May to July 2025 Outlook: Perspective for the Lower Rio Grande Valley/Deep S. Texas Region

NATIONAL WEATHER SERVICE

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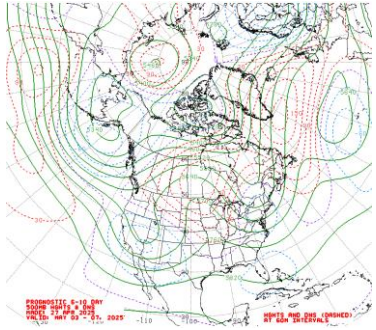
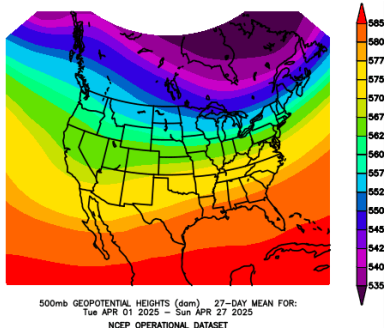
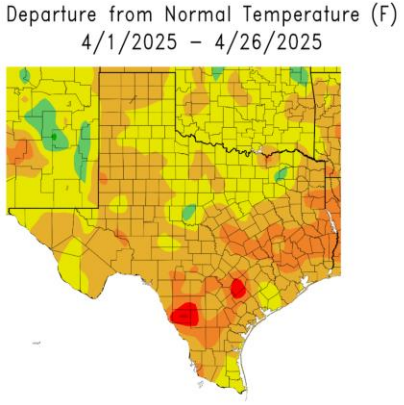
Hotter than normal conditions are expected to continue; precipitation odds remains a toss-up with the potential for some occasional flooding; heat risk increases and water supply issues remain in focus

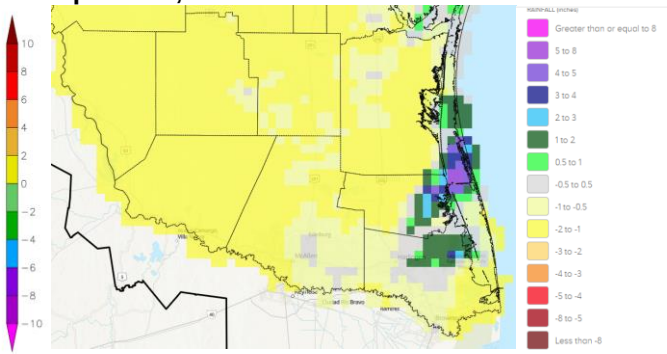


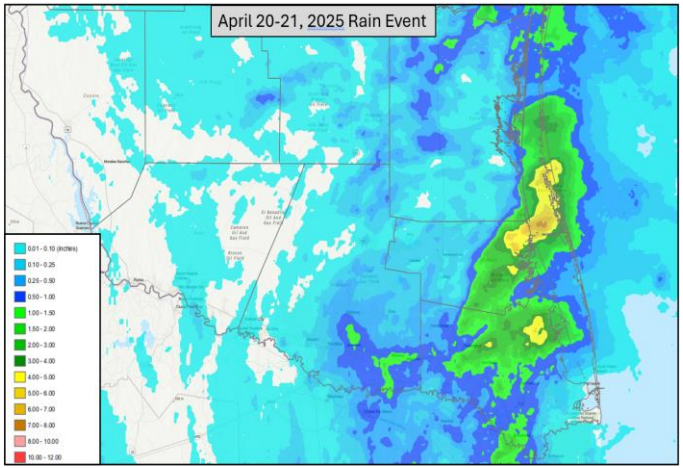


April 2025: Though April overall was a quiet month, some beneficial rains from outflow boundary driven, slow-moving storms fell across parts of the area, particularly in Willacy and Cameron Counties



Departure from Normal Rainfall (in)
April 1-28, 2025



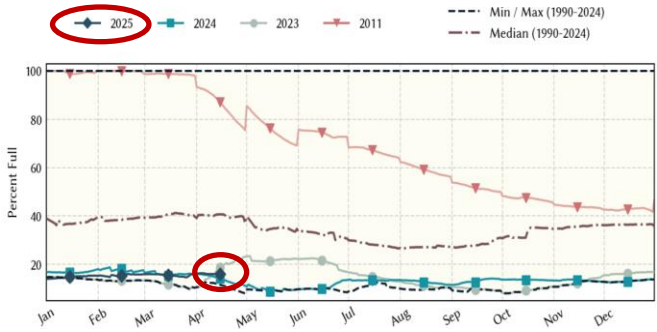


Top Image: 2-Day Rainfall Footprint from the April 20-21, 2025 Rain Event.

April 2025 overall was a quiet month. Our biggest rainfall output came on April 20-21 amid slow-moving, outflow boundary drive thunderstorms. **Eastern Willacy and Cameron County along/east of IH-69E were most impacted (see top right image).** Port Mansfield area was the jackpot where nearly 7 inches of rain fell. Harlingen came in at 0.89 inches, Brownsville at 0.43 inches, and McAllen at 0.15 inches.

Overall, our rainfall production for April 2025 was slightly below normal, quite the contrast from March. Month to date or through April 27, Brownsville's 0.43 inches was 0.9 inches below the normal of 1.33 inches. Harlingen's 0.89 inches was 0.43 inches below the normal of 1.32 inches, and finally McAllen's 0.16 inches was 1.12 inches below the normal of 1.28 inches.

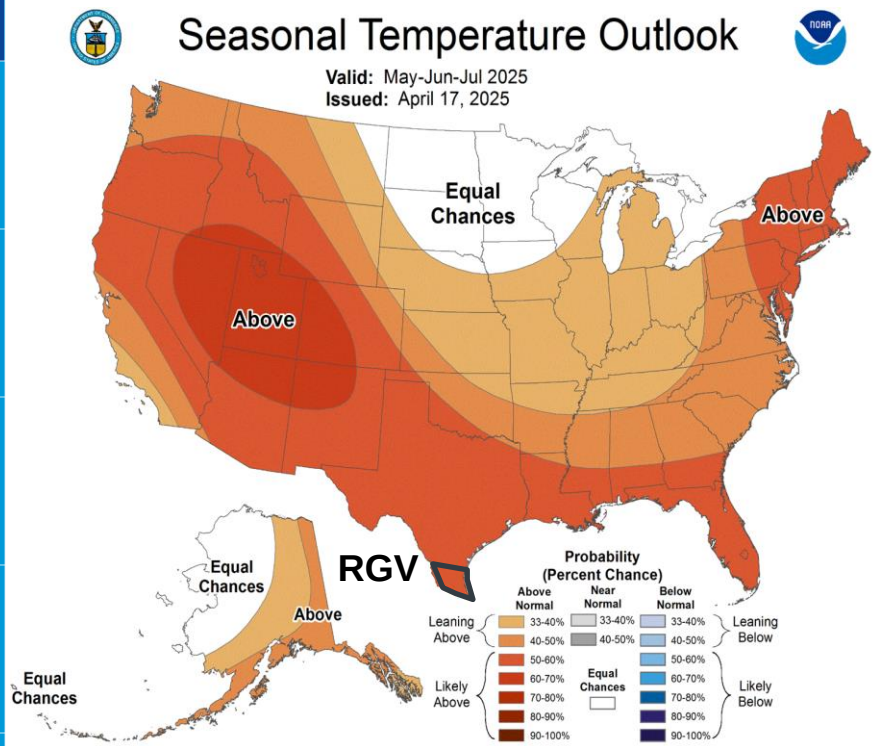
Temperatures for April 2025 were seasonable generally east of IH-69C and slightly warmer than normal west of IH-69C. Month to date or through April 27, Brownsville had an average temperature of 77.6F degrees, which is 1.1F degrees above the average temperature of 76.5F degrees. Harlingen had an average temperature of 76.0F degrees, which is 0.4F degrees above the average temperature of 75.6F degrees. Finally, McAllen had an average temperature of 78.6F degrees, which is 0.4F degrees above the average temperature of 78.2F degrees.

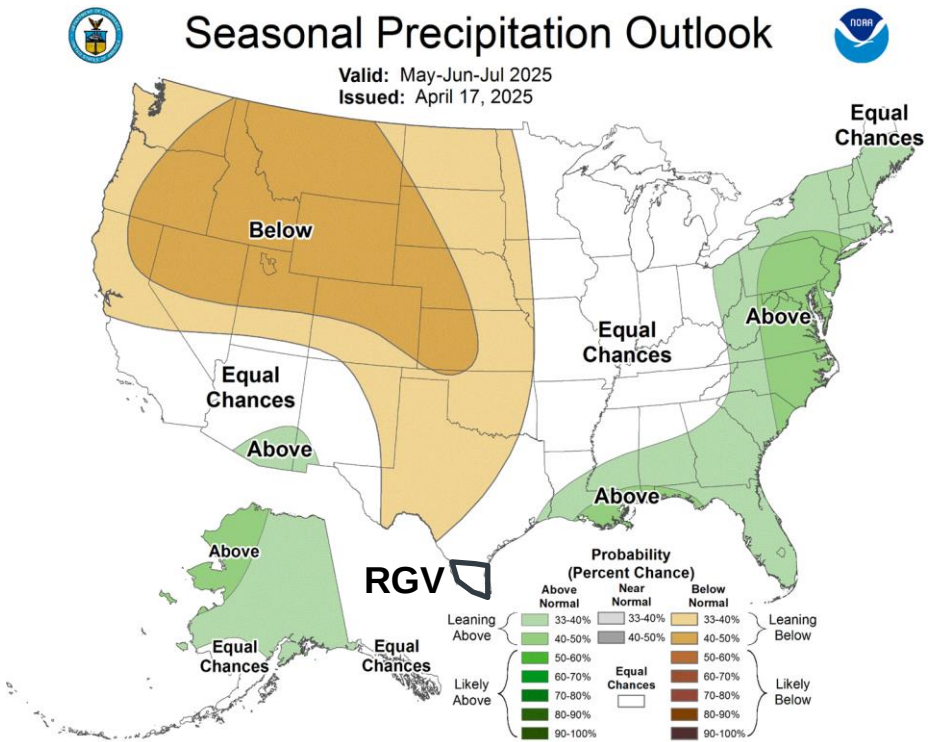


Bottom Image: Latest data from the **Rio Grande Reservoirs (Texas Share)** continue to indicate 2025 levels are at or below 30 year lows and near records. Total values have increased as of late.

Image Credit: Texas Water Development Board

Seasonal Forecast, May – July 2025 USA





Key Takeaways: May-July 2025 Outlook

- An **average to hotter than average** outlook is favored during the **May-July 2025** timeframe for Deep South Texas and the Rio Grande Valley. Meanwhile, **precipitation remains a toss-up** across the region. **While there will be many dry days through July, there could be bouts of showers and thunderstorms that should keep the precipitation surplus/deficit in balance.**
- Long-range models are signaling the core of the heat to be located well northwest of the RGV/Deep South Texas. But the nose of 50%+ chances extends to the RGV border. **Heat Risk trends** will **increase** in time and **as early as late May into June** across Deep South Texas due to model trends and climatology, but the magnitude of the heat may not rival or be as intense as 2023 and 2024. Will continue to monitor trends into Summer.
- After the historic late March rain storm and some beneficial rains in late April, there have been notable drought improvements and **significant greenup** across areas along/east of IH-69C/US 281 (Brooks/Hidalgo), but less so across Starr/Jim Hogg/Zapata. Additional **drought/dryness and wildfire** concerns are no longer in focus for May. However, high evaporation rates may bring some issues back later in June if rains fail to materialize.
- Falcon Int'l Reservoir remained **near historic lows at the end of April**. **Confidence is very high (~90%) on total storage remaining at or near record lows through July.** Rains from a tropical cyclone (such as Alex in 2010) would change this.
- Confidence is **medium-high (60-80%)** that temperatures will run normal to **warmer than normal** from May through July. Confidence is **low-medium (30-50%)** on a **drier than normal outcome** for the period. Confidence is **low (10-30%)** that **drought/dryness** will redevelop over areas along and east of IH-69C, and **medium (40-50%)** that **drought/dryness** will continue west of IH-69C by the end of June.
- **Showers and thunderstorms that could produce heavy rainfall and localized flooding** has to continue to be taken into consideration through the remainder of this Spring Season and into the upcoming Summer Season.
- The **2025 Atlantic Hurricane Season is expected to be slightly above average,** though a "lean" towards being less active across the RGV/Deep South Texas region compared to 2024. NOAA's outlook comes out in late May.

The “Why” of the Forecast: El Niño/Southern Oscillation (ENSO) Neutral, soil moisture, long-term trends, and other key climate teleconnections to play a role

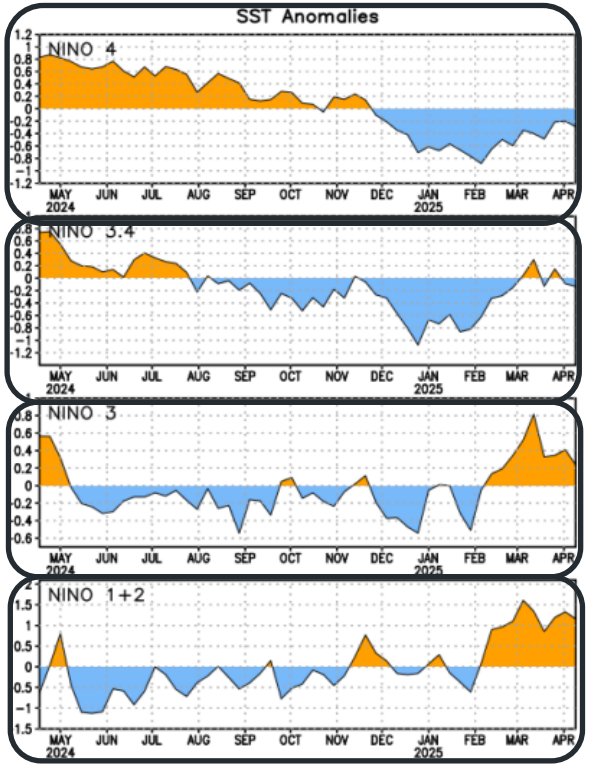
Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2022	-1.0	-0.9	-1.0	-1.1	-1.0	-0.9	-0.8	-0.9	-1.0	-1.0	-0.9	-0.8
2023	-0.7	-0.4	-0.1	0.2	0.5	0.8	1.1	1.3	1.6	1.8	1.9	2.0
2024	1.8	1.5	1.1	0.7	0.4	0.2	0.0	-0.1	-0.2	-0.3	-0.4	-0.5
2025	-0.6	-0.4										

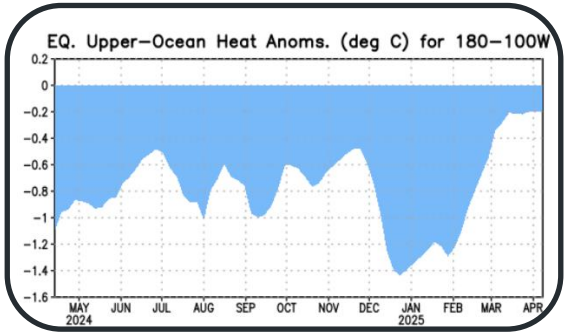
With ENSO Neutral conditions in place, **ENSO will have little influence on our weather and climate pattern going forward**. That said, analogs and long term trends suggest that **warmer than normal temperatures** are favored to continue through July and potentially longer, when transitioning from a La Nina to ENSO Neutral. **As for precipitation odds, it remains a toss-up** across the RGV/Deep South Texas.

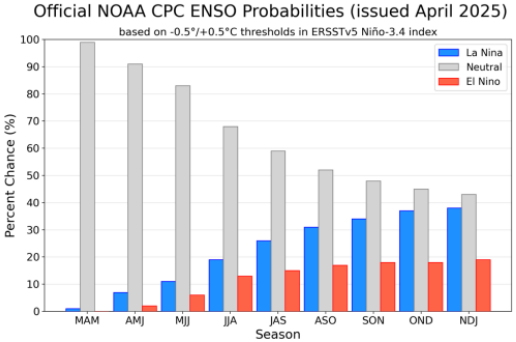
Given that the ENSO in the tropical Pacific will play less of a role in our weather pattern, the **placement of the jet stream and heat ridge, tropical moisture influx, soil moisture, amongst other weather/climate variables** will serve as vital roles in various weather events, such as increased **heat risk** and a few instances of **heavy rainfall/flooding** through early Summer.

Note: Though signals are not strong, this current ENSO Neutral regime could support a little more rain potential for Deep South Texas and the Rio Grande Valley, which gives credence to the precipitation outlook being a toss-up through early Summer!

Note: Medium-long range forecast models are signaling the RGV/Deep South Texas being underneath a mid-upper ridge to the north, with mid-upper troughs at times undercutting it. This pattern makes the region **more susceptible to clouds, rain/storms and near normal temperatures through at least the middle parts of May.**

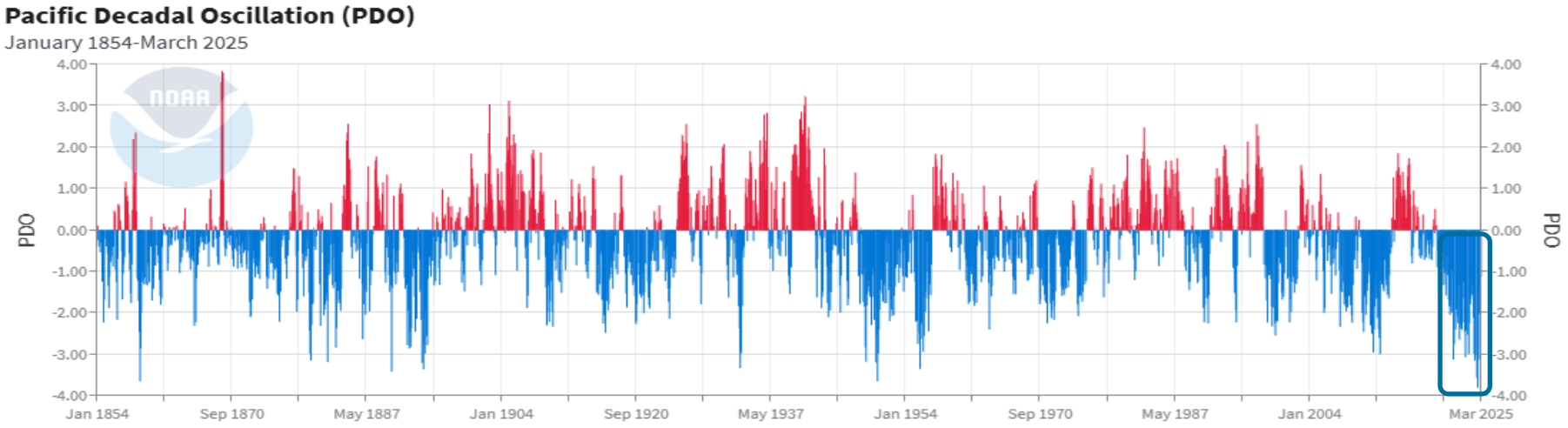






*Above right: “Oceanic Niño Index. Values below -0.5 (**light blue**) for five consecutive 3-month periods indicated La Niña. El Niño (**red,** +0.5) officially began in April-June 2023, reached strong levels (**+1.5**) by August-October 2023, strengthened further through November-January, then weakened rapidly through early summer. Neutral conditions arrived for April-June 2024.

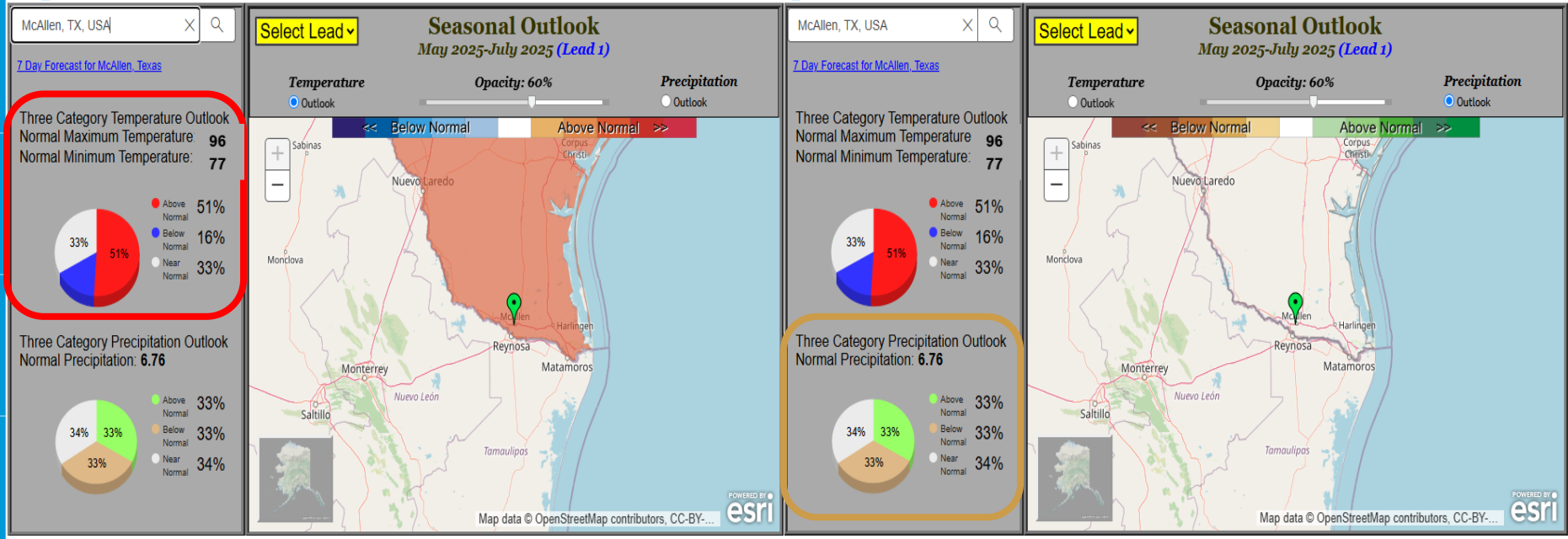
The “Why” of the Forecast: Pacific Decadal Oscillation (PDO) remains in Sharp Negative Phase



Source: https://www.ncei.noaa.gov/pub/data/cmb/ersst/v5/index/ersst.v5.pdo.dat

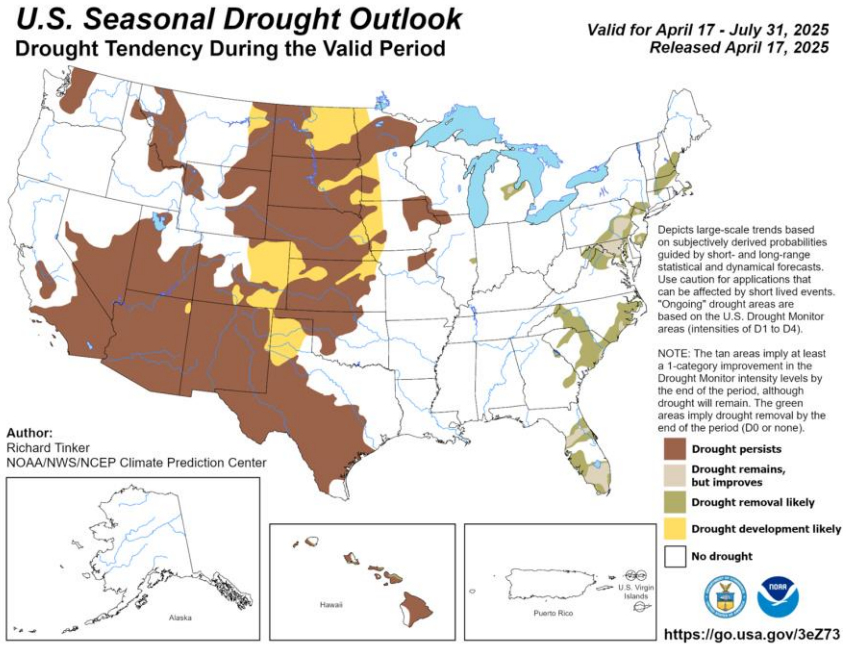
- The 2021-2025 **prolonged and strong negative PDO has persisted**, and should remain the case going into Summer 2025. This **continues to support confidence** for a **warmer than normal pattern to persist into the Summer Season.**
- Despite the sharply negative PDO in place, an ENSO Neutral results in a toss-up for precipitation outcome. Other weather/climate variables will play a vital role in precipitation outcomes into Summer 2025. **Confidence remains high** for a sharply negative PDO to continue through 2025.

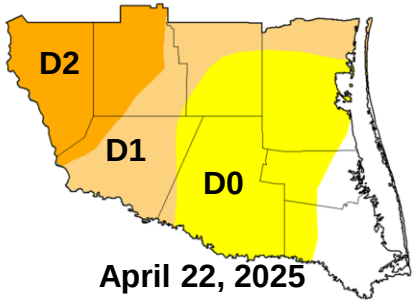
The May-July 2025 Outlook: Rio Grande Valley (McAllen as Anchor Point)

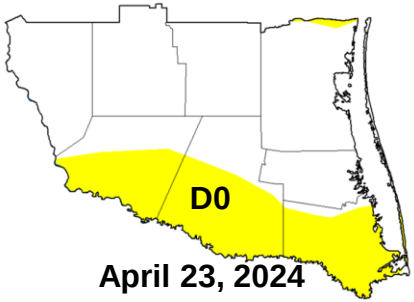


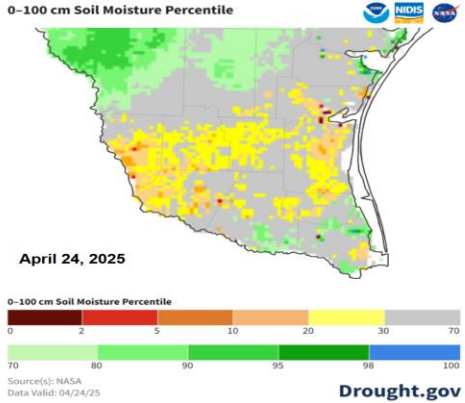
- **Temperature:** **Warmer than normal temperatures will likely persist May-July (Confidence: Medium-High).** RGV averages: Afternoon – Upper 80s to lower 90s through early May; Lower to upper 90s mid-May through June; Wake-up: Lower 70s through early May; Mid to upper 70s mid-May through June.
- **Precipitation:** **Toss-up (50/50% shot or equal chances of below, normal, or above) expected May-July (Confidence: Low-Medium).** RGV averages: 6.5-7.5 inches (most in June).

The May 2025 “Droughtlook”



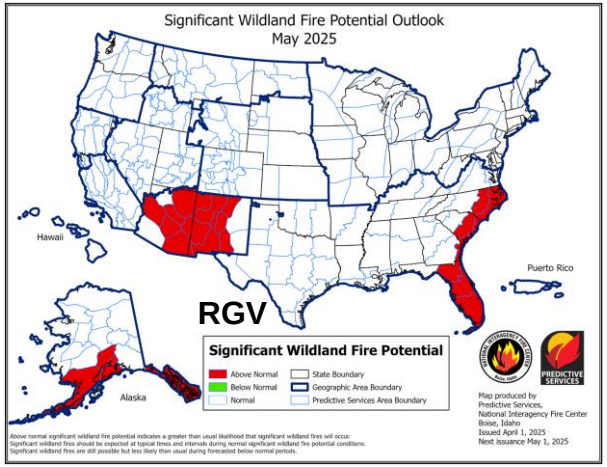


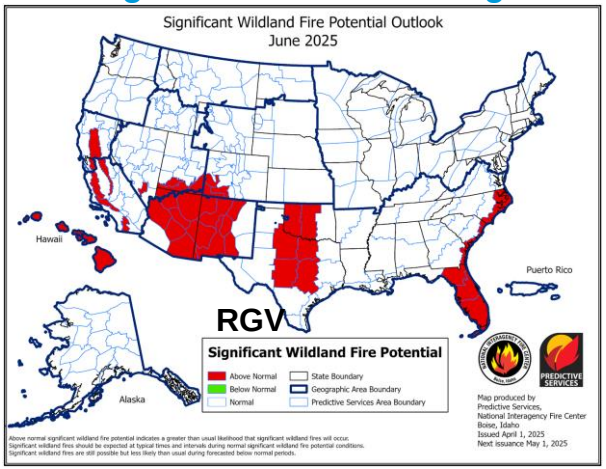


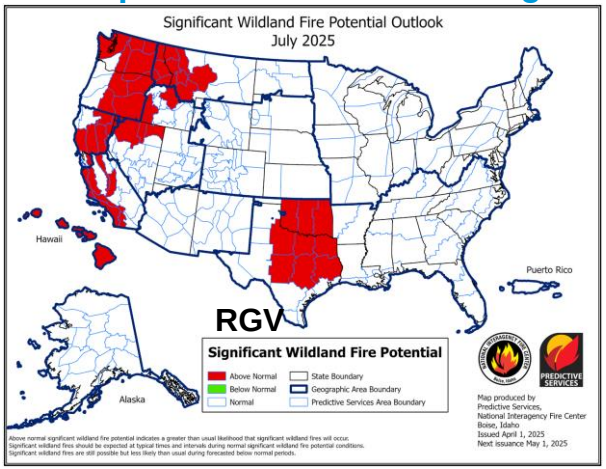


- **Year-over-Year (YoY) drought/dryness** depicts notable drought conditions (though improved) continuing across the western half of the area (i.e. west of IH-69C) this year vs last year. Much of the remainder of the area including mid-lower RGV have little to no drought conditions/concerns.
- **Note:** There are spots over the mid and lower RGV that have a much larger rainfall surplus, including Harlingen, this year compared to last year **after the historic late March rainstorm and additional late April rains (17.45 inches observed this year vs. 4.91 inches observed this time last year). Average year to date rainfall for Harlingen is 4.41 inches.**

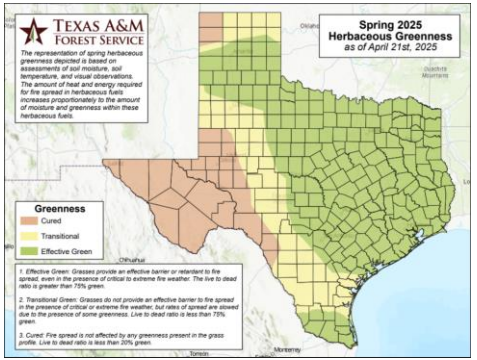
Wildfire Concerns Remains Limited Following the Late March Deluge and Some April Rains Across the Region





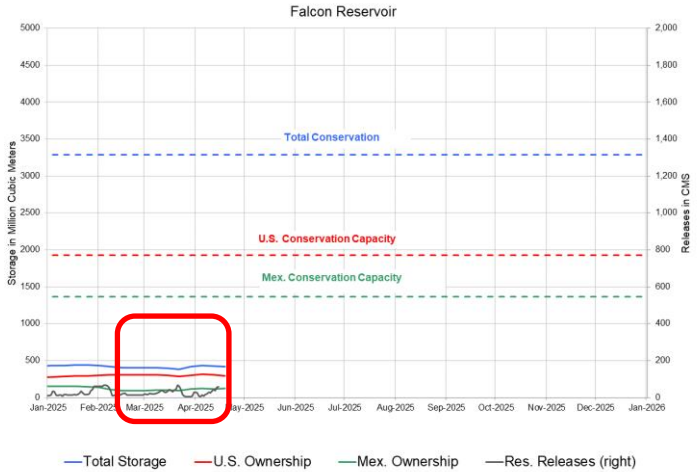


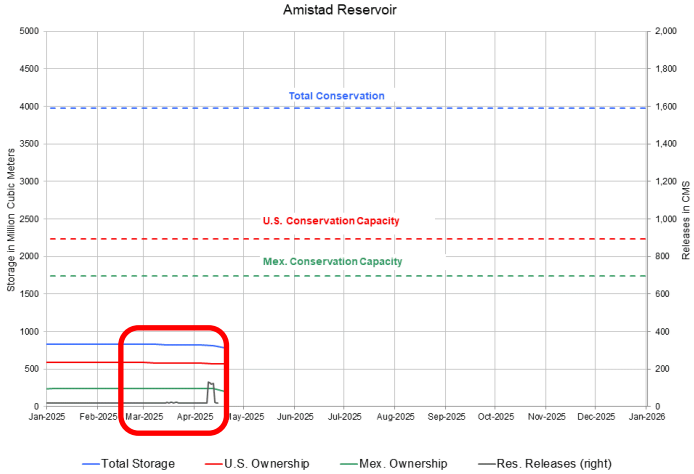
- Following the **March 26-28, 2025 drought busting rain storm**, there has been **significant greenup** across all but the northern ranchlands squelching any wildfire concerns through May, at least. Note that level 1 and 2 drought areas (Brush Country/Rio Grande Plains) could be susceptible to growth, if no rain falls in early May.
- In the coming weeks, moisture levels will continue to be largely be dependent on rain chances, the strength and number of any remaining "dry" fronts vs. days with a return flow out of the south boosting relative humidity (RH) values. As we move through the remainder of the Spring Season and into Summer, trends should continue to favor continuous humid situations than in prior months due to more days with winds out of the south and fewer fronts from the north and west.
- Continuous high humidity levels should allow fuel moisture levels to remain moderate to high through May.



Spring 2025 Herbaceous Greenness Map for Texas (April 21, 2025). **Note: effective green** is in place across all but the northern ranchlands.

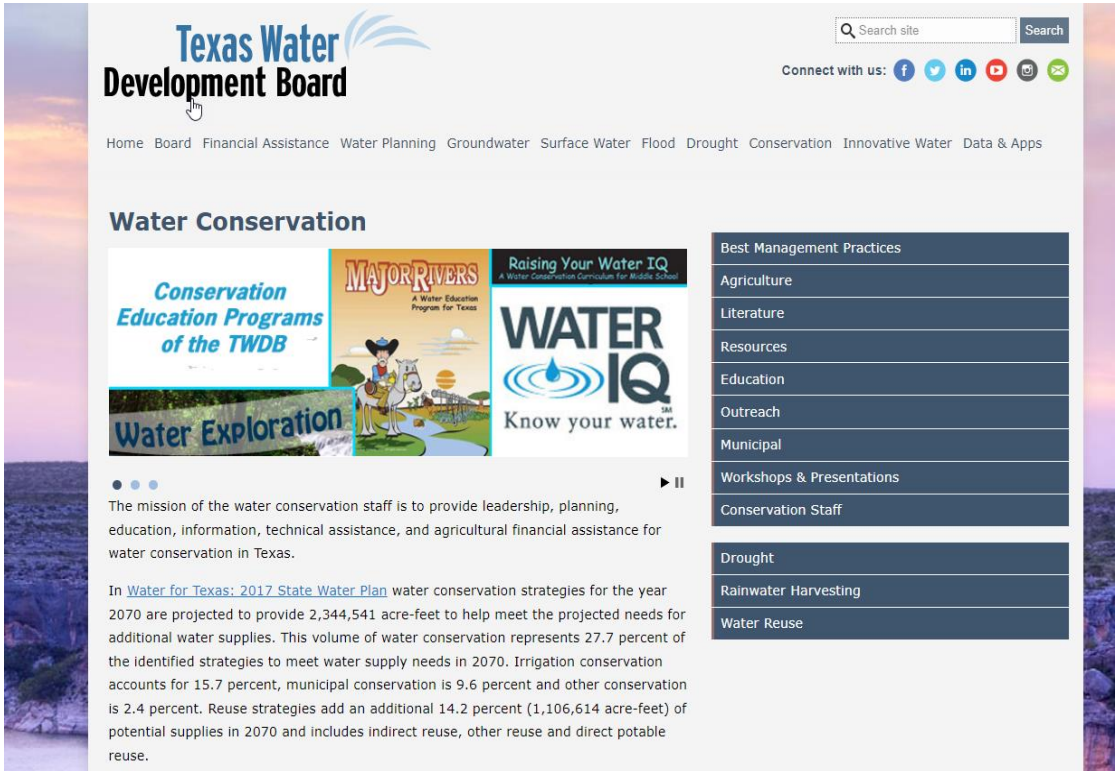
Amistad and Falcon Reservoirs remains at or near Record Lows through the first part of 2025





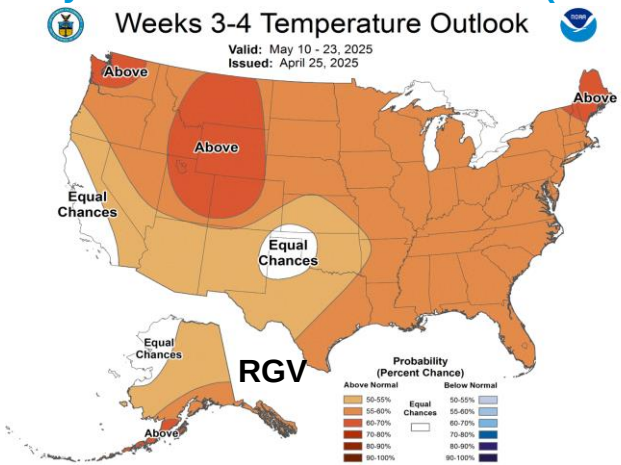
- **Falcon dipped at the end of April to 11.9 percent on April 28** (about the same from **12.8% in late March**). The April drop was due to agricultural releases into Mexico. Levels may not change much through July - any appreciable change would need prolonged mountain rains from remnants of a tropical cyclone.
- **Amistad dropped a little since the end of March** and was near **all-time record lows in late April.** Levels were at **19.5% on April 28th**(slightly lower than **20.6% from late March**). The April drop was due to agricultural releases into Mexico. Levels may not change much through July - any appreciable change would need prolonged mountain rains from remnants of a tropical cyclone.
- **Thunderstorm clusters** moving from the Sierra Madre into the Rio Grande Plains could **create small rises in each reservoir in May** - but not enough to change the Stage 2 restriction condition (Amistad-Falcon percentage of storage capacity less than 25%) for some municipalities.

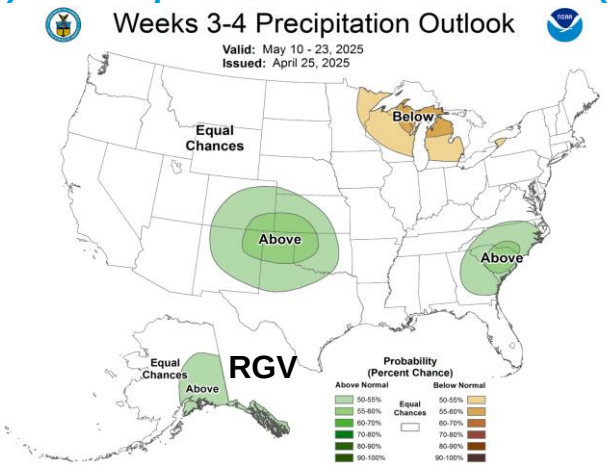
Water Conservation is Key Until Further Notice!

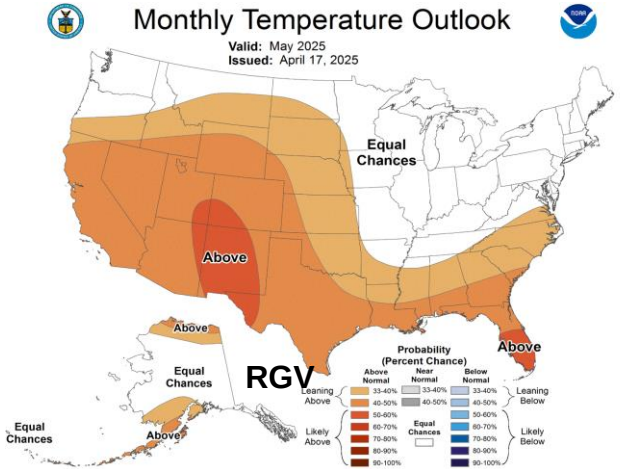


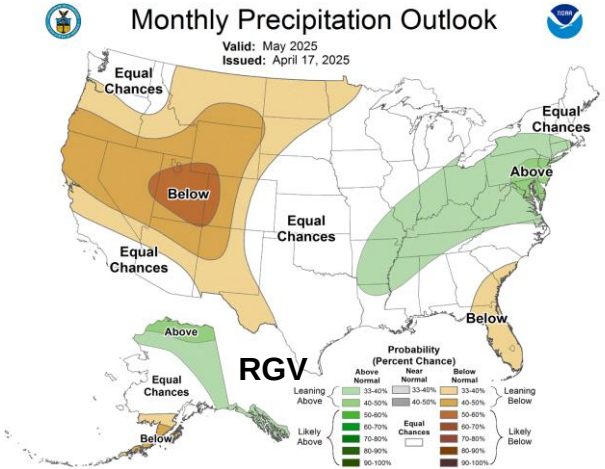
- "Stage 2/3" Restrictions will likely to continue **until further notice** based on inflows from Amistad and Falcon.
- Learn more at the Texas Water Development Board's Conservation Page

May 2025: Confidence: Medium (50-60%) on Temperature and Low-Medium (30-40%) on Precipitation Outcome





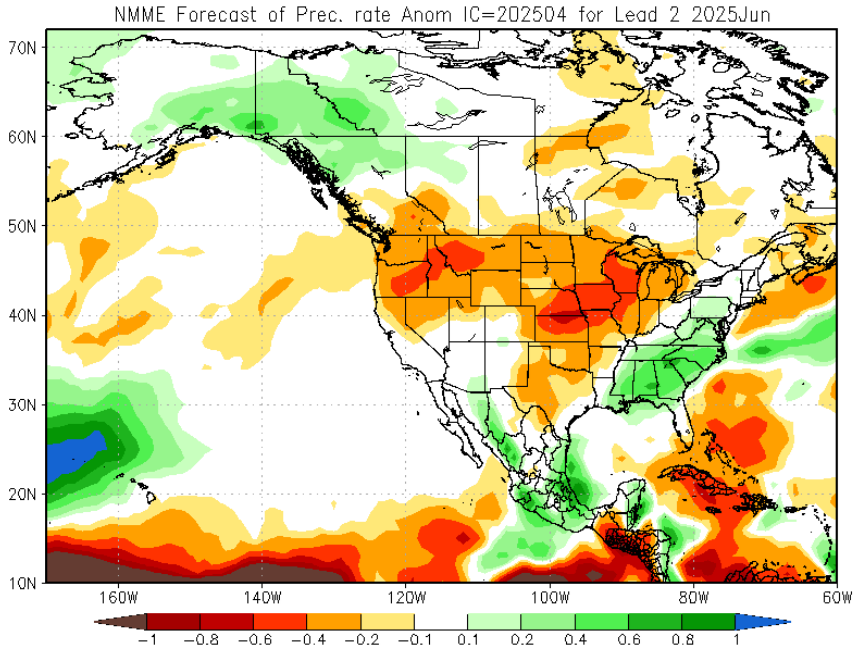




- Medium to long-range models are favoring an **average to hotter than average** pattern through May. Through at least the 1st half of May, **heat risk** appears to be **low** as signs are pointing towards the core of the warmth/heat to be positioned well to our north/northwest across the Desert Southwest.
- Heat Risk will be rather limited through the 1st half of May (i.e. Minor (Level 1) to at times moderate (Level 2) **Heat Risk** expected). At this time, **not anticipating a Heat Wave with widespread major and extreme Heat Risk through much of May**. That said, **Heat Risk** may be on the increase late May into June given model trends/signals.
- **Precipitation odds remains a toss-up**. While there will be many dry days in May, the signals for an outright dominant warmer/hotter than normal pattern **remains weak**, leading to the fact that there could be clouds and rain/storms to contend with at times.
- Though precipitation odds remains a toss-up, it's important to remain vigilant as **heavy rainfall or flooding events can still develop/occur.** Continue to monitor the potential for showers and storms that could **produce additional heavy rainfall/flood risks**!

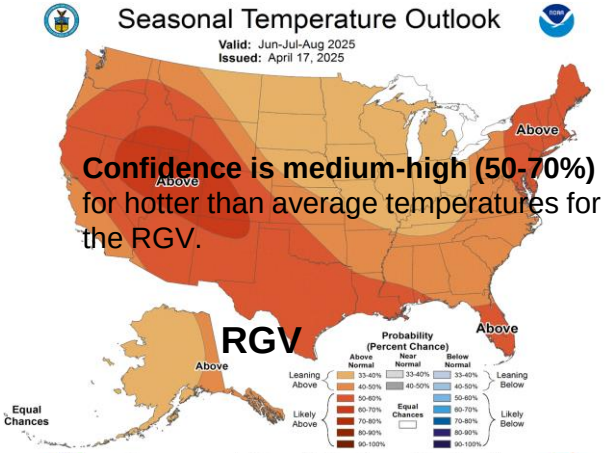
Early Look: June 2025

Potential rainfall rate anomaly, June 2025



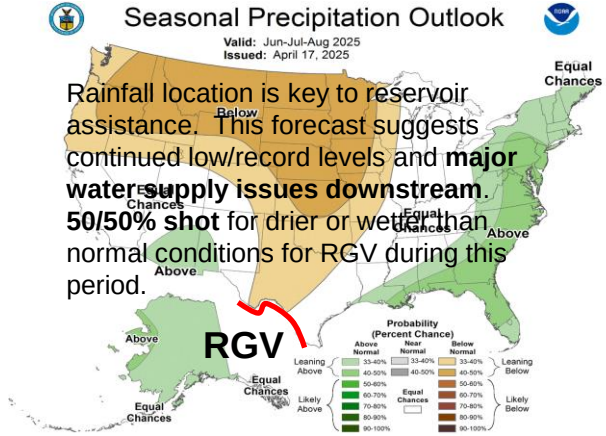
- This model's forecast for June favors a **normal to a 'slight lean' towards a wetter pattern** (note the white to light green colors over the area) developing (a wetter signal than previous months).
- As we continue to move deeper into spring and into early summer, shower and thunderstorm chances will remain in play. Some of these showers and storms could result in locally heavy rainfall and additional, but local, cases of flash flooding.
- A repeat of March 26-28 (historic) flooding is not expected at this time - but as June 2018 and 2019 showed, it cannot be completely ruled out.

Summer 2025: Warmer than normal trends are favored; Precipitation outcome remains a toss-up



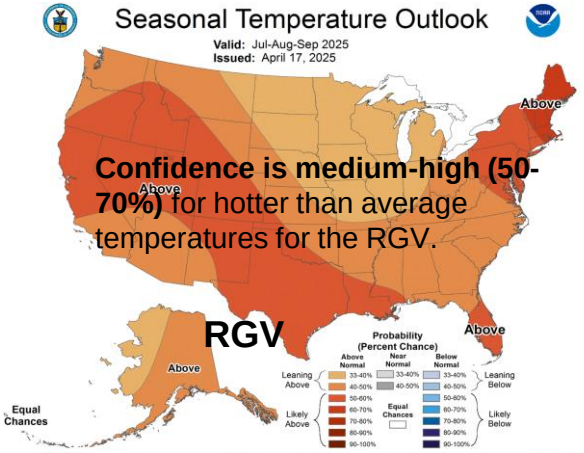
Confidence is medium-high (50-70%) for hotter than average temperatures for the RGV.

RGV



Rainfall location is key to reservoir assistance. This forecast suggests continued low/record levels and **major water supply issues downstream**. **50/50% shot** for drier or wetter than normal conditions for RGV during this period.

RGV



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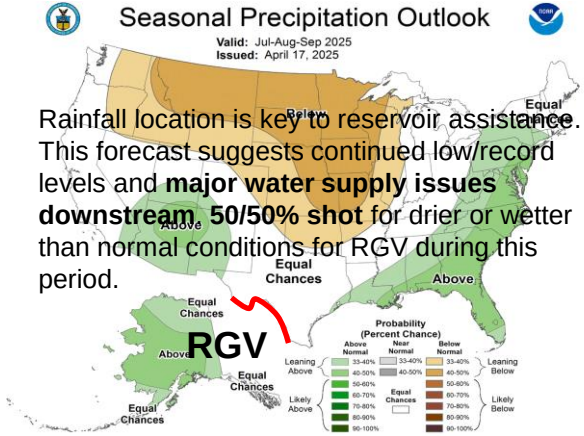

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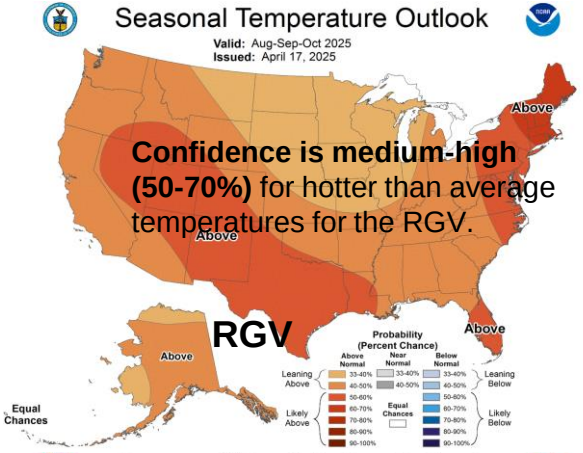

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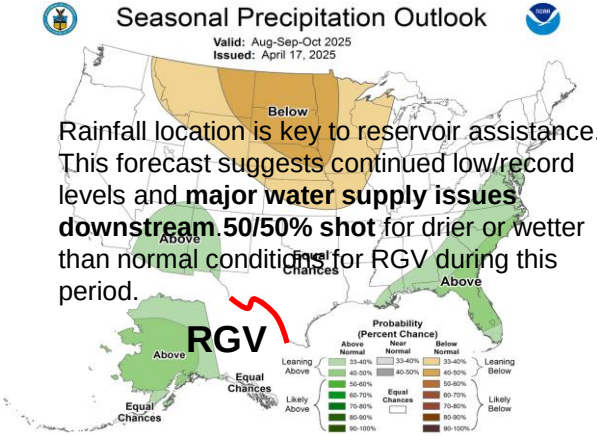
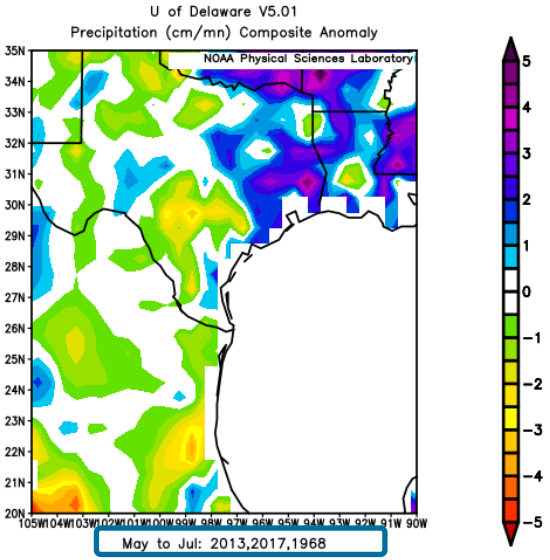


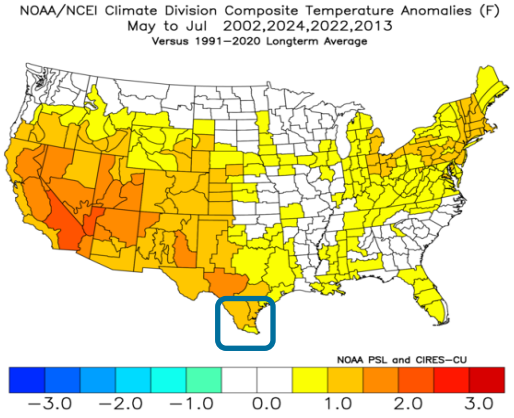
Rainfall location is key to reservoir assistance. This forecast suggests continued low/record levels and **major water supply issues downstream**.**50/50% shot** for drier or wetter than normal conditions for RGV during this period.

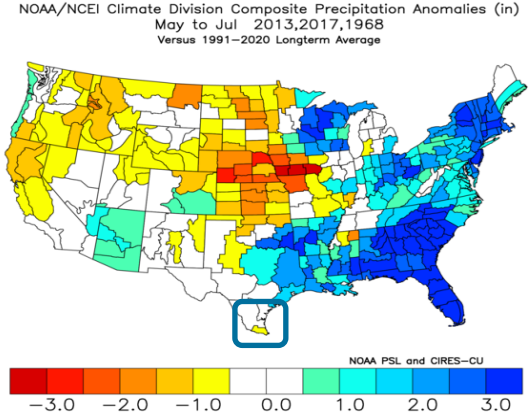
RGV

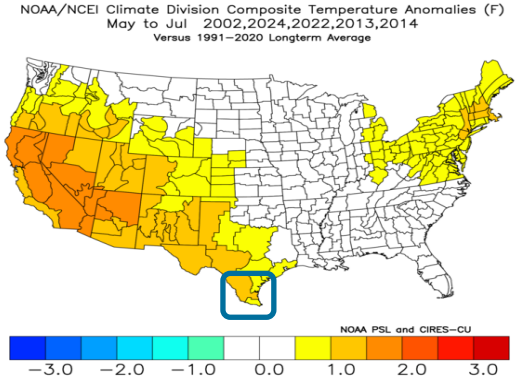
Comparing Similar La Nina to Neutral Episodes mostly within the last 30 years; May-July Periods

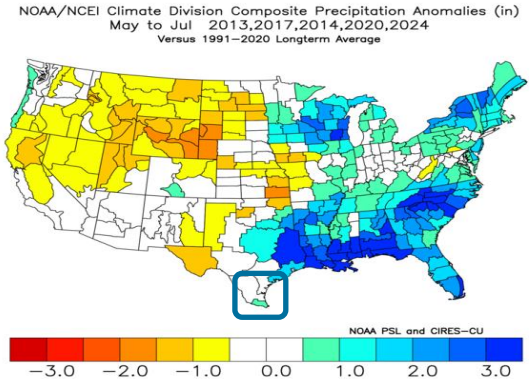


Composite departure from average rainfall for years of similar La Nina to Neutral transition episodes in the May-July window.









- **Top:** Composite temperature (left) and precipitation (right) anomalies for similar La Nina to Neutral transition episodes leading into May-July, since 1950.
- **Bottom Left:** Same, except added 2014 season.
- **Bottom Right:** Same, except added 2014, 2020, and 2024 seasons and took out 1968 season.

Bottom Lines

- **Normal to hotter than normal** conditions are expected to prevail in the **May-July timeframe** with ENSO-neutral conditions in place. **Heat Risk** will remain limited through mid-May, but may begin increasing late May into June.
- Sufficient inflows from Mexican and International reservoirs serving the Lower Rio Grande watershed remain unlikely. The **combined share of water in Amistad and Falcon will likely to continue well below Stage 2 and 3 triggers (25% or less) until further notice.** Water conservation, smart irrigation, and rainwater harvesting are **critical actions to continue as we move through Spring season and into the Summer.**
- **Precipitation outcome remains a toss-up!** Though not a strong signal, studies indicate ENSO Neutral conditions from a La Nina could favor a **wetter bias** across Deep South Texas/RGV between May-July, that includes a slightly more active severe weather season than in 2024.
- **Fire weather and drought concerns/issues** have sharply been reduced following late March's historic rain storm event. However, **Drought concerns** continued across the Starr/Jim Hogg/Zapata region, and could make a return to the mid-Valley in June if additional rains don't fall.
- Current ENSO regime suggests a slightly **above average 2025 hurricane season**, though potentially less active than last year in total and across the RGV/Deep South Texas. Activity could favor the Gulf of America east of New Orleans, as well as the Atlantic Ocean and Caribbean Sea . **Remember, it only takes one landfall** to make a season memorable. Will keep close watch in June and July!