

# Texas Wildflower Report

2016 Outlook

Provided by [WildflowerHaven.com](http://WildflowerHaven.com)

# Contents

- [About this Book](#)
- [2016 Texas Wildflower Season Summary](#)
- [Wildflower Regions](#)
- [Fall Rainfall Maps](#)
- [Winter Rainfall Maps](#)
- [Average Winter Temperatures](#)
- [Polar Vortex Problem](#)
- [Rainfall is not the only factor!](#)
- [References and Other Resources](#)

# About this eBook

The Texas 2016 Outlook provides a brief summary of the conditions for the 2016 Wildflower Season with a focus on the Texas Bluebonnet. It represents the collective experience of several professional and semi-professional photographers. However, this eBook is just a guide and does not guarantee that the reader will find displays of Texas Wildflowers along any of the routes mentioned. It is hoped that the information shared here will encourage you, the reader, to safely and respectfully venture out to enjoy the wonder and beauty of our state flower and the many other wildflowers in Texas. For current reports on bluebonnet and other wildflower season updates visit our forums at [WildflowerHaven.com](http://WildflowerHaven.com) and our Facebook page – [Texas Wildflower Report](https://www.facebook.com/TexasWildflowerReport). Also see the [Resources Page](#) at the end of the eBook for other wildflower report sources.

## Responsible Viewing!

When you do venture out to enjoy our Texas Bluebonnets and other wildflowers in bloom, please travel safely and be respectful of the private property of others. We **do not** encourage nor do we condone trespassing on private property to get that annual “kids in the bluebonnets” photo or any photo. The Texas Department of Public Safety provides some important [guidelines](#) on how to safely and legally enjoy viewing and photographing our Texas Wildflowers. You are strongly encouraged to read those guidelines before venturing out to explore.

If you find this guide to be helpful in your search for Texas Wildflowers, please like our [Texas Wildflower Report](https://www.facebook.com/TexasWildflowerReport) Facebook page and share a copy of this guide with your friends. Also, we have a large selection of bluebonnet and wildflower images in our [Texas Wildflower Report Galleries](#). Prints or licenses to use are available for most of these images. WildflowerHaven.com is a for-profit organization, but we do attempt to provide these and many other sources of information without charge. **If you would like to help fund our efforts** consider purchasing a print or make a small donation via PayPal.

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<http://www.pbase.com/riche/bluebonnets>

<https://www.facebook.com/TexasWildflowerReport>

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# 2016 Texas Wildflower Season Summary

## Overall Grade

Based on rainfall analysis, temperature analysis and scouting reports, the 2016 should be at least an average season with some spots enjoying above average displays with one caveat. The season might match the “once-in-a-lifetime” 2010 season in some areas if a bit more rainfall comes in March. The above normal temperatures experienced in January and February could result in the peak bloom for bluebonnets to be early as much as 7 to 10 days. Areas north of a line from San Antonio to Houston experienced more days above normal temperatures than areas south of that line. This is not the typical climate experience, so locations in the Hill Country might actually see peak blooms before locations south of San Antonio. Based on initial scouting reports this seems to be the case for at least roadside blooms. In terms of rainfall alone, the 2015 fall closely matches the 2009 fall that preceded the 2010 spring season. However, the winter temperatures this season are well above the 2009-2010 winter and rainfall over an inch below. Winter temperatures are more like the 2011-2012 winter. Although overall winter rainfall was only slight below normal, that factor combined with the above normal winter temperatures could be the caveat that results in the season falling short of expectations built up because of above normal precipitation in the fall.

## Wildflower Regions

The regions defined here loosely match the standard definitions of the NOAA climate divisions and general geographical locations in Texas that are popular wildflower viewing areas. As used here this is not the “official” definition of the regions, but just a guide to the locations. Wildflowers do not know or honor political boundaries, so just because a county or town is not mentioned does not mean wildflowers do not grow and bloom there. Also, the locations here are ones that over the years tend to send in more positive reports of wildflowers in bloom. For the purpose of this report the regions include:

- Big Bend: Brewster, Presidio Counties
- Brenham Area: Austin, Fayette, Grimes, Waller, Washington Counties.
- North Central – Ennis (Ellis County) and Cedar Hill areas
- Hill Country – Blanco, Burnet, Gillespie, Llano, Mason, and San Saba Counties.
- South Texas – Atascosa, De Witt, Gonzales, Guadalupe Counties

## Regional Grades

To try and put some tangible grade rather than just a “feeling”, I put together a simple 5 point scale for mostly rainfall during the fall and winter. Added to this is a boost or downgrade due to results of scouting reports. Grades are: 1 – well below normal rainfall, 2 – below normal rainfall, 3 – normal rainfall, 4 - above normal rainfall, 5 – well above normal rainfall.

- Big Bend: **3.5** or slightly above average season (Fall Rainfall – 3.5, Winter Rainfall – 3 = 3.25 - Overall Rainfall Average, +.25 for positive reports.
- Brenham Area: **3.5** or slightly above average season (Fall Rainfall – 3.8, Winter Rainfall – 3.2 = 3.5 - Overall Rainfall Average.
- North Central: **3.5** or slightly above average season (Fall Rainfall – 4.0, Winter Rainfall -3.00 = 3.5 Overall Rainfall Average.
- Hill Country: **3.4** or slightly above average season (Fall Rainfall – 3.7, Winter Rainfall – 2.5 = 3.1 Overall Rainfall Average, +.25 for positive reports.
- South Texas: **3.25** or average season to slightly above (Fall Rainfall – 3.0, Winter Rainfall – 3.5 = 3.0 Overall Rainfall Average,

Note: Limiting factors could be above normal winter temperatures and rainfall amounts in March. Reports of bluebonnet blooms are coming in earlier in the eastern half of the Hill Country than South Texas.

# 2016 Texas Wildflower Season Summary

## Summary by Region

**Big Bend:** 3.5 or slightly above average season

I have already seen photos of Big Bend bluebonnets in bloom in the last week of February. This is already 7 to 10 days earlier for them. Rainfall has been at or above normal despite the downtrend in January and February. If the area gets some more rain it could be an above average season for them. Timing is usually second week in March, but this could be pushed much earlier.

**Brenham Area:** 3.5 or slightly above average season. I have seen a few posts of bluebonnets in bloom mainly in yards and along roadsides. Rainfall is on track for the area to have an above average season.

**Ennis - North Central:** 3.5 or slightly above average season. Rainfall amounts are in place for the North Central region to have an above average season. I have not seen any reports of early blooms which is to be expected at this point. Still the above average winter temperatures, especially in February could push their peak bloom time up into the first weeks of April instead of the 3<sup>rd</sup> week in April.

**Hill Country:** 3.4 or slightly above average season. Several positive reports indicate that bluebonnet plants can be easily be found. One recent report noted bluebonnets in bloom along Texas 71 before Llano and Texas 16 north of Llano. Johnny Boyd, <http://www.TexasWildflowerPhotos.com> reported blooms and plants along several of the major roads in Burnet and Llano Counties. *Johnny reported, "I am happy to report it appears as of right now it will be the best show in at least 3 years and maybe 4 or more. I saw rosettes and blooms on every road I traveled even on some roads where I have not seen any in 3 years."* Timing for peak bluebonnet blooms is usually first two weeks in April, but based on average minimum temperatures in February and scouting reports it looks like at least the eastern half of the Hill Country could see peak bloom closer to the end of March. Right now the below normal winter rainfall and above normal winter temperatures are key limiting factors. Without more rain in March, the season could be very early, short lived and limited in coverage. With a bit more rain in March, parts of the Hill Country could match the "once-in-a-lifetime" 2010 season.

**South Texas:** 3.25 or average season to slightly above. On a recent scouting trip to Somerset, Poteet, Stockdale and New Berlin, the only blooms I saw were of yellow groundsel and phlox. I did find bluebonnet plants at several locations, but the plants were still quite small and no bloom stalks. The coverage was not as extensive as I had hoped. I still think some areas a bit farther south and southwest of Poteet might see some average coverage of blooms. Also the Devine – Natalia area might also have at least an average to slightly above average season. The areas south of a line from San Antonio to Houston tended to get more days below minimum temperatures in February than north of that line. That might actually result in that area peaking later than the Hill Country this year. More rain is needed to boost the hopes of an above average season in the South Texas region.

# Wildflower Regions

**Big Bend:** Brewster, Presidio (not shown on map)

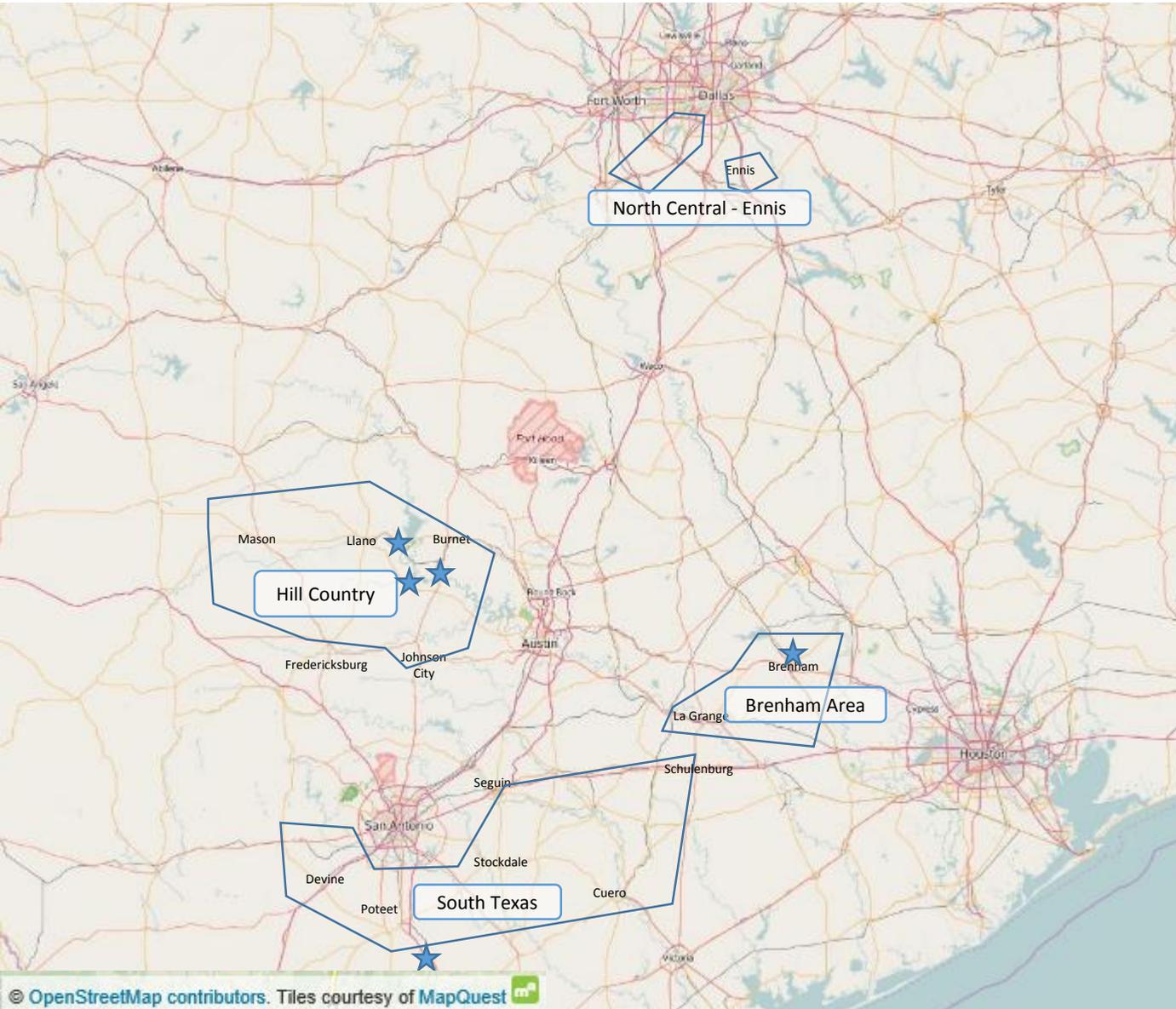
**Brenham Area:** Austin, Fayette, Grimes, Waller, Washington Counties.

**North Central – Ennis** (Ellis County) and Cedar Hill areas

**Hill Country** – Blanco, Burnet, Gillespie, Llano, Mason, and San Saba Counties.

**South Texas** – Atascosa, De Witt, Gonzales, Guadalupe Counties

★ = Bluebonnet Reports of plants or early blooms.



# September 2015 Rainfall Analysis – Departure from Normal Precipitation

Texas: September, 2015 Monthly Departure from Normal Precipitation

Valid on: October 01, 2015 12:00 UTC

What is UTC time?

Map Help

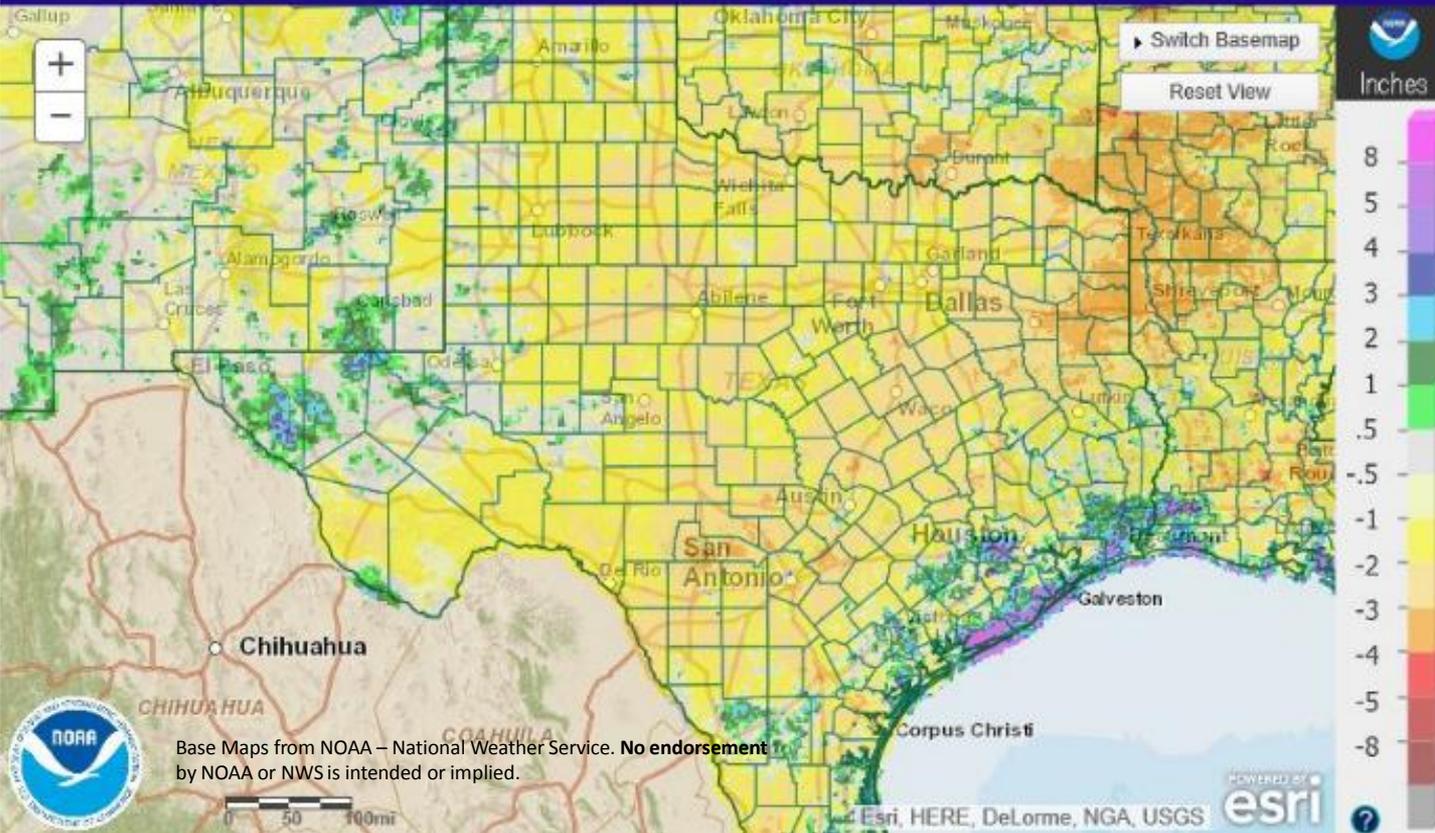
Print this map

Permalink

BOOKMARK

Facebook Twitter Email

Find address or location

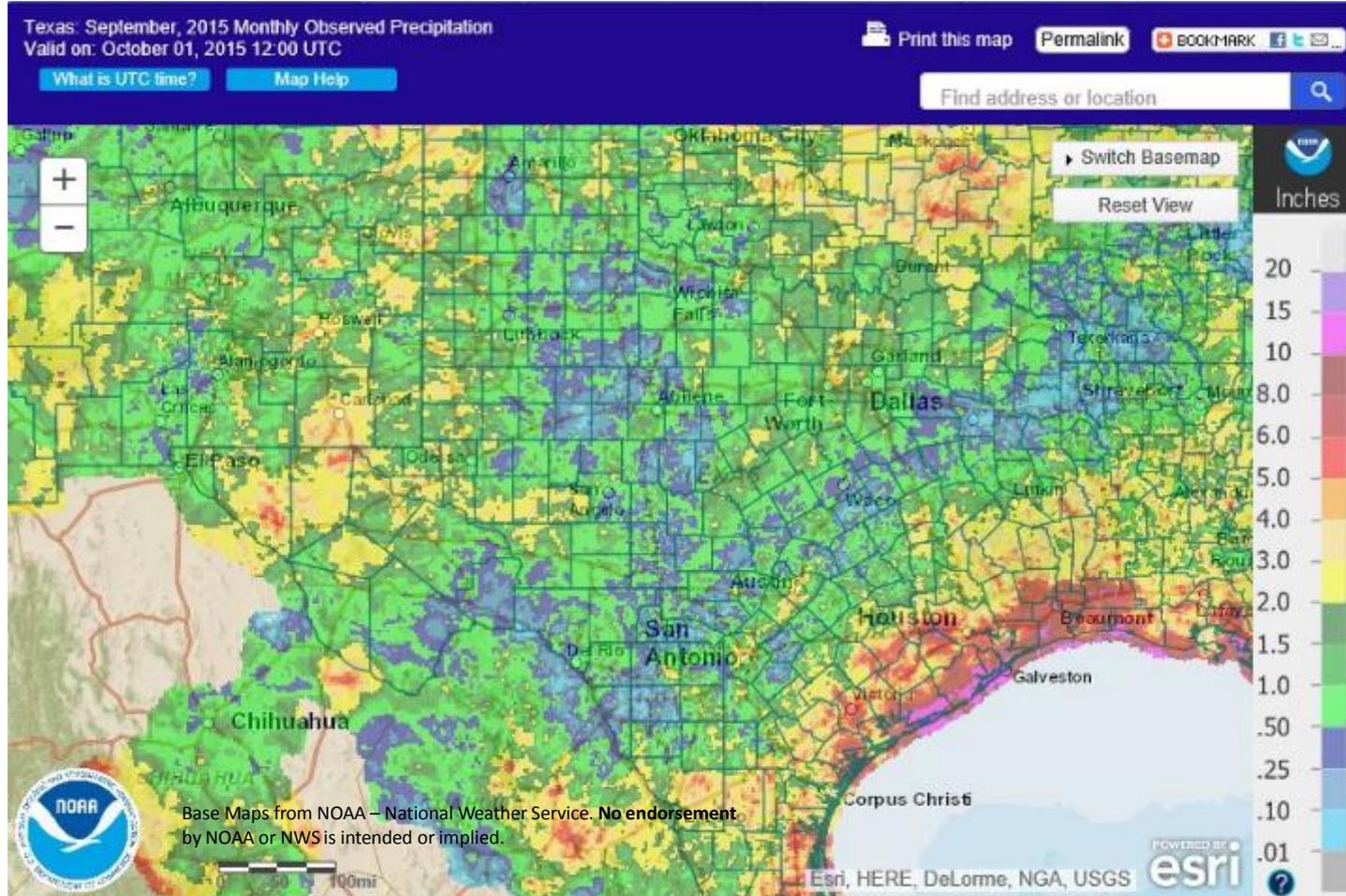


Base Maps from NOAA – National Weather Service. **No endorsement** by NOAA or NWS is intended or implied.

September rainfall throughout the state was below normal. This despite the presence of an El Niño. All of the main bluebonnet areas with the exception of one sliver of the Big Bend State Ranch were one to two inches below normal. The map here shows the departure from normal rainfall. Light yellow to darker yellow indicates one to two inches below normal.

The good news is that the drop was not into the orange or red levels.

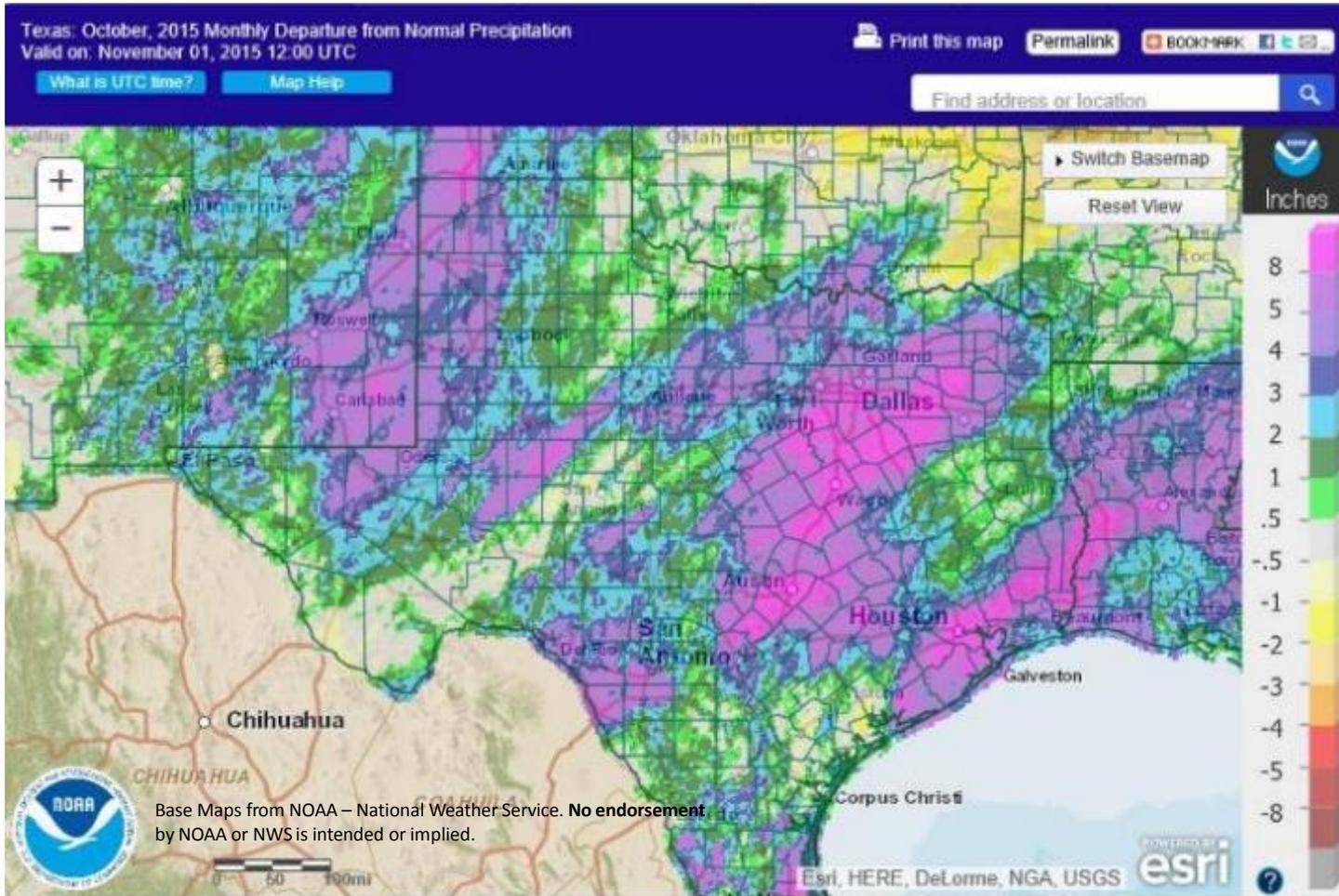
# September 2015 Rainfall Analysis – Observed Precipitation



This map shows the **observed** rainfall recorded during September 2015. Green and yellow areas indicate where at least one to three inches of rain fell in September.

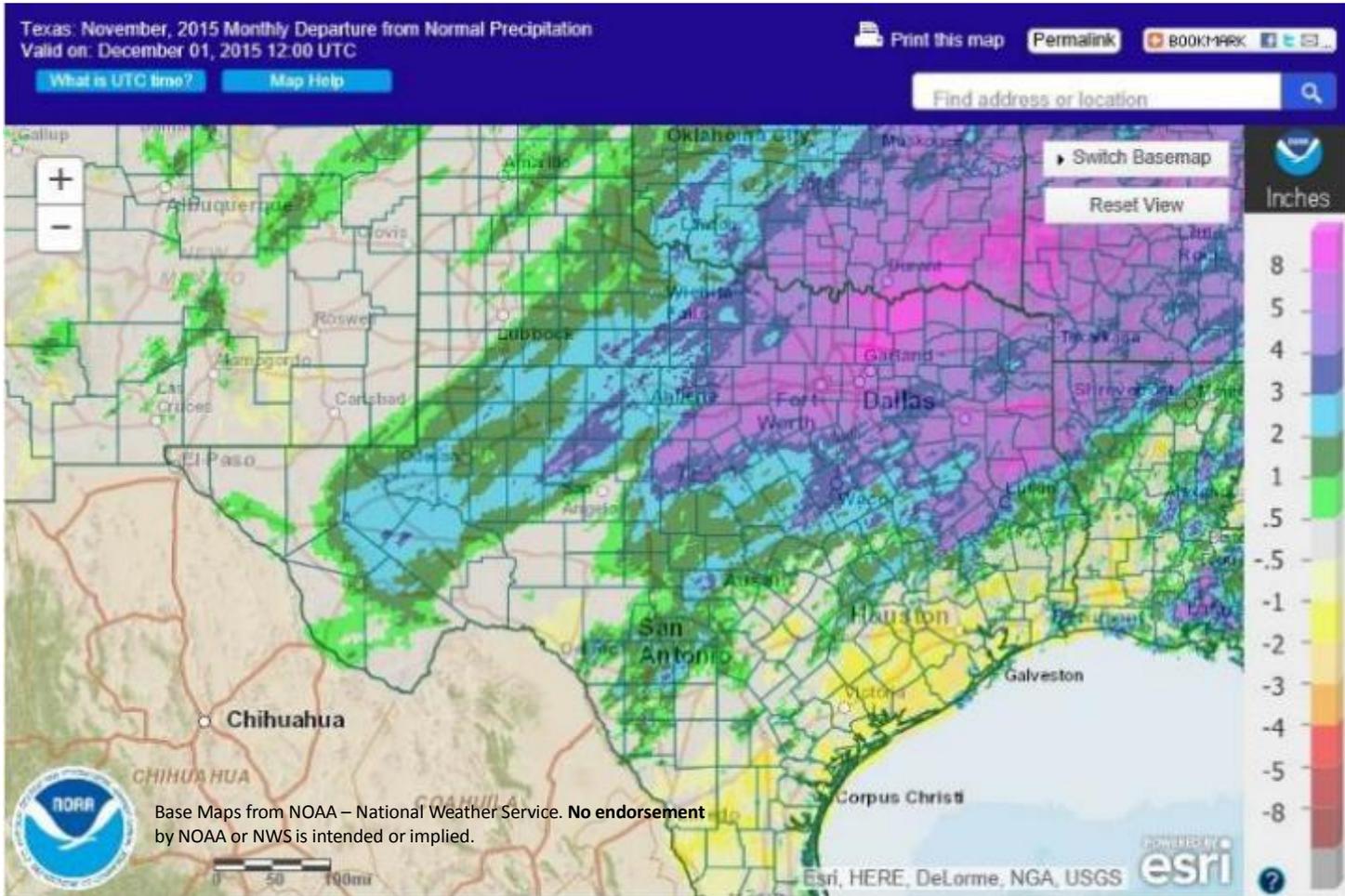
The good news here is that some rain fell over all key wildflower areas.

# October 2015 Rainfall Analysis – Departure from Normal Precipitation.



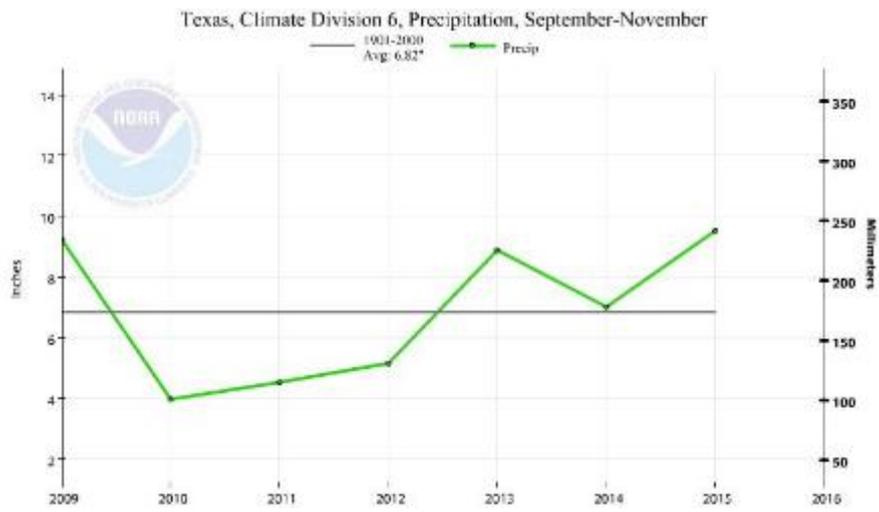
In October the El Niño finally kicked in and the rain came and sometimes heavy rain with flash flooding. Within the DFW-Austin - San Antonio – Houston triangle the rainfall was well above normal. Parts of the Hill Country were well above normal rainfall, but there were spots here and there that only got normal or just slightly above normal rainfall. Areas south and east of San Antonio were also mixed in rainfall amounts. Some parts getting well above normal and some just barely above normal.

# November 2015 Rainfall Analysis



In November the El Niño continued to provide ample rainfall for the north central parts of the state, but areas south of the DFW areas got mixed amounts. The Hill Country still overall received above normal rainfall with a few spots well above normal. The areas south and east of San Antonio barely received normal rainfall. Given the amounts in September and October, all but the area south of San Antonio did really well.

# 2015 Hill Country Fall Rainfall Comparison

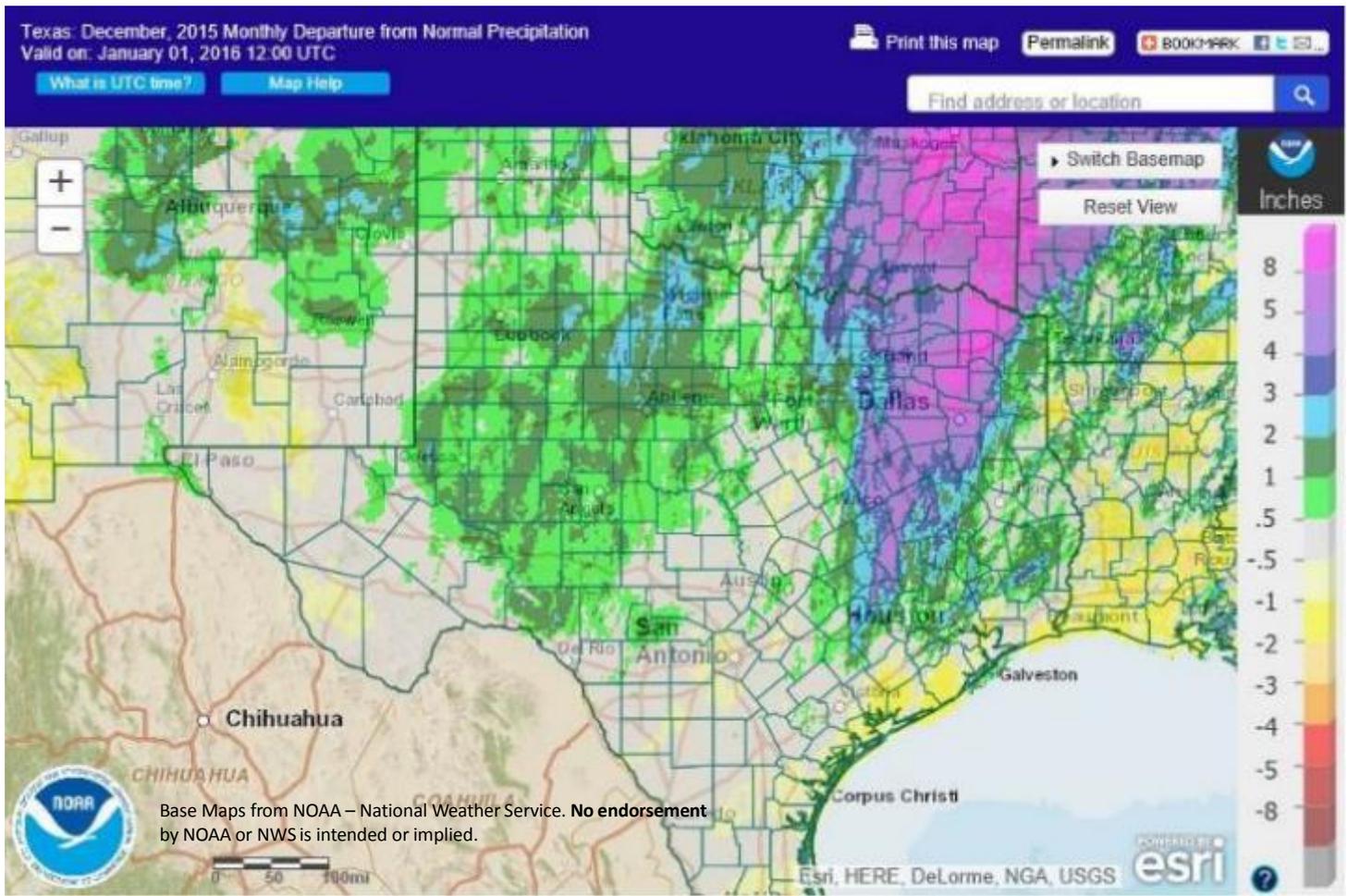


Download:

DATES	VALUE	RANK	ANOMALY (6.82") 1901-2000 BASE PERIOD
200909 - 200911	9.23"	6	2.41"
201009 - 201011	3.97"	1	-2.85"
201109 - 201111	4.53"	2	-2.29"
201209 - 201211	5.15"	3	-1.67"
201309 - 201311	8.88"	5	2.06"
201409 - 201411	7.01"	4	0.19"
201509 - 201511	9.51"	7	2.69"

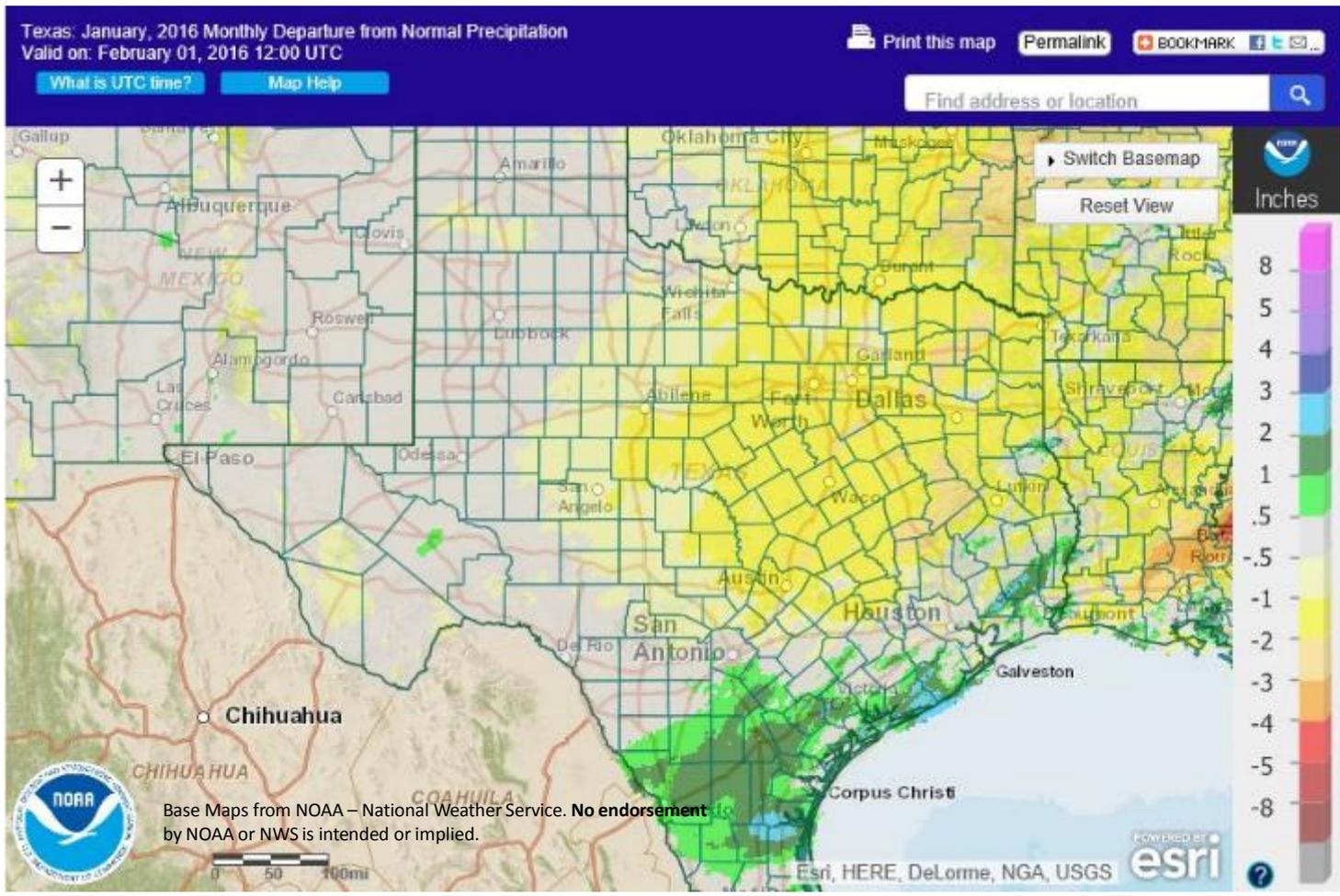
The chart on the left is from the NOAA Climate at a Glance website - <http://www.ncdc.noaa.gov/cag/>. The chart compares the precipitation totals for the Edwards Plateau (Hill Country region) during the months of September through November for the years 2009 through 2015. The 2010 Wildflower Season for the Hill Country was considered by many to have been a “once in a lifetime” experience. Not only were there large solid fields of bluebonnets, but also a wide variety of large displays by other wildflowers. As you can see from the chart, the fall months in 2009 that preceded the banner 2010 season were 2.41” above normal. Compare this to the 2015 fall that preceded this season and you can see that the 2015 fall exceeded the 2009 fall rainfall. So at least in the area of fall rainfall, this season is on track with the 2010 season. However, fall rainfall is only one part of the recipe for an above normal season. In fact, the chart shows a deficit for the 2011 and 2014 fall months and yet the Hill Country had some great displays in the spring following both of those fall time periods. Also, I ran the chart for the other climate divisions and they all showed above normal rainfall. Once again the only one in question is the area south and east of San Antonio. The climate at a glance breaks that area into two separate divisions and one of those divisions includes much of the Austin-San Antonio area which did better than areas south of San Antonio.

# December 2016 Departure from Normal Rainfall



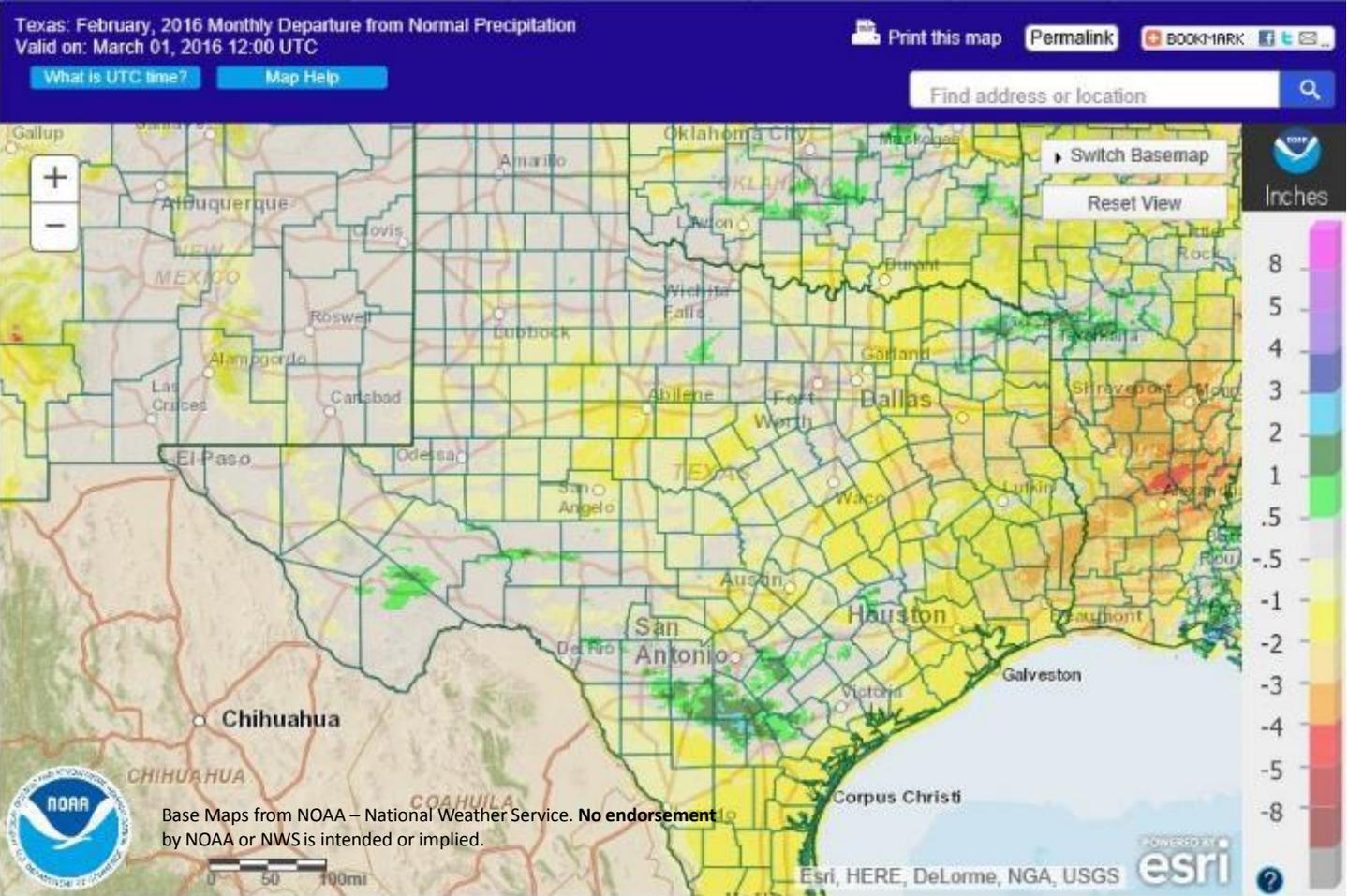
Second only to fall rainfall is winter rainfall. Although the plants are usually in a “slumber” when it comes to building up their above ground parts, they are still at work developing their root systems. So winter precipitation is vital to helping plants develop deep and strong root systems. A plant with a good root system will usually develop large tops and have more blooms. This winter we had a strong El Niño in place, but a split jet stream due to wobbles in the Polar Vortex. This split in the jet stream resulted in less rainfall. This map shows that only the Ennis and Brenham areas received above normal rainfall in December.

# January 2016 Departure from Normal Rainfall



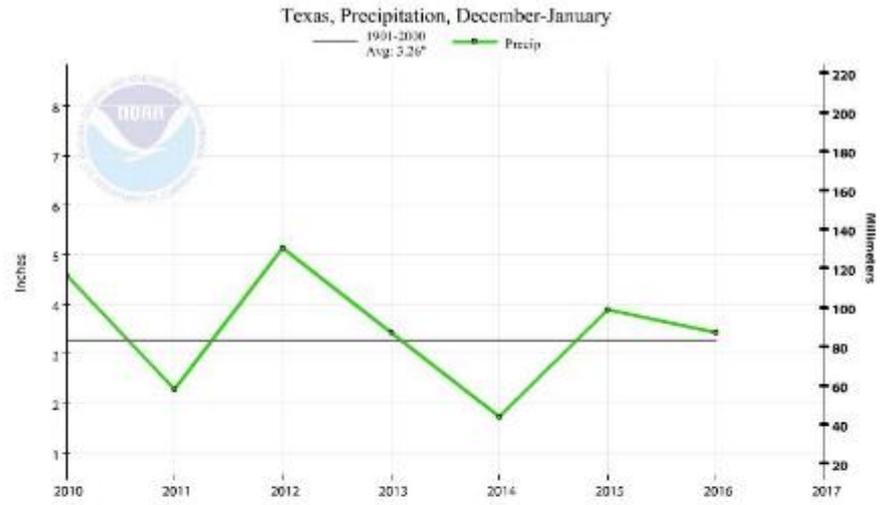
In January this split in the jet stream due to the Polar Vortex wobbles resulted in all areas except south and east of San Antonio receiving below normal rainfall. The only really good news here is that the deficit was not significant – no orange or red areas.

# February 2016 Departure from Normal Rainfall



Once again in February, the split in the jet stream due to the Polar Vortex wobbles resulted in all areas except south and east of San Antonio receiving at or below normal rainfall. The only really good news here is that the deficit was not significant – no orange or red areas.

# Winter Rainfall Comparison



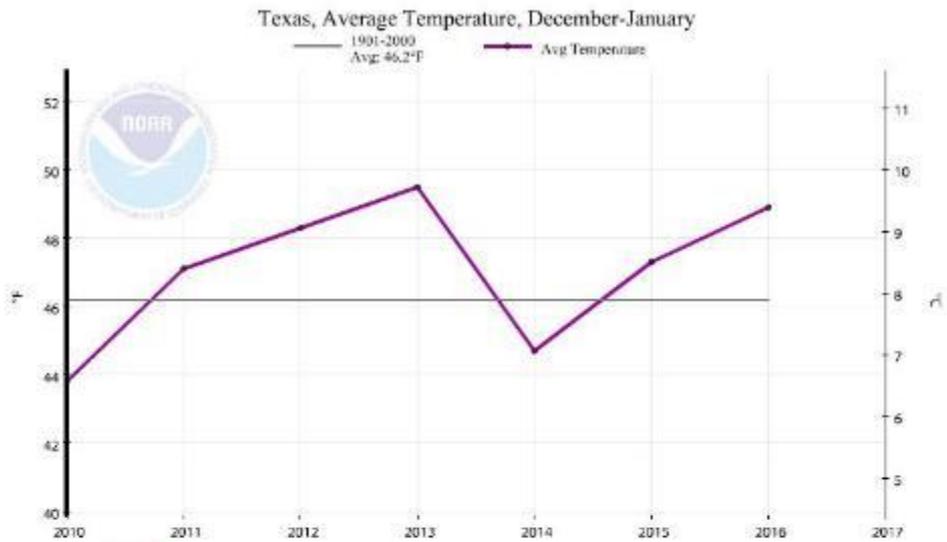
Unlike the 2009-2010 winter precipitation which was well above normal, this winter's precipitation is just slightly above normal. Also of note is the winter precipitation for the winter of 2011-2012 which was a really good year for bluebonnet fields in the Hill Country. The point is that winter rainfall is also very important in building toward an above average wildflower season.

Download: [XML](#) [PDF](#) [GIF](#)

+	DATES	+	VALUE	+	RANK	+	ANOMALY (3.26") 1901-2000 BASE PERIOD
	200912 - 201001		4.59"		6		1.33"
	201012 - 201101		2.28"		2		-0.98"
	201112 - 201201		5.13"		7		1.87"
	201212 - 201301		3.43"		4		0.17"
	201312 - 201401		1.73"		1		-1.53"
	201412 - 201501		3.89"		5		0.63"
	201512 - 201601		3.43"		3		0.17"

<http://www.ncdc.noaa.gov/cag/>

# December – January Average Temperature for Texas



In a complete opposite from the “once in a lifetime” 2010 season, the 2016 season’s average temperature is well above normal. Temperature during the winter months is important to help stimulate plants into preparing for flowering in the spring through a process called, “vernalization.” Bluebonnets just need some cool winter weather (cold for Texas). The main problem with a really warm late January and February is that once the average ground temperatures begin to rise above 50F the plant will bush up and shoot up bloom stalks. So the usually late March through second week in April for the Hill Country bluebonnet peak could be more like mid to late March which is what happened in 2012. This year, the temperatures in January have fluctuated between cold and warm days. These warm days have apparently been due once again to the split Jetstream and the Polar Vortex. Reports of bluebonnet blooms along roads in the Hill Country are already coming in. So this above normal temperature for winter this year could be heralding in an early start to at least the bluebonnet flowering. We could also see a split in the flowering with roadsides and managed areas peaking and fading before the fields begin.

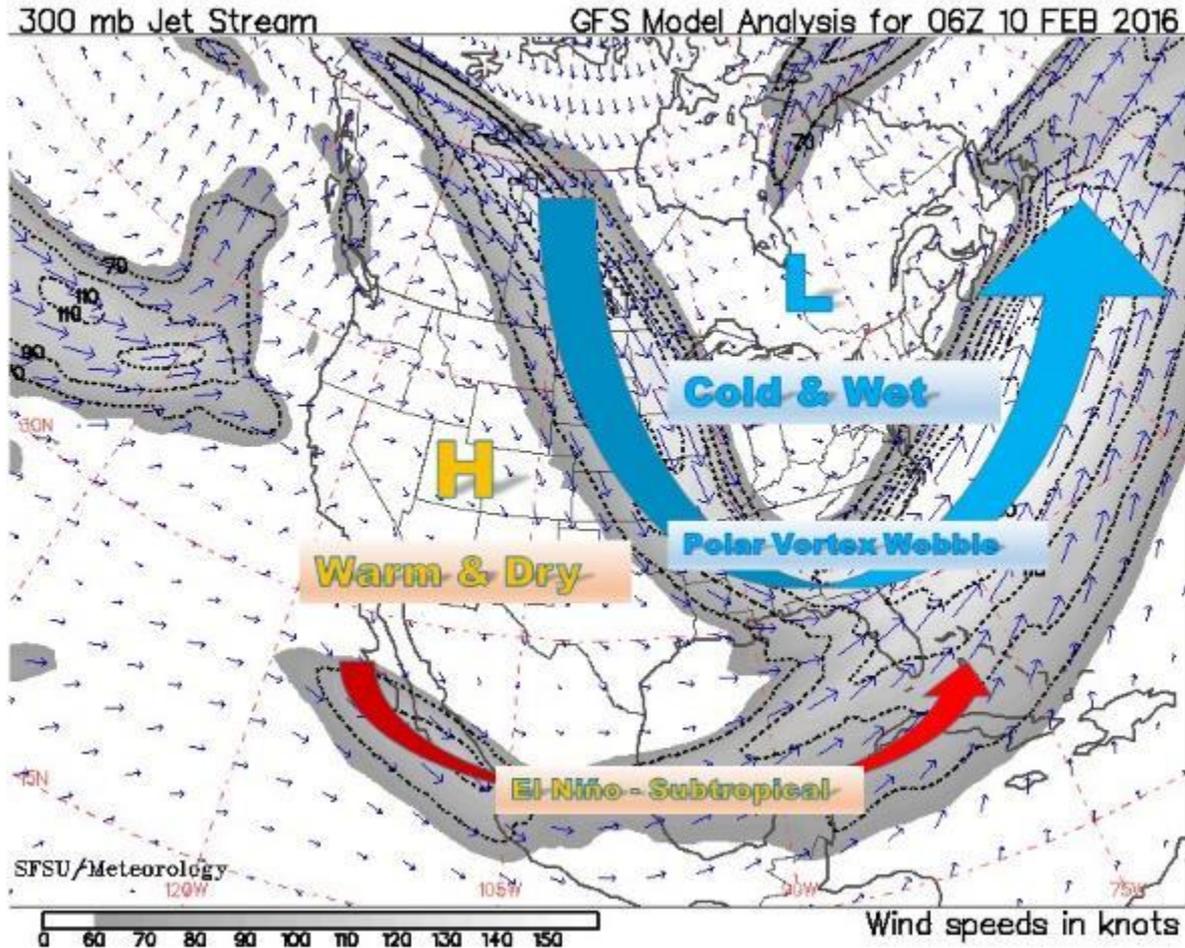
Download: [XML](#)

DATES	VALUE	RANK	ANOMALY (46.2°F) 1901-2000 BASE PERIOD
200912 - 201001	43.8°F	1	-2.4°F
201012 - 201101	47.1°F	3	0.9°F
201112 - 201201	48.3°F	5	2.1°F
201212 - 201301	49.5°F	7	3.3°F
201312 - 201401	44.7°F	2	-1.5°F
201412 - 201501	47.3°F	4	1.1°F
201512 - 201601	48.9°F	6	2.7°F

<http://www.ncdc.noaa.gov/cag/>

# The Polar Vortex Problem

“Houston, we have slight problem in the El Niño Jet Stream!”



Recent southward wobbles in the “polar vortex” have caused the typical El Niño west to east track of the subtropical jet stream to dip too far south to bring the cooler and wetter pattern to Texas during much of January and February. Hopefully the polar vortex will sober up and take its usual straight and narrow swing around the arctic. That should free up the subtropical jet to move northward and bring some much needed rainfall back to Texas for the spring wildflower show. If not then we might not see the better than average show we should see during an El Niño year.

[Read the full post](#)

# Rainfall is not the only factor!

It is important to understand that although rainfall is very important, rainfall is only one factor that leads to an above average wildflower show in the spring. Some other factors for a great spring wildflower show include:

- **Late winter and early spring rainfall** is very key to rosette root and plant growth. Usually the rosettes with deeper and better developed root systems are the ones that yield larger plants with more blooms.
- **Warming temps** in March are needed to encourage growth of plants and bloom stalks. Usually when the night-time temperatures are averaging 50 to 60 F, bluebonnet plants will increase plant growth and send out bloom stalks. Cooler temperatures in March will tend to delay the blooming period. Warm temperatures with good rainfall will tend to promote an early and longer season. Extreme heat in late March and April with less than average rainfall will promote a quick and shorten season.
- **Plenty of sunshine** during the typical flowering time is important especially for sun hungry bluebonnets. Long periods of overcast skies with warm/damp weather can encourage development of plant and root diseases. I have seen entire bluebonnet crops wiped out by root/stem diseases.
- **Less competing vegetation** - Dead vegetation from previous seasons not removed can result in excessive shading thus limiting rosette and seedling development. Often aggressive invasive species will use this tactic to push out native wildflowers. In recent years the giant common mustard([Rapistrum rugosum](#)) has taken over entire pastures resulting in little or no native wildflower growth.
- **Topography and soil:** Although bluebonnets will grow in most any soil, they tend to do much better in areas that drain well and in soils with less clay. They depend on a rhizobium bacteria that help to fix nitrogen from the air. Soils poor in this bacteria will not likely produce a good crop of bluebonnets.
- **Proper mowing/grazing** - Grass mowed/grazed in late August and again in late January (but not too low to remove seedling rosettes) will help in removing/reducing dead/competing vegetation. Roadside mowing during the prime blooming months of Mar-May can literally kill a good wildflower display. Also, pasture lands overgrazed by livestock will often be completely barren of any wildflowers. This is particularly true of pastures grazed by goats and sheep. Deer usually do not choose native wildflowers as a food source, but where there is overcrowding and fewer food sources they will munch on native plant seedlings.

# References and Resources

## Wildflower Sightings

For bluebonnet and other wildflower sightings for the Texas Hill Country area check:

[WildflowerHaven Texas Wildflower Season Updates](#)

[Texas Wildflower Report on Facebook](#)

[Other Wildflower Resources](#)

## Wildflower Identification Resources

## Photographer Galleries

[Texas Wildflower Report](#) and [Texas Bluebonnet Photos](#) – Photos by the author, Rich Olivieri.

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