MIAMI-SOUTH FLORIDA
National Weather Service
Forecast Office
http://www.weather.gov/miami

Fall 2018 Weather Summary

Dry and Warm

Record Driest Fall in West Palm Beach

December 2nd, 2018: Fall 2018 (September through November) went down as significantly warmer and drier than normal over most of South Florida. Subtropical high pressure dominated the weather pattern for much of the season, limiting the number of early-season cold frontal passages and resulting in less overall moisture and a generally more stable atmosphere.

A total of 6 cold fronts moved through South Florida, but only 3 of these resulted in significantly cooler temperatures. At least 3 other fronts stalled right over South Florida and did not lower temperatures across the region.

The only tropical system of note directly affecting South Florida was Tropical Storm Gordon which formed just south of Homestead on September 3rd and produced 5-7 inches of rain over southern Miami-Dade County. Hurricane Michael on October 9th over the eastern Gulf of Mexico produced a surge of 1.5 feet along the Collier County coast and led to minor coastal flooding.

Fall 2018 Precipitation

Rainfall totals ranged from as little as 6 to 8 inches from parts of Palm Beach County through the Lake Okeechobee area into Hendry and Glades counties, to as much as 14 to 17 inches over western Collier County and far southern Miami-Dade County (Figure 1). Except for western Collier County and isolated spots in far southern Miami-Dade County, these values were well below normal (Figure 2). In fact, West Palm Beach recorded its driest fall on record with only 6.92 inches of rain. Hialeah recorded its 2nd

driest fall on record, Miami Beach ended up 4th driest, Moore Haven 8th driest, and Fort Lauderdale with its 9th driest fall on record.

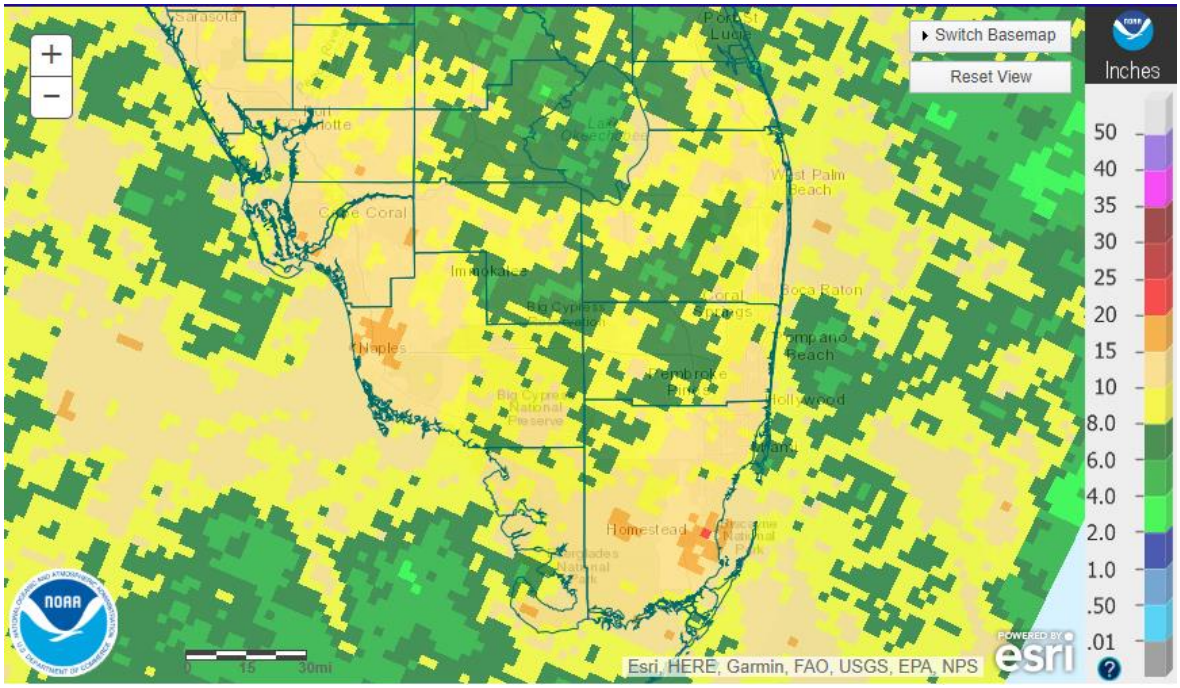


Figure 1: September-November 2018 Rainfall

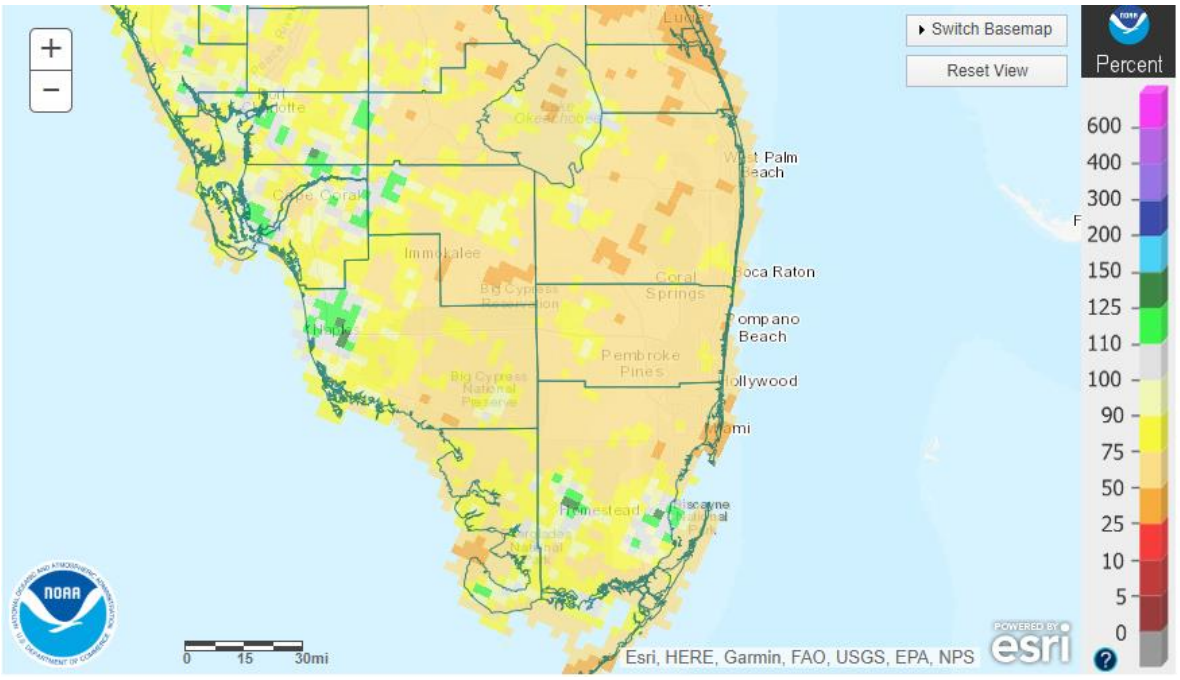


Figure 2: September-November 2018 Rainfall Percent of Normal

These low rainfall totals relative to normal eventually led to the development of moderate drought conditions across eastern Palm Beach County and parts of Hendry

and Glades counties, with abnormally dry conditions noted elsewhere except for western Collier County (Figure 3).

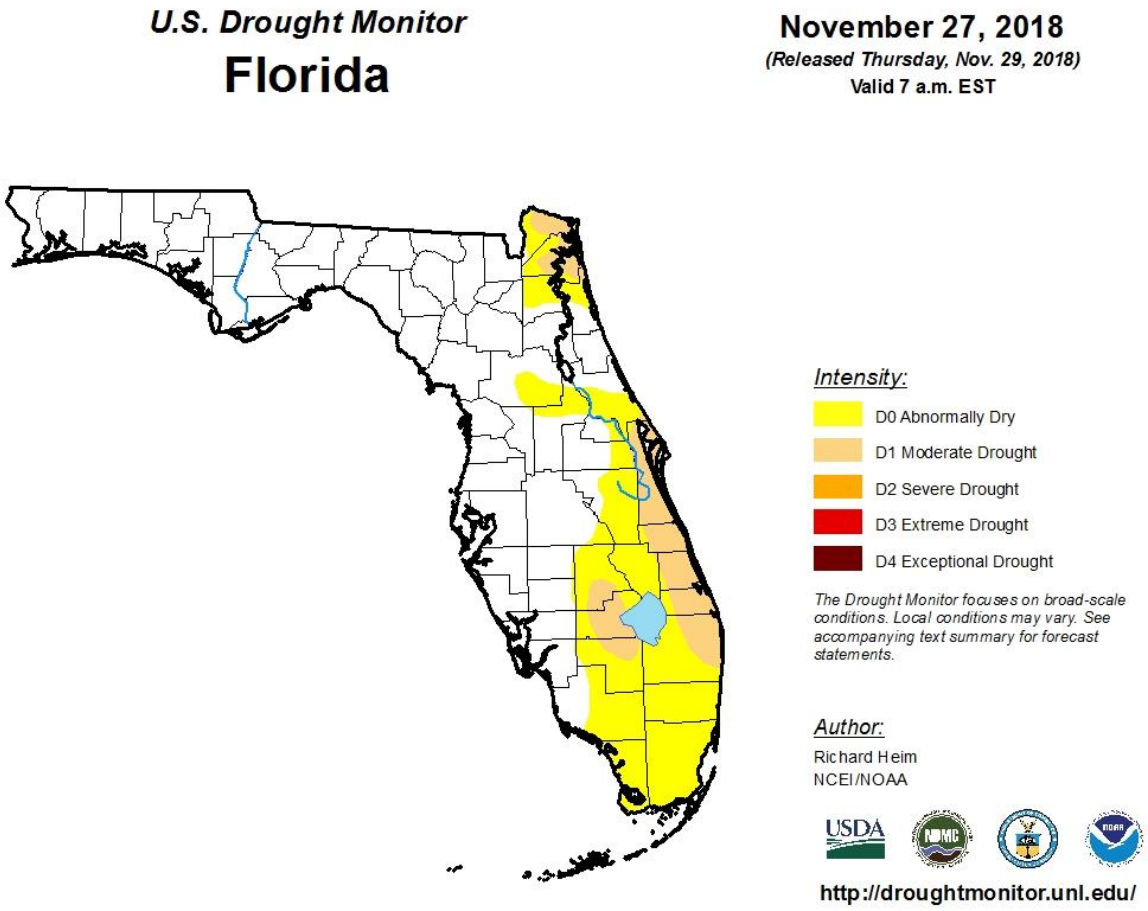


Figure 3: U.S. Drought Monitor for November 27th, 2018

Below is a table of rainfall and departure from normal for official reporting sites across South Florida:

Location (Beginning of Period of Record)	Fall 2018 Rainfall (inches)	Departure from Normal	Rank (top 20)
Devils Garden (Hendry County) (1956)	7.94	-4.63	
Fort Lauderdale/Hollywood Int'l Airport (1913)	10.37	-8.28	9th driest
Fort Lauderdale Beach	12.39	-7.00	
Fort Lauderdale Dixie Water Plant	13.50	-6.25	

Fort Lauderdale Executive Airport	7.81	-9.47	
Hialeah (1940)	10.88	-10.48	2nd driest
Hollywood Waste Water Plant	12.72	-6.17	
Homestead General Airport (1990)	12.45	-5.05	
Immokalee (1970)	8.76	-2.50	
Juno Beach	13.96	-4.43	
LaBelle (1929)	6.71	-5.98	
Marco Island	12.69	-1.71	
Miami Beach (1927)	6.22	-8.87	4th driest
Miami International Airport (1911)	12.42	-7.04	19th driest
Moore Haven (1918)	5.27	-5.04	8th driest
Muse	7.15		
Naples East/Golden Gate	17.38		
Naples Municipal Airport (1942)	14.74	+0.82	
North Miami Beach	13.63	-5.71	
NWS Miami – University Park	12.51	-5.82	
Oasis Ranger Station (1978)	12.39	-1.96	
Ortona	7.16	-5.36	
Palm Beach Int'l Airport (1888)	6.92	-11.31	Driest on rec.
Pembroke Pines – North Perry Airport	12.84	-6.00	
Pompano Beach Airpark	10.25	-8.39	
The Redland - Miami-Dade County (1942)	16.60	-2.05	11th driest
South Bay/Okeelanta	7.78		
West Kendall – Miami Executive Airport	11.41	-6.97	

Fall 2018 Temperatures

Only three cold fronts of note passed through South Florida during the Fall 2018 season: October 28th, November 15th, and November 27th. The low number of frontal passages with noticeably cooler air in their wake led to temperatures generally between 1 and 3 degrees F above for the season. The October 28th frontal passage led to the first temperature readings in the 50s over parts of South Florida, while the November 27th front was followed by lows in the 30s and 40s over almost all of South Florida.

- ***Miami International Airport*** had an average fall temperature of 80.1 degrees Fahrenheit. This is 0.9 degrees above the 30-year normal and **equals the 6th warmest fall on record**. The average high temperature was 86F and the average low temperature was 74F. The warmest fall temperature was 92 degrees on September 12th and 13th, and the coolest was 50 degrees on November 29th.

- ***Palm Beach International Airport*** had an average fall temperature of 79.1 degrees Fahrenheit. This is 1.5 degrees above the 30-year normal and **equals the 6th warmest fall on record**. The average high temperature was 86F and the average low temperature was 72F. The warmest fall temperature was 93 degrees on September 19th and 20th, and the coolest was 41 degrees on November 29th.

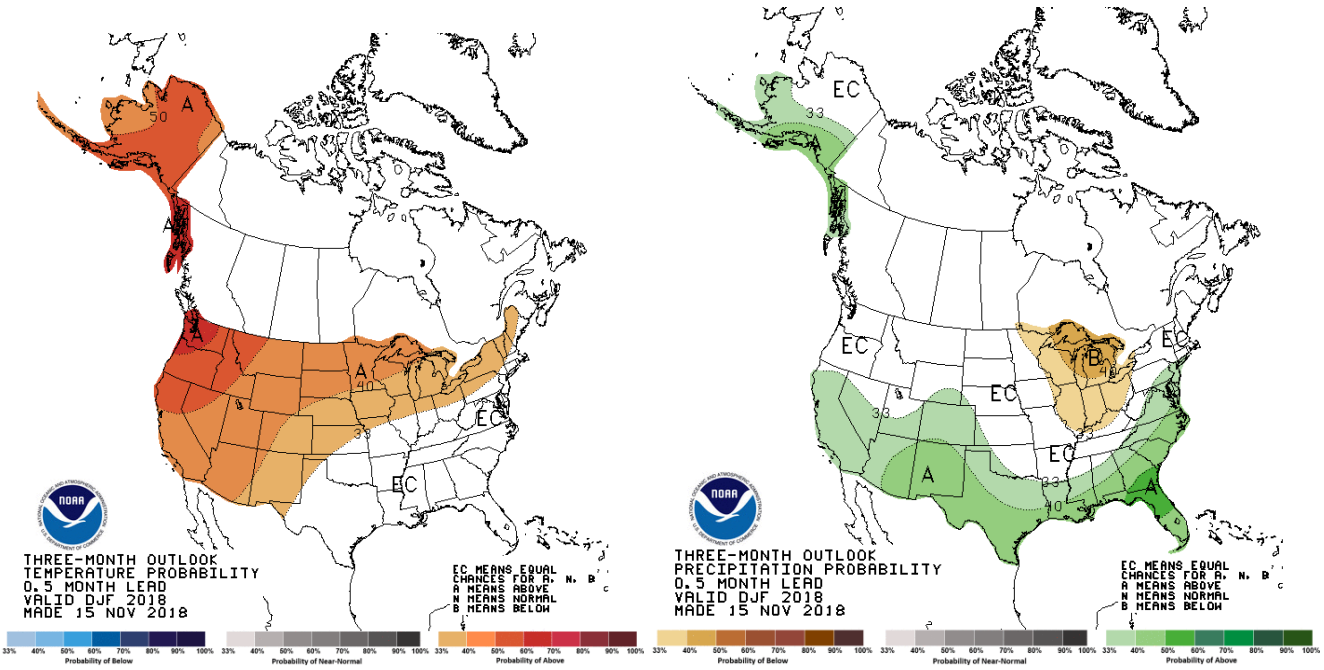
- ***Fort Lauderdale/Hollywood International Airport*** had an average fall temperature of 80.2 degrees Fahrenheit. This is 0.4 degrees above the 30-year normal and **equals the 3rd warmest fall on record**. The average high temperature was 86F and the average low temperature was 75F. The warmest fall temperature was 91 degrees on September 20th, and the coolest was 47 degrees on November 28th and 29th.

- ***Naples Municipal Airport*** had an average fall temperature of 79.2 degrees Fahrenheit. This is 1.5 degrees above the 30-year normal and **is the 6rd warmest fall on record**. The average high temperature was 87F and the average low temperature was 72F. The warmest fall temperature was 94 degrees on September 17th, and the coolest was 47 degrees on November 29th.

Winter Outlook (December – February)

Latest outlooks by the NOAA Climate Prediction Center (CPC, Figures 4 and 5) for December through February are for increased odds of above normal precipitation and equal chances of temperatures above, near, or below normal. Current ENSO neutral conditions are likely to turn into El Niño conditions during the winter months, lending some confidence to the likelihood of above normal rainfall. Temperature confidence is quite low, and may be above normal for periods of time, particularly later in December.

For the latest south Florida weather information, including the latest watches, advisories and warnings, please visit the National Weather Service Miami Forecast Office's web site at weather.gov/southflorida.



Figures 4 and 5: December-February temperature probability (left) and precipitation probability (right) from NOAA's Climate Prediction Center (CPC)