

Out With the Drought!

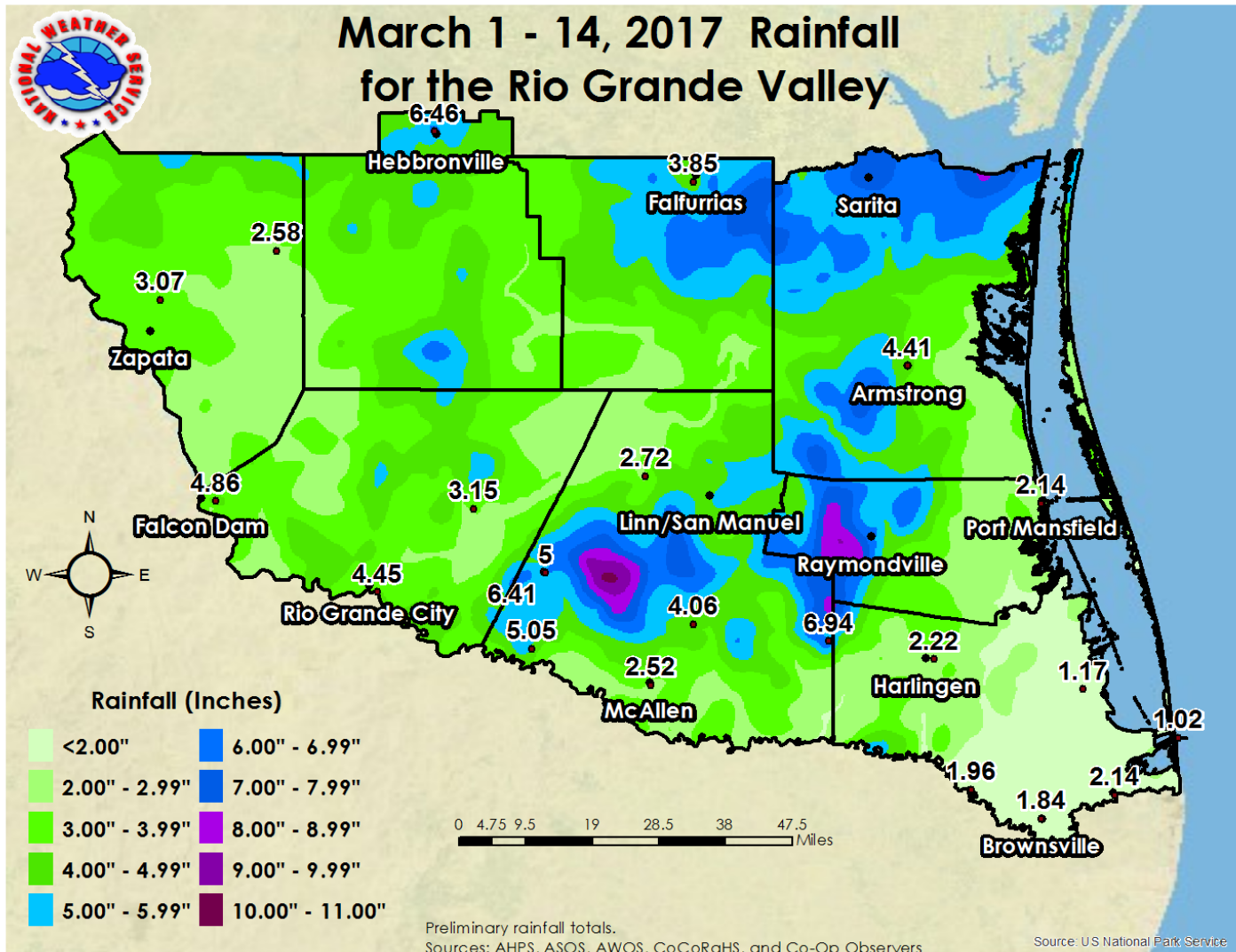
Pacific and Gulf Moisture Combine into Soaking Thunderstorms

March 8th-10th 2017 Event Seals Fate of Drought, Wildfire Season (for now)

After a welcome “teaser” of widespread rain on [March 4th, 2017](#), a “bonus round” arrived the following week, courtesy of several puzzle pieces fitting together just right:

- Unseasonably humid air in a still warmer than average air mass
- A series of upper level disturbances (below) which brought both tropical Pacific Ocean moisture and pulled up additional low level tropical moisture from the southwest Gulf
- A meandering stationary front which focused the rainfall development.

Jackpot for the three days was a pocket of rainfall gold between La Joya/Alton to south of McCook in western Hidalgo County; nearly 8 inches soaked the mainly rural and *colonia* locations with at least one foot of standing water in fields. In the band that extended from La Joya/Peñitas through La Joya/Alton, then eastward just north of Edinburg and terminating in western Willacy County, between 4 and 7 inches fell. Combined with the prior rains on March 4th, between 5 and more than 10 inches fell, or 4 to 8 times the **monthly** average for March (top of next page)! When all was said and done with the first ten days of March, all but southeast Cameron County had received at least 2 times the monthly average – with more than half the month to go. As of this writing, the final two weeks of March were looking to support little to no rainfall – giving the region an opportunity to dry out a bit.



The action began on March 8th, as showers and a few storms initiated mainly west of U.S. 77/IH 69E in Cameron and Willacy County, along an enhanced sea breeze just ahead of a front that was becoming stationary. These showers scooted from east to west across the Valley and ranchlands, dropping a welcome 0.5 to 1.5 inches of rain, focused on Hidalgo and southern Starr County. The “big day” was March 9th, when the strongest of the disturbances combined with the now-stationary front across the Rio Grande Valley to produce big rains in the form of slow-moving thunderstorms that clustered in a band across central Hidalgo, western Willacy, and southwest Kenedy County; a second cluster developed across the northern King Ranch of Kenedy and Brooks County. With the pump “primed” in Hidalgo County by the rains on the 8th, numerous reports of classic urban and rural “nuisance” flooding were received, including high standing water in fields between Alton and McCook, and 1 to 2 feet of water crossing roads in La Joya, Peñitas (Hidalgo) and near Garciasville (Starr County). Finally, one last disturbance on Friday, March 10th acted on the persistent warm/humid air mass and old boundaries to kick off one final day of widespread rainfall, with another 2 to 3 inches falling across the same band of Hidalgo, western Willacy, southwest Kenedy, and the northern King Ranch (Kenedy and Brooks). Fortunately, while additional nuisance flooding likely occurred on the 9th, there were no reports as of this writing of higher water sufficient to threaten life or property on a large scale.

The final significant wave exited Friday evening (March 10th), and only light showers were noted along the coast and in the Gulf early on Saturday March 11th before a dry, sunny, and warm day took over. A cooling front arrived on Sunday but was only able to squeeze out light rains of little consequence, mainly across the Lower Valley.



Above: Photos of minor flooding, up to 2 feet of water, across rural Hidalgo County south of McCook (credit: Steve Saenz); La Joya (credit: KRGV Channel 5 News), and Peñitas (credit: KTLM-40 Telemundo). All photos were taken during the mid to late afternoon on March 9th, 2017.

24 Stations with 108 Reports over 8 Days

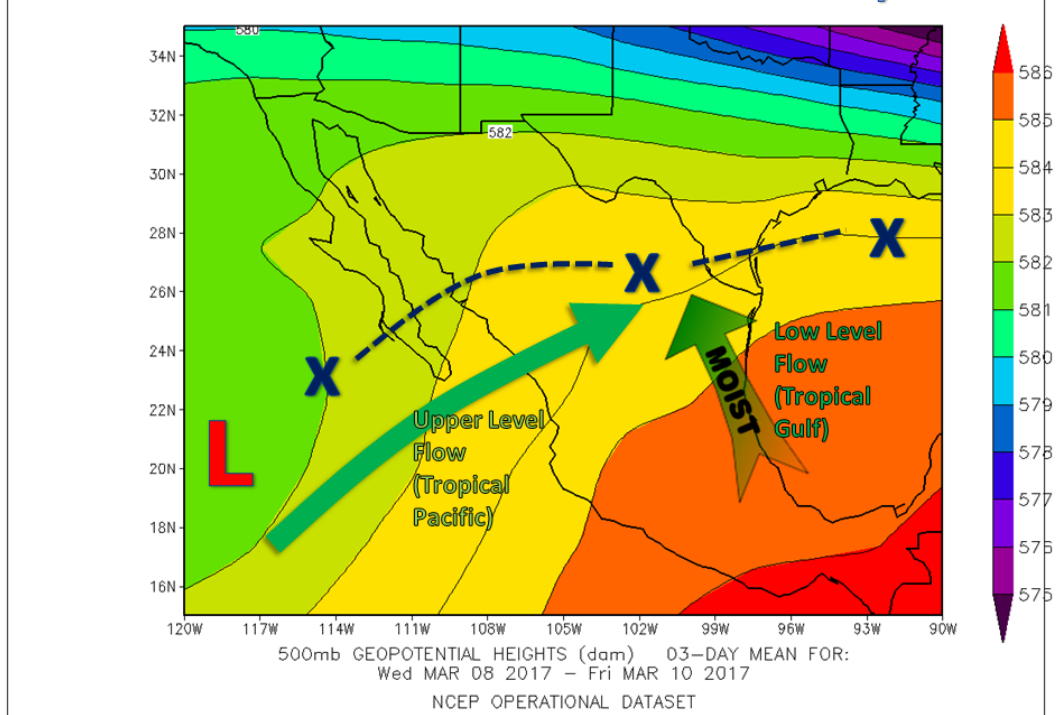
Station Number	Station Name	Daily Precip Sum in.	Multi-Day Precip in.	Total Precip in. ▾
TX-CMR-93	Harlingen 4.4 W	2.01		2.01
TX-CMR-84	Brownsville 2.2 WNW	0.00	1.80	1.80
TX-CMR-78	Harlingen 3.8 W	1.74		1.74
TX-CMR-101	San Benito 0.9 SSE	1.70		1.70
TX-CMR-36	Harlingen 4.7 WSW	1.38		1.38
TX-CMR-85	Harlingen 0.4 N	1.05		1.05
TX-CMR-96	San Benito 6.3 ENE	0.63		0.63
TX-CMR-100	Harlingen 6.2 WSW	0.57		0.57
TX-CMR-92	San Benito 8.7 ENE	0.54		0.54
TX-CMR-58	Laguna Vista 0.3 N	0.49		0.49
TX-CMR-61	Brownsville 6.4 WNW	0.48		0.48
TX-CMR-21	Los Fresnos 0.3 NE	0.39		0.39
TX-CMR-67	San Benito 7.8 E	0.38		0.38
TX-CMR-94	Brownsville 12.6 E	0.32		0.32
TX-CMR-43	Brownsville 4.1 ENE	0.24		0.24
TX-CMR-97	Rio Hondo 7.9 E	0.17		0.17
TX-CMR-45	Bayview 2.9 N	0.14		0.14
TX-CMR-90	Brownsville 1.5 WNW	0.12		0.12
TX-CMR-89	Brownsville 1.7 NNE	0.05		0.05
TX-CMR-13	Brownsville 2.2 W	0.04		0.04

8 Stations with 34 Reports over 8 Days

Station Number	Station Name	Daily Precip Sum in.	Multi-Day Precip in.	Total Precip in. ▾
TX-HDL-40	Mission 9.6 N	5.30		5.30
TX-HDL-5	La Joya 11.1 N	5.19		5.19
TX-HDL-37	La Joya 11.0 N	5.00		5.00
TX-HDL-41	Edinburg 2.4 N	1.98		1.98
TX-HDL-9	Mission 1.9 ENE	1.30		1.30
TX-HDL-19	Mission 4.3 WSW	1.05		1.05
TX-HDL-32	Linn 8.4 WNW	0.81		0.81
TX-HDL-39	Mission 3.9 WSW	0.20		0.20

Above: Observations from the Community Collaborative Rain, Hail, and Snow network (CoCoRaHS) for the period from March 7 through 13th, 2017, for Hidalgo (left) and Cameron (right) County. Other notable multi-day observations were: 2.76” 9 miles southwest of Falfurrias and 1.85” near Falfurrias (Brooks County); 1.80” 18 miles northeast of Rio Grande City, and 1.30” 14 miles northwest of Rio Grande City (Starr County).

The Pattern For Rain March 8-10, 2017



Above: Pattern Matters. Average atmospheric flow at ~18,000 feet from March 8-10, 2017. Blue “x” are tracks of multiple weak disturbances that ejected from the “parent” upper low (red L) during the period. Each disturbance helped kick off a round of afternoon thunderstorms along/near a surface stationary front, which focused lift of low level tropical moisture.