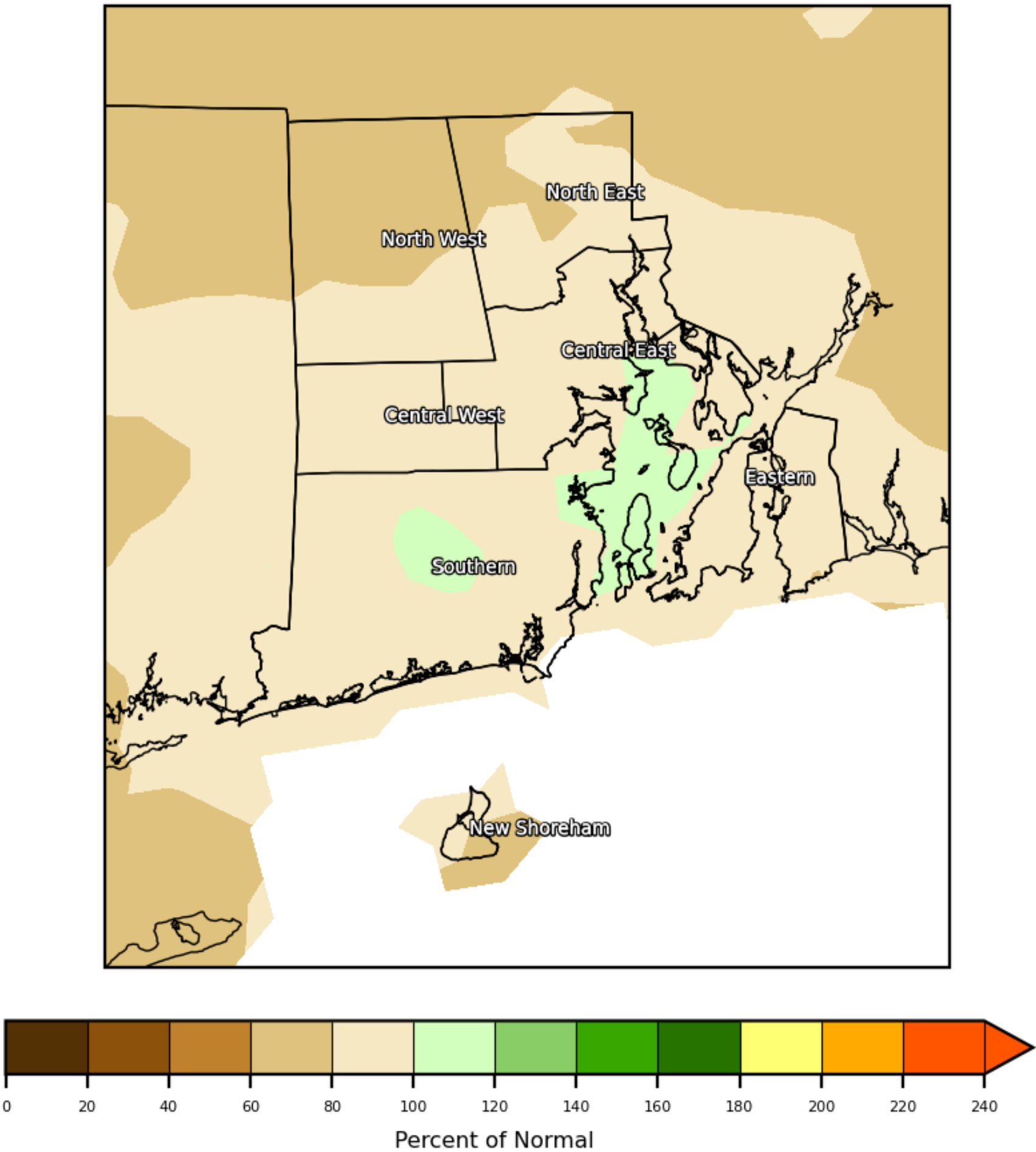


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Precipitation Percent of Normal
October 01, 2024 to December 31, 2024



Precipitation Percent of Normal
July 01, 2024 to December 31, 2024



Rainfall Profiles Providence Climate Site

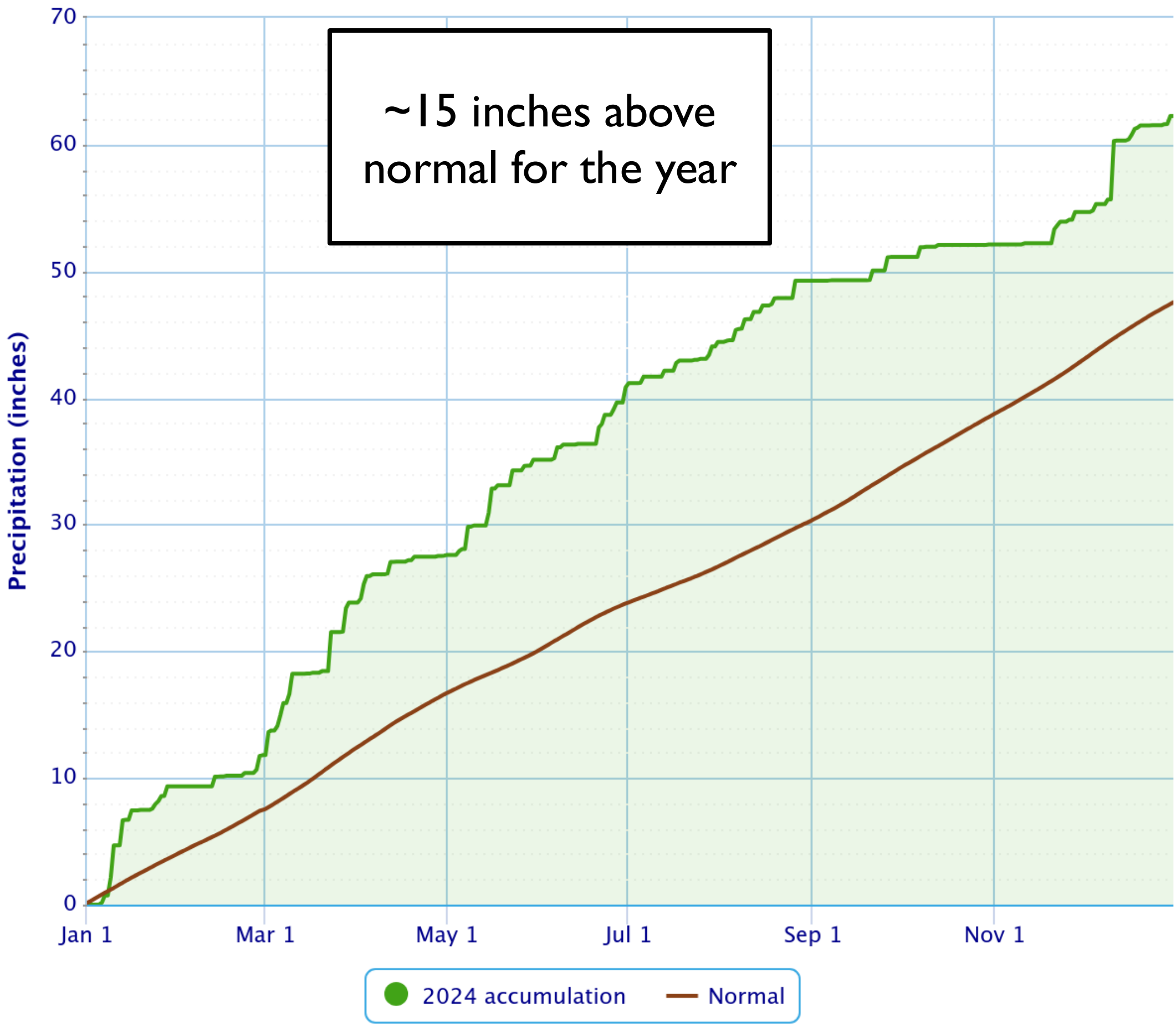


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Precipitation since July 1st and 2024 Annual Precipitation

Accumulated Precipitation – Providence Area, RI (ThreadEx)

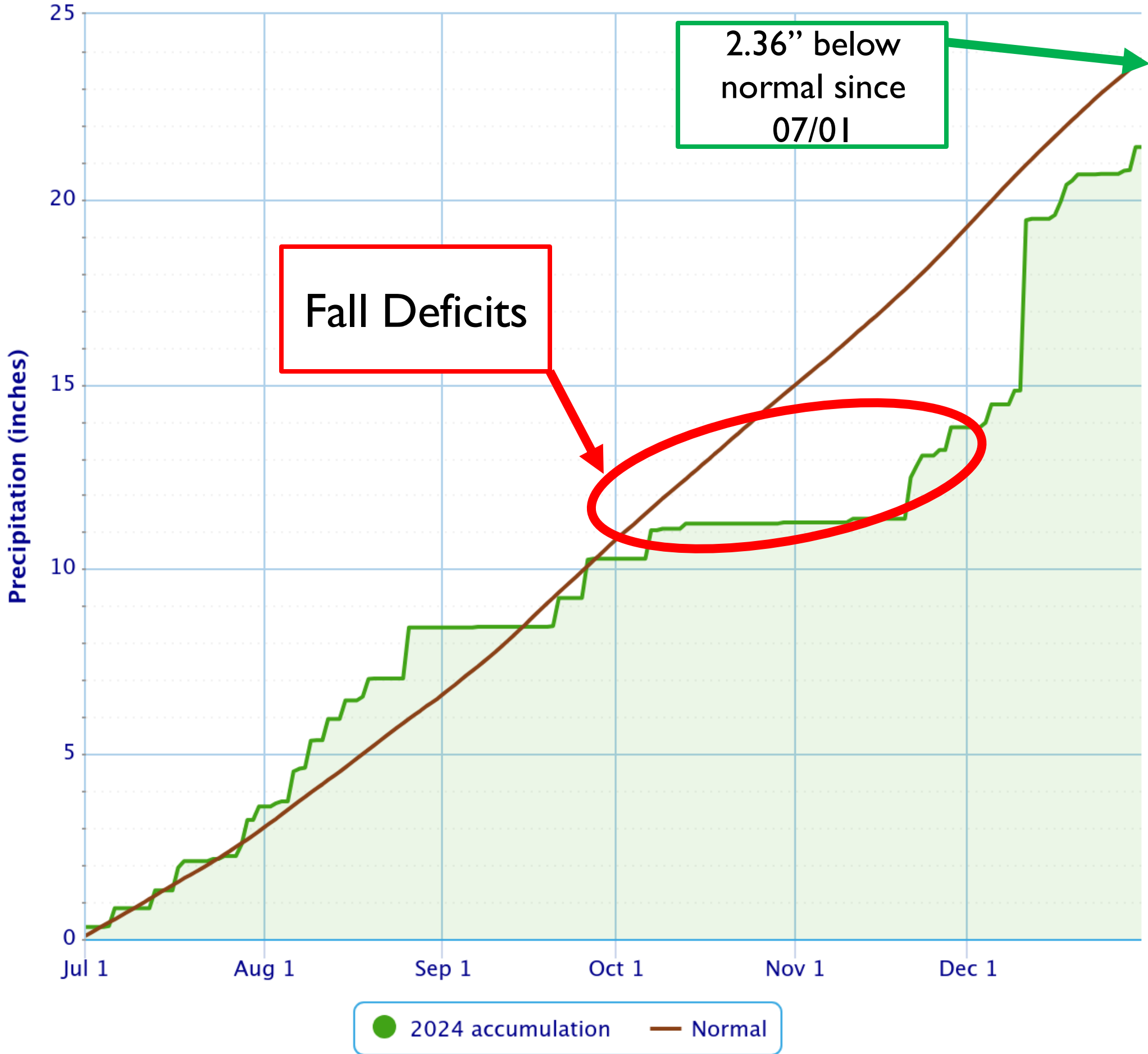
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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Accumulated Precipitation – Providence Area, RI (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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Rainfall Profiles Kingston CO-OP (Southern Region)



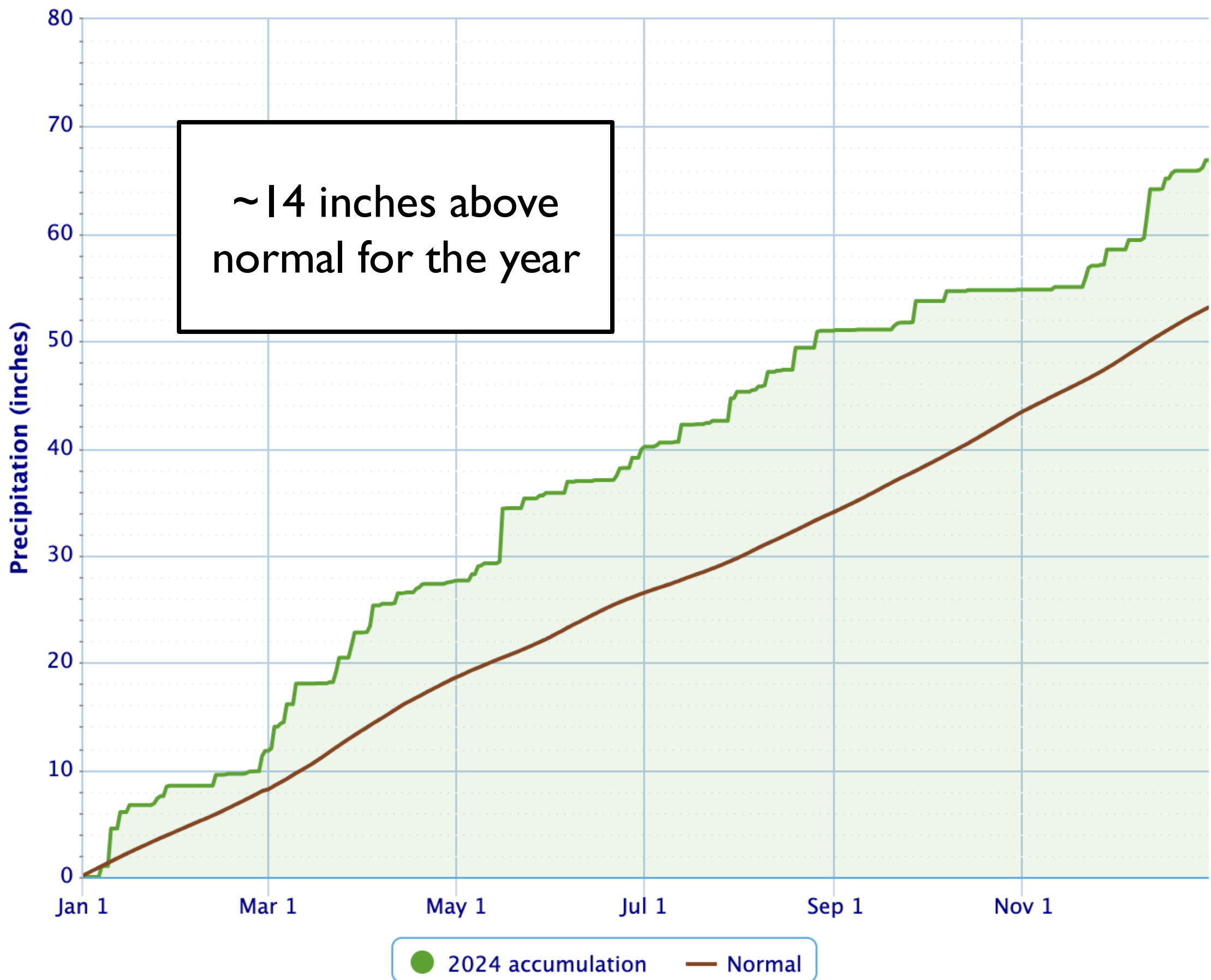
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Precipitation since July 1st and 2024 Annual Precipitation

Accumulated Precipitation – KINGSTON, RI

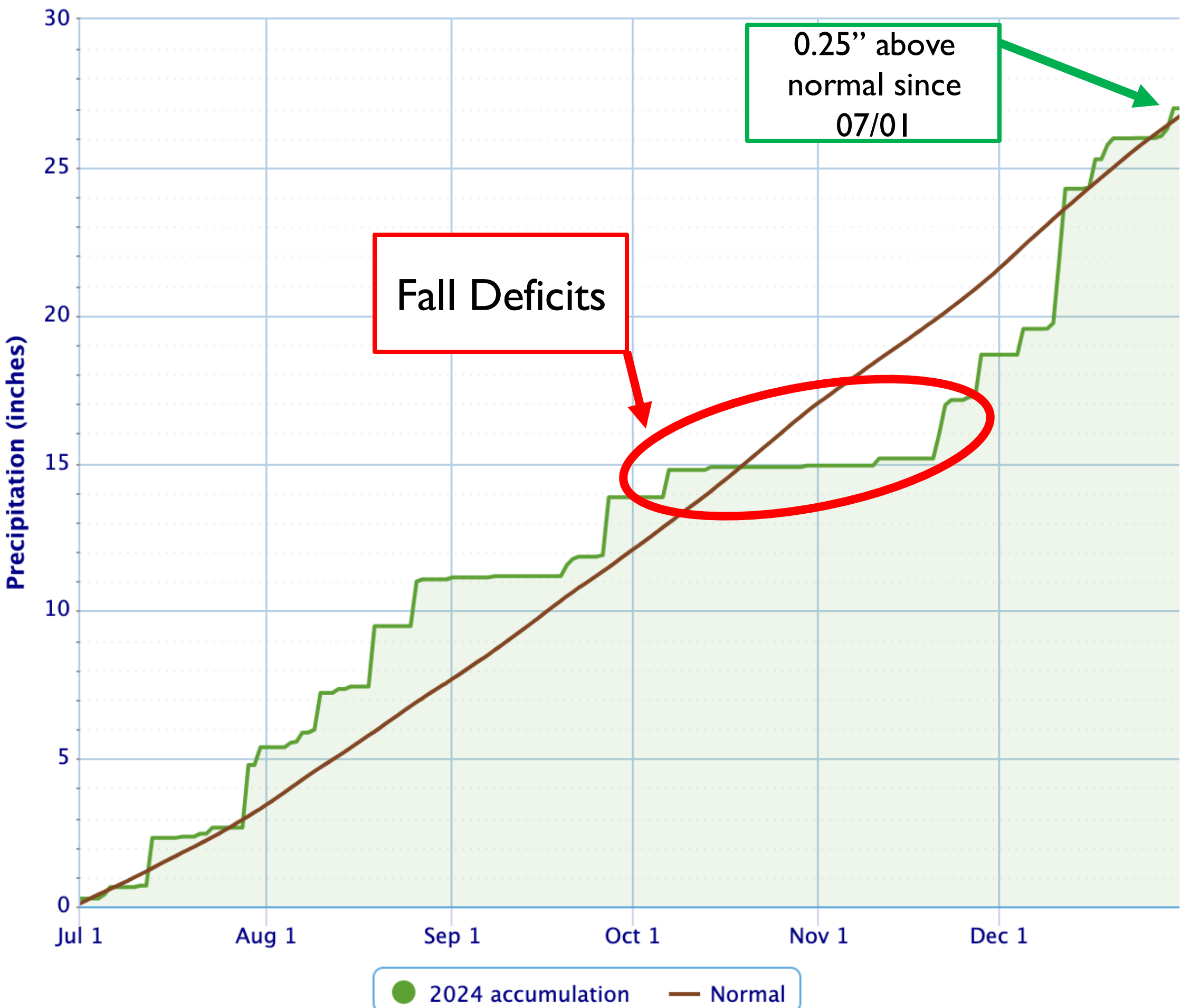
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



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Accumulated Precipitation – KINGSTON, RI

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



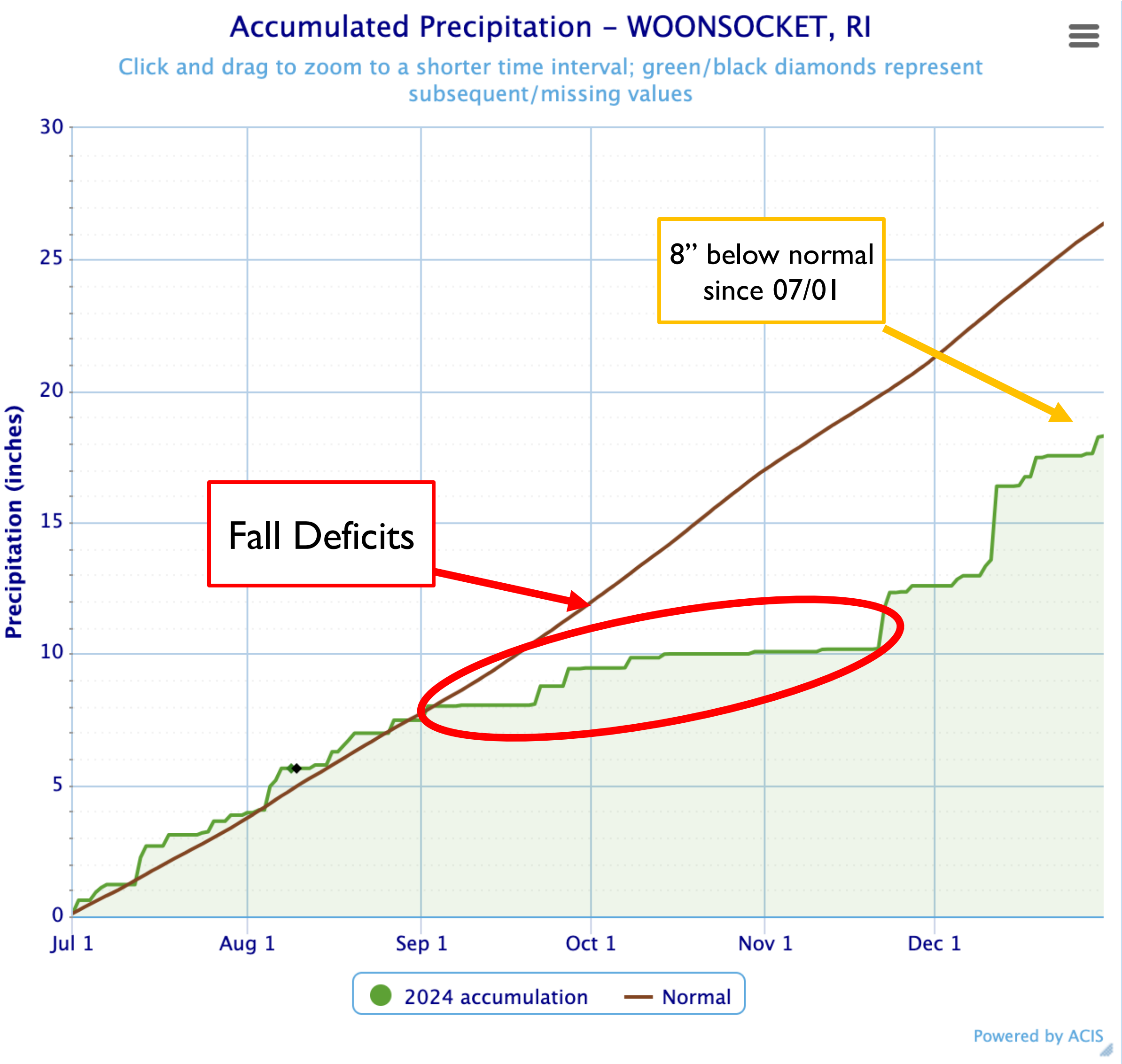
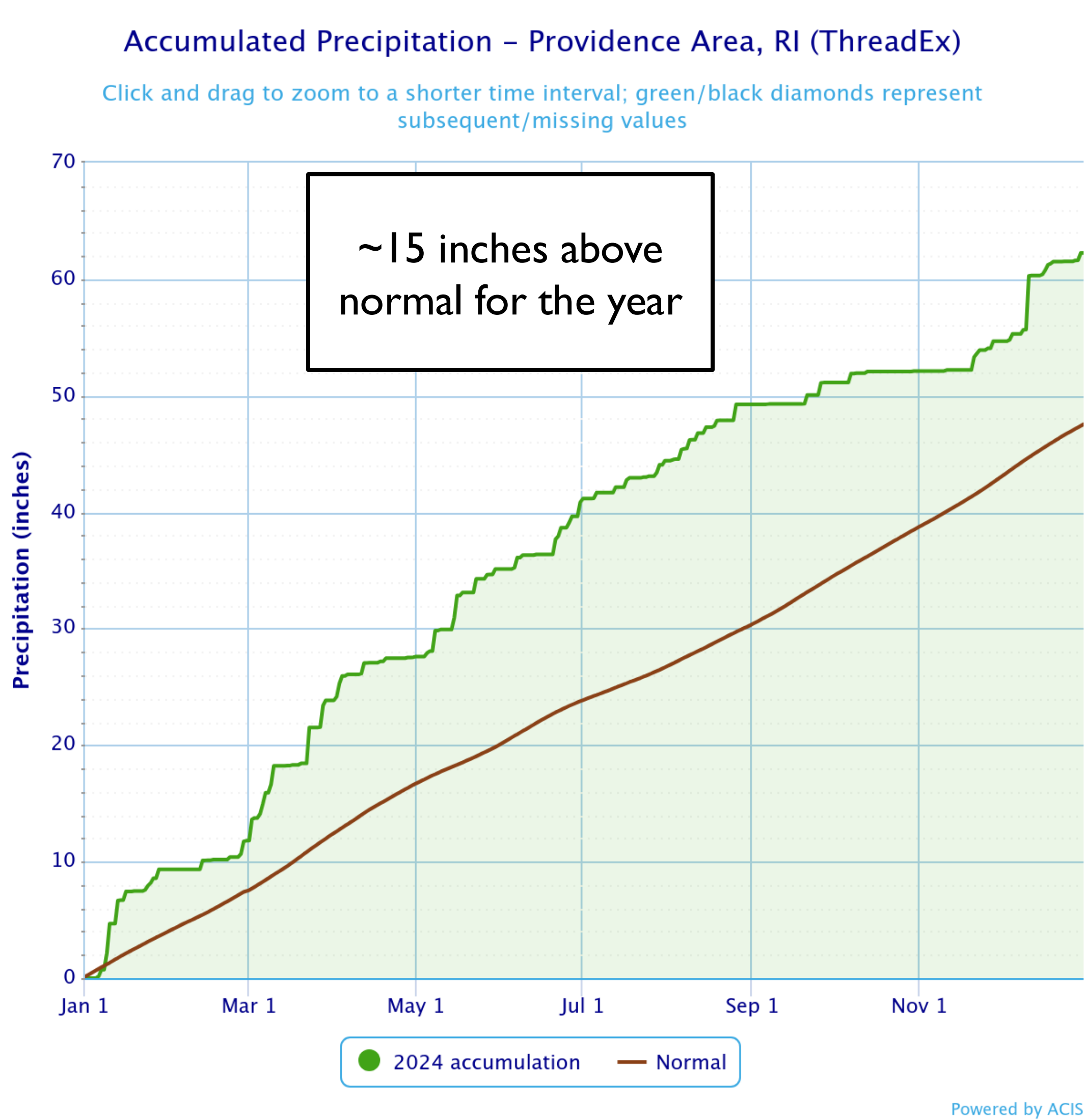
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Rainfall Profile Woonsocket CO-OP (Northeast Region)



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Precipitation since July 1st and 2024 Annual Precipitation



Rainfall Percent by Region Last 6 Months



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	JUL Percent	AUG Percent	SEP Percent	OCT Percent	NOV Percent	DEC Percent	3 Month Percent (OCT- DEC)
Northwest	107	84	41	12	63	114	64
Northeast	78	95	46	13	66	127	69
Central West	169	91	36	24	77	181	97
Central East	129	108	47	19	59	138	73
Eastern	122	95	75	22	59	128	70
Southern	147	131	45	22	76	143	82
New Shoreham	114	104	18	18	48	93	53
RI Average	124	101	44	19	65	132	73

- **Need 3 consecutive months of near normal precipitation to come out of drought**
- **Nearly all regions above 65% threshold for the 3 month average due to December precipitation**
- **Three of the seven regions are at or above normal (65%) for two consecutive months. Four have only one consecutive month (December) above normal.**

Rainfall Percent: Last 2,3, 6,12 Months



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Drought Phase
Normal
Advisory
Watch
Warning
Emergency

	2 Months Nov-Dec	3 Months Oct-Dec	6 Months July – Dec	12 Months Jan-Dec
Northwest	90	64	69	98
Northeast	99	69	70	100
Central West	133	97	95	144
Central East	101	73	81	116
Eastern	95	70	82	108
Southern	112	82	92	117
New Shoreham	73	53	63	88
RI Average	100	73	79	110

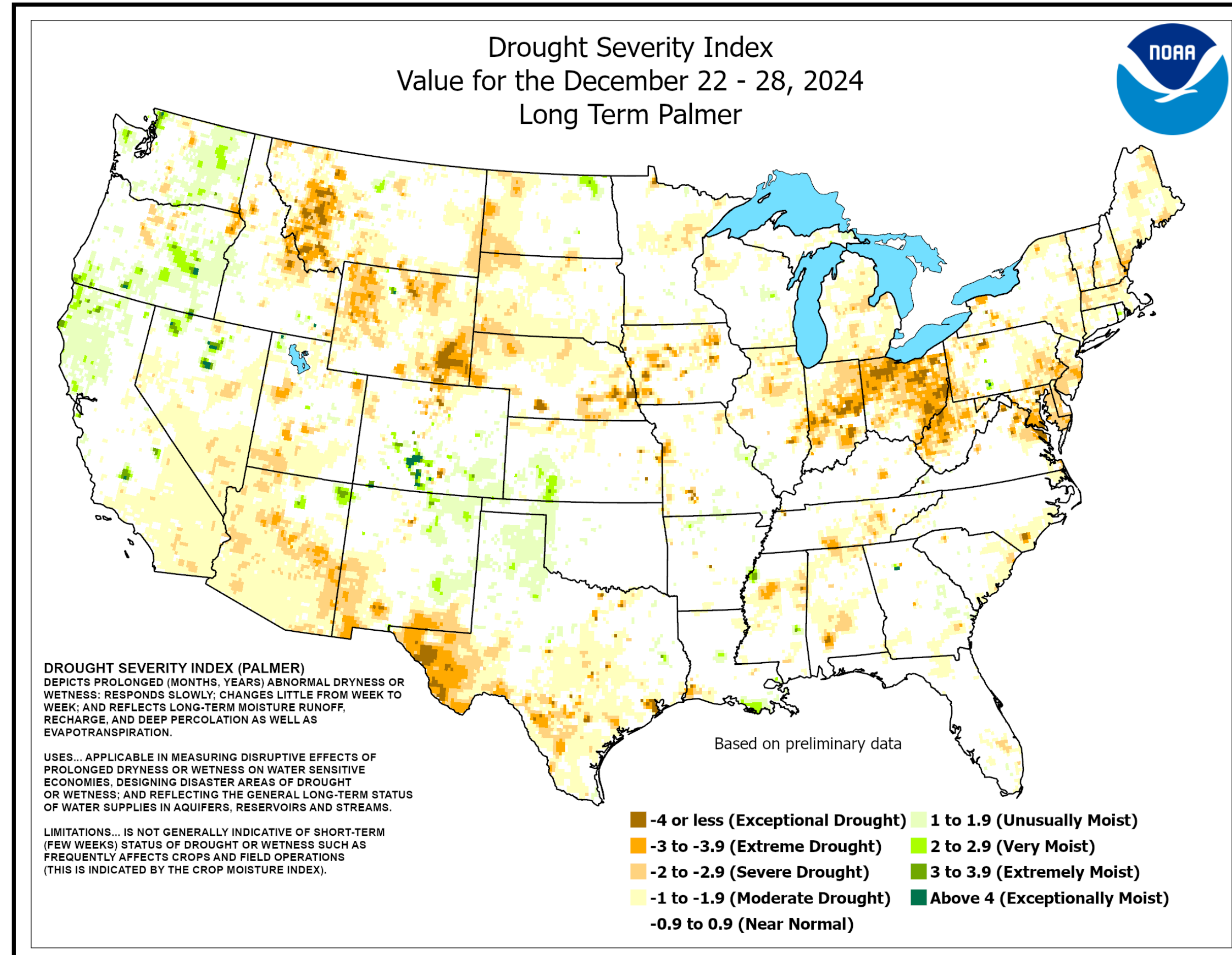
- **Dry conditions in October** reflected in the 3-month average
- **Northwest region barely meeting Watch Criteria (3 month cum. <65 or 6 month cum. <70)**
- **New Shoreham meeting Warning Criteria (3 and 6 month cum. < 65)**
- **All regions normal on average for the two-month cum., but four of seven regions do not meet the threshold of two consecutive months**

Palmer Drought Severity Index

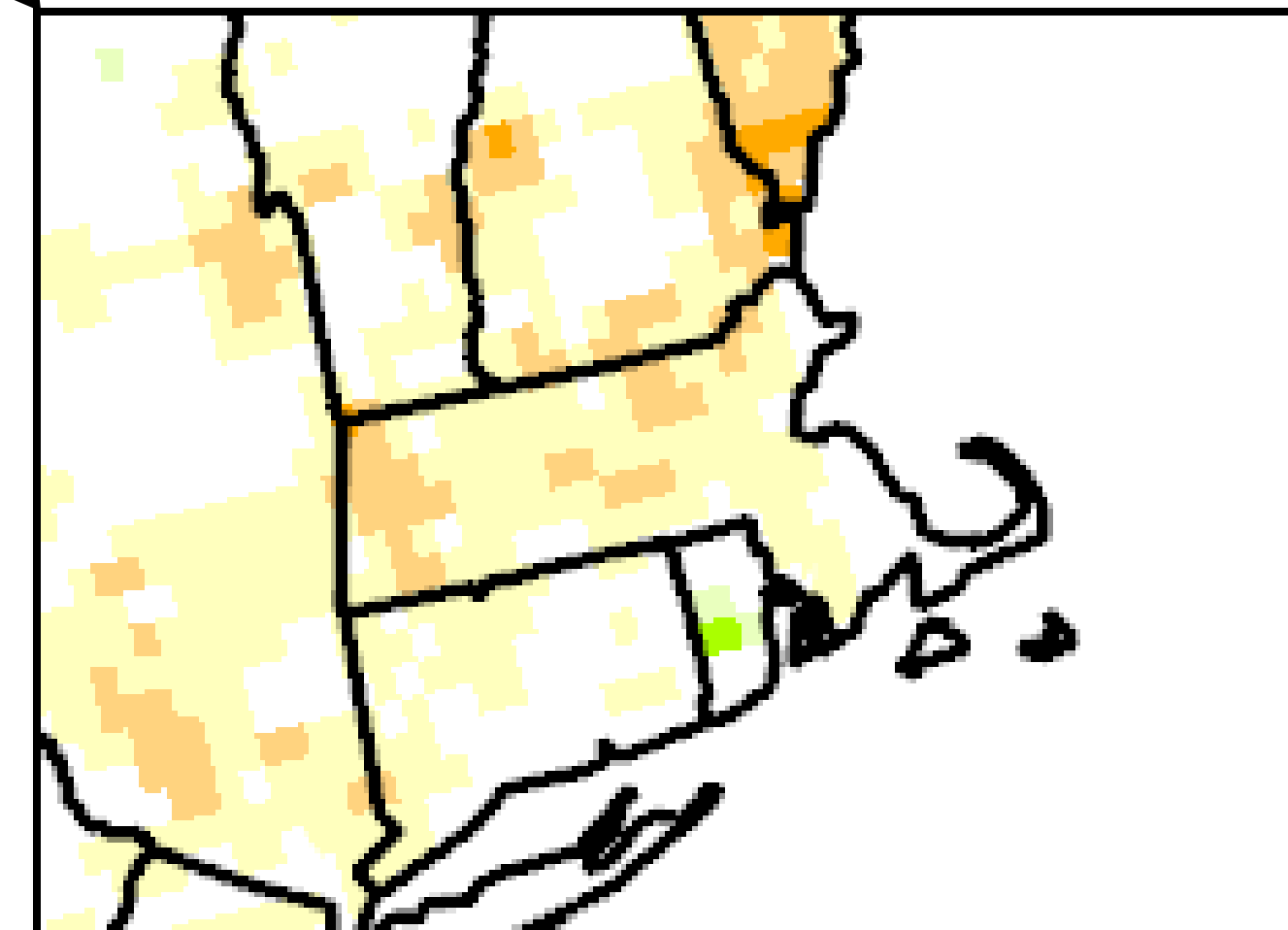
Valid through Week ending December 28th



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- PDSI for RI: -0.9 to 2.9
- Near to Above Normal



7 Day Rain Forecast

Valid 7AM Wed 01/08 – 7AM Wed 01/15



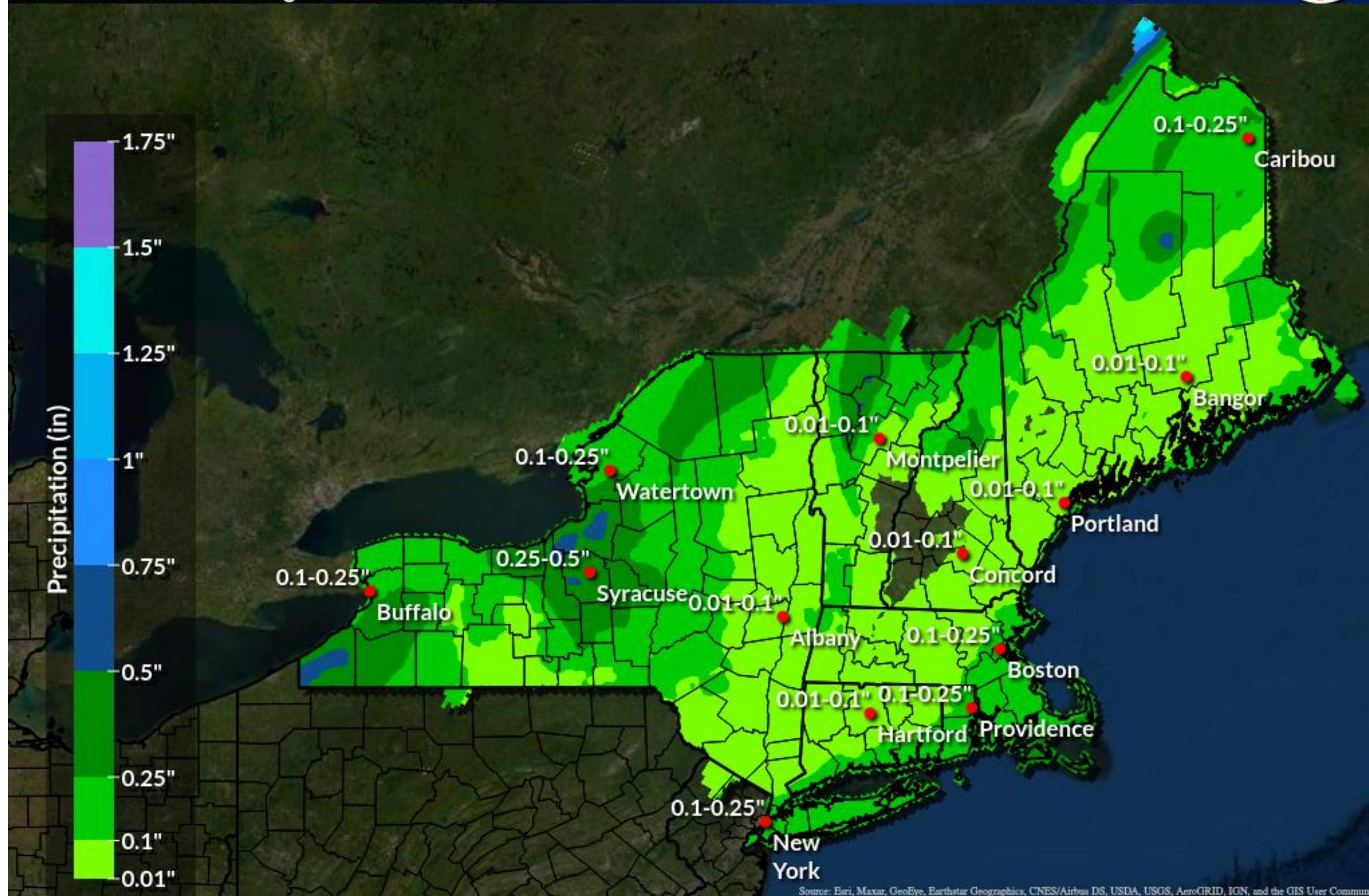
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7 Day WPC Precipitation Forecast

Valid Wed 7:00AM through Wed 7:00AM EST

River Forecast Center
Northeast RFC

Issued Jan 08, 2025 7:05 AM EST



f NWSNERFC

weather.gov/nerfc

Details

- *Up to 0.25 inches of new precip possibly by next Wednesday*

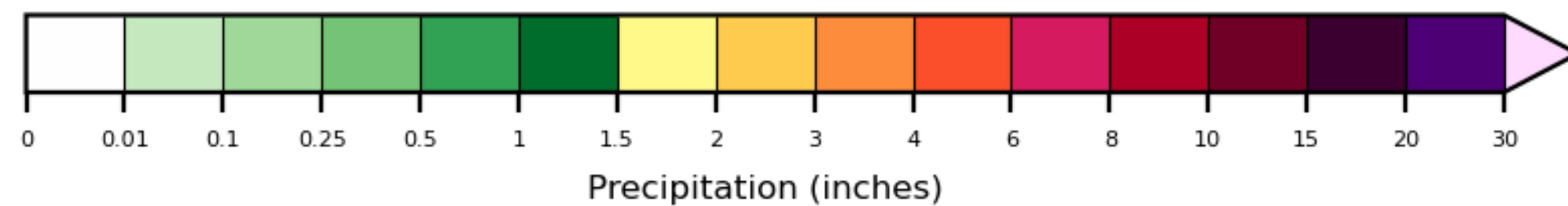
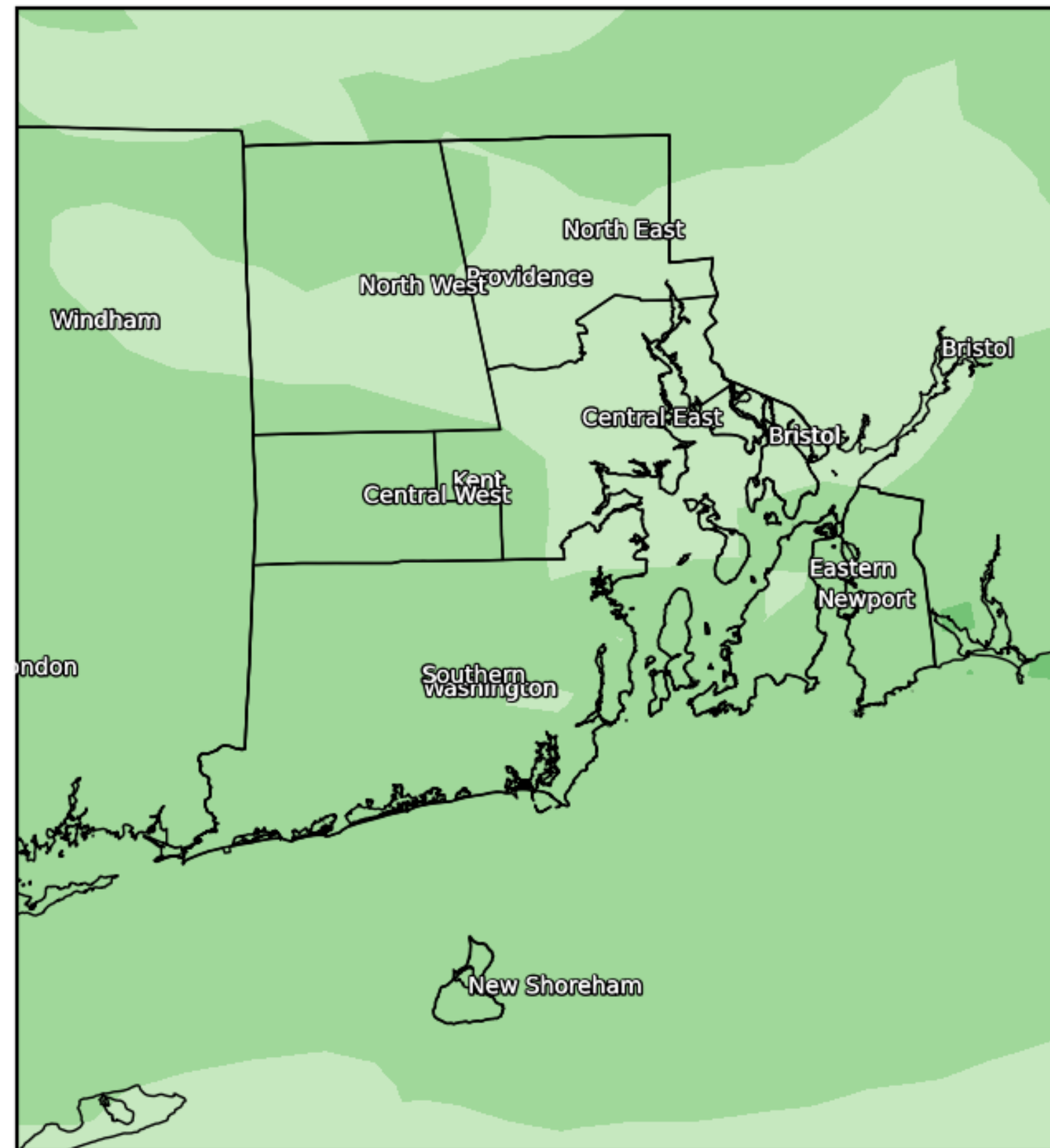
January Precipitation to Date

01/01-01/08

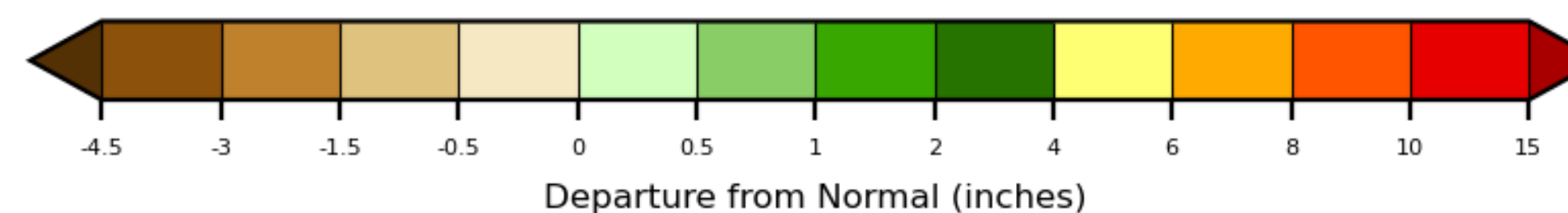
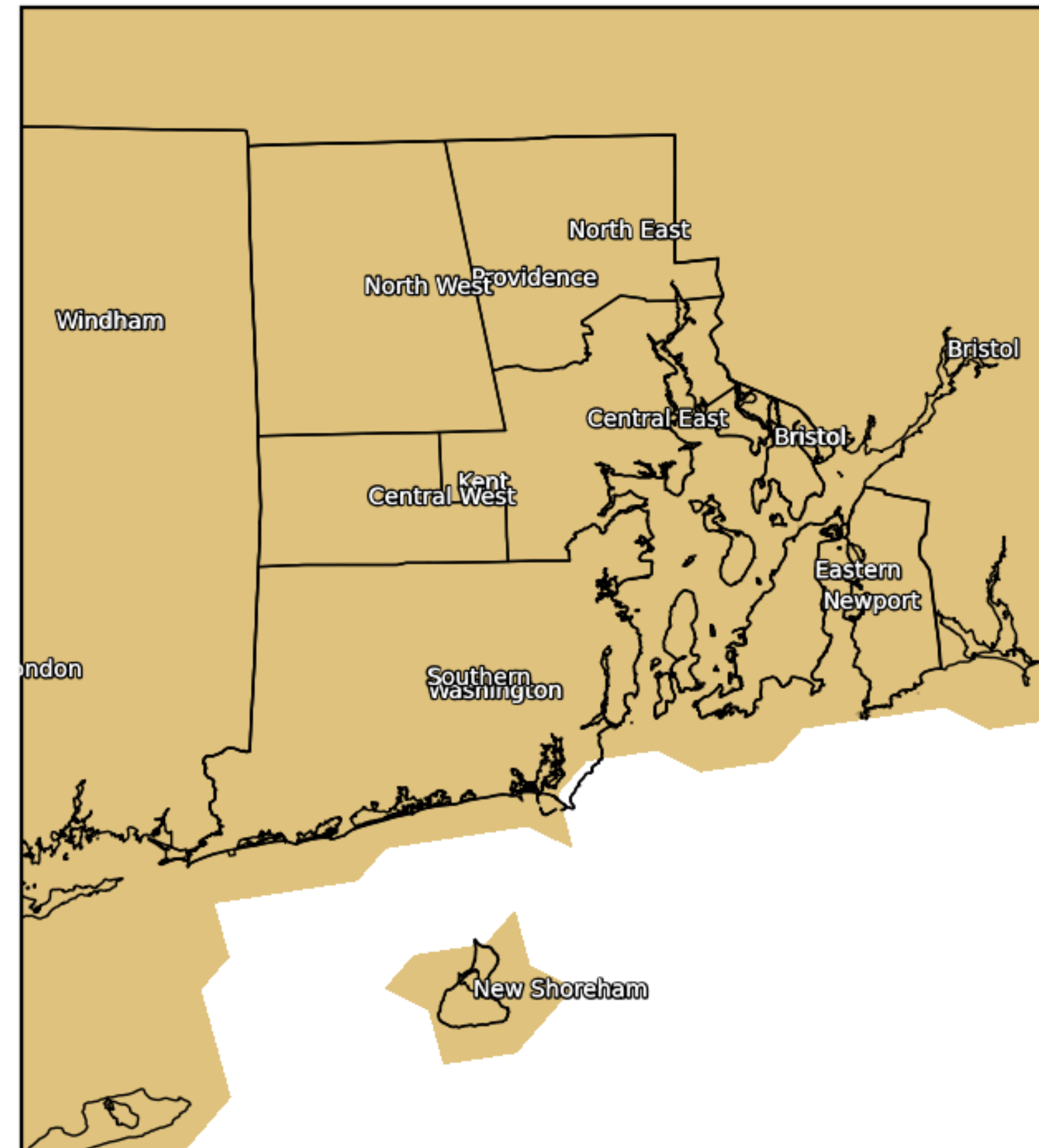


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Accumulated Precipitation (inches)
January 01, 2025 to January 08, 2025



Precipitation Departure from Normal (inches)
January 01, 2025 to January 08, 2025



- ***Running 0.5 to 1.5 inches below normal***

CPC 8-14 Day Outlook

January 13- January 19, 2025



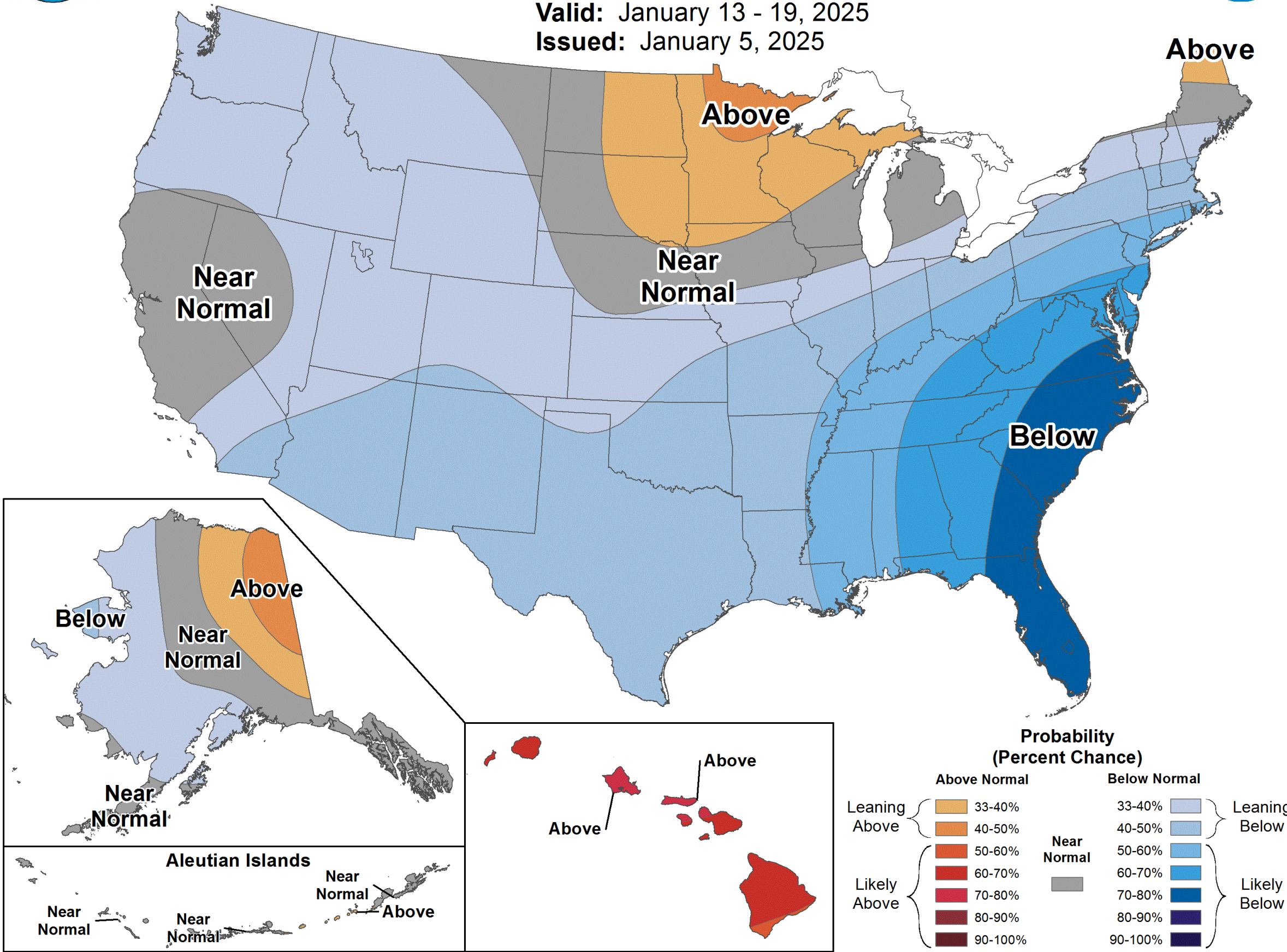
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8-14 Day Temperature Outlook



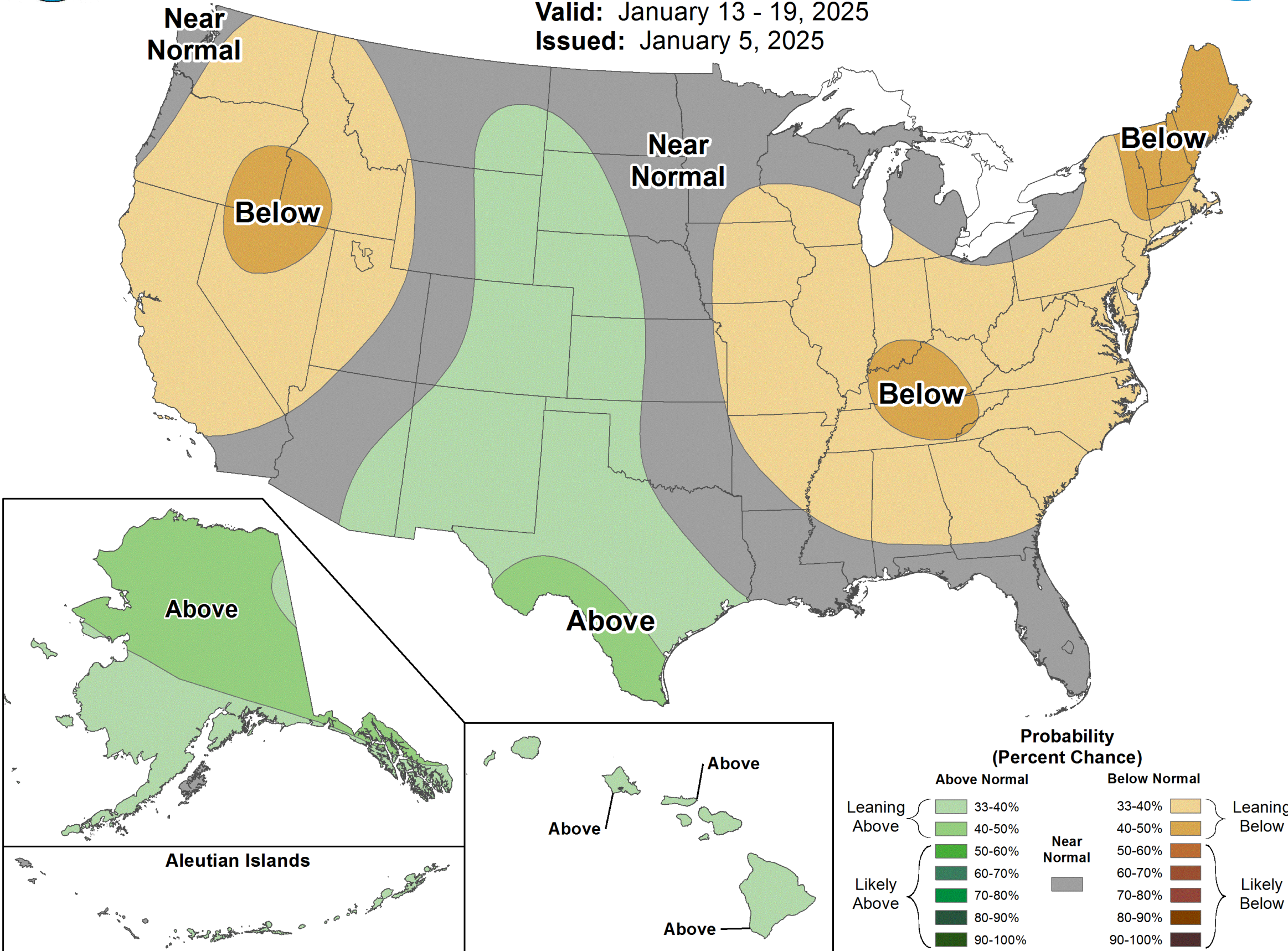
Valid: January 13 - 19, 2025
Issued: January 5, 2025



8-14 Day Precipitation Outlook



Valid: January 13 - 19, 2025
Issued: January 5, 2025

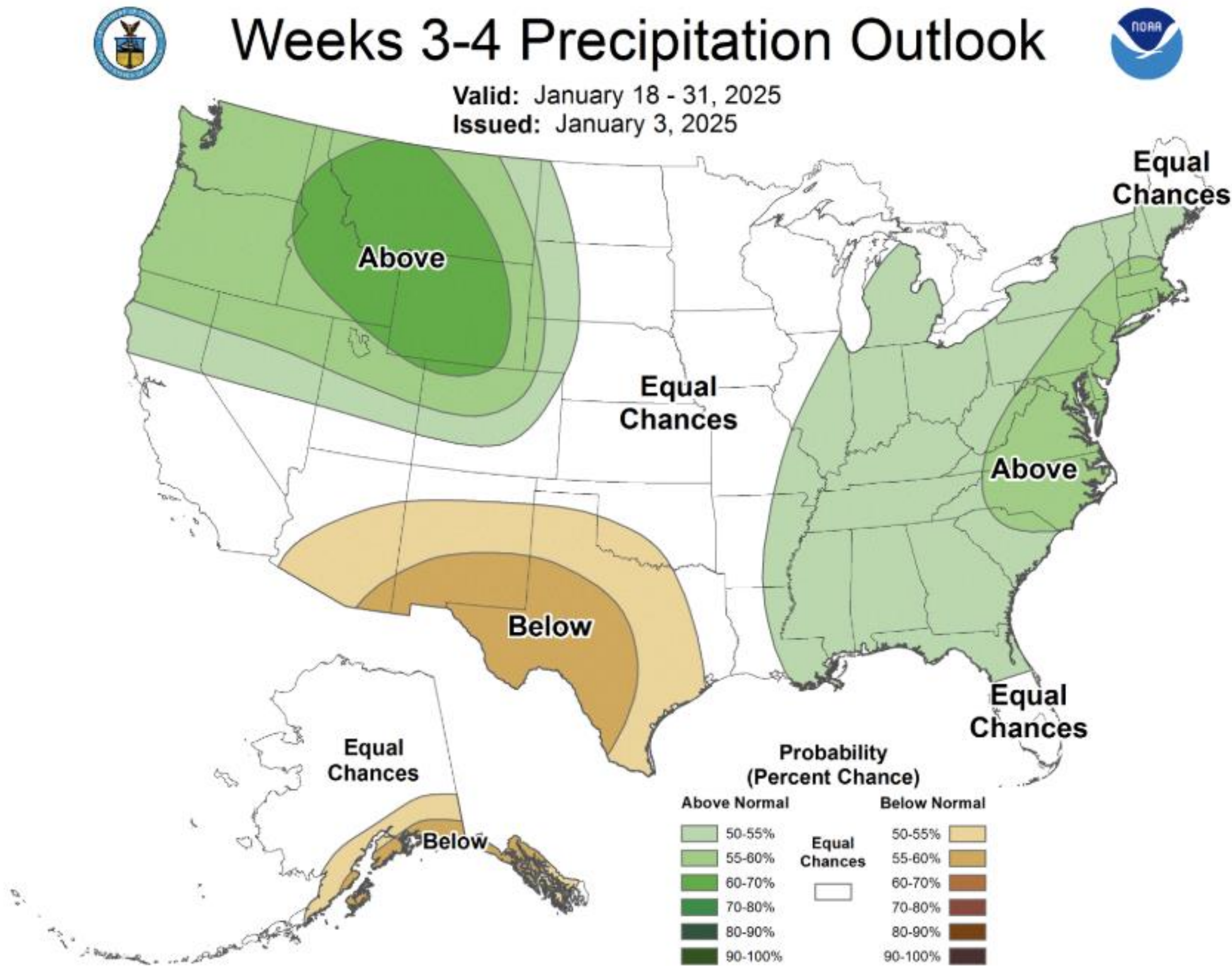
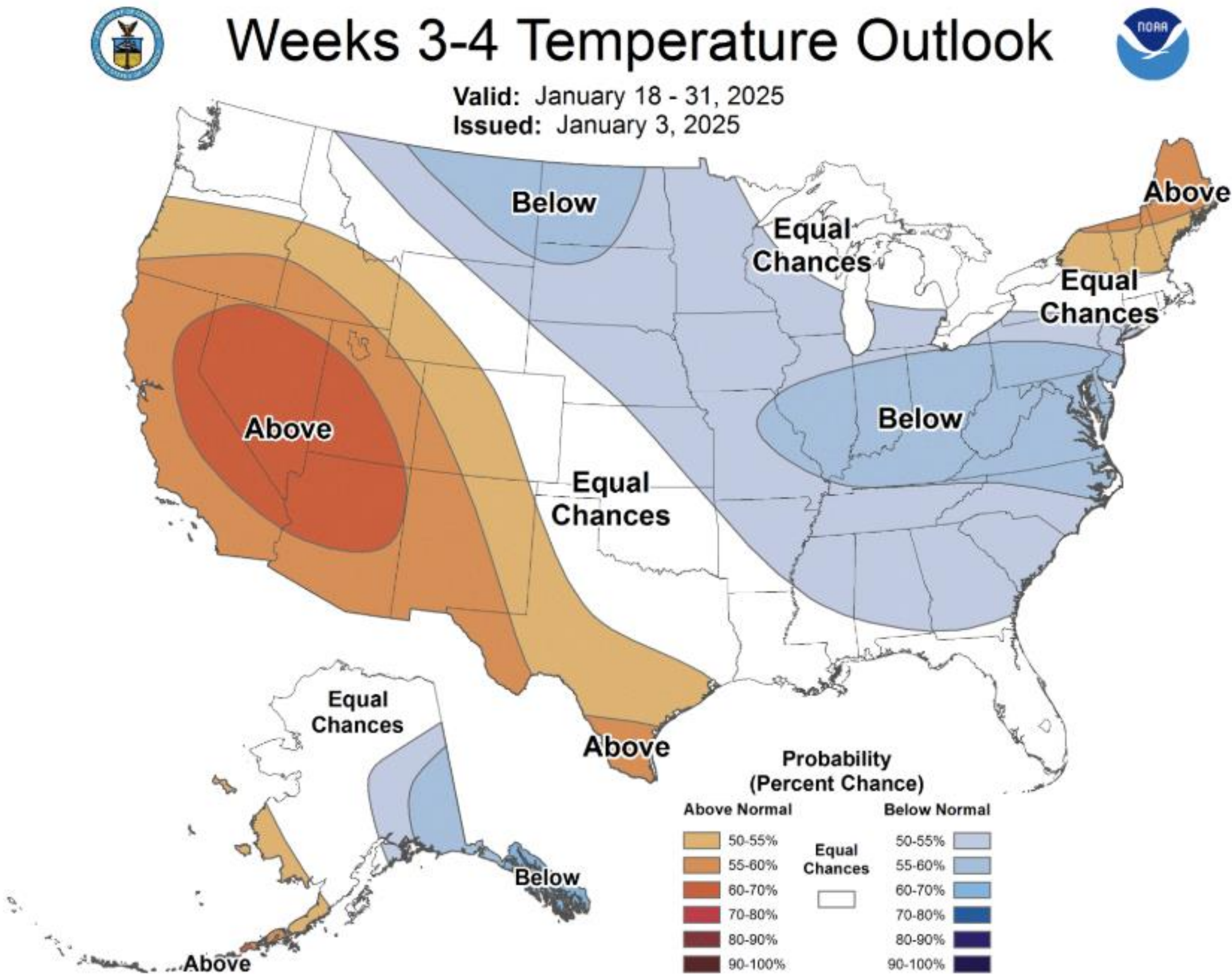


CPC 3-4 Week Outlook

January 18- January 31, 2025



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CPC Outlook for Jan/Feb/Mar



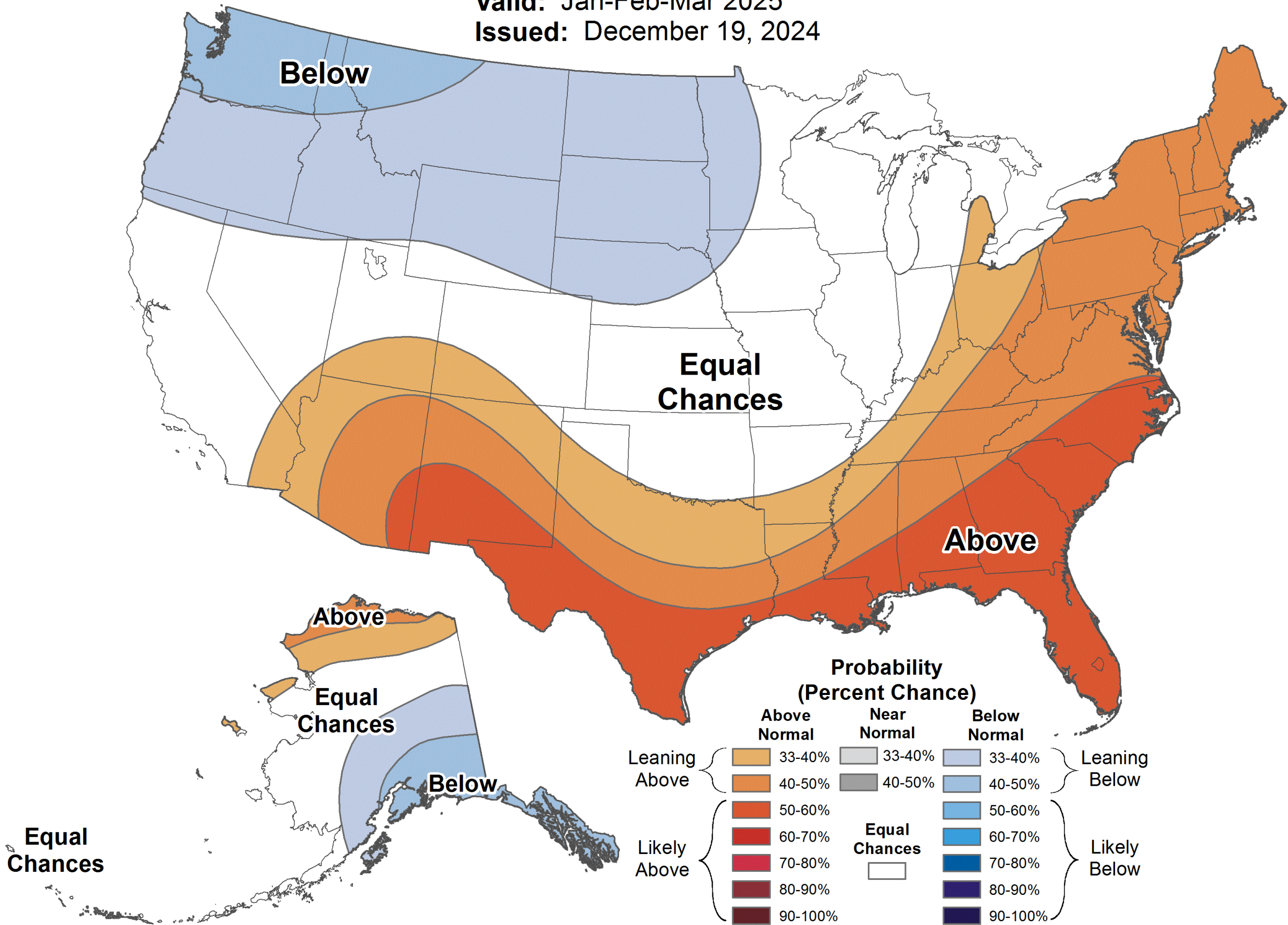
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Seasonal Temperature Outlook



Valid: Jan-Feb-Mar 2025
Issued: December 19, 2024



Seasonal Precipitation Outlook



Valid: Jan-Feb-Mar 2025
Issued: December 19, 2024

