



Climate and Hydrology Monthly Report for Puerto Rico and the US Virgin Islands

Valid for December 2024

Issued By: WFO San Juan, PR

Contact Information: sr-sju.webmaster@noaa.gov





December Climate Summary for Primary Climate Sites

San Juan Area

Highest: **90 °F** on the 2nd
Lowest: **71 °F** on the 30, 31st
Average: 81.2 °F (+2.5; above normal)
Rain Total: 4.71" (-0.01; below normal)

Days with $T_{\max} \geq 90$ °F: 1
Nights with $T_{\min} \geq 80$ °F: 0
Days with Rain (≥ 0.01 "): 22

Rankings:

2nd warmest
55th wettest

Remarks:

St. Thomas

Highest: **87 °F** on the 17, 23th
Lowest: **71 °F** on the 28, 30th
Average: 80.2 °F (+0.1; above normal)
Rain Total: 4.25" (+1.39 above normal)

Days with $T_{\max} \geq 90$ °F: 0
Nights with $T_{\min} \geq 80$ °F: 0
Days with Rain (≥ 0.01 "): 19

Rankings:

20th warmest
12th wettest

Remarks:

St. Croix

Highest: **89 °F** on the 6, 9th
Lowest: **69 °F** on the 29, 30th
Average: 81.2 °F (+2.4; above normal)
Rain Total: M

Days with $T_{\max} \geq 90$ °F: 0
Nights with $T_{\min} \geq 80$ °F: 0
Days with Rain (≥ 0.01 "): M

Rankings:

2nd warmest

Remarks:

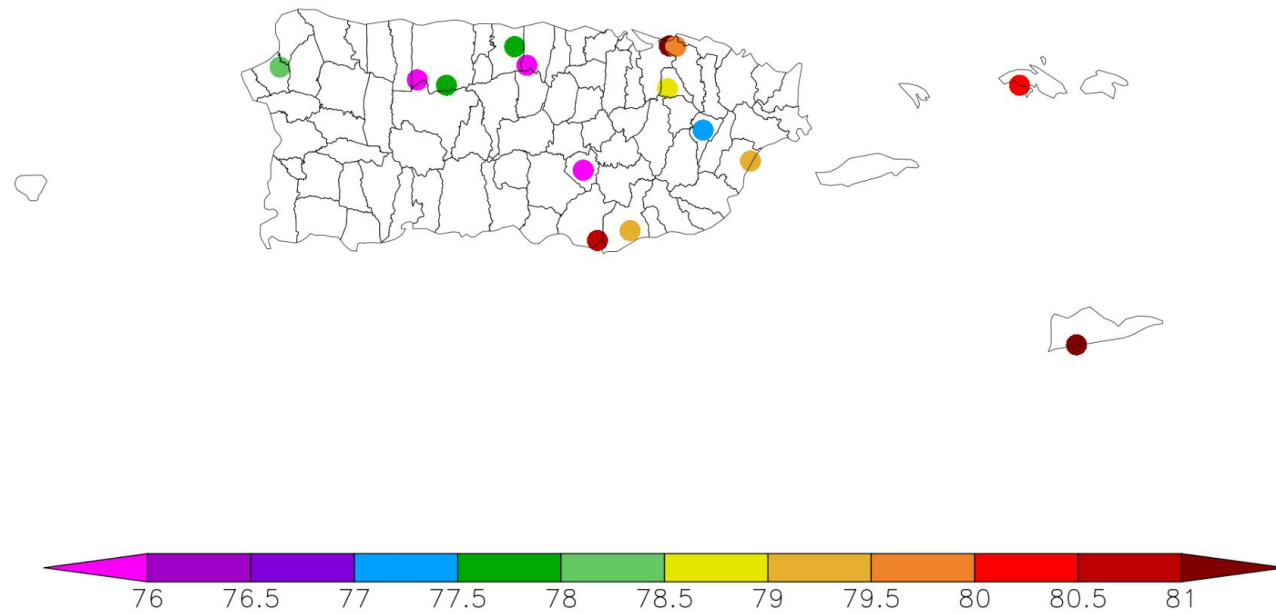
No precipitation estimates due to a sensor malfunction.



Observed Temperature

Link to generate the latest [ACIS Climate Maps](#)

Temperature (F)
12/1/2024 – 12/30/2024

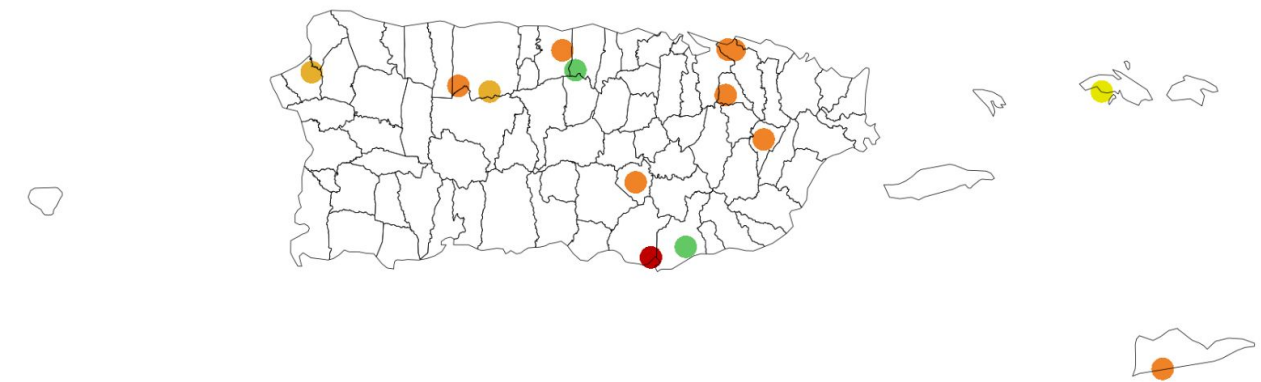


Generated 12/31/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temperatures across the majority of the local sites have been mostly above normal. The COOP station with the highest daily maximum temperature was Lajas Substation with **93F**.

Departure from Normal Temperature (F)
12/1/2024 – 12/30/2024



Generated 12/31/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

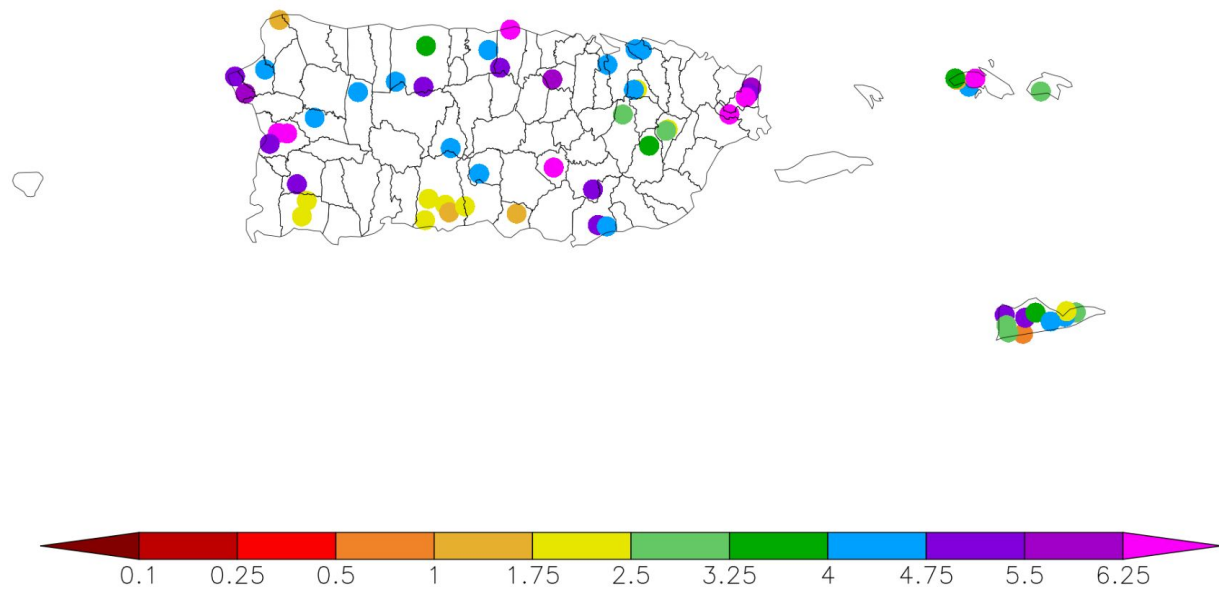
Image Captions:
 Left - Observed Average Temperature for Puerto Rico and US Virgin Islands (COOP)
 Right - Departure from normal temperature for Puerto Rico and US Virgin Islands (COOP)
 Data Courtesy High Plains Regional Climate Center/NWS COOP Stations.



Observed Rainfall

Link to generate the latest [ACIS Climate Maps](#)

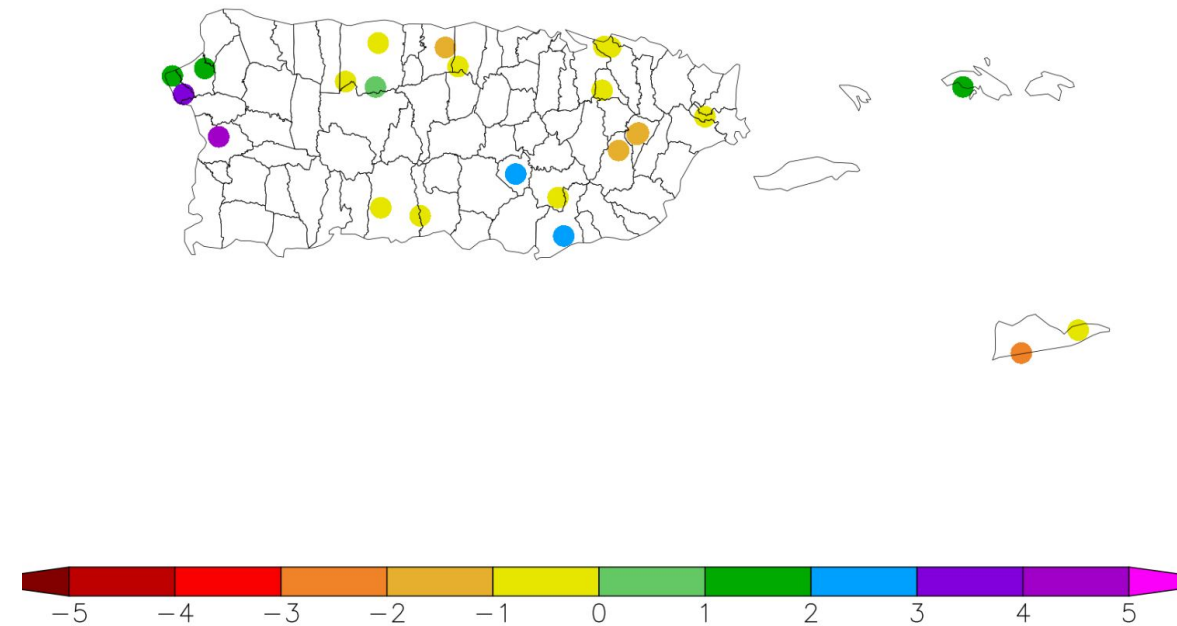
Precipitation (in)
12/1/2024 – 12/30/2024



Generated 12/31/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
12/1/2024 – 12/30/2024



31/2024 at HPRCC using provisional data.

NOAA Regional C

- Stations along western Puerto Rico and Saint Thomas ended wetter than normal, while many other stations ended drier than normal (likely due to the lack of reports). The COOP station with the highest monthly rainfall accumulation was Hacienda Constanza 2W in Mayagüez, with 9.26”.

Image Captions:
 Left - Observed Average Temperature for Puerto Rico and US Virgin Islands (COOP)
 Right - Departure from normal temperature for Puerto Rico and US Virgin Islands (COOP)
 Data Courtesy High Plains Regional Climate Center/NWS COOP Stations.



Estimated Rainfall

Estimated Rainfall was obtained from MRMS NSSL

- The greater amounts of rainfall were observed across eastern and north-north central Puerto Rico, with amounts ranging from 10 to 15 inches of accumulation.
- Most of the region observed amounts of 3 to 6 inches, with lesser amounts observed near Guánica, Aguadilla, and Isabela.
- Rainfall accumulation across the Virgin Islands, Vieques and Culebra were around 3 to 6 inches.

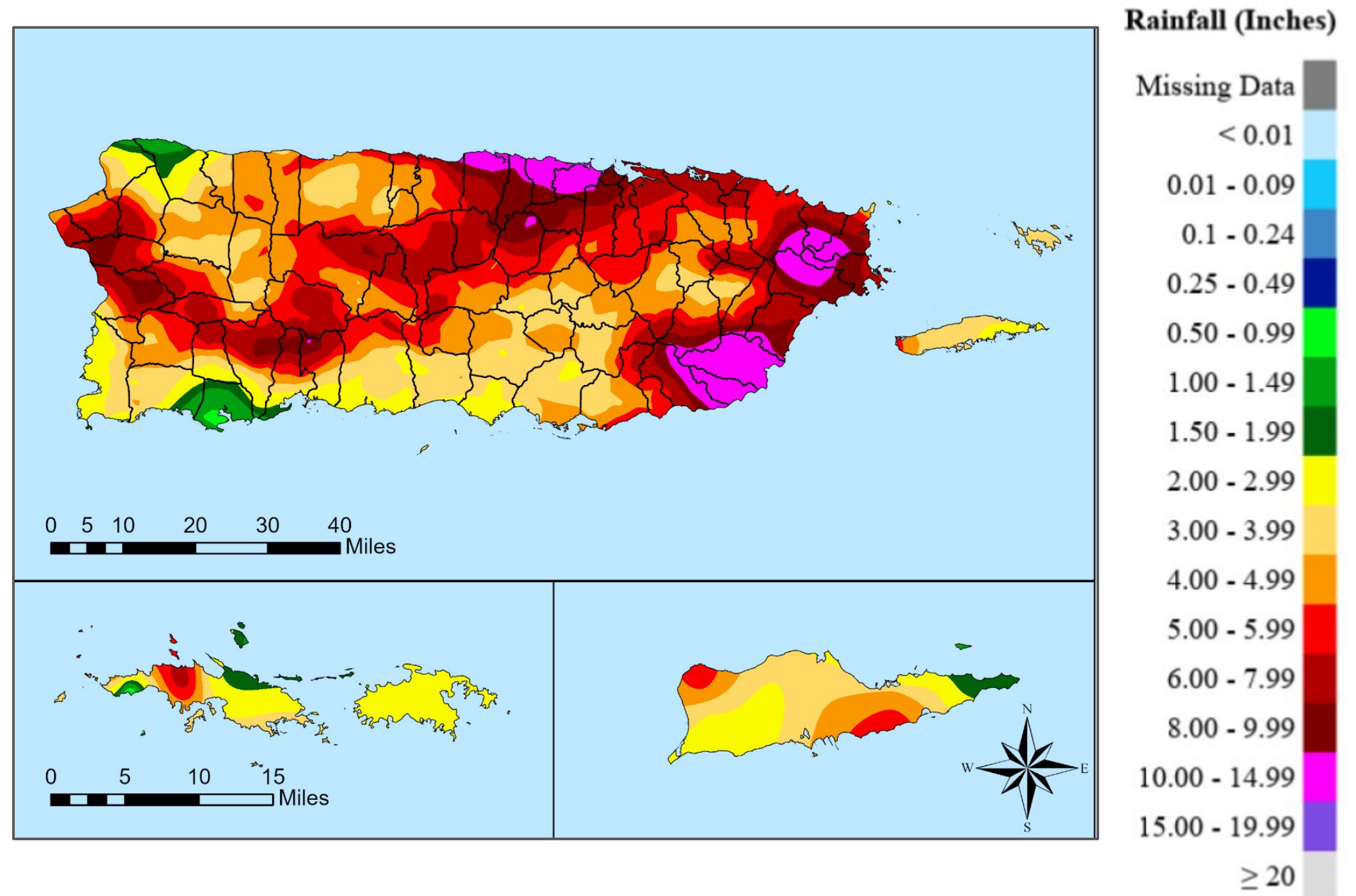


Image Captions:

Estimated Rainfall for the month of December. This map is courtesy of the NWS SJU GIS Team.



Departure from Normal Rainfall

Estimated Departure from normal was obtained from [NWPS](#)

- Above normal precipitation was observed along the southeast, south, west, western interior, and just northwest of the San Juan metro area.
- Below-normal rainfall was observed in El Yunque, eastern interior, and the northwest.

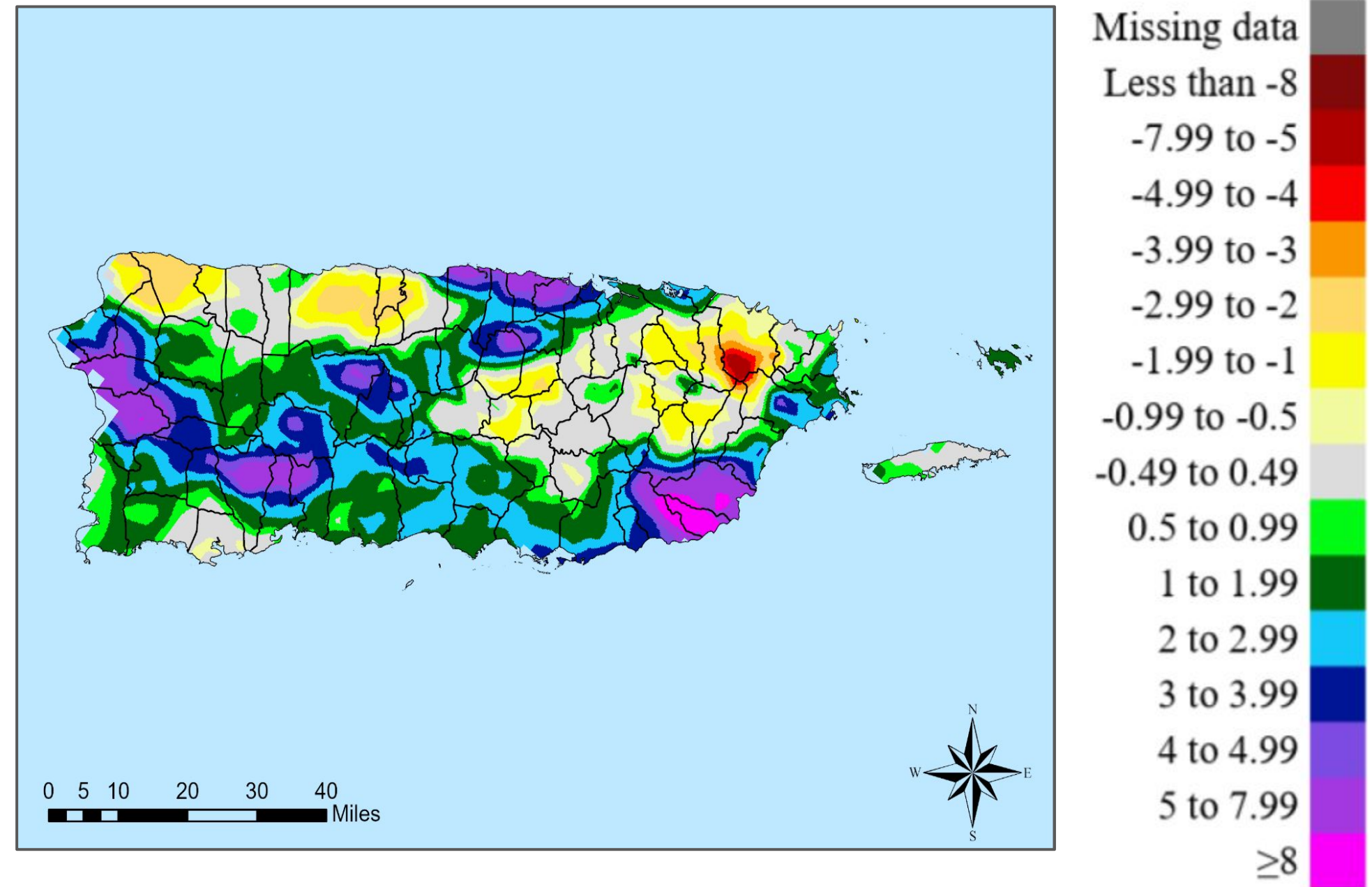


Image Captions:

Estimated Departure from Normal Rainfall for Puerto Rico during the month of December. This map is courtesy of the NWS SJU GIS Team.
*NWPS does not provide rainfall departure from normal for the USVI.



Hydrologic Conditions and Impacts

The latest soil monthly streamflow for Puerto Rico can be found on [WaterWatch](#)

- The 28-day average streamflow from the USGS river gauge network indicates most streamflows running near normal or just above normal, with below normal streams observed in the northeast and from Arecibo to Camuy. For Reservoir levels, click [here](#).

Non-Routine Hydrologic Products Issued	Products issued for the month
Hydrologic Outlooks (SJUESFSJU)	0
Flood Watches (SJUFFASJU)	0
Flood Warnings (SJUFLWSJU)	0
Flash Flood Warnings (SJUFFWSJU)	0
Urban/Small Stream Flood Advisories (SJUFLSSJU)	20
Local Storm Reports (SJULSRSJU)	0

Latest Monthly Average Streamflow from USGS

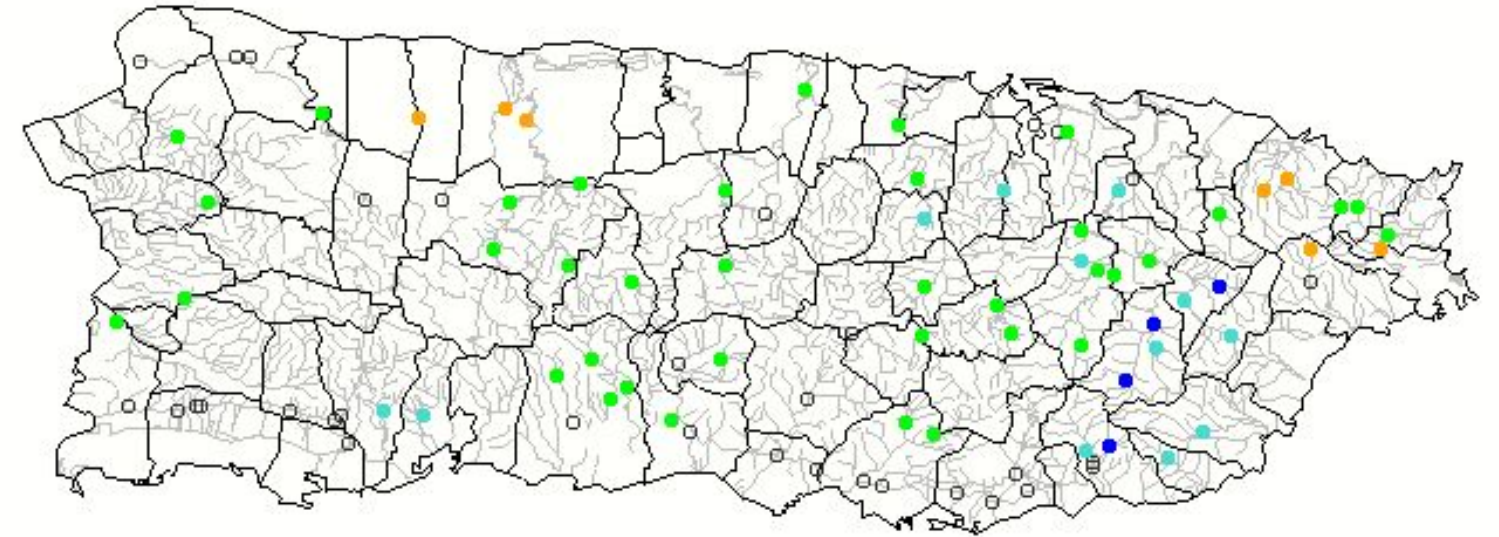


Image Caption: December 2024 compared to historical streamflows for Puerto Rico.

Explanation - Percentile classes							
●	●	●	●	●	●	●	○
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked



Soil Saturation

The latest soil moisture information for Puerto Rico can be found on [PRAGWATER](#)

The latest data retrieved from PRAGWATER indicates a little bit of vegetation stress along the extreme northwest and near Guánica. Dry soils are also observed in the northwest, and in the southern plains from Cabo Rojo to Guayama.

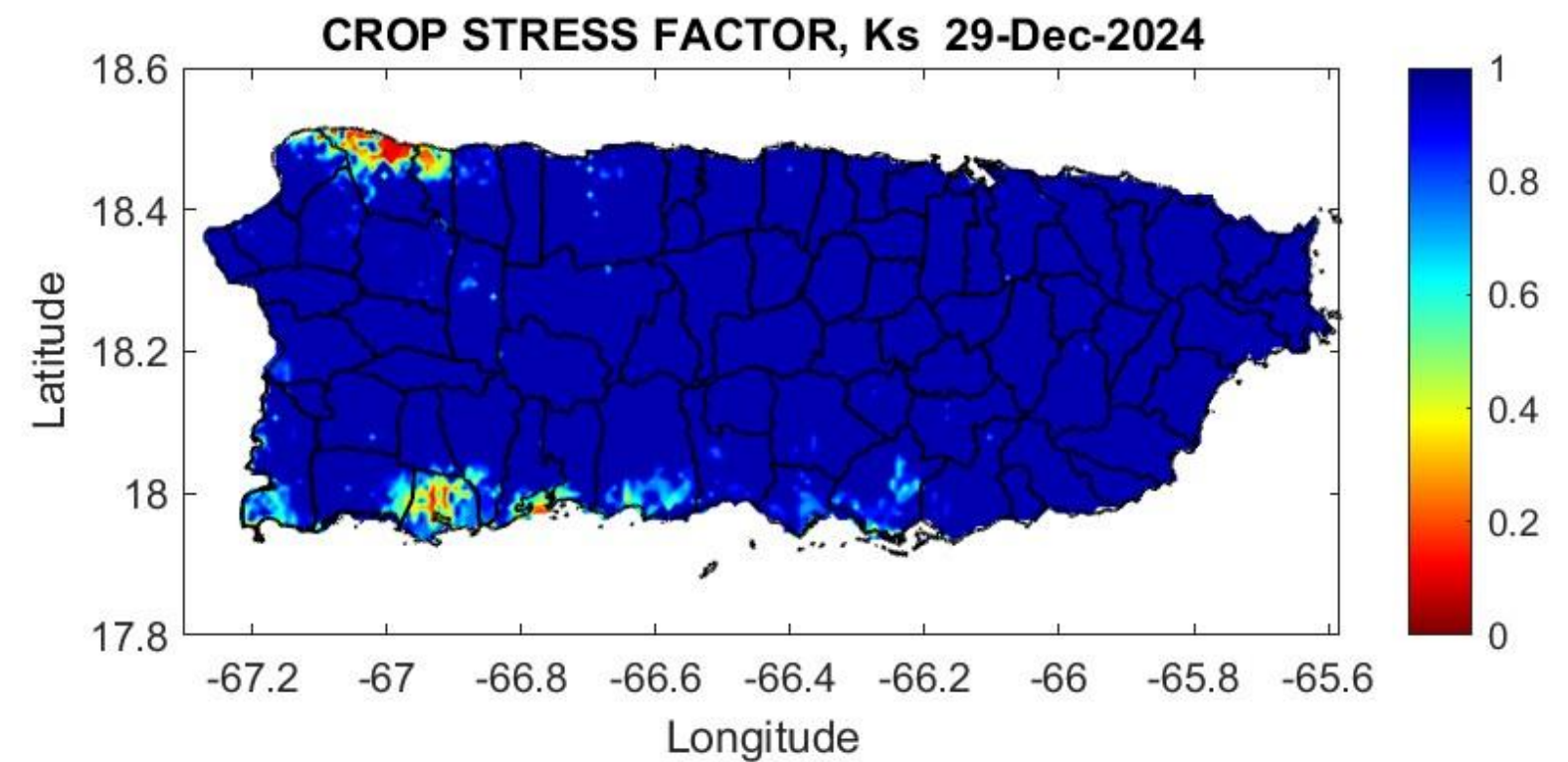
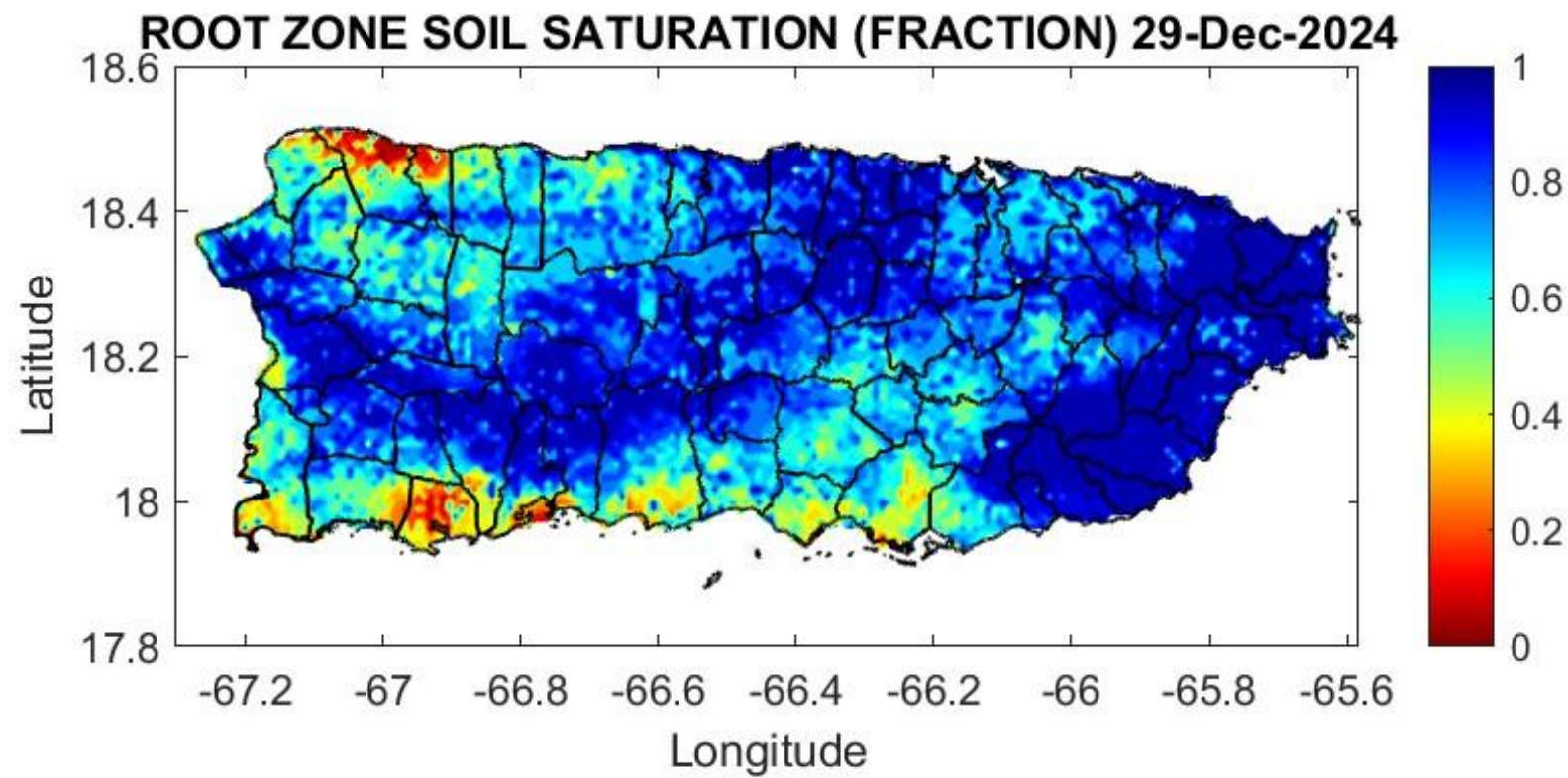


Image Caption: (Left) Crop Stress Factor for Puerto Rico. (Right) Root Zone Soil Saturation Fraction. Soil saturation: 1=Saturated. Crop Stress Factor: 0=high



U.S. Drought Monitor

Link to the [latest U.S. Drought Monitor](#) for the Caribbean

DROUGHT CONDITIONS : No drought or dryness is currently observed in the islands.

U.S. Drought Monitor



U.S. Drought Monitor



Source(s): NDMC, NOAA, USDA; image courtesy of Drought.gov

Data Valid: 12/24/24

Image Caption: U.S. Drought Monitor valid 8am EDT Dec 24th.



Recent Change in Drought Intensity

Link to the latest [4-week change map](#) for the Caribbean

Four Week Drought Monitor Class Change.

- No changes in drought has been observed in the last couple of months.

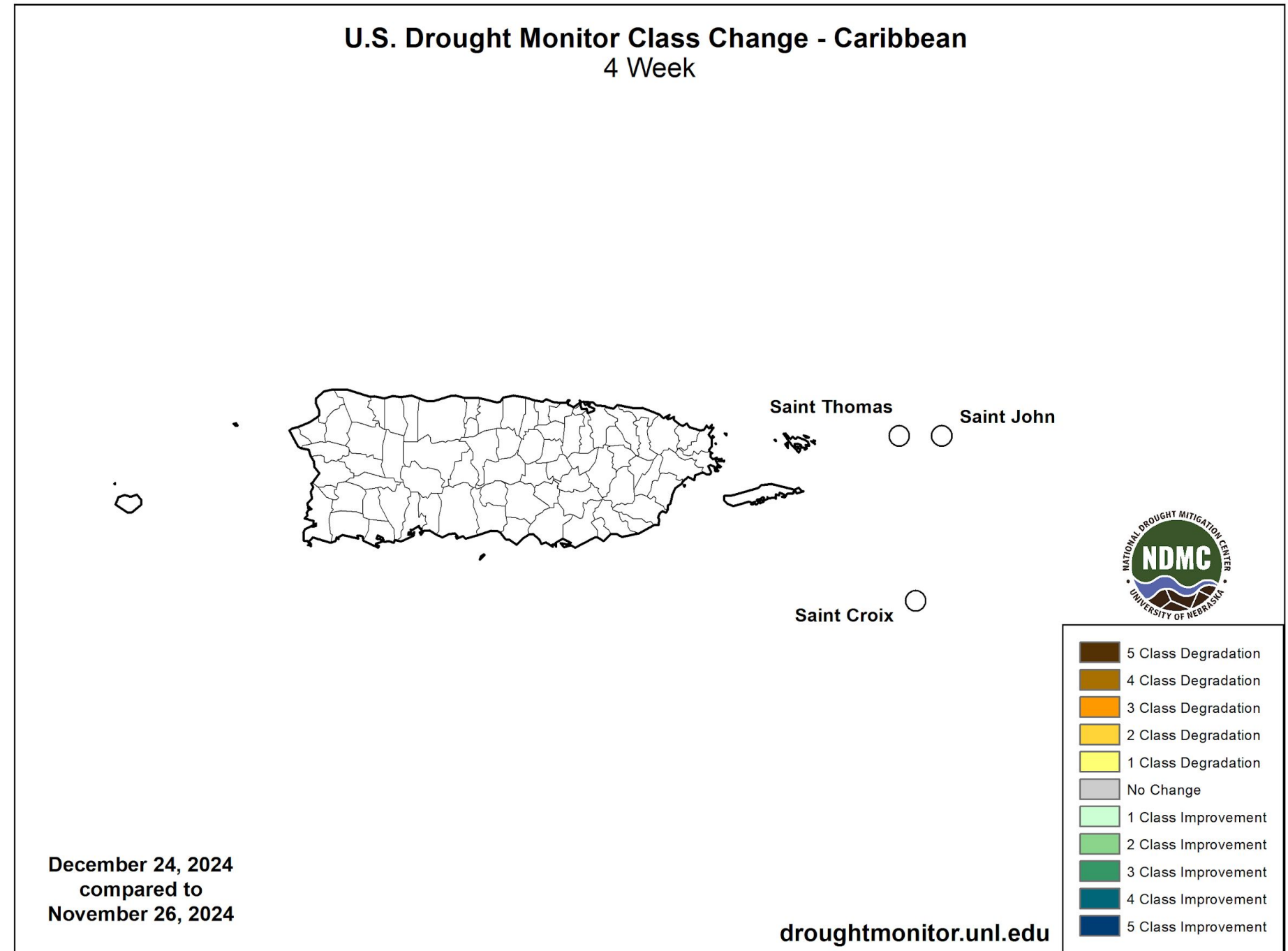


Image Caption: U.S. Drought Monitor 4-week change map valid 8am EDT December 24th, 2024.



Long-Range Precipitation Outlook

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- The **North American Multi-Model Ensemble (NMME)** shows a chance lower than 40% of above normal precipitation into the late winter and spring months (February-March-April) across the Caribbean.

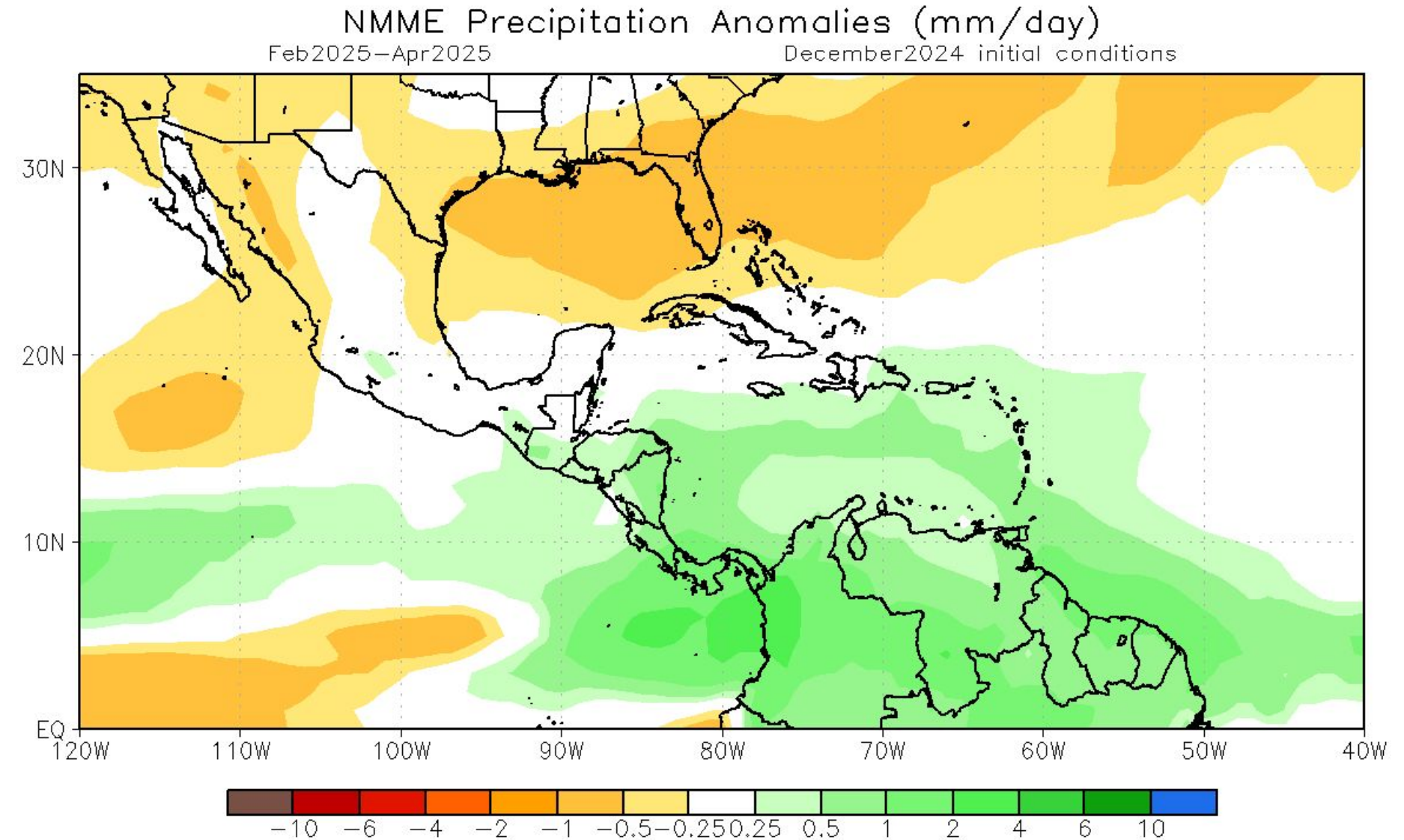


Image caption: NMME precipitation forecast issued December 2024. Valid February-April 2025.



Long-Range Temperature Outlook

The latest three-months temperature outlook can be found on the [CPC homepage](#)

- Based on the **North American Multi-Model Ensemble (NMME)**, there is a $\geq 70\%$ chance of observing above normal temperature for the period of January-February-March 2025. The temperatures are forecast to be nearly $0.5\text{-}1^\circ\text{C}$ ($0.9\text{-}1.8^\circ\text{F}$) above normal.

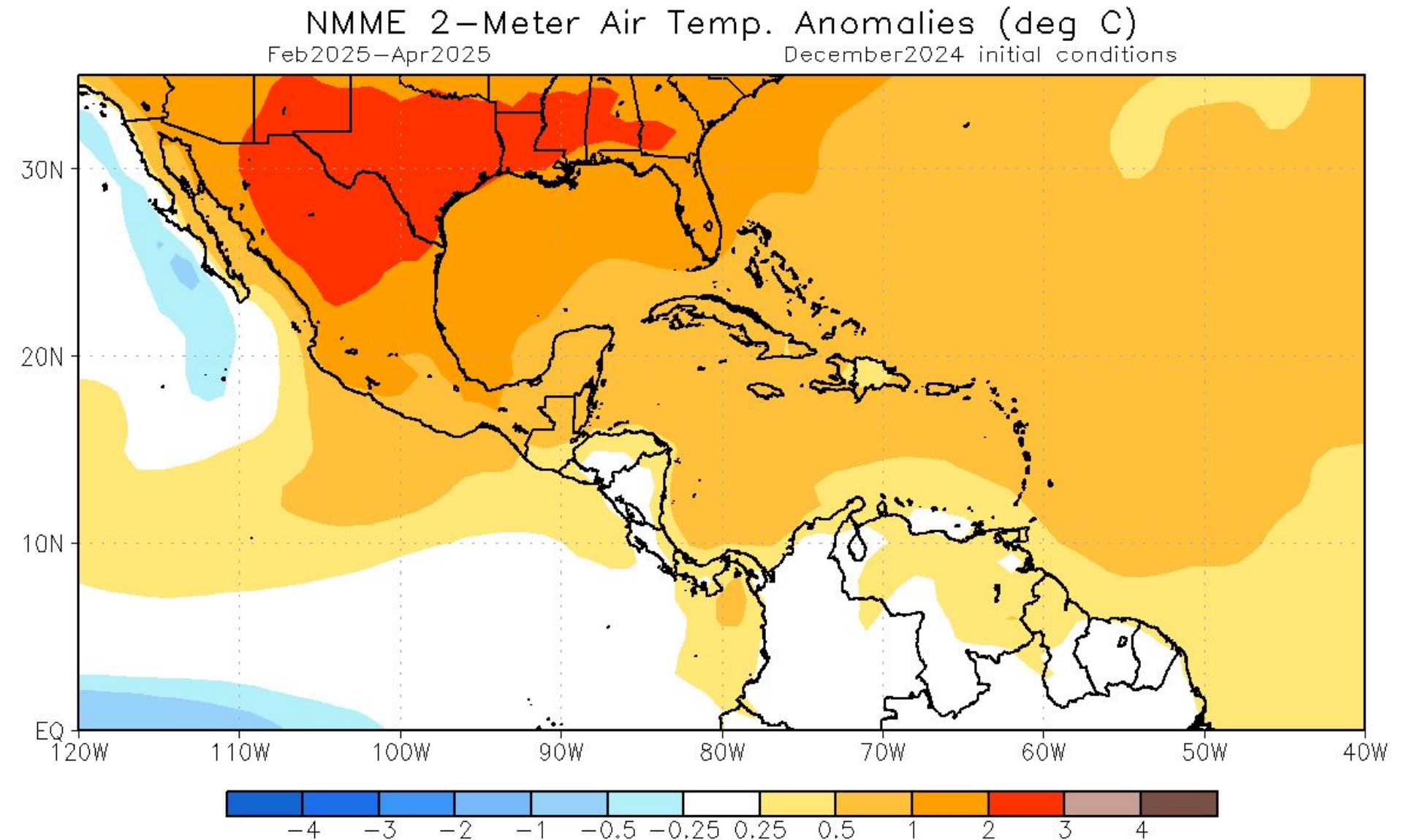


Image caption: NMME temperature forecast issued December 2024. Valid January-March 2025.



Long Range Drought Outlook

The latest monthly and seasonal outlooks can be found on the [CPC homepage](#)

- Based on the expected conditions, no drought is expected to develop in Puerto Rico in the upcoming three months.

Seasonal (3-Month) Drought Outlook for December 19, 2024–March 31, 2025



Drought Is Predicted To...



Source(s): Climate Prediction Center; image courtesy of Drought.gov

Last Updated: 12/19/24

Image Caption: U.S. Seasonal Drought Outlook Valid for December 19th, 2024 to March 31st, 2025,