



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

Valid for September 2024

Issued By: WFO San Juan, PR

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# September Climate Summary for Primary Climate Sites

## San Juan Area

Highest: **96 °F** on the 15<sup>th</sup>  
 Lowest: **77 °F** on the 11, 20<sup>th</sup>  
 Average: 86.1 °F (+**2.7**; above normal)  
 Rain Total: 3.45" (-**3.05**; below normal)

Days with  $T_{max} \geq 90F$ : 29  
 Nights with  $T_{min} \geq 80F$ : 25  
 Days with Rain ( $\geq 0.01"$ ): 23

### Rankings:

**1<sup>st</sup> warmest**  
**23<sup>rd</sup> driest**

### Remarks:

Tied for **Warmest** month overall

## St. Thomas

Highest: **93 °F** on the 26<sup>th</sup>  
 Lowest: **74 °F** on the 10<sup>th</sup>  
 Average: 84.6 (-**0.20**; below normal)  
 Rain Total: 6.34" (**0.45**; above normal)

Days with  $T_{max} \geq 90F$ : 13  
 Nights with  $T_{min} \geq 80F$ : 19  
 Days with Rain ( $\geq 0.01"$ ): 17

### Rankings:

**11<sup>th</sup> warmest**  
**17<sup>th</sup> wettest**

### Remarks:

## St. Croix

Highest: **93 °F** on the 25<sup>th</sup>  
 Lowest: **73 °F** on the 11<sup>th</sup>  
 Average: 84.8 °F (+**2.0**; above normal)  
 Rain Total: 3.71" (-**1.18**; below normal)

Days with  $T_{max} \geq 90F$ : 27  
 Nights with  $T_{min} \geq 80F$ : 9  
 Days with Rain ( $\geq 0.01"$ ): 14

### Rankings:

**5<sup>th</sup> warmest**  
**28<sup>th</sup> driest**

### Remarks:

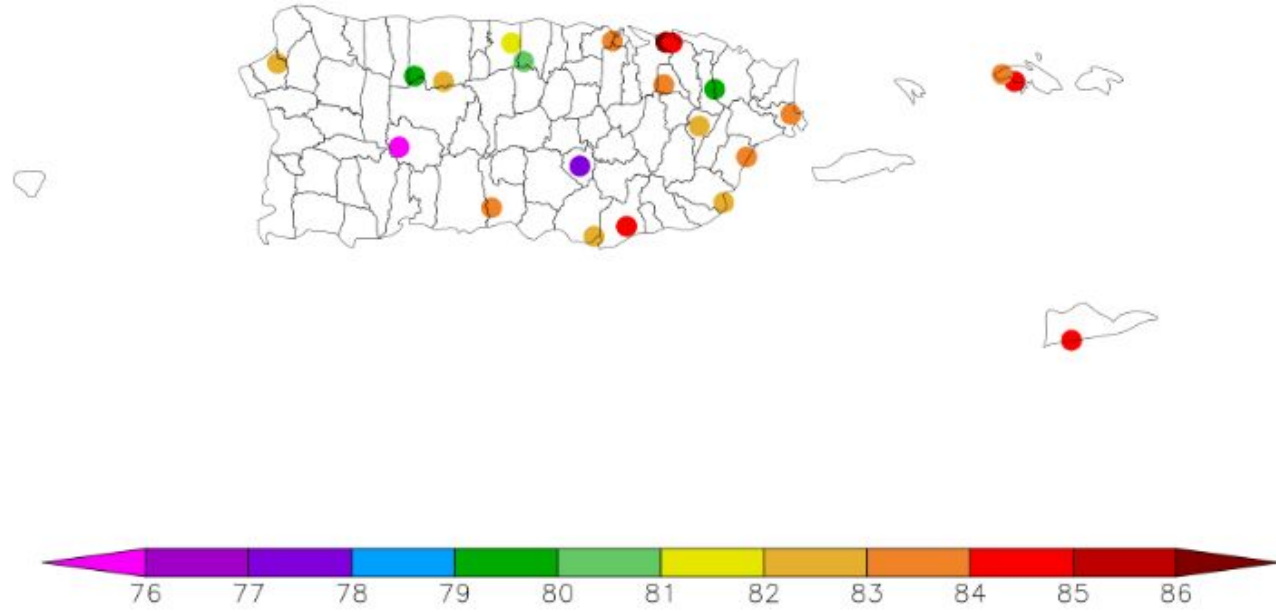




# Observed Temperature

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

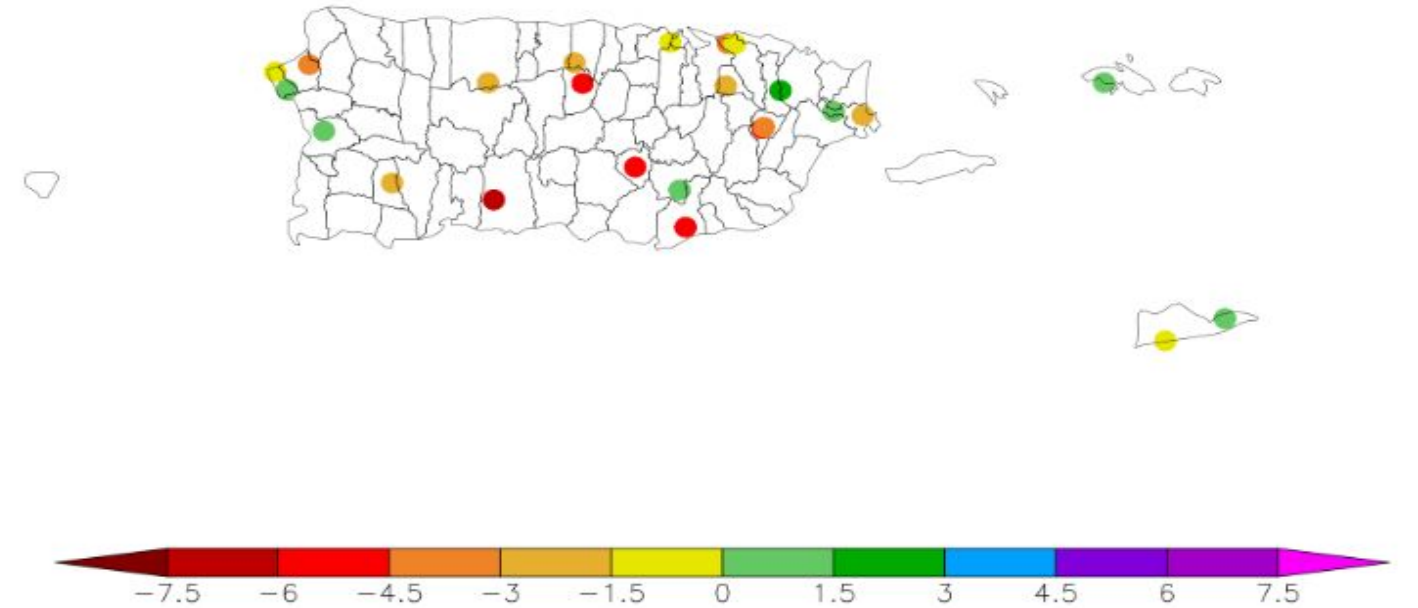
Temperature (F)  
9/1/2024 - 9/30/2024



Generated 10/6/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)  
9/1/2024 - 9/30/2024



Generated 10/6/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temperatures across the majority of the local sites have been mostly above normal, with only few stations below normal. The COOP station with the highest daily maximum temperature was Dos Bocas in Arecibo with 96F.

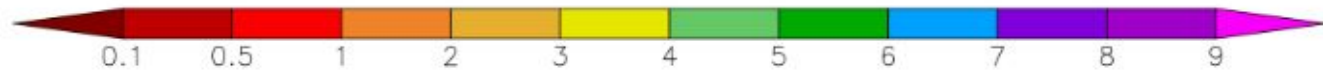
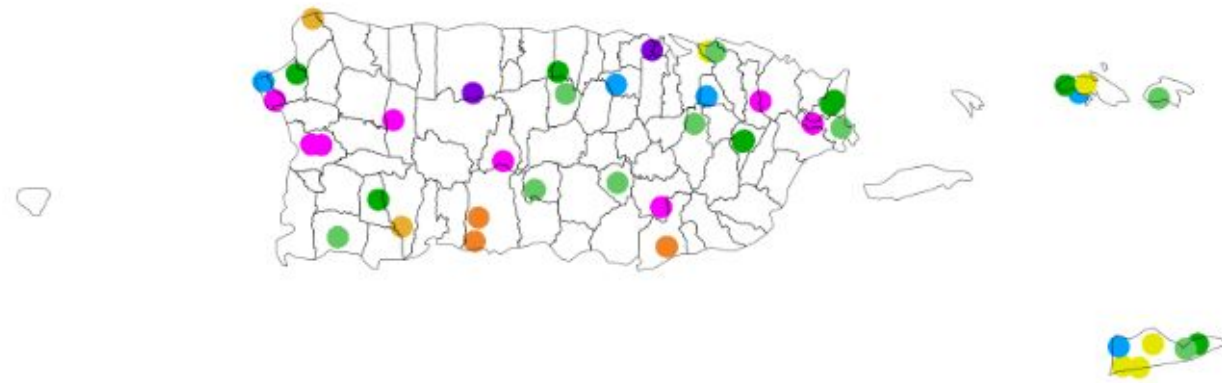
Image Captions:  
 Left - Observed Average Temperature for Puerto Rico and US Virgin Islands (COOP)  
 Right - Departure from normal temperature for Puerto Rico and US Virgin Islands (COOP)  
 Data Courtesy High Plains Regional Climate Center/NWS COOP Stations.



# Observed Rainfall

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

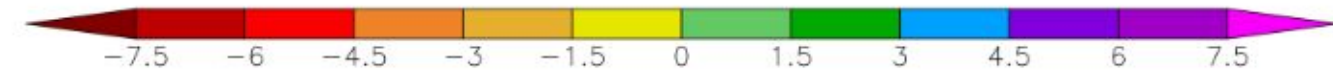
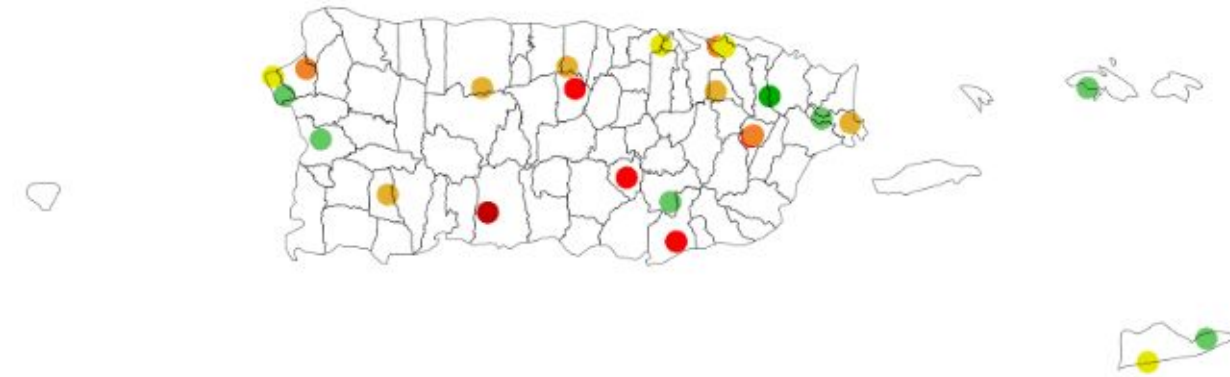
Precipitation (in)  
9/1/2024 – 9/30/2024



Generated 10/6/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)  
9/1/2024 – 9/30/2024



Generated 10/6/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Some stations in the east and west of PR, western St. Thomas and eastern St. Croix ended with more than 5 inches of accumulation. However, most stations also ended drier than normal. The COOP station with the highest monthly rainfall accumulation was Toro Negro in Orocovis, with 19.75”.

Image Captions:

Left - Observed Precipitation for Puerto Rico and US Virgin Islands (COOP & CoCoRaHS)  
Right - Departure from normal Precipitation for Puerto Rico and US Virgin Islands (COOP & CoCoRaHS)

Data Courtesy High Plains Regional Climate Center/NWS COOP Stations.





# Estimated Rainfall

Estimated Rainfall was obtained from [NWPS](#) (Puerto Rico); and COOP, RAWs, and [CoCoRaHS](#) stations (U.S. Virgin Islands)

- Rainfall accumulation ranged from 10 to 20 inches across the western interior and eastern Puerto Rico. Areas in the west received over 20 inches, mostly due to local effects.
- In general, the eastern interior and northern Puerto Rico collected 5 to 10 inches.
- The southern plains were drier, with amounts below 3 inches.
- The rainfall in Saint Croix ranged from 3 to over 10 inches of rain.
- In Saint Thomas, rainfall was 3 to 6 inches for the south, east and west, with lesser amounts in the extreme north.
- In Saint John, amounts were from 3 to 6 inches.

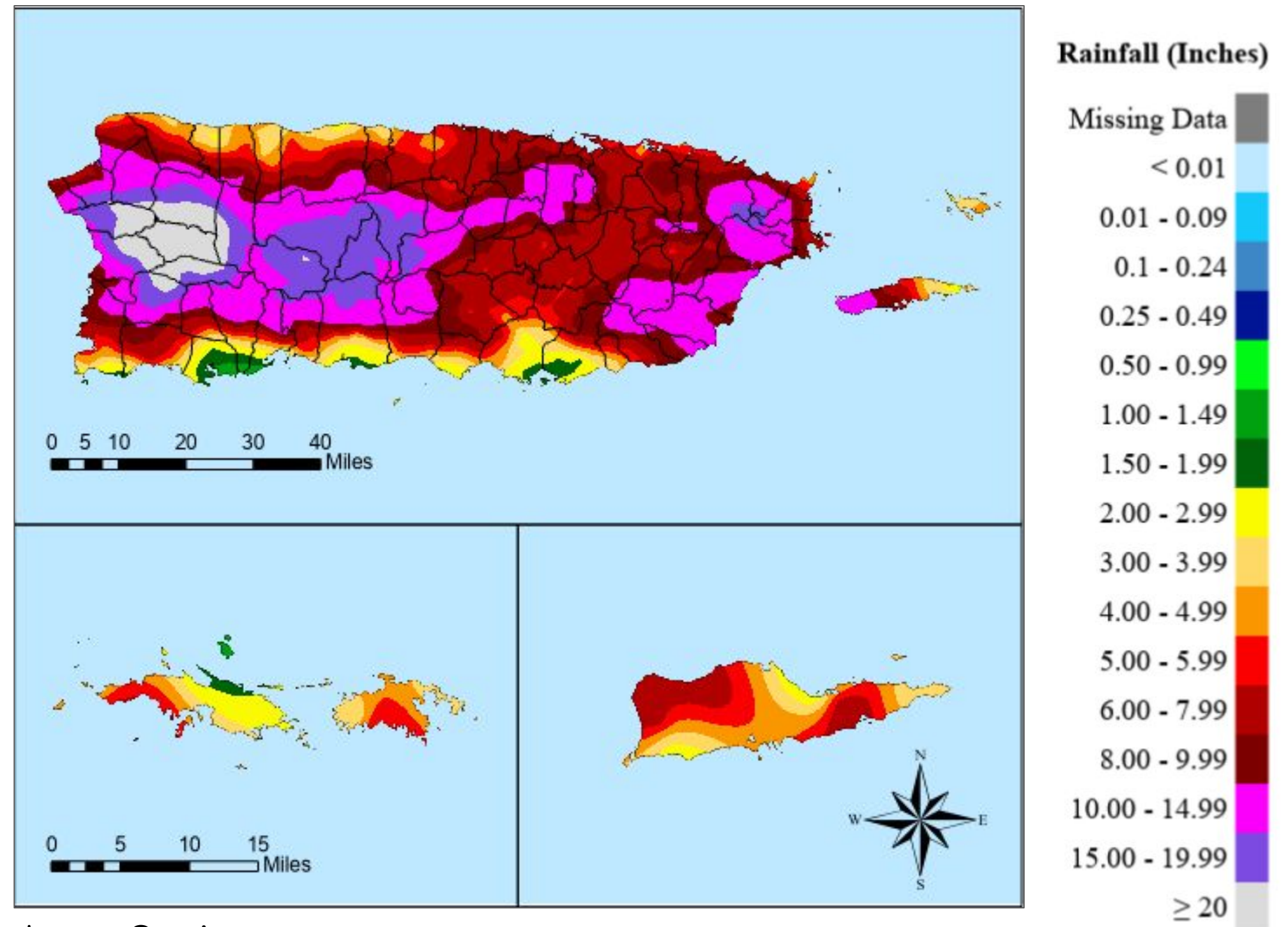


Image Captions:  
Estimated Rainfall for the month of September. This map is courtesy of the NWS SJU GIS Team.





# Departure from Normal Rainfall

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

- Above normal rainfall was observed across the interior and western Puerto Rico, and portions of the San Juan metro area, Vieques, and eastern Puerto Rico.
- Drier than normal amounts were observed along the southern plains, portions of the eastern interior, and the north-central/northwestern Puerto Rico.

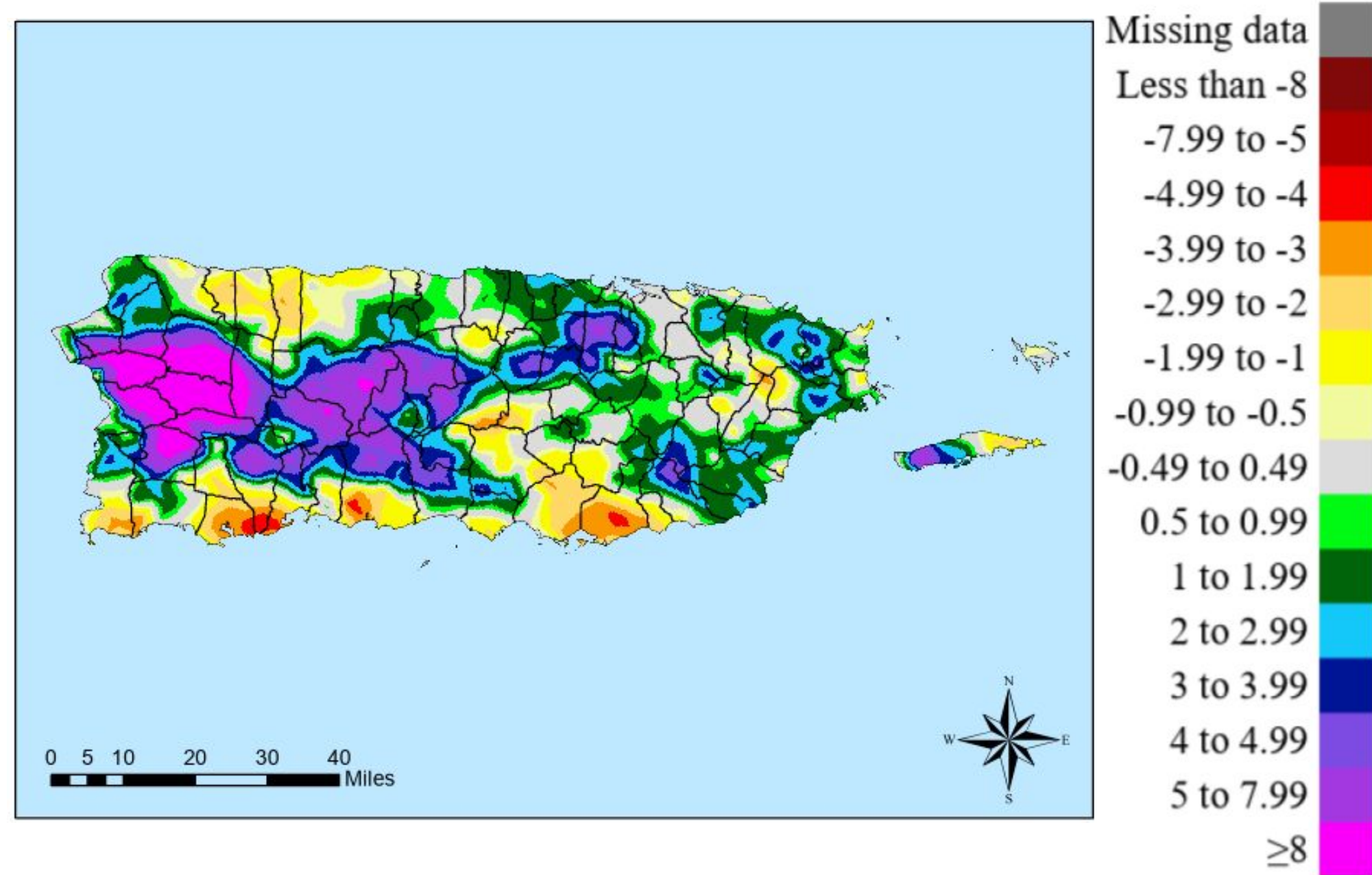


Image Captions:

Estimated Departure from Normal Rainfall for Puerto Rico during the month of September. 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 normal to above normal. For Reservoir levels, click [here](#).

## Latest Monthly Average Streamflow from USGS

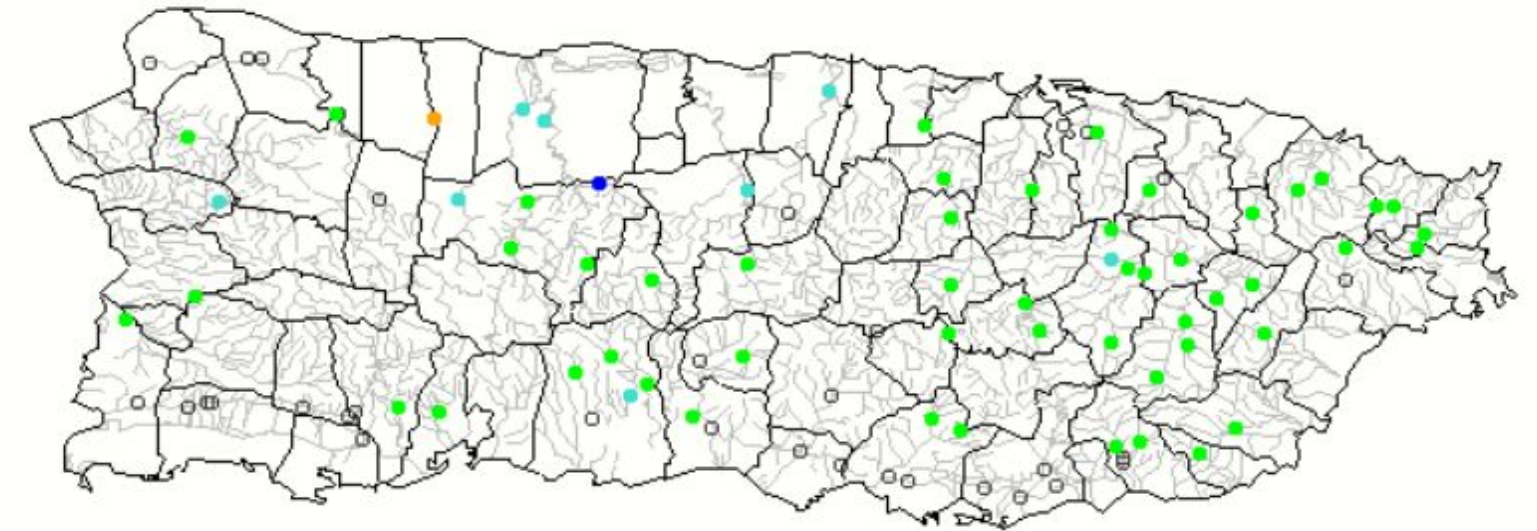


Image Caption: September 2024 compared to historical streamflows for Puerto Rico.

Non-Routine Hydrologic Products Issued	Products issued for the month
Hydrologic Outlooks (SJUESFSJU)	0
Flood Watches (SJUFFASJU)	0
Flood Warnings (SJUFLWSJU)	2
Flash Flood Warnings (SJUFFWSJU)	6
Urban/Small Stream Flood Advisories (SJUFLSSJU)	86
Local Storm Reports (SJULSRSJU)	72

Explanation - Percentile classes							
<span style="color: red;">●</span>	<span style="color: red;">●</span>	<span style="color: orange;">●</span>	<span style="color: green;">●</span>	<span style="color: cyan;">●</span>	<span style="color: blue;">●</span>	<span style="color: black;">●</span>	<span style="color: gray;">○</span>
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 generally saturated soils across most of the region. Drier conditions are observed across the southern plains, and the north-northwest coast.

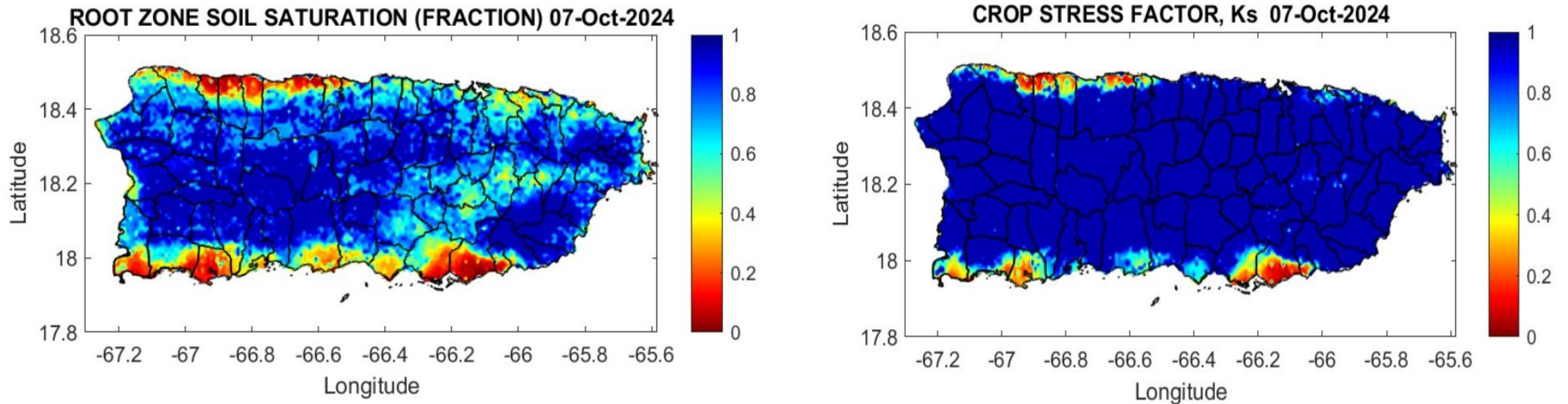


Image Caption: (Left) Crop Stress Factor for Puerto Rico. (Right) Root Zone Soil Saturation Fraction. (Valid: Oct 7th) Soil saturation: 1=Saturated. Crop Stress Factor: 0=high





# U.S. Drought Monitor

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

**DROUGHT CONDITIONS :** Some southern areas are under abnormally dry conditions.

## U.S. Drought Monitor



### U.S. Drought Monitor



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

Data Valid: 10/01/24

Image Caption: U.S. Drought Monitor valid 8am EDT Oct 1<sup>st</sup>.



# Recent Change in Drought Intensity

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

## Four Week Drought Monitor Class Change.

- Some southern municipalities have been experiencing abnormally dry conditions since last month.

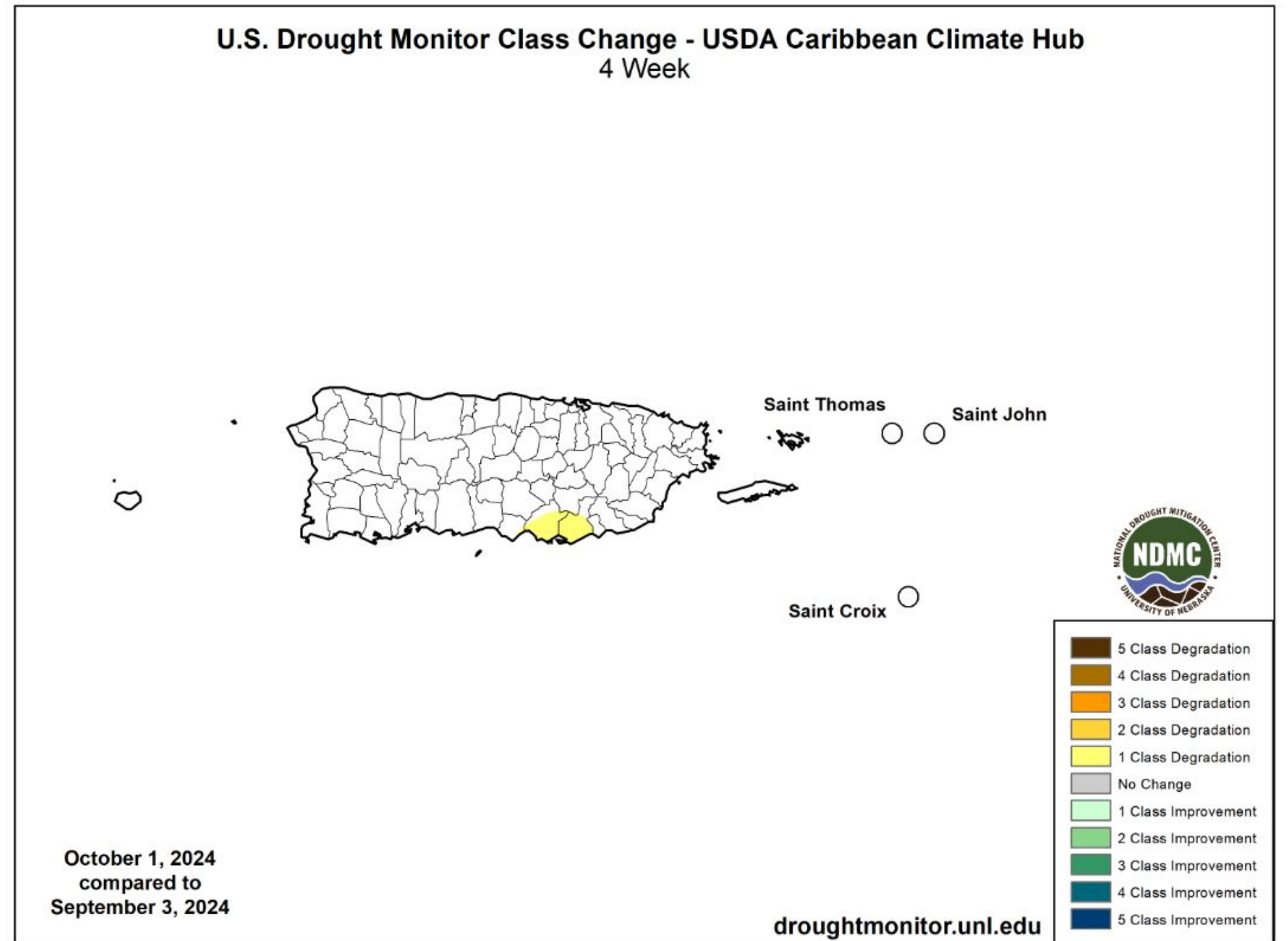


Image Caption: U.S. Drought Monitor 4-week change map valid 8am EDT August 27<sup>th</sup>, 2024.





# 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 higher than 50% of above normal precipitation into the late fall and winter months (November-December-January) across the Caribbean.

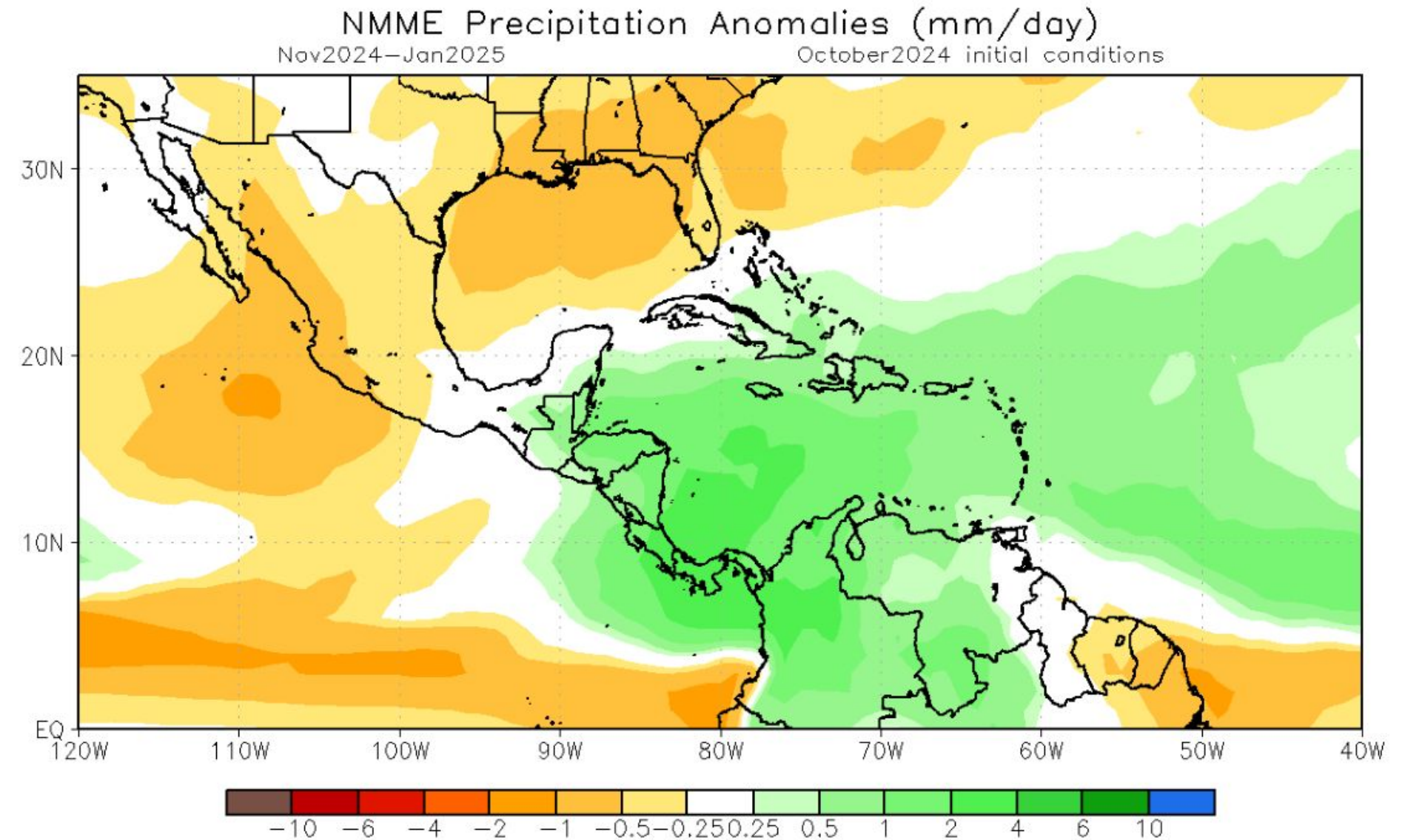


Image caption: NMME precipitation forecast issued September 2024. Valid November-December 2024-January 2025.





# 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 November-December 2024-January 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.

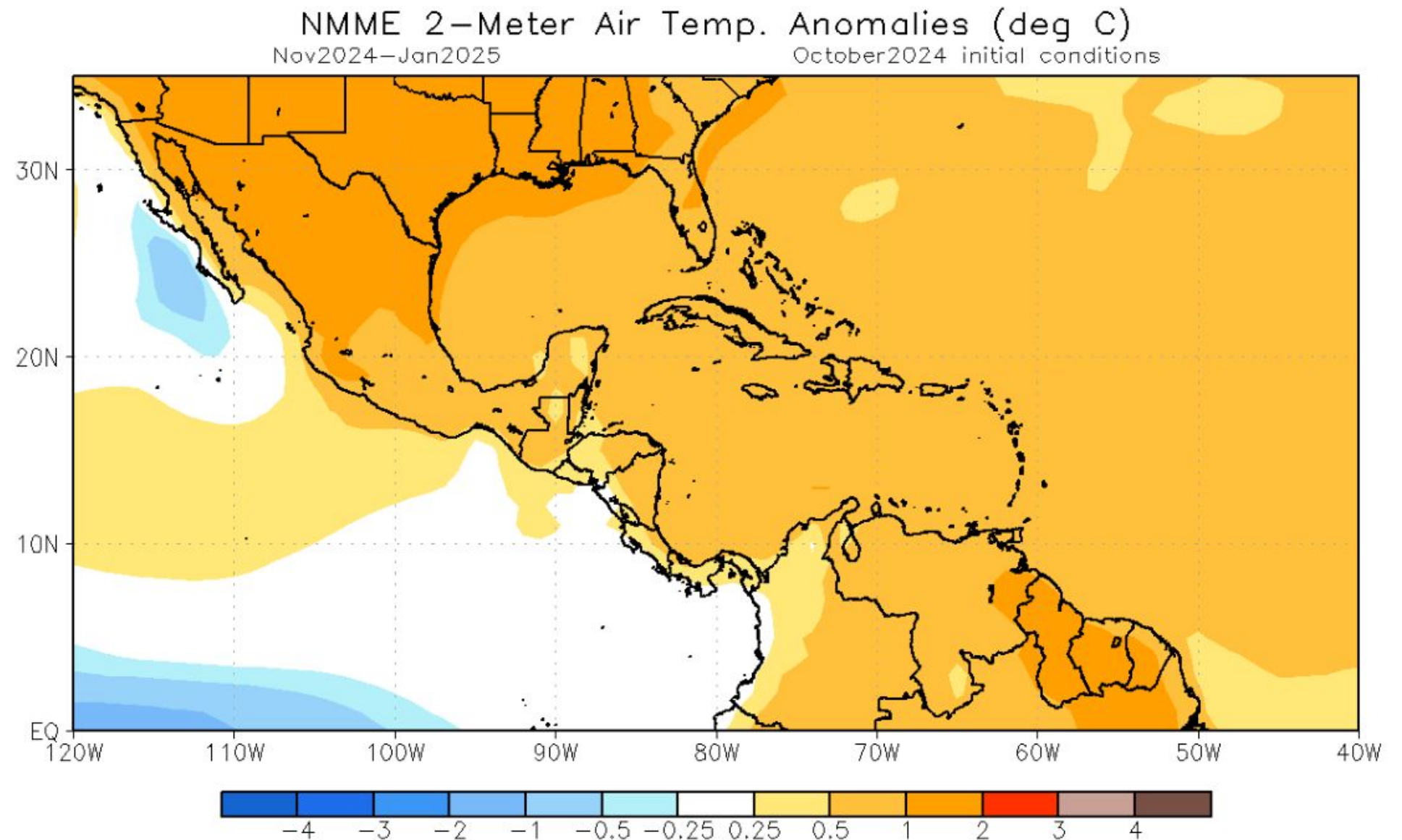


Image caption: NMME temperature forecast issued September 2024. Valid November-December 2024-January 2025.





# Long Range Drought Outlook

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

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

**Seasonal (3-Month) Drought Outlook for September 19, 2024–December 31, 2024**



**Drought Is Predicted To...**



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

Last Updated: 09/19/24

Image Caption: U.S. Seasonal Drought Outlook Valid for August 31<sup>st</sup>, 2024.