

# MIAMI-SOUTH FLORIDA

## National Weather Service Forecast Office

<http://www.weather.gov/miami>

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### RAINY SEASON UNDERWAY

## DRIEST OCTOBER TO MAY PERIOD ON RECORD IN WEST PALM BEACH, FORT LAUDERDALE AND NAPLES

After a longer and drier than normal dry season, the 2011 rainy season has begun over South Florida. The beginning date was May 26<sup>th</sup> and this was the approximate date of the onset of atmospheric conditions typical of our rainy season. The start of this rainy season is quite a bit more uncertain than usual due to the peculiar nature of the weather patterns observed across South Florida since mid-April. Normally, after long periods of little to no precipitation which define the South Florida dry season, there is a noticeable increase in daily shower and thunderstorm development over the area in association with the start of the rainy season. This spring, however, we have had several brief periods of humid conditions and showers and thunderstorms going back to mid-April interspersed in an overall dry weather pattern. The beginning of the 2011 rainy season on May 26<sup>th</sup> was marked by an increase in showers over the coastal waters of South Florida, especially during the night and morning hours. This is usually a sign that the atmosphere is moist and unstable enough to support near daily showers and thunderstorms over the peninsula and the surrounding coastal waters without significant influence from large-scale weather systems.

Nevertheless, latest computer model projections suggest that there will be little rainfall across South Florida over the next several days. This is resulting in a slow and gradual onset of the daily summer rainfall patterns, rather than an abrupt one. The slow start to this rainy season will have implications on the duration of the ongoing drought across South Florida.

### SUMMARY OF 2010-2011 DRY SEASON

The 2010-2011 dry season was longer and much drier than normal. In fact, three South Florida cities set records for the driest October-May periods on record.

- **West Palm Beach** only received 10.45 inches of rain between October 1, 2010 and May 31, 2011. This is 22.64 inches below normal for the period and is the driest October to May period on record for the city, beating the old record of 13.23 inches set back in 1971.

- **Fort Lauderdale** only received 9.27 inches of rain between October 1, 2010 and May 31, 2011. This is 23.07 inches below normal for the period and is the driest October to May period on record for the city, beating the old record of 11.58 inches set back in 1971.

- **Naples** only received 6.70 inches of rain between October 1, 2010 and May 31, 2011. This is 12.88 inches below normal for the period and is the driest October to May period on record for the city, beating the old record of 6.90 inches set back in 1971.

Below are October 2010 to May 2011 rainfall data at select sites across South Florida. Rainfall values are listed in inches.

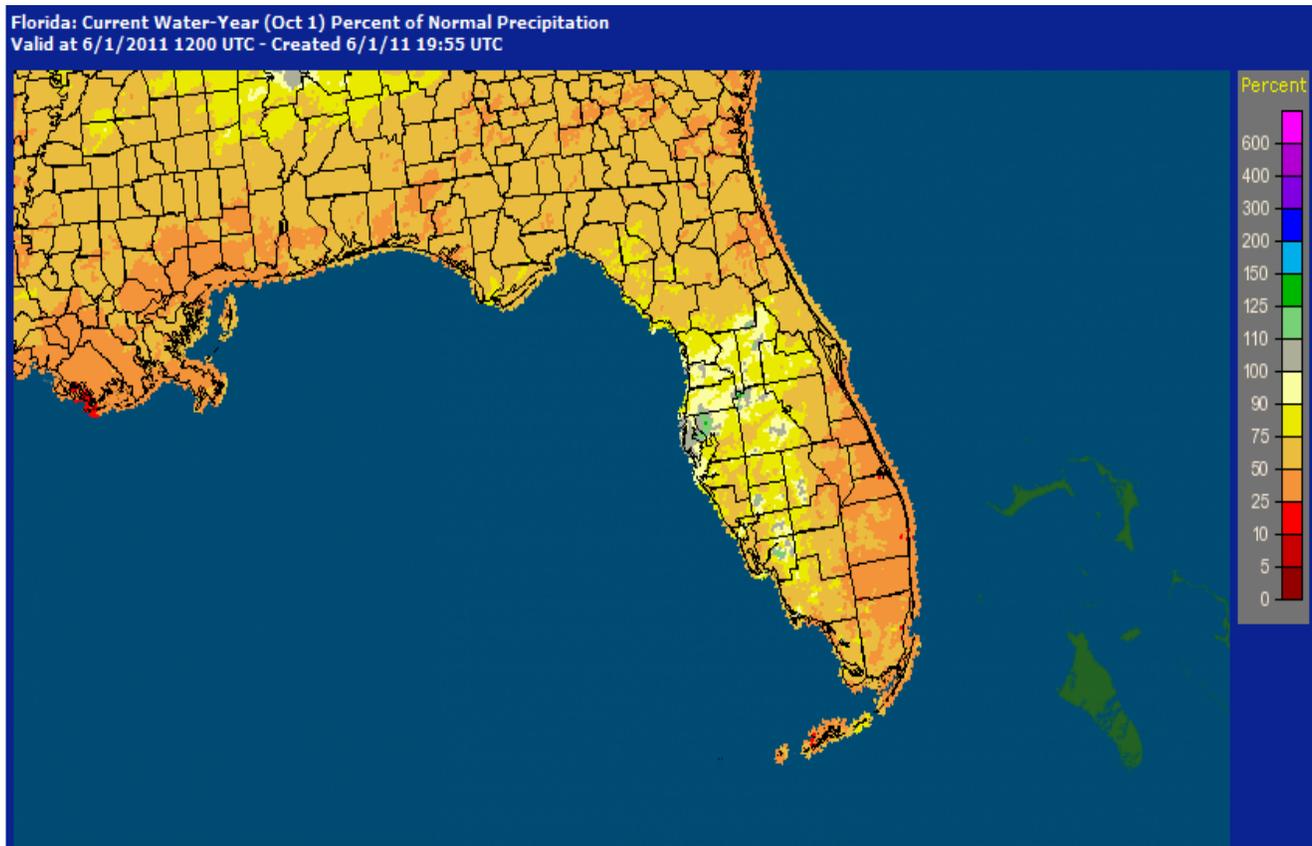
**OCTOBER 2010-MAY 2011 RAINFALL TOTALS/DEPARTURE FROM NORMAL IN INCHES AND RANK**

<b>Station – Beginning of Records</b>	<b>Oct 2010- May 2011</b>	<b>Dep. fm Normal</b>	<b>Rank</b>
FORT LAUDERDALE – 1912	9.27	-23.07	<b>DRIEST</b>
MIAMI – 1895	16.56	-10.63	<b>11<sup>TH</sup> DRIEST</b>
NAPLES – 1942	6.70	-12.88	<b>DRIEST</b>
WEST PALM BEACH – 1888	10.45	-22.64	<b>DRIEST</b>
MIAMI BEACH - 1927	16.85	-6.10	
MOORE HAVEN - 1918	13.07	-6.50	<b>16<sup>TH</sup> DRIEST</b>
CANAL POINT – 1941	12.89	-11.38	<b>7<sup>TH</sup> DRIEST</b>
IMMOKALEE	12.75	-8.17	<b>DRIEST</b>
PALM BEACH GARDENS	13.34		
JUNO BEACH	21.62		
HOLLYWOOD - 1963	13.64	-17.41	
THE REDLAND - 1958	15.51	-11.82	<b>4<sup>TH</sup> DRIEST</b>
FORT LAUDERDALE BEACH	16.80		
MARCO ISLAND	16.11		
NWS MIAMI – FIU MAIN	13.27		

*NORMAL VALUES ARE THE 1971-2000 CLIMATIC AVERAGES, BUT ARE NOT AVAILABLE FOR ALL OBSERVING LOCATIONS.*

These rainfall amounts reflect below to much below normal precipitation across the entire South Florida region. Areas around Fort Lauderdale and most of metro Palm Beach County registered only 30

to 35 percent of the normal October to May rainfall. Even areas such as Miami Beach and Moore Haven which received more rainfall relative to normal only were at around 70 percent of normal for the October to May period (Figure 1).



**FIGURE 1:** PERCENT OF NORMAL RAINFALL SINCE OCTOBER 1, 2010. ORANGE COLOR DEPICTS AREAS OF 25 TO 50 PERCENT OF NORMAL RAINFALL, WITH REMAINDER OF COLOR SCALE ON THE RIGHT SIDE OF THE IMAGE

## DROUGHT IMPACTS

These large and prolonged rainfall deficits have led to a worsening of drought conditions across South Florida, with areas of metro Broward and Palm Beach counties now in a D4, or **exceptional**, drought status (Figure 2). The rest of South Florida remains in severe to extreme drought conditions. Not only are water and soil moisture levels at extremely low levels, but the [fire danger remains very high over most of the southern Florida peninsula](#).

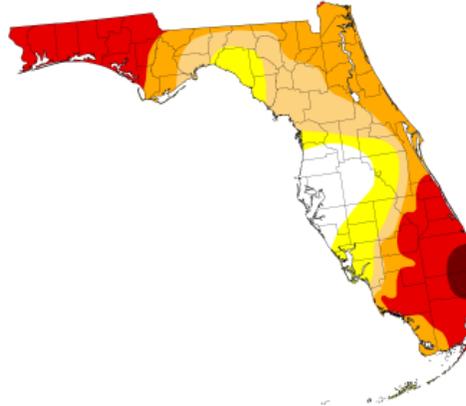
# U.S. Drought Monitor

May 31, 2011

Valid 7 a.m. EST

## Florida

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.79	90.21	76.31	56.50	31.10	2.32
Last Week (05/24/2011 map)	9.79	90.21	75.03	53.73	28.65	0.00
3 Months Ago (03/01/2011 map)	0.87	99.13	91.30	53.50	13.06	0.00
Start of Calendar Year (12/28/2010 map)	0.18	99.82	86.04	50.84	20.21	0.00
Start of Water Year (09/28/2010 map)	54.97	45.03	18.02	4.22	0.00	0.00
One Year Ago (05/25/2010 map)	100.00	0.00	0.00	0.00	0.00	0.00



### Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

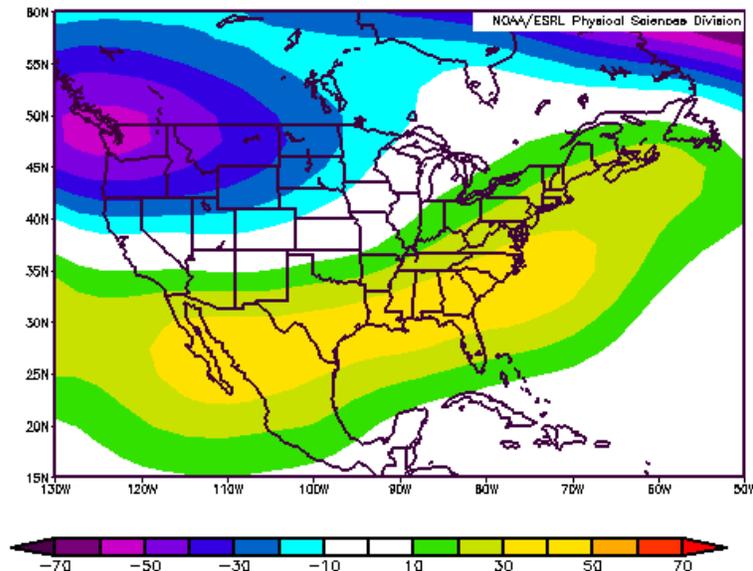
<http://drought.unl.edu/dm>



Released Thursday, June 2, 2011  
Anthony Artusa, NOAA/NWS/NCEP/CPC

**FIGURE 2:** DROUGHT MONITOR AS OF MAY 31. DARK SHADING IN BROWARD AND PALM BEACH COUNTIES DENOTE THE AREA UNDER EXCEPTIONAL DROUGHT CONDITIONS (D4). MOST OF THE REST OF SOUTH FLORIDA IS UNDER EXTREME DROUGHT CONDITIONS (D3), EXCEPT FOR PORTIONS OF SOUTHWEST FLORIDA WHICH ARE UNDER SEVERE DROUGHT CONDITIONS (D2).

These very dry conditions were the result of persistent and strong mid-atmospheric high pressure across the southern U.S. and Gulf of Mexico, including Florida (Figure 3). The high pressure area blocks late season cold fronts from penetrating into South Florida, as well as providing a dry and stable air mass. This pattern is commonly observed during spring La Niña conditions.



**FIGURE 3:** MEAN 500 MB (MID-ATMOSPHERIC) PATTERN FROM FEBRUARY 2011 THROUGH MAY 2011. HIGH PRESSURE (GREEN/YELLOW AREAS) CONTINUED TO DOMINATE THE PATTERN ACROSS THE SOUTHEASTERN UNITED STATES, ASSISTING WITH WARMER TEMPERATURES AND LOWER RAINFALL AMOUNTS THROUGHOUT SOUTH FLORIDA.

## OUTLOOK

Although [La Niña conditions are expected to dissipate](#) in June, [the precipitation outlook for South Florida for June is for near normal conditions](#). While near normal rainfall in June would begin to alleviate the very dry conditions across the region, it would likely not be enough to totally eliminate the drought across South Florida. Therefore, drought conditions and increased fire danger are likely to linger over the area through June and perhaps into July. A return to significantly increased rainfall, probably to above normal levels, is not expected until beyond July. As a result, heeding the advice of water conservation officials is strongly recommended, as well as burn bans issued by forestry officials due to the very dry ground conditions.

Another yearly summer threat in South Florida is rip currents. Rip currents are the leading weather-related hazard in South Florida. Monitor the latest wind and wave conditions, swim at guarded beaches and heed the advice of lifeguards. Last, but certainly not least, is the ever-present summer threat of lightning. June and July are the two most active lightning months in South Florida. To stay safe from lightning this summer, remember this simple rule: When Lightning Roars, Go Indoors!

Long-range temperature forecasts from the [Climate Prediction Center](#) call for above-average temperatures this summer and early fall throughout Florida.

For daily weather forecasts, watches, warnings and statements, please visit our web site at [weather.gov/southflorida](http://weather.gov/southflorida). Also, please make sure to visit our Facebook page by [clicking on this link](#).