

SECC Late Summer/Fall Climate Outlook

Date updated: August 6, 2008



Current Conditions

Drought continues in Georgia and Alabama. Like we predicted back in the spring, Georgia and Alabama struggle to keep the ongoing drought from worsening. Plentiful winter rainfall was needed in 2008 to recharge soil moisture, surface water and groundwater already stressed from near record-breaking drought in 2007. Unfortunately, a fairly strong La Niña (colder than normal waters in the eastern and central tropical Pacific, opposite of El Niño) developed last fall and helped keep winter rainfall totals generally below normal. Keep in mind that the winter season is the typical time for surface and groundwater recharge in the two states. Once summer comes and vegetation greens up, evapotranspiration normally exceeds rainfall and conditions tend to dry. Summer does bring afternoon thundershowers, but their scattered nature and limited coverage is usually not enough to meet water demands. For the recent drought statements from the Georgia State Climatologist and from the NWS offices in Huntsville and Birmingham, see the following links:

- [Georgia Drought Statement](#)
- [Huntsville Drought Statement](#)
- [Birmingham Drought Statement](#)

Further south, the Florida peninsula has enjoyed a fairly robust rainy season thus far this summer. Rainfall totals are running from near normal in north central Florida to above normal in south and southwest Florida. This rainfall has greatly eased agricultural concerns over most of the peninsula and range and pastures generally in good to fair condition. The only lingering reminder of drought are low water levels in Lake

Okeechobee, which are responsible for continuing water restrictions in parts of south Florida. In the Florida Panhandle, rainfall has been generally adequate, but low river flows and groundwater levels are still a concern. The latest *U.S. Drought Monitor* clearly shows which portions of the region are affected most by drought.

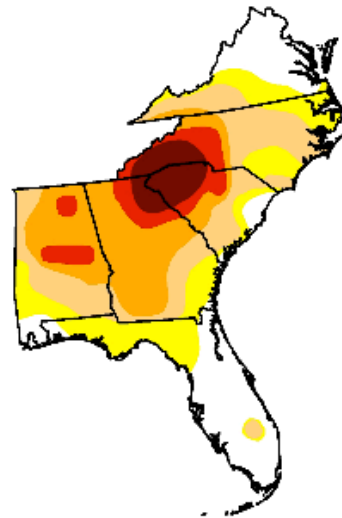
U.S. Drought Monitor

Southeast

August 5, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	23.0	77.0	57.0	35.0	13.8	6.3
Last Week (07/29/2008 map)	23.0	77.0	58.7	34.4	12.2	6.3
3 Months Ago (05/13/2008 map)	30.3	69.7	40.2	23.5	8.3	0.0
Start of Calendar Year (01/01/2008 map)	9.6	90.4	74.3	58.5	41.0	22.0
Start of Water Year (10/02/2007 map)	10.1	89.9	77.9	63.8	45.2	24.0
One Year Ago (08/07/2007 map)	2.4	97.6	78.1	42.9	26.4	14.1



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>



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Author: Brian Fuchs, National Drought Mitigation Center

For more detailed information on the ongoing drought, please see the resources below:

- [U.S. Drought Monitor](#)
- [Georgia Drought](#)
- [Southwest Florida Water Restrictions](#)
- [South Florida Water Restrictions](#)

For more detailed information on recent weather, please see the resources below:

- [Florida Automated Weather Network](#)
- [Georgia Automated Environmental Monitoring Network](#)
- [Alabama Office of the State Climatologist](#)
- [Southeast Regional Climate Center](#)
- [NWS Radar-derived Precipitation Totals](#)

Climate Outlook

Normal rainfall should continue in Florida, Georgia and Alabama likely remain dry. Neutral conditions have returned to the tropical Pacific Ocean, ending the La Niña that affected our climate in the winter and spring. Summer climate in the Southeast is characterized by hot, humid conditions and convective thundershowers. Coverage and frequency of these afternoon thunderstorms is higher in Florida and extreme South Georgia, but more "hit and miss" in the remainder of Georgia and Alabama.

Over much of inland Alabama and Georgia, this is the time when evapotranspiration begins to exceed normal rainfall, thus ending most meaningful recharge of surface and groundwater until the following winter. Summer does bring frequent afternoon thundershowers, but the scattered nature of these convective rains render them insufficient for large scale recharge for the most part. Given that we are entering this critical period with enduring deficits in river flows, lake, reservoir, and groundwater levels, drought will likely remain a critical issue in North Alabama and North Georgia.

Over Florida, the summer rainy season should continue as usual. In general, the second half of the season is a little less robust in south Florida, but more rainfall hits north Florida and the Panhandle. Also, expect Gulf coastal areas to receive more frequent thunderstorms, as Gulf water temperatures are now warm enough to support nocturnal convection.

The tropical season greatly affects rainfall amounts and coverage during late summer and fall in the Southeast. One or several strikes by tropical systems, whether a hurricane or just a weak storm or depression, can bring beneficial rainfall that is a normal component

of the climate. The Southeast, especially Alabama and parts of Georgia, have missed this tropical rainfall in each of the last two summers, contributing to the drought. This season is forecasted to be active again, so let us hope for a good dose of tropical rainfall that was missed out on recently.

Neutral conditions have returned to the Pacific Ocean

[More information on El Niño/La Niña](#)

After a winter and spring with central and eastern Pacific Ocean temperatures along the equator colder than normal, a condition known as La Niña, the Pacific has now returned to near normal. Near normal sea surface temperatures in this area of the Pacific is known as *Neutral* conditions. Historically, neutral conditions occur roughly half the time. At other times, this area of the Pacific can swing into periods where it is much warmer than normal, known as El Niño, or much colder than normal, referred to as La Niña. As stated above, the Pacific Ocean was in a fairly strong La Niña last winter and spring.

Neutral conditions are likely to continue through the remainder of 2008 and possibly into 2009. In the past month, however, the far eastern portion of the tropical Pacific has continued to warm and is actually a little warmer than normal. While this warming is nowhere near enough to be considered El Niño at the present time, it does virtually rule out a return to La Niña.

[Click here for our El Niño Discussion.](#)

Hurricane Season

In 2008, NOAA is once again forecasting an increased likelihood of above normal hurricane activity in the Atlantic basin. NOAA is forecasting 12-16 named storms, 6-9 of which become hurricanes and 2-5 of those major hurricanes (category 3 or higher). The year-to-year variability in tropical activity in the Atlantic is partially controlled by the El Niño-Southern Oscillation. It is well-known that a developing El Niño decreases the

number of tropical systems that form in the Atlantic basin by creating an environment prone to unfavorable vertical shear. This decrease in tropical activity corresponds to less frequent hurricane landfalls along all portions of the U.S. coast. La Niña (colder than normal water in the eastern tropical Pacific) increases the formation of tropical storms and hurricanes. Neutral conditions, like we are in this year, are most commonly associated with near normal hurricane activity.